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Annual Report of the University, 1968-1969, Volumes 1 & 2

University of New Mexico

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1968-69

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At least once every ten years the University of New Mexico has a chance to see itself as others see it.

The opportunity is provided by its accrediting agency. Routinely every decade, the North Central Association of Colleges and Secondary Schools sends a team of scholars and administrators to campus to determine whether the University is maintaining the prerequisites to continuing accreditation as a doctoral degree granting institution. While the examination is scheduled routinely, it is by no means a routine visit. The visitation team probes such areas as curricula, library, finances, administration, day-to-day operations, and long-range plans. Its report, much like that of an auditor, helps provide operational guidelines for succeeding years.

The University of New Mexico in 1969 underwent its decennial examination by the North Central Association. The team of visitors prepared a comprehensive report touching on many areas vital to the University's future. Findings of the committee and the University's responses to them serve as the basis for this annual report of the President.



FIVE MAJOR CONCERNS...

Members of the North Central Association visiting team were on campus in the late spring of 1969, a time when the University was enveloped in a haze of controversy stemming from the much-publicized Love Lust Poem incident. Much at issue was the concept of academic freedom. It is not surprising, therefore, that this matter—academic freedom—became one of five areas about which the committee expressed concern and requested action. The others involve adequate financial support, institutional autonomy, library services and holdings, and administrative decision-making procedures. Before dealing with each of these individually it is well to look first at the rather brief "Summary and Suggestion" section of the committee report. It follows, verbatim.

"The University of New Mexico is doing a highly commendatory job in the light of the difficulties under which it operates. The expectations, both within and without the University, in regard to the number and level of programs are unrealistic in relationship to the financial resources available. The institutions of higher education in the state, the Board of Educational Finance, and the legislature all need to review their educational needs and aspirations in the light of priorities and resources available. The Board of Educational Finance should review its practices with regard to budget determination and attempt to represent more realistically what the needs for higher education are. At the same time, it should work with the institutions in developing a mode of budget determination which takes into account variations in program costs. While the Board of Educational Finance should not become involved in the internal operations of the institution, it may quite reasonably review and screen new program development in reference to needs, and especially in reference to the availability of additional funds for the development and support of the new program. The review committee feels strongly that the final review of the institutional budget by the Board of Educational Finance and the demands that any variations from this should be considered and approved by the Board of Educational Finance amount to virtually a pre-audit and constitute an unreasonable invasion into the autonomy of the institutions, especially



when support for the institutions has been as limited as it has in the past few years.

"The impending legislative investigation casts a cloud over the future of the institution at this point. While many persons within the University are perhaps unduly suspicious and pessimistic about the nature and results of the investigation, the incident and attendant circumstances which constitute the primary reason for the investigation may well raise doubts about the future support and autonomy of the institution and about the extent to which academic freedom is available within it.

"It should be noted also that the University of New Mexico has enjoyed a long period of relative calm and of academic freedom with practically no disturbing incidents until this year.

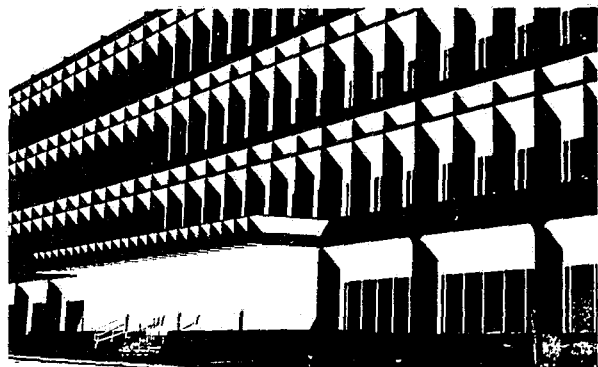
"The review committee has no doubt that the continuing inadequate financial support will have far more dire effects on the quality of the University and should, therefore, be given much more serious attention than those incidents of the past months which have been publicized to the extent that some people seem to regard these as evidence of the decadence and the irresponsibility of the institution.

"There is a major job of education about the nature of colleges and universities which needs to take place in New Mexico. The legislative investigation, properly handled, might be a partial means of accomplishing this, thereby setting a scene in which the potential of higher education and the need for its support would be more generally recognized. An institution of higher education cannot flourish if it is continually suspect and if this suspicion, either by continuing harassment or limited support, interferes with the academic freedom and autonomy of the institution."

The committee's summary highlights the seriousness with which the experts from the accrediting association viewed the University's financial position. It is indeed serious. However, I am happy to be able to note that the Board of Educational Finance and the State Legislature, after two successive years of austerity budgets, have tried to meet

more realistically the University's financial needs for fiscal 1970-71.

The North Central Association committee not only expressed concern about adequate financial resources and the other matters referred to earlier, but also requested the University to submit to the Association's Commission on Colleges and Universities a report on these subjects in two years. Such a request is not routine and poses the possibility—although it hopefully is a very slim one—that if there has been no improvement in two years, UNM could lose its doctoral granting accreditation or could be dropped, at least, to provisional status. The administration and faculty are making every effort to see that this does not occur. Some of the decisions for action rest with agencies outside the University, principally the Board of Educational Finance and the Legislature. Their actions during recent months, as I have observed earlier, indicate hope that the necessary commitments will be made and met.



At the top of its list of concerns, the visiting committee put financial support, saying bluntly: "The financial support of the University of New Mexico is inadequate to the range of programs carried on in the University." Then it went on to cite chapter and verse.

"Much of the difficulty," the committee said, "resides in inadequate resources available in the state of New Mexico. Relative to the total resources, higher education has not done badly, but, unless the state can find new sources of funds and provide markedly increased support for its institutions of higher education, a choice will have to be made among the several possibilities of eliminating institutions, eliminating programs, or supporting programs at an inadequate level and risking the loss of accreditation in many fields, if not for the institution as a whole."

The report commends the general fiscal procedures of the University as being "sound" . . . "generally open" and "above faculty criticism."

It is in the area of general financing—resources that can and should be made available to the University—that the problem exists. The committee suggested that the Board of Educational Finance "tends to cut back institutional requests to what seems to be a reasonable figure, and has apparently been more interested in having its figures accepted by the legislature than in presenting figures which realistically reflect higher education needs." It observed further that while the Board of Educational Finance "does have authority to control new program development, it does not appear that the Board of Educational Finance has seriously undertaken to relate approval to available funding."

This latter is, perhaps, a criticism not altogether warranted. The vast expansion of the University and other New Mexico institutions of higher education began during years of rapid population growth and an expanding economy, especially in Albuquerque and other urban areas. The demands of both population and economy were met by the universities with rapid addition of new undergraduate and graduate programs.

The University of New Mexico, the state's largest institution of higher education, quite naturally took on the role of a wide spectrum, com-

prehensive university, including instruction in Law and, eventually, Medicine. The years of progress and expansion were, for the most part, years of economic growth with increasing collections of state revenues with which to fund the programs. It is safe to assume that the problem of providing adequate financing did not seem so great as it does now in a period of less rapid tax base development. And, unfortunately, the state has never adopted—although it has been strongly urged to do so—a university funding system which takes into account the extra expense of graduate instruction. The cost of a year's instruction for a Ph.D. candidate is many times higher than the cost of educating a freshman.

The North Central Association also found that "fringe benefits at the University of New Mexico are inadequate, and this deficiency is compounded by the modest salaries, especially at the professional level." The committee concluded, once again, that "the basic problem lies at the Board of Educational Finance and legislative levels. There are serious limitations imposed on fringe benefits and inadequate funds to do anything about them." It noted that the Board of Educational Finance should not interfere in the internal operations of a university. But it added that the board has a right to and should help develop guidelines for determining what the actual program needs are for higher education in New Mexico.

The University of New Mexico, the Board of Educational Finance, and the other public institutions offering graduate instruction now are working closely together to this end.

Early in 1969 the Board of Educational Finance, acting in accord with a legislative mandate, declared a moratorium on new graduate programs which had not been approved previously by Regents. The Legislature directed the Board of Educational Finance to try to determine what graduate programs might logically be needed in the future and where they should be offered. It was the feeling that, in the interests of economy and efficiency, duplication of new programs in specialized areas should be avoided except in readily apparent instances of need by students. The chief academic officers of the graduate institu-

tions have been meeting regularly with the Board of Educational Finance staff members and are expected to make a report of their conclusions during the coming year.

Most of the programs, graduate and undergraduate, requisite for a comprehensive university are now established at the University of New Mexico. There are, of course, other areas the University would like to enter, broadening its offerings in some cases, and deepening them in fields of special interest and excellence in others. It is, however, impossible to know what will be needed in the future. Knowledge is increasing so rapidly that many courses which do not exist today no doubt will be taught routinely 20 years, or even ten years hence. Special demands from the state and region for persons with particular types of training and education also can bring about a change in the situation.

Beyond operating efficiently, and the record shows that University of New Mexico has, there is not a great deal that the University can do to change the financial situation. The main job rests with the people of New Mexico and their elected representatives in the Legislature. The University is taking advantage of federal programs where they complement its academic mission. And, of course, we solicit and are grateful for private gifts. Nevertheless, in the foreseeable future as in the past, the University of New Mexico will have to rely on state appropriations for the bulk of its funding for instructional and general educational purposes. The people of New Mexico have a consistent record of doing what is necessary to meet the educational needs, including higher education, of their children. With post-high school technical and academic preparation so important in contemporary society, it would be unthinkable to permit the University of New Mexico, which enrolls about half of all of New Mexico's college students, to founder. New Mexicans, I am sure, will not do this.

Another area of finance and budgeting attracted the concern of the North Central Association. The visitors, in their report, expressed worry that the University was being subjected to possible encroachment upon its institutional autonomy in fiscal matters.

The Constitution of the State of New Mexico invests in the Regents of the state's public institutions of higher education the "management and control" of the institutions. Only the Legislature has the power to appropriate state revenues to the schools. The Board of Educational Finance, established in 1951, is empowered to review institutional budget requests, suggest modifications, and make recommendations for legislative appropriations.

While it may be axiomatic that no agency, educational or other, ever is fully satisfied with its appropriation, the New Mexico process for funding higher education has worked reasonably well over the years. Each institution, with its own board of Regents, has carefully guarded its autonomy.

What concerned the North Central Association were events of recent years which resulted in a two-year succession of austerity budgets, and the budget procedures decreed by the Board of Educational Finance.

The committee report said, in part: "... the Board of Educational Finance has generally cut the budget request of the University of New Mexico by a significant amount, and, in the past two years (68-69 and 69-70) the legislature has cut these requests further. After the appropriation is made, the institution is required by law to rework its budget and submit for detailed Board of Educational Finance staff and Board review and approval. Although the procedure has been amicable it does, in effect, constitute a line item pre-audit and must be regarded as an unreasonable incursion into the autonomy of the institution, especially in a circumstance in which the institution's original request has been so seriously reduced."

The University has enjoyed a close working relationship with the Board of Educational Finance. As the Committee noted, the budget process involving the University and the Board has been an "amicable"

one. The Board of Educational Finance has no choice but to require the University to submit a revised budget after the appropriation by the state is made. There is a statutory requirement for every state-funded agency to present a revised budget before the start of the fiscal year. In most instances, the State Department of Finance and Administration is the reviewing agent. In the case of universities, the Department of Finance and Administration has delegated the financial review to the Board of Educational Finance. The state law provides for penalties to be enacted against individuals and agencies who do not comply.

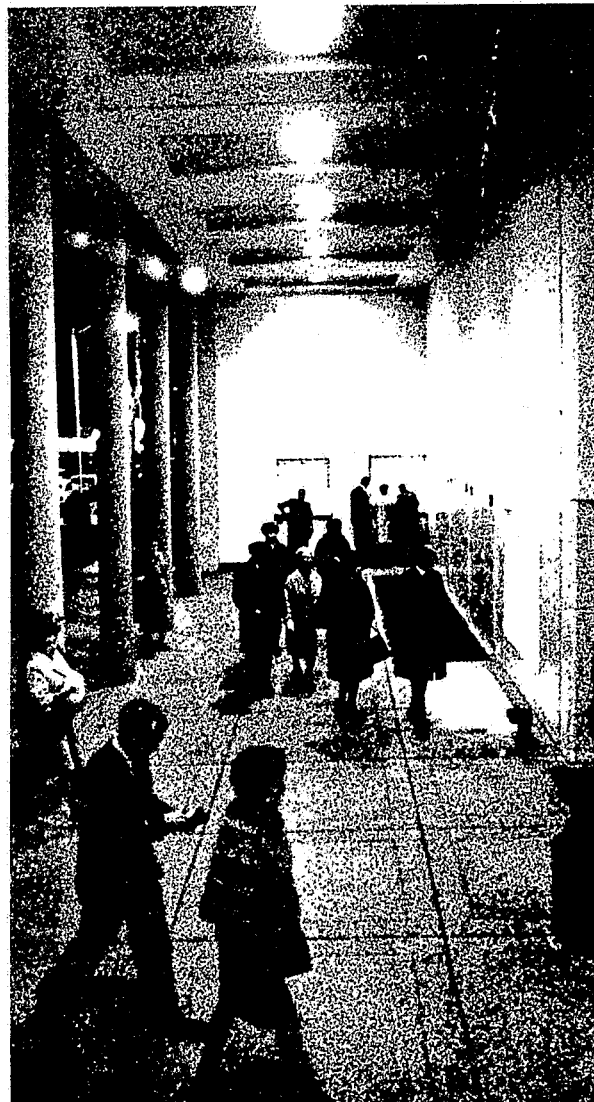
While the University has submitted revised budgets for review by the Board of Educational Finance for several years, the Board has never ordered a change in the budget. Such action by the Board might, in fact, be counter to the Constitutional provision for "management and control" by the Regents.

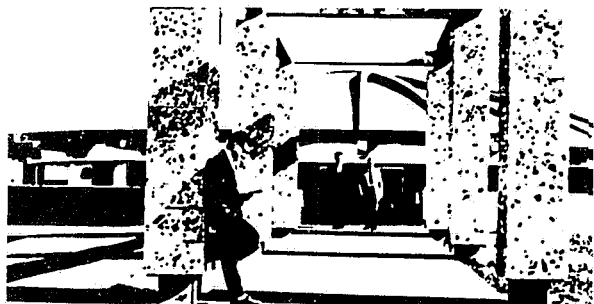
...ACADEMIC FREEDOM

That the University must maintain its long-cherished climate of academic freedom was a point of emphasis in the North Central Association report.

To this point, the committee wrote: "Academic freedom and tenure, coupled with a high degree of faculty autonomy in academic policy making, have been a strength of the University of New Mexico which has enabled the University to recruit and retain an able faculty and to maintain the quality of its educational program. The fact that academic freedom has been highly regarded, though for a long time tacitly accepted without challenge or even much discussion, has probably contributed to the polarization of opinion on the part of citizens, legislators, faculty and students. From the viewpoint of outsiders not unfamiliar with such situations in higher education, it would appear that all parties have tended to overreact to the recent episode concerning the materials used in freshman English courses. The legislative authorization of a "joint investigative committee" to investigate the University of New Mexico and other state universities at the expense of \$50,000 subtracted from the University of New Mexico's [1969-70] budget, also seems to be an overreaction (though in part based on other factors) of the legislature to an episode which stands out in stark contrast to the general lack of controversy associated with the programs at the University of New Mexico."

The committee went on to say: "The handling of the episode itself inevitably created some dissension on campus, based upon reasonable difference of opinion as to what constitutes academic freedom and due process, but the immediate results of the legislative investigation seem to be even more serious in creating an apprehension in the faculty and the students, first, of a threat to academic freedom and, second, a fear of punitive financial measures. Accordingly, the review committee deems it appropriate to reiterate the policy of the North Central Association of Colleges and Secondary Schools that academic freedom and tenure such as that expressed in the University of New Mexico's Faculty Handbook and long practiced on its campus, are fundamental to a





vital learning process and to maintenance of faculty scholarship. It is an expectation and a condition of continued good standing with the Association. Therefore, the committee views with deepest concern any development by a public or private group that interferes with the educational mission of the institution. However, there is no indication that the legislative investigation will necessarily be a petty, punitive witch hunt and the committee recognizes that a fairly conducted study may enrich the educational process and bring increased public understanding and public support of the nature and needs of higher education."

Since the North Central Association Committee was on campus, there has been several months of legislative investigation. The First Legislative Universities Investigating Committee gave way in January, 1970 to an expanded Legislative University Study Committee now scheduled to cease functioning in June, 1971. Neither committee, to this point, has seriously damaged academic freedom at the University of New Mexico. Some members of the Legislative committee do not agree with University faculty and administration definitions of academic freedom. A few faculty members have said that they have felt "intimidated" by outside discussion and surveillance of their classroom and extramural utterances. On the other hand, the Legislative investigators have done little to build public understanding and acceptance of the University's role in society. Open meetings of the Study Committee have been aimed almost solely at the University of New Mexico and have dwelt at length upon the use of socially unacceptable four-letter words in a freshman English class in the spring of 1969, and later in the New Mexico Quarterly—which has since ceased publication—and in an "underground" parody of the Quarterly. At the nub of the matter is the displeasure on the part of some of the more conservative elements of New Mexico's society with some of the vocal and politically active members of the faculty. Student unrest, which has called the societal and campus status quo into question, has further complicated the situation.

The Legislative investigation is one manifestation of the polarization

which has advanced rapidly in this country in recent years. It represents external pressures for conformity by the University to an arbitrary norm. At the other pole is a small group of faculty and students equally determined to force the University to conform to another arbitrary norm. Academic freedom would be lost were the University to surrender to either.

To be true to itself and to be of greatest value to society, a university must maintain a climate conducive to free and open inquiry into any and all matters. It must always be open to new ideas and opinions even when these are not contemporaneously popular. The university must remain free to study, evaluate, and criticize all facets of society. Each faculty member must be free to do these same things in his classroom as related to his field of expertise. Students must be encouraged to think analytically and creatively. Possibly the greatest good that a university can do is to teach its students to think carefully as they seek answers to problems, old and new alike.

To function as it should, a university must be free from internal coercion which would convert it into an advocate for certain causes rather than a critic of all. A university which, as an institution, becomes an advocate or an agent for a cause or an ideology, soon loses its credibility as well as its freedom.

The University of New Mexico has always had as its goal the best possible education for its students. Central to this aspiration is a faculty of high caliber. The University has not had the financial resources to compete effectively with other major institutions across the country for highly capable faculty members. But it has been able to recruit them at moderate salary levels with the added inducement of a national reputation for academic freedom and institutional integrity. It would be a disservice to the people of New Mexico to deviate from this strong position.

The concept of academic freedom is difficult to define. There is much that is subjective in it. Its absence often is more tangible than its presence.

The University of New Mexico policy on academic freedom reads as follows:

Academic Freedom

"(a) The teacher is entitled to full freedom in research and in the publication of the results, subject to the adequate performance of his other academic duties; but research for pecuniary return should be based upon an understanding with the authorities of the institution.

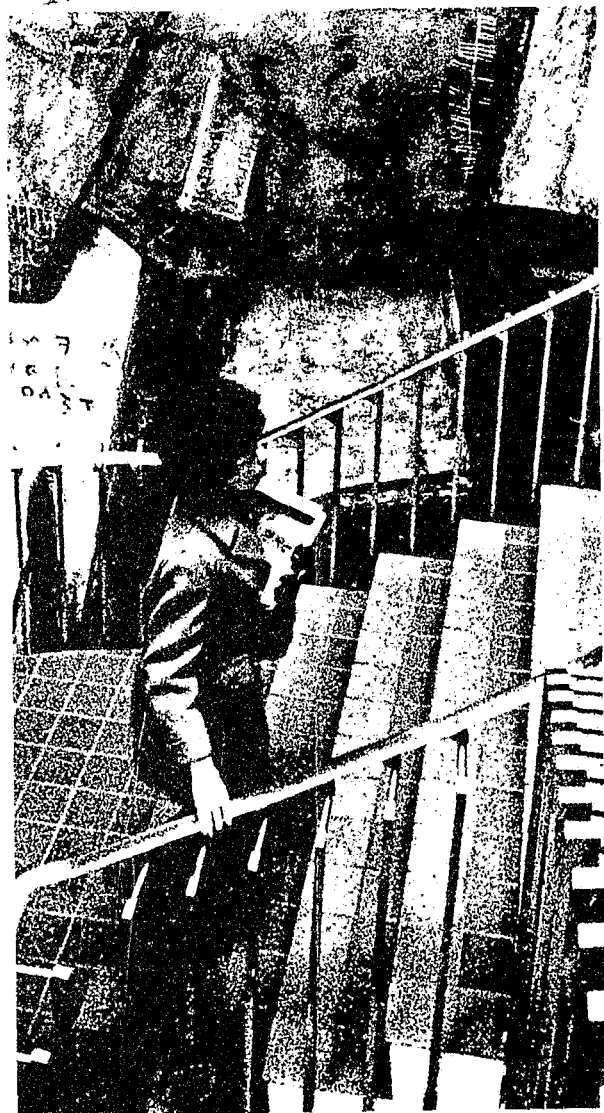
(b) The teacher is entitled to freedom in the classroom in discussing his subject, but he should be careful not to introduce into his teaching controversial matter which has no relation to his subject. Limitations of academic freedom because of religious or other aims of the institution should be clearly stated in writing at the time of the appointment.

(c) The college or university teacher is a citizen, a member of a learned profession, and an officer of an educational institution. When he speaks or writes as a citizen, he should be free from institutional censorship or discipline, but his special position in the community imposes special obligations. As a man of learning and an educational officer, he should remember that the public may judge his profession and his institution by his utterances. Hence he should at all times be accurate, should exercise appropriate restraint, should show respect for the opinions of others, and should make every effort to indicate that he is not an institutional spokesman.

(d) At the University of New Mexico the teacher recognizes that he is responsible for the maintenance of appropriate standards of scholarship and teaching performance, aimed at the goal of training the students to think for themselves. While the students have a right to know the teacher's point of view on relevant controversial subjects, the teacher has an obligation to set forth fairly and clearly the divergent opinions of other scholars, so that the students may reach rational and independent conclusions.

(e) The efficient operation of any institution requires cooperation among its personnel. The teacher agrees, therefore, to abide by all regulations of the University, consistent with this policy, and to perform to the best of his ability such reasonable duties as are assigned to him by authorized University officials."

The principles of academic freedom expressed in the foregoing policy will be maintained against all onslaughts, external or internal.



...ADMINISTRATIVE ORGANIZATION

The preceding discussion has dealt with University problems that are not fully capable of settlement on campus. A large degree of public cooperation is required if they are to be solved to the satisfaction of the accrediting association.

The remaining general areas of concern expressed by the North Central Association committee are largely internal matters. The first of these has to do with the effectiveness of the organization of the decision-making process within the University in defining and promoting its educational task. In other words, this is a management matter.

Administration of a university differs markedly from the process in most other institutions, including business and industrial firms. There is much more collegiality, a much greater diffusion of responsibility and authority among the components. The faculty, for example, has a great deal to say, and properly so, about such things as curricula, entrance requirements, grading, library holdings, promotion and tenure for fellow faculty members, new academic programs, academic qualifications for instructors, and the like. Students, likewise, have a serious input to be considered in areas affecting student life, curricula, library services, new programs, teaching quality, and many others. To accommodate the many and varied interests and views, a great deal of reliance is placed upon the committee system for arriving at conclusions leading to action.

The North Central committee found that the administrative organization for the University is characterized by a lack of clarity in functions and an absence of adequate procedures for management control. The committee observed that the authority and functions of several vice presidents were not clear and that there were both overlaps and gaps in these positions. It also cited a lack of clarity in the development function.

"University committees, in the main, are not well defined, and there are probably too many of them," the committee wrote.

Before the committee report was filed, the administration and faculty of the University had come to similar conclusions about the

administrative organization. A period of rapid growth from a small to a large university had left the University with a patchwork structure having some desirable features planned to meet the new contingencies, and others appearing as the result of expediency. New committees had been created as new problems arose, but older committees which had outlived their functions or whose missions should have been modified, were left intact. New offices were created to meet real needs, but the overall administrative structure was not sufficiently realigned to make most effective use of them. The same situation has prevailed in most institutions subjected to the stresses of substantial, rapid growth.

One of my first undertakings after assuming the presidency in July, 1968, was to commission Dr. Algo Henderson, an authority in the administration of higher education, to examine the University's administrative structure and to make recommendations for delineating clearer lines of authority and for the unification of common and related functions. After review of Dr. Henderson's findings, a number of administrative changes were made. One of the largest was expansion of the office of the Administrative Vice President to include a number of offices and divisions which formerly reported to the President. Several offices with related missions dealing with the public were placed under the purview of this vice presidency. The job of assigning building space was moved from the University Secretary's office to this vice president's. The title of the position was changed to Vice President for Administration and Development to more appropriately reflect the added responsibilities. The office of the Vice President for Student Affairs was reorganized to bring it more closely in line with the academic mission and to reflect more accurately its current function. A new position was established, that of Vice President for the Health Sciences, to help coordinate the University's deepening involvement in health-related fields, including the School of Medicine, the Colleges of Nursing and Pharmacy, Bernalillo County Medical Center, the Bernalillo County Mental Health Center, and Student Health Services. Areas of responsibility for the Vice President for Research have been more

clearly established and that office has been working closely with a new faculty committee on research policy.

These changes have affected, in the main, administrative offices. In an effort to establish clearer lines of authority and communications in areas involving faculty, students, and administration, a University-wide Committee on University Governance has been established. This group, composed of faculty, students, administrators and alumni, was called into being by the Regents several months ago and has been working steadily. Its mission is to recommend University-wide governance procedures and mechanisms which will eliminate needless committees, cover areas not now clearly covered by Regents, faculty, or student policies, and provide suitable avenues of redress for all members of the University community. If this committee's work is as successful as we have reason to believe it can be, it will help us devise a governing format better able to deal speedily and fairly with needs and problems of the contemporary university world. Universities, small and large, throughout the nation have been faced with similar problems in recent months. They have been forced to think, as we have, of ways of updating the administrative structure to make it responsive to campus conditions considerably different from those of 20 to 50 years ago when much of the organizational machinery currently in use was developed.

The North Central Association visitors characterized the library as a weak resource. They suggested that while additional funds were needed to help expand library holdings and improve staff salaries, redirection of the library administration toward a more service-oriented and creative course also was desirable.

Inadequate holdings and over-dependency on the inter-library loan system, in the opinion of the committee, weakened the University's research potential and tended to lessen its attractiveness to first-rate students and faculty members.

It was apparent to the committee, as it has been to the University, that the library deficiencies, as with others involving funding, were cumulative. "An occasional lean year in appropriations can be overcome if subsequent years are improved," the committee wrote, "but a combination of several lean years in a period when the University is under pressure to expand programs can only mean gradual diminution in quality and gradual deterioration in the entire operation."

Cooperation of the Board of Educational Finance and the Legislature in approving a \$1.4 million budget request for 1970-71 should go far towards improving the library situation. The appropriation represented an increase of approximately \$600,000 over the 1960-70 library budget.

To assist departments with the selection of library materials, the library has expanded its staff of bibliographers to include specialists in Latin America, the sciences and engineering, and the humanities. Additionally, a librarian-bibliographer has been added to the staff to manage the new Parish Memorial Library in the School of Business and Administrative Sciences.

An ad hoc University committee on library needs has recommended that outside consultants be invited to help draw up long term plans for the library system. A librarian and a computer technology specialist will be called in to help evaluate our library system, and to make recommendations for improvement, including automation where feasible.

Together with a strong faculty, a strong, well-balanced library is essential to a good university.



It should be obvious to readers of this report that the University has indeed taken a close look at itself and has moved to solve some of the problems pointed out by the accrediting group.

The North Central Association said in its report that it was focusing on the problems and weaknesses of the University of New Mexico, not because it regards the University as a weak institution "but rather because the committee is convinced that by focusing on and correcting some of the weaknesses noted this university can become a much better institution."

This is precisely one of the University's goals: to continually improve itself, to give New Mexico university students an educational opportunity equal to any. To do this, as the North Central Association report points up so well, will require a continuing investment by the people of New Mexico in their youth, through their University. The record on this point is clear. The people of this state have long recognized that education is the pathway to the future. They have made an extraordinary effort to commit the necessary resources to the education of succeeding generations. The post-industrial era will require no lessening of the commitment. Indeed, the knowledge explosion we are experiencing may require even more attention to advanced levels of education.

A handwritten signature in dark ink, reading "Harold Healy". The signature is fluid and cursive, with a prominent loop at the end.

President
The University of New Mexico

THE REPORT OF THE DEVELOPMENT OFFICE

JULY 1, 1968 - JUNE 30, 1969

LARS HALAMA, DIRECTOR

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INTRODUCTION

The function of the Development Office is to encourage private support, both financial and non-financial, of the University of New Mexico, thereby enabling the University to increase its contributions to the State and to the Nation in terms of teaching, research, and service. Additional financial support obtained from private sources enables the University to incorporate into its program those features which are essential to educational leadership and distinction, but which are beyond the financial responsibility of the State. Non-financial support -- that is, understanding and goodwill -- is essential to the successful execution of the programs and policies of the University.

The major objectives of the Development Program are: (1) to promote a better understanding of The University of New Mexico and to interpret its programs, its progress, and its needs to the public; (2) to develop and enlist the active interest and support of individuals and groups in its behalf; and (3) to provide these individuals and organizations with the opportunity to support voluntarily the University.

GREATER UNM FUND

The Greater UNM Fund was established in 1963 to help provide, through contributions from alumni and friends, certain features that are characteristic of a quality institution but which are often beyond the ability of the State to provide. These will include such benefits as scholarships, specialized equipment, library materials, and funds for faculty research.

ALUMNI ASSOCIATION

Although it operates as a separate unit, the Alumni Office is part of the Development Office. This makes it possible to coordinate Alumni Association activities with the promotional activities of the overall Development program.

The Association is maintained through cooperative efforts of the University and the Alumni body. All graduates and former students of the University of New Mexico are members of the Association. Programs and policies of the organization are determined by the Board of Directors, whose members are chosen with respect to college, graduation year, and geographic location.

The Association coordinates and directs the Homecoming activities, arranges class reunions, organizes Alumni clubs through the State and

Nation, promotes citizenship among undergraduates, assists with student recruitment, provides advice to the University Administration upon request, assists in the University's legislative relations program, and in other ways encourages Alumni interests in and support of the University

The Alumnus, official organ of the Association, is published six times a year and is mailed to all members. Alumni Association file records include information on more than 30,000 persons who have attended the University since its opening. Master geographical and class files are maintained.

RECORDS AND FILES

This office maintains a biographical file of alumni which is used jointly by the Development Office and the Alumni Association. The mail room maintains a mailing list on addressograph equipment which, though used primarily for fund development and alumni program purposes, is available to other elements of the University. Biographical records and mailing lists of other prominent New Mexico individuals are kept current.

GIFT ACCEPTANCE

The Development Office is the principal repository of records of gifts made to UNM. Gifts are accepted, receipted, recorded and acknowledged by this office. From records so compiled, the Greater UNM Fund Report issue is published annually to show the source and purpose of gifts and to list the individual donors. This office reports to national organizations such as the Council for Financial Aid to Education and the American Alumni Council in order that the University of New Mexico's record of private support may be included in compilations of non-governmental financial aid to higher education.

DEPARTMENT PERSONNEL

Employee turnover was low during this year and productivity was vastly improved.

Secretary to the Director of Alumni Relations

Mrs. Margaret Williams resigned September 20, 1968. Mrs. Evelyn R. Elder was hired on June 14, 1969 and was promoted from Records Clerk to replace Mrs. Williams.

Alumni Records Clerk

Mrs. Doris Lee Schuler was employed September 30, 1968, to replace Evelyn Elder who had been, as stated above, promoted to the position of Secretary to the Director of Alumni Relations on September 20, 1968.

Alumni Mail Clerk

Mrs. Norma Bartholdi was hired January 20, 1969 to replace Mrs. Isabelle Allen who terminated January 15, 1969.

FUND DEVELOPMENT

The Development Office serves as a clearing house for all gifts made to the University. Gifts to the Greater UNM Fund for fiscal year 1968-69 are compiled in Appendix II. This compilation does not include gifts in kind such as land, books, objects of art; only cash and securities are included.

Again, the Development Office notes with appreciation the fine cooperation being given by other campus departments and offices in reporting gifts to this office. This cooperation results in recognition given to donors in the annual gift report.

The Development Office acknowledges with thanks the services rendered by the Board of Directors of the Greater UNM Fund:

Mr. Glenn Emmons, Chairman
 Mr. Robert Clemmensen, Alumnus
 Mrs. Neil Foley, Alumnus
 Mr. Joe Boehning, Alumnus
 Dr. Chester Travelstead, Academic
 Vice President
 Mr. John Perovich, Vice President
 for Business and Finance
 Mr. Jack Sheehan, Director of Student
 Aids
 Mr. Lars Halama, Director of Development
 Mr. Gwinn "Bub" Henry, Director, Alumni
 Association

In accordance with statutory requirements and University policy, those gifts which were earmarked for a specific purpose were allocated and spent for the intended purpose.

Unrestricted; i.e., unearmarked gifts were disbursed by an allocations committee composed of alumni, faculty and administrative staff:

Dr. Arnold Koschmann, Chairman
 Dr. Ned J. Davison
 Dr. Chester Travelstead
 Mrs. Clyde Hill
 Mr. John Perovich
 Mr. Lars Halama

The Allocations Committee has adopted a schedule of priorities of purposes for which unrestricted funds shall be spent.

Community and State relations
 Undergraduate instruction
 Gallery and museum acquisitions
 Pilot projects requiring a one-time allocation

In recent years the following sums have been spent:

1965-66	\$11,015.00
1966-67	16,999.50
1967-68	24,195.00
1968-69	18,650.00

Friends of UNM Libraries

Support for the Friends of UNM Libraries continues. For the period of this report \$5,104 was received.

Friends of Art

Probably the most active of the various Friends organizations, the Friends of Art raised \$2,965 principally for art acquisitions. In June of 1968 the Friends of Art elected to control their own monies because their fund raising methods involve projects of a commercial nature. Donations will continue to be received by this office. The value of acquisitions presented to the art museum by the Friends will be included in the Annual Report of the Greater UNM Fund.

Friends of Architecture

This organization was responsible during this period for gifts totaling \$1,425.35.

Other Activities

The Development Office has accepted gifts of land, art and museum items, and securities.

Considerable time was spent in working with attorneys throughout New Mexico in the preparation of wills which were drawn for the benefit of the University.

STAFF ACTIVITIES

University Related

The members of the Development-Alumni staff served on:

Greater UNM Fund Board
 Greater UNM Fund Allocations Committee
 Committee on Restricted Gifts
 Committee on Gifts to Libraries, Museums
 and Galleries
 Committee on Scholarships and Prizes
 The University President's Alumni Advisory
 Committee
 Alumni Association Board
 Friends of UNM Libraries
 Friends of Art
 Friends of Architecture
 Outstanding Teaching Selection Committee
 Rally Committee

also

"Bub" Henry was advisor to the Chaparrals,
 Yell Leaders, and the Fiesta Committee

Professional Activities

Members of the staff participated in meetings and conferences of the American Alumni Council and the American Public Relations Association at district and national levels. Out-of-state travel to professional conferences was curtailed to husband funds more urgently needed for other department expenses.

Community Activities

Mr. Halama was active in the U.C.F. campaign. He was elected to the board of directors and to the executive committee of the Albuquerque Community Council; to the board of the Albuquerque Chamber of Commerce as an honorary director, and served as secretary of the New Mexico Amigos.

Mr. Henry directed the Albuquerque Jaycees Invitational Indoor Track meet; he served on the Sports Committee of the Albuquerque Chamber of

Commerce and served as a director of the Albuquerque Host Lions Club. He was a founder of the Del Norte High School Boosters Club and serves on the board of that organization.

SIGNIFICANT PLANS

1. A roomier and more adequate suite of offices is being renovated for our use in the guest room wing of the New Mexico Union. As designed, the space will be arranged to separate production activities -- mail room and records files -- from the executive area.

2. We have revived our hopes that we will be rescued from the present morass of records which engulfs us. The conversion of our present records to electronic data systems is imperative if we are to make proper use of the thirty thousand plus alumni of record.

3. With the addition to our staff of an Alumni Field Secretary, Mr. Henry and Mr. Halama will be able to spend more time out of the office in cultivating the support of both alumni and non-alumni by personal contact and arranging organized meetings.

4. A large segment of alumni resides in the Albuquerque area. Their interest and support is difficult to enlist. The town-gown breach is

wide. The Alumni Association together with towns-people are assessing the possibility of establishing a University Club facility near the campus. The concept envisions a non-profit corporation financed privately. Memberships would be open to alumni, non-alumni, faculty and staff. The primary purpose would be to create a facility to bring the community and the campus together in an environment conducive to bridging the present gap in communication between the two elements.

ACKNOWLEDGEMENTS

The Development Office appreciates the contributions made by the Alumni Association through its Board of Directors, its Executive Committee and its officers; also, the Directors of the Greater UNM Fund, the Allocations Committee and the Outstanding Teaching Award Selection Committee. As previously noted, the Annual Gift Report can be complete and accurate only if the receipt of gifts to departments and offices is complete and accurate. The assistance of the campus community is acknowledged.

ALUMNI ASSOCIATION

The Alumni Association is growing in numbers and strength. Controversies surrounding the campus have pushed alums in concern for their alma mater; in some cases because of nostalgia,

others because of the feelings of decay of our society and, for still others, their thought of insuring quality in education for their children and other young people to come.

It becomes more evident, because of vast resources of alumni volunteer help within the state and country, that we are the major department that should be involved in promoting goodwill for the University of New Mexico. This can be pursued using many facets at our disposal; in main, developing speakers' programs, tours and student recruiting programs.

It is also evident that the University administration is willing to accept these premises, and our increased budget and the possibility of additional staff is encouraging. Many universities have been involved with, and have understood the value of pursuing programs to give alumni meaningful involvement in University matters. However, in recent times, because of problems on campus, we all understand the necessity of projecting the actual image of the University. The news media are most willing to air the sensational aspect of the University, therefore, the public relations offices of the University must concentrate on projecting the every day social and academic affairs of the campus.

Association Governance

We have continued to operate our association with a 99-member Board of Directors and a nine-member executive committee. Each University college is represented by an additional Board member as is the faculty, and each Lobo Club is entitled to a representative on the Board. The officers and rotating members of the Board change during February of each year. During this university fiscal year we have had, as usual, two sets of officers:

1968-69 (Taking office February 1968)

Jack Mulcahy, president
 Joe Boehning, vice president
 Joe Burwinkle
 Maxine Krohn Friedman
 Phyllis Godfrey Nuckols
 Rodney Shoemaker
 J. Leon Thompson
 Larry Willcut

1969-70 (Taking office February 1969)

Joe Boehning, president
 Rodney Shoemaker, vice president
 Joe Burwinkle
 Ray Cramer
 Si Nanninga
 Phyllis Nuckols
 Eloise Moulton Puckett
 Dick Ransom
 Dorothy Lewis Ribble

Board members for each of these years are listed in Appendix I.

Working with this report, it should be pointed out that many of the committee members and chairmen were used for two consecutive years. This came about because Jack Mulcahy served as president

of the Alumni Association for two terms. The thinking of the Board of Directors was that, because of the rapid shift in the position of Director of Alumni Relations from Frank McGuire to Michael Laine to Bub Henry, it was desirable to hold some continuity within the structure of the Association. Jack Mulcahy's capabilities and willingness to work in a volunteer way for the University encouraged the Board to extend him into his second term as alumni president.

During this second term, outside of particular committee work, Mr. Mulcahy and the Executive Committee worked with Dr. Ferrel Heady in dissolving the President's Alumni Advisory Committee which was conceived and used during President Tom Popejoy's administration. This group had not been called together for some time, and had also grown into a too-large and most cumbersome working number. Mr. Mulcahy and members of the Executive Committee, with Dr. Heady's concurrence, have arranged to use the Executive Committee as an Alumni Advisory Committee, inviting specialized alumni to meet with them when the necessity arises.

COMMITTEE DIVISIONS UNDER ALUMNI RELATIONS

There are several areas of association work that have been extremely active:

Homecoming 1968 (October 18 and 19)

Homecoming was chaired in 1968 by Chuck Lanier. The foyer of the Fine Arts Center was used for alumni registration and as an information center. This change, we felt, was a necessity because of the parking problem and walking distance to register with the New Mexico Union on the second floor, where it had been held in prior years. In addition to the Fine Arts Center's easy accessibility, it consolidates easy walk-in ticket purchasing, registration and hospitality. The Alum-mobile was visually at hand also.

The dance was again held at Western Skies. The attendance was good and a theme on Hawaii was used. United Airlines, agent for our Hawaiian Tour which occurred later in the year, was instrumental in securing small orchids for each lady at the dance.

The Chuck Wagon was again held at the basketball arena with one new innovation. The food serving lines, speakers' platform, and general seating was moved from the concourse to the covered basketball arena floor area. Several awards were presented, including the honorary alumni pin presented to President Heady by Master of Ceremonies, Dr. Martin Fleck. Again, the expenses were held within the budget.

The Homecoming Committee and Reunion

chairmen were:

Chuck Lanier, chairman of the committee
 Joe Fiorillo, student chairman
 Sam Honegger, assistant student chairman
 Ken Gattas, New Mexico Union student program director
 Committee members:

Collister Redmond
 Muriel Harritty
 Lena Clauve
 Pat Heggem

Reunion chairmen:

Golden Alumni - Floyd W. Lee
 45th Anniv. - Edmond Hopkins
 Silver Anniv. - Floyd and Mary Darrow
 Class of 1958 - Pat Crist

Student Recruitment

This phase of alumni activities has been placed somewhat to one side. There has not been enough time to pursue many worthwhile programs but this phase of alumni work is a must. We secured permission to hire an alumni field secretary and are actively seeking a recent graduate for the position.

A major portion of his duties will revolve around student recruiting. Certainly, securing excellent students from throughout New Mexico is extremely important. This program gives alumni an opportunity to become actively involved on behalf of the University. In this method, the alumnus will feel close to the University and yet we will have a year-round active relationship in which we will be able to pursue other facets of potential support for the University.

Members of the committee in 1968 were:

Tony Bernitsky, chairman
 Joe Burwinkle, Jr., liaison to executive
 committee
 Norman Mugleston, Al Valdez, Jim Benner,
 Barry Cole, Jack Sheehan and Lavon
 McDonald. Mr. Sheehan and Mr.
 McDonald were two ex-officio members
 from the University staff.

Awards Program

The Awards Committee, under the direction of Mary Foley, devised what we believe to be a most outstanding program of awards. The eye-appeal and beauty of these awards will be a lasting benefit for the University. Committee members serving with Mrs. Foley were:

Leon Thompson, liaison to executive
 committee
 Dan Myers, Vivienne Seis, T.J. Williams, Jr.
 Lena Clauve
 Shirley Runyan and David Heisler, student
 members

In February 1969, Si Nanninga assumed the chairmanship of this committee. His committee is looking forward to presenting many of these awards in the future. It is our hope that the Awards Committee of the Association does not, at any time, protect the awards to a degree to where they are not presented often. The main thought behind developing such an outstanding group of awards is to present them, continually seeking out worthy recipients.

Members of Mr. Nanninga's committee
serving from February 1969 to February 1970 were:

John Nusbaum, Dorothy Black, Dorothy
Crist, Lena Clauve, Mary Foley
and T.J. Williams, Jr.

(Mr. Nanninga served as liaison
to the Executive Committee in
his capacity as chairman.)

From July 1968 to July 1969 the following
awards were made:

Honorary Lobo Award - Mrs. Sheldon Dike
Outstanding Teaching Award - Dr. Troy Floyd
Alumni Service Awards: W.W. Atkinson,
Winifred Reiter, Randall Montgomery,
Chuck Lanier, Bob Werdig, Jay Rosenbaum,
and Jack Mulcahy

(The above awards were presented at
Homecoming, 1968.)

Award of Distinction - Don Perkins

(This award was presented for the
first time, and was made at a Lobo
football banquet, April 23, 1969.)

Alumni Service Awards - Eric McCrossen
Paul McCollum
Harvey Whitehill

(Presented at alumni/civic club
meeting in Gallup, N.M., April 24,
1969.)

Senior Student Citizenship Award - John Bakas

(Presented at UNM Honors Assembly, May
1969.)

The High School Achievement Awards Program
has continued to meet with fine success.
There were 65 high schools involved, and 144
awards were presented. Sixty-five of the
students given the awards subsequently en-
rolled at UNM.

This awards program for high school achievement gives us the opportunity to visit high schools in New Mexico and to become acquainted with principals and counsellors. This is a side dividend that is of great value.

Following is a yearly graph of the award beginning with its inception in 1963.

	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
PARTICIPATING HIGH SCHOOLS	20	31	35	95	76	80	65
NUMBER AWARDS GIVEN	39	62	68	195	142	156	144
NUMBER AWARDEES ENROLLED AT UNM	?	30	32	77	52	47	65

A historical listing of awards presented by the Alumni Association is given in Appendix III.

Albuquerque Activities Committee

This committee has been initiated during this administration in the Association to develop programs designed to involve the Albuquerque alumni in our work. To truly involve the alumni we need to encourage active assistance from them in University projects. We all realize that Homecomings are most desirable because of the factor of work related to the University. It is the Association's feeling that a spring affair of the Homecoming nature is desirable.

A tremendous program that Indiana University produces in the spring, namely, the "Little

500," has been brought to our attention. It may provide the type of program that we are looking for. During May of this year (1969) the Association undertook to observe the Indiana University program first hand on their campus. A student, Tom Hogg, and an alumnus, Jack Mulcahy, were selected and sent to Bloomington, Indiana for this purpose.

Both representatives returned from Indiana University enthused about what they saw. The Indiana University program revolves around games and funds. Proceeds from the program are used for scholarships. The program involves staff, students, and alumni, and is the type of program we are seeking.

ALUMNI OFFICE PROGRAMS

Alumni Tours

The Alumni Office staff put together an outstanding package tour to Hawaii in December (1st to 7th) of 1968, in conjunction with the UNM-Hawaii basketball game in Honolulu. This was the largest (198 passengers) chartered commercial jet to take off from Albuquerque and the largest chartered aircraft in the history of aviation to take an alumni booster club overseas representing one university, and involved responsibility for handling around \$60,000. This program has given us the will and encouragement to undertake similar events.

Speakers' Bureau

This is an area of great potential benefit for the University. To pursue a worthy program, funds and additional staff will be required.

Recently, we have learned that the University of Nevada alumni relations operation has developed a Speakers' Bureau using federal funds. The funds needed were secured through a Title I Act, General University Extension, Higher Education Act of 1965. We will attempt to understand the program in greater detail and report findings.

ALUMNI RECORDS AND MAIL ROOM

This section of the Alumni Office has been and is quite inadequate, particularly the actual physical machines of the area. Here again this is common knowledge and very soon new addressing machines will be purchased. Dick Leurig of Data Processing is extremely knowledgeable as to such machines and he is involved with this office with suggesting correct procedure for purchasing and conversion of our present addressing system to the modern systems that the University now has on campus.

Included in the appendix is a complete listing of all mailing produced and/or distributed from this office; also a report on total number of changes of address, alumni found and alumni lost, (Appendix IV.)

APPENDIX I
BOARD OF DIRECTORS
ALUMNI ASSOCIATION

<u>Term expires 1969</u>		<u>Term Expires 1970</u>	
W.W. Atkinson	'36	Mrs. Hildreth L. Barker	'58
Jim Benner	'51	Joseph F. Boehning	'53
Mrs. Arthur Bryce	'28	Joe Burwinkle	'64
Howard W. Henry	'60	Mrs. Dorothy Crist	'46
Julia Keleher	'30	Fred Goldsworthy	'36
Dan Myers	'57	Mrs. Joe D. Harris	'41
James T. Paulantis	'40	Sidney Hertzmark	'39
Mrs. A.G. Seis, Jr.	'46	Norman Mugleston	'59
Alfred A. Valdez	'61	Santa Fe, N.M.	
Mrs. Charles E. Weld	'60	Jake Balzer	'30
Larry Willcut	'50	San Patricio, N.M.	
Wm. M. Cleveland	'58	Jerry Apodaca	'57
Portsmouth, N.H.		Las Cruces, N.M.	
Mrs. Dan Girard	'60	Edward D. Shaffer	'52
Hobbs, N.M.		J. Leon Thompson	'36
Dr. Wm. E. Hall, Jr.	'44	Si Degulis	'48
Columbus, Ohio		Southport, Ind.	
Mrs. Glen L. Houston	'51	Harris W. Grose	'26
Hobbs, N.M.		Ft. Lee, N.J.	
Frederick B. Howden	'55	W.J. Hash	'52
Belen, N.M.		Deming, N.M.	
Robert C. McNeely	'43	Rodney Higgins	'50
Espanola, N.M.		Medford Lakes, N.J.	
Mrs. Jose R. Martinez	'57	Hugh W. Hilleary	'53
Fairview, N.M.		Littleton, Colo.	
Dave Matthews	'54	Jack House	'59
Santa Fe, N.M.		Los Alamos, N.M.	
Dr. George Mertz	'49	Henry Kempenich	'96
Phoenix, Ariz.		Palo Alto, Calif.	
Dan C. Minnick	'34	Bruce King	'42
Ordway, Colo.		Stanley, N.M.	
Randall Montgomery	'53	Don G. Litchfield	'52
Hobbs, N.M.		Roswell, N.M.	
Rev. Ronald Norman	'52	Jack Little	'59
Auburn, Nebr.		Bloomington, Ind.	
Charles Pineau	'50	James R. Miles	'61
Las Cruces, N.M.		Gallup, N.M.	
Fred Prevost	'50	Bobby N. Morgan	'56
Silver City, N.M.		Artesia, N.M.	
Pat Pugh	'25	John H. Morrison	'55
Oklahoma City		Evanston, Ill.	
Allen Rollie	'32	Owen N. O'Leary	'50
Jim Snead	'59	Wichita, Kans.	
Santa Fe, N.M.		Robert T. Person	'37
Roy C. Stumph	'33	Denver, Colo.	
Tonatchi, N.M.		Marvin Relkin	'48
Martin C. Wehmhoner, Sr.	'31	San Antonio, Tex.	
Deming, N.M.		Eddie Russell, Jr.	'65
		Dallas, Tex.	

Appendix I (cont.)

Term expires 1969 (cont.)

Harvey Whitehill
Gallup, N.M.

Term expires 1971

Lena C. Clauve '25
Mrs. Neil Foley '32
Mrs. J.J. Friedman '48
Norman L. Maguire '44
Anthony Bernitsky '52
Ray Cramer '59
Jack Mulcahy '56
Mrs. Charles Nuckols '54
Mrs. Norman Ribble '55
T.J. Williams, Jr. '52
Barry Cole '62
Stanley Hultberg, Jr. '64
J. Norman Hodges '47
Silver City, N.M.
Joe Stell, Jr. '49
Carlsbad, N.M.
Leonard DeLayo '44
Santa Fe, N.M.
Dr. J. Douglas Balcomb '56
Los Alamos, N.M.
Ray Gunderson '50
Grants, N.M.
John W. Hall, Jr. '50
Roswell, N.M.
John P. Isaacs '58
Clayton, N.M.
Robert M. Lee '56
Belen, N.M.
Mrs. Ronald Paynter '59
Santa Fe, N.M.
Richard Rowley, II '61
Clovis, N.M.
Bob Dean '63
Lovington, N.M.
Mrs. Benjamin Bryans '46
San Rafael, Calif.
Miss Katherine Lenihan '44
Indianapolis, Ind.
Elmer Sproul '45
Orange, Calif.
Jim F. Heath '53
Lake Oswego, Ore.
Dr. Bob Norfleet '53
Marshfield, Wisc.

Term expires 1970 (cont.)

Sigfred Sandberg '49
Oyster Bay, L.I., N.Y.
William Speer '52
Farmington, N.M.
Julian Wise '58
San Diego, Calif.
John C. Zutavern '51
Abilene, Kans.

Term expires 1972

John Nusbaum '28
Mrs. Wallace Ferguson '30
Mrs. Earl Puckett '33
Cleto Duran '41
Robert Si Nanninga '41
Dr. Byron Beddo '51
Roland Kool '55
Dick Ransom '54
Collister Redmond '59
Mrs. Rolfe Black '62
Charles P. Roberts '60
Mrs. Howard Brandenburg '38
Taos, N.M.
Gordon Greaves '35
Portales, N.M.
Sotero Sanchez '47
Santa Rosa, N.M.
Rev. James Bruening '55
Aurora, Colo.
Garnett Burks, Jr. '59
Las Cruces, N.M.
Mrs. Steve Burkstaller '56
Roswell, N.M.
D. Dale Cooper '50
Monument, N.M.
Mrs. Gary Noss '56
Santa Fe, N.M.
Bill Shrecengost '50
Hondo, N.M.
Fidel G. Tabet '56
Belen, N.M.
John Watson '54
Hobbs, N.M.
William Tharp '60
Las Cruces, N.M.
Veon Kiech '24
Jonesboro, Ark.
Ralph Seitsinger '38
El Paso, Tex.
Mrs. Archer Fitzgerald '46
Suffield, Conn.

Appendix I (Cont.)

Term Expires 1971 (cont.)

Jay Rosenbaum	'51
Shaker Heights, Ohio	
Edward J. Smith	'53
Deerfield, Ill.	
Mrs. Robert Gerding	'60
San Antonio, Tex.	
J. Carlos Lucero	'60
Boulder, Colo.	
Kay Paterson	'64
Denver, Colo.	

College Representatives
(Appointed)

R.P. Matteucci	'57
(Arts & Sciences)	
Sheldon Dike	'41
(Engineering)	
Gilbert Miranda	'38
(Education)	
Arthur Loy	'38
(Fine Arts)	
Byrne Cates	'50
(Pharmacy)	
R.W. Shoemaker	'50
(Business Admin.)	
Fred Tharp (Clovis)	'51
(School of Law)	
Mrs. George R. Shaffer	'59
(Nursing)	
Dr. Martin Fleck	'38
(Faculty)	

Term expires 1972 (cont.)

Nick Foran	'48
Murray Hill, N.J.	
Judge Shirley M. Hufstedler	'45
Pasadena, Calif.	
Fred M. Strait	'48
Riverside, Calif.	
Dr. Roger Wotkyns	'48
Denver, Colo.	
Michael McNevin	'56
New York City, N.Y.	
Mary Ellen Smith	'54
Phoenix, Ariz.	
Mrs. Charles M. Allen	'62
Lubbock, Tex.	

(Appointed Feb. 15, 1969)

Matteucci continued	
Manuel C. Archuleta	'65
(Pharmacy)	
Robert Farley	'55
(Fine Arts)	
Max McWhirter	'44
(Engineering)	
Dr. Effie Medford	'68
(Medicine)	
Sandra Ferketich	'66
(Nursing)	
Miranda continued	
Shoemaker continued	
Judge Joe W. Wood	'47
Court of Appeals,	
Santa Fe	
(School of Law)	

Fleck continued

APPENDIX II

SOURCES OF FINANCIAL SUPPORT

	<u>Number Donors</u>		<u>Amount Donated</u>	
	<u>1967- 1968</u>	<u>1968- 1969</u>	<u>1967- 1968</u>	<u>1968- 1969</u>
Alumni	1771	1587	\$ 53,512.08	\$53,347.49
Friends	825	1259	84,881.76	63,003.00
Organiza- tions	267	237	118,020.32	141,960.77
New Mexico Business	261	279	16,021.40	42,000.80
National Business	129	123	45,993.76	69,337.62
Fdtns., Estates, Misc.	<u>563</u>	<u>389</u>	<u>431,096.34</u>	<u>413,028.14</u>
	3816	3874	\$749,525.66	\$782,677.82

PURPOSES FOR WHICH GIFTS WERE DONATED

	<u>1967-68</u>	<u>1968-69</u>
Scholarships, Fellow- ships & Student Loans	\$446,829.90	\$330,452.43
Instruction	83,900.00	48,567.35
Research	109,262.87	297,759.06
Unrestricted	28,662.51	44,976.19
Special Projects	6,415.71	14,790.44
Library Materials	5,518.95	5,104.00
Building Construction	45,743.12	22,000.00
Chapel	648.00	70.00
Equipment	723.00	1,705.00
Galleries & Museums	<u>21,821.60</u>	<u>17,253.35</u>
	\$749,525.66	\$782,677.82

AWARDS

ZIMMERMAN AWARD

Tom L. Popejoy (1968)

AWARD OF DISTINCTION
(First Presentation)

Don Perkins (1969)

RODEY AWARD

Dr. Albert G. Simms, II (1964)

Judge D.A. Macpherson, Jr. (1964)

Ben C. Hernandez (1964)

Alfred A. Valdez (1964)

LOBO AWARD

Mrs. J.F. Zimmerman (1950)

Mrs. Lynn B. Mitchell (1951)

Miss Lillian Huggett (1951)

Mrs. Tom L. Popejoy (1952)

Clarissa Fuller (1953)

Lena Clauve (1954)

Elizabeth Simpson (1955)

Elizabeth Elder (1956)

Mary Hickox (1957)

Winifred Reiter (1958)

Wilma Loy Shelton (1959)

Esther Thompson (1960)

Nina Ancona (1961)

Shirley Hufstedler (1964)

Jane Mabry (1965)

Katherine Simons (1966)

Virginia LaPine (1967)

Josephine Hammons (1967)

Mrs. Sheldon Dike (1968)

JAMES F. ZIMMERMAN AWARD

(UNM Day in Roswell on
Januaru 10, 1964 -- Not
the same as Zimmermann
Award 1968.)

James D. Shinkle

Clarence E. Hinkle

Gladys Palmer

Esther Morgan

Burr Powell

Gladys Webb

Col. Ewing Lusk

Col. Charles F. Ward

Carroll White

Rodman M. Cookson

Poe W. Corn

ALUMNI SERVICE AWARD

Betty Perkins (1964)

Mary Helen Hendrix ('64)

Frank Grubbs (1964)

George Ambabo (1964)

Lee Seligman (1964)

Norman Mugleston (1964)

Jim Paulantis (1964)

Ray Rodey (1964)

Lars Halama (1964)

Jack Mulcahy (1965)

Al Valdez (1967) Ret-
iring Pres.

Lena Clauve (1968)

Jim Fleming (1968)

Ken Gattas (1968)

Chuck Lanier (1968)

Randall Montgomery ('68)

W.W. Atkinson (1968)

Jay Rosenbaum (1968)

Bob Werdig (1968)

Winifred Reiter (1968)

Eric McCrossen (1969)

Paul McCollum (1969)

Harvey Whitehill (1969)

PRESIDENT'S AWARD

Jack Mulcahy (1969)

CITIZENSHIP AWARD

(UNM Senior Student)

James Caylor (1965)

Tom Isgar (1966)

John E. Brooks (1967)

Paulette Key (1968)

John Bakas (1969)

APPENDIX IV
RECORD OF MAILINGS

JULY 1968 - JULY 1969

July 1, 1968			Lettermen - 1088
" 26	"	Alumnus Mag.-26,952	
Aug. 5	"	Alumnus Mag. 400 (Add.)	
Sept. 9	"		Envelopes, Gallup, Clovis, Santa Fe, Las Vegas, Nev.
" 13	"	Gift Rept. 28,911	
" 23	"	" " 2,968	
" 25	"	" "	Envelopes, Senators & Reps.
Oct. 12	"	Homecoming 28,910 (States)	
" 7	"	Homecoming 28,905	
" 8	"		Envelopes, Letter- men - 1176
" 9	"		Envelopes, Class of '43 - 1049
" 14	"	Alumnus News 31,079 Letter	
" 16	"		Envelopes, Ariz.
Nov. 1	"	Lobo Alumni 14,253 Letter	
" 6	"	Lobo Club 9,800 Alumni	
25-27	"		Envelopes, Hawaii, Wash., D.C. area, Gallup
Dec. 10	"	Fund Mailer 30,860	
Jan. 27, 1969	"		Lettermen - 1249
Feb. 3	"		Campus News - 125
Feb. 14	"		NAME lists - Pueblo, Denver, Colo. Springs, El Paso, Tucson
" 17	"		Envelopes, St. Louis
" 18	"		Envelopes, Colo.
" 27	"		Lettermen - 1289 Gallup area env.- 300
Mar. 7	"		Campus News - 189
" 17	"	Alumnus Mag. 30,000	
" 18	"		Wash. D.C. area

Appendix IV - continued
Record of Mailings

Apr. 4, 1968		Teach-in Ltr. to Alb. area - 8,600
" 9, "		Booster Clubs, Texas, Ariz., Colo, Calif., N.Mex. - 9,800
" 11 "		Board of Directors 111
" 17 "	Pres.' Report	9,400
" 22 "	Pres.' Report	20,900
May 7, 1968		Campus News - 189
" 8, "		So. Amer. Tour - 2700
" 22 "	Fund Mailer	27,366
	Foreign, "	365
22-23 "		Envs. & list, Ltrmn. - 1200
May 23 "	Pres.' Rept. (APO's)	305
	Alumnus Mag. (Rtns.)	210
" 26 "	Fund Mailer (foreign)	finished
" 27 "		Envelopes for Wash., D.C. area - 550
June 23, 1968	Resent Fund Mailer	293

Mail Room Report

	ADDRESS CHANGES	ALUMNI FOUND	ALUMNI LOST
July 1968	616	369	
Aug. 1968	774	559	1
Sept. 1968	114	150	
Oct. 1968	225	110	
Nov. 1968	1257	4	5
Dec. 1968	280	3	3
Jan. 1969	1137	1	5
Feb. 1969	1232	2	7
Mar. 1969	428	145	1
Apr. 1969	483	96	1
May 1969	554	181	4
June 1969	<u>1082</u>	<u>21</u>	<u>17</u>
Total	8182	1641	44
ALUMNI COUNT	April 1966	22,301	
ALUMNI COUNT	April 1968	26,236	plus 375 exchanges
ALUMNI COUNT	April 1969	31,000	
ALUMNI COUNT	June 1969	31,261	

THE REPORT OF THE DEPARTMENT
OF INTERCOLLEGIATE ATHLETICS

July 1, 1968 - June 30, 1969

Pete McDavid
Athletic Director

I. At the varsity level our teams have competed in the following sports: football, basketball, track, cross country, baseball, tennis, wrestling, swimming, golf and gymnastics. Freshman teams played regular schedules in football and basketball. A total of 148 athletes received major letter awards; 53 freshmen athletes were awarded numerals in football, and basketball making a grand total of 201.

We have just completed our third season in the new University Basketball Arena. We set another new attendance record - a total for the season of 191,291, an average of 13,663 each game. This also broke all past records as far as money taken in during a season.

The Lobo Invitational was again one of the most successful tournaments in the country and this is reflected in the great number of requests that we have from nationally recognized teams wanting to participate in future tournaments.

Coach Hackett's Cross Country team won the Western Athletic Conference championship. Joe Ferguson's tennis team again made an excellent showing. Van Hill was named All-American and also won the Western Athletic Conference Singles championship and teamed up with Tony Bull to win the Conference Doubles championship. Rusty Mitchell's gymnastics team

(2)

again brought national recognition to our campus. Bob Manna was N.C.A.A. High Bar national champion. The gymnastic team's over-all record was 11-1.

The following attractions were held this year in either Johnson Gymnasium or University Arena:

1. New Mexico Education Association Annual Convention.
2. New Mexico High School Basketball Tournament.
3. New Mexico High School Swimming Tournament.
4. New Mexico High School Wrestling Tournament.
5. New Mexico High School Band Festival.
6. New Mexico High School Cheerleaders Clinic.
7. New Mexico State Science Fair.
8. Fourth Annual Lobo Invitational Basketball Tournament.

In addition, our Athletic Department acted as hosts to the following events:

1. New Mexico High School Track Championships.
2. New Mexico High School Golf Championships.
3. New Mexico High School Tennis Championships.
4. New Mexico High School Cross Country Championships.
5. New Mexico High School Pentathlon Championships.
6. New Mexico High School Decathlon Championships.
7. New Mexico High School Activities Association Wrestling Clinic.
8. New Mexico High School Coaches Association - Downtown Lions Coaching School and All Star Basketball and Football Games.

(3)

9. Annual Fall Tucker Golf Tournament.

10. N.C.A.A. College National Golf Championships.

II. Significant Plans and recommendations during the Academic Year 1969-70.

It appears that our new Athletic Building may become a reality in the fall of 1970. This will complete our athletic complex on the South Campus and along with the new City Baseball Park we will probably have one of the finest such complexes in the United States. Additionally, this will give the Physical Education Department space which they greatly need at this time.

The department is presently giving consideration to the addition of Skiing to our program. There is a great deal of interest in such a program and it is felt that this would be conducive to keeping athletes who are interested in skiing at our State institution. The Committee is presently working on this possibility.

We will be on Regional TV for two of our basketball games this coming season. We are also pleased that KOAT-TV will be carrying delayed TV on most of our home games and live TV on all out of town games. KOB and KDEF will both be carrying by radio all of our football and basketball games both home and away. With these two stations, it is felt we will be reaching very adequately our many alumni who are interested in these programs.

(4)

III. Outside Professional Activities of Staff Members:

Athletic Director - Pete McDavid - N.C.A.A. Committee
on Committees

National Athletic
Directors Association
Policy Committee

National Association
of Collegiate Directors
of Athletics Executive
Committee.

IV. Appointments to Staff:

John Meechem -----Swimming

Leon Fuller -----Ass't Football Coach

Alfred Arellano -----Ass't Equipment Mgr.

V. Separations from Staff:

Robert Barney -----Swimming

Bert Clark -----Ass't Football Coach

Julio Madril -----Ass't Equipment Mgr.

POPEJOY HALL
TELEPHONE 505: 277-3123

Popejoy Hall
The University of New Mexico
Annual Report 1969-70
William J. Martin, Director

Popejoy Hall was in use 222 days during fiscal 1969-70, and presented 127 programs to an overall attendance of 140,000. A list of programs and rehearsals is attached.

The Staff included the following:

William J. Martin	Director
Jayne P. Lund	Secretary
Neola Rundell	Cashier
10 Students part-time	Stage crew
2 Students part-time	Box Office help
Mortarboards & Las Campanas	Ushettes

Popejoy Hall and the Cultural Program Committee of the Associated Students continued the joint arrangement whereby student fees (\$25,000.00) were applied to offset a portion of the costs of programming. In return, members of the student body were offered the opportunity to subscribe to the programs at a 75% discount, and to purchase single tickets to events at one-half price. The programs thus jointly sponsored are listed in the attached booklet. Total discount tickets issued to students was 13,500 (up from 8,000 the previous year), valued at \$33,500.00 (up from \$25,000.00 in fiscal 67-68).

Gross Ticket Sales to all events	\$161,735.50
Gross Revenue from rents & Service Charges	<u>60,884.72</u>
Total Gross Revenue	\$222,620.24
Gross costs of operation(including programs)	<u>208,025.96</u>
Operating Profit	\$ 14,594.28

Page 2
The University of New Mexico
Popejoy Hall
Annual Report 69-70
William J. Martin, Director

The Albuquerque Opera Guild once again sponsored a series of three plays on their second nights, and the Albuquerque Panhellenic, Junior Women's Club and the Association of University Women took benefit performances. These benefits produced about \$49,500 in sales. The sponsors received about \$12,500. for their efforts.

The stage crew continued to maintain the equipment in the Recital Hall of the Fine Arts Center. Approximately \$1,000.00 in labor was applied, including that required in the construction of a forestage.

The Cultural Committee was satisfied with the co-sponsorship arrangement and in March 1969 decided to continue the arrangement for another year. The Committee requested \$25,000.00 for fiscal year 1969-70 and in May that amount was approved by a vote of the student body. The Cultural Program Committee also approved the schedule of events shown in the attached booklet.

POPEJOY HALL

PROGRAMS from July 1, 1968 through June 30, 1969

July, 1968

29	Albuq. Civic Light Opera , rehearsal	FUNNY GIRL	7:00 to 11:00
30	" " " " "		"
31	" " " " "		"

August, 1968

1	" " " " "		"
2	" " " " "		"
3	" " " " "		"
4	" " " " "		"
5	" " " " "		"
6	" " " " "		"
7	" " " " "		"
8	Albuq. Civic Light Opera, performance	FUNNY GIRL	8:15 p.m.
9	" " " " "		"
10	" " " " "		"
11	" " " " "		"
15	Students for Peace = lecturer Senator Eugene McCarthy		8:00 p.m.
17	Univ. New Mexico Band		8:15 p.m.
28	Albuq. Public Schools @ Orientation of New Teachers		7:30-12:00 noon

September, 1969

10	UNM Freshman Orientation	
18	Asso. Students Speakers Committee - Mr. Al Capp	8:15 p.m.
26	FIDDLER ON THE ROOF - Theater Series	8:15 p.m.
27	FIDDLER ON THE ROOF - Theater Series	8:15 p.m.
28	FIDDLER ON THE ROOF - Theater Series	8:15 p.m.

Page 2
 Popejoy Hall Programs
 1968-69

September (con'td)

29	Newman Forum Lecture - Dr. Robert J. White	8:15 p.m.
30	Community Concerts Board Meeting	5:00 p.m.

October, 1969

4	Albuq. Symphony Orchestra Youth Concerts Dancers, reh.	7:30-10:30 p.m.
5	Albuq. Symphony Orches. Youth Concert	12:00-5:00 p.m.
7	Theater Royal Windsor, BEAUX STRATAGEM , Internat'l Series	8:15 p.m.
8	Albuq. Symphony Orchestra rehearsal	
9	Albuq. Symphony Orchestra, performance	8:15 p.m.
11	Lovelance Foundation Lecture, Dr. Philip R. Lee	8:15 p.m.
12	Albuquerque Youth Symphony, rehearsal	8:00-12:00 noon
13	Albuquerque Youth Symphony, performance	4:00 p.m.
14	Japan by Gene Wiancko - Travel-Adventure Series	7:30 p.m.
15	Mikado - Performing Art Film Series	7:30 p.m.
16	Homecoming Queen Coronation - Asso. Students	8:00 p.m.
17	Univ. New Mexico Orchestra, rehearsal	
18	Univ. New Mexico Orchestra, performance	8:15 p.m.
19	UNM String Clinic	8:00-5:00 p.m.
21	BALLET AFRICAINS - International Series	8:15 p.m.
23	New Mexico Music Educators Asso. Convention	
24	Dick Schory - N.M.M.E.A. Asso. concert	8:15 p.m.
29	CACTUS FLOWER - Theater Series	8:15 p.m.
30	CACTUS FLOWER - Theater Series	8:15 p.m.
31	Chafed Elbows - Experimental Film Series	7:30 p.m.

Page 3
 Popejoy Hall Programs
 1968-69

November 1968

2	Marine Band	2:00 & 8:00 p.m.
5	New York Woodwind Quintet, Community Concerts	8:15 p.m.
6	Albuq. Symphony Orchestra, rehearsal	7:00-11:00 p.m.
7	Albuq. Symphony Orchestra, performance	8:15 p.m.
8	Henry V - Performing Arts Film Series	7:30 p.m.
9	Inauguration of President Heady - UNM	3:00 p.m.
15	Symposium, Mechanical Engineers	8:00-5:00 p.m.
15	Animation & Abstraction, Experimental Film Series	7:30 p.m.
16	Red China by Lens Bjere - Travel-Adventure Series	7:30 p.m.
17	Run Forward Singing, Newman Center , rehearsal	1:00-5:00 p.m.
18	Truman Capote - Speakers Committee Asso. Students	8:00 p.m.
22	STAR SPANGLED GIRL - Theater Series	8:15 p.m.
23	STAR SPANGLED GIRL - Theater Series	8:15 p.m..
24	Run Forward Singing, Newman Center	2:00 p.m.
24	Run Forward Singing, Newman Center	8:15 p.m.
25	Run Forward Singing, Newman Center	8:15 p.m.
26	Run Forward Singing, Newman Center	8:15 p.m.
29	Joffrey Ballet - International Series	8:15 p.m.
30	Joffrey Ballet - International Series	8:15 p.m.

December 1968

3	UNM Orchestra, rehearsal	3:00 p.m.
4	Fr. Drinan, Newman Forum Lecture	8:00 p.m.
5	UNM Orchestra, rehearsal	3:00 p.m.
5	UNM Orchestra, performance	8:15 p.m.
6	South Vietnam by Kenneth Armstrong - Trav-Adv. Series	7:30 p.m.
7	Itzhak Perlman, Community Concerts	8:15 p.m.

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 Popejoy Hall Programs
 1968-69

December 1968 (con'd)

10	Melvin Belli, Speakers Committee Asso. Students	8:15 p.m.
11	Albuquerque Symphony Orchestra rehearsal	7:00-11:00 p.m.
12	Albuquerque Symphony Orchestra, performance	8:15 p.m.
13	California Underground - Experimental Film Series	7:30 p.m.
16	UNM Chorus, rehearsal	7:00-10:00 p.m.
17	UNM Chorus, rehearsal	3:30-6:00 p.m.
18	UNM Chorus, performance	8:15 p.m.
19	Duck Soup & Horse Feathers - Marx Bros, Perf. Arts Series	7:30 p.m.
20	Albuq. Civic Light Opera, Music Man rehearsal	7:00 p.m.
21	" " " " " " "	"
22	" " " " " " "	"
23	" " " " " " "	"
24	" " " " " " "	1:00-6:00
25	" " " " " " "	"
26	" " " " " " performance	8:15 p.m.
27	" " " " " " "	"
28	" " " " " " "	"
29	" " " " " " "	"

January 1969

3	Vronski & Babin, Community Concerts	8:15 p.m.
4	Wally Tabor Film, Wildlife Association	7:30 p.m.
7	UNM Band, rehearsal	7:00 p.m.
8	UNM Band, rehearsal	3:00 p.m.
8	UNM Band, performance	8:15 p.m.

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 Popejoy Hall Programs
 1968-69

January 1969 (con'td)

10	MAN OF LA MANCHA - Theater Series	8:15 p.m.
11	MAN OF LA MANCHA - Theater Series	8:15 p.m.
11	" " " " " "	"
15	Albuq. Symphony Orchestra, rehearsal	7:00 p.m.
16	" " " , performance	8:15 p.m.
18	" " " , rehearsal	11:00 a.m.
18	" " " , Youth Concert performance	2:00&3:00 p.m.
21	National Orchestra of Mexico	8:15 p.m.
25	Albuq. Youth Symphony - UNM Dept. Music, rehearsal	8:00-12:00 p.m.
25	" " " " " " , performance	8:15 p.m.
29	N.M.M.E.A. Allstate Music Festival, rehearsal	8:00&5:00 p.m.
30	" " " " , performance	8:00-10:00 p.m.
31	" " " " , rehearsal	8:00-5:00 p.m.
31	" " " " , performance	8:00 p.m.

February 1969

1	N.M.M.E.A. Allstate Music Festival, performance	8:00-12:00 noon
3	St. Olaf's Choir - Lutheran Student Association	8:15 p.m.
6	General Lewis Bn. Hershey, Speakers Com. Asso. Stud.	8:15 p.m.
7	Cinderella - Performing Arts Film Series	7:30 p.m.
12	Treteau de Paris - Modern Language Dept UNM	8:15 p.m.
13	St. Paul Chamber Symphony - Community Concerts, rehearsal	9:00-12:00 noon
13	" " " " " " , performance	8:15 p.m.

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 Popejoy Hall Programs
 1968-69

February 1969 (cont'd)

15	Albuq. Symphony Orchestra Youth Concert, rehearsal	11:00-2:00 p.m.
15	" " " " " . performance	2:00 & 3:00 p.m.
17	Ballet West	8:15 p.m.
18	Albuq. Symphony Orchestra, rehearsal	7:00-11:00 p.m.
19	" " " , performance	8:15 p.m.
20	Albuq. Public Schools Choral Festival	8:00 a.m. & 8:15 p.m.
23	Del Norte High School Benefit, rehearsal	1:00-3:00 p.m.
23	" " " " " . performance	4:00-6:00 p.m.
24	APPLE TREE - Theater Series	8:15 p.m.
25	" " " "	8:15 p.m.
27	Peru with Eric Pavel - Travel Adventure Series	7:30 p.m.

March 1969

1	Winnepeg Ballet - Community Concerts	8:15 p.m.
4	NMMEA District #7 Band Competition	8:00-6:00 p.m.
5	" " " "	
7	New Cinema III - Experimental Film Series	7:30 p.m.
11	YOU KNOW I CAN'T HEAR YOU WHEN THE WATER'S RUNNING Theater Series	8:15 p.m.
12	Albuq. Symphony Orchestra, rehearsal	7:00-11:00 p.m.
13	" " " , performance	8:15 p.m.
14	The New Folk, Crusade for Christ	8:15 p.m.
16	James Farmer, Speakers Committee Asso. Students	8:00 p.m.
20	Albuq. Symphony Orches Youth Concert rehearsal	6:00-9:00 p.m.
21	SEGOVIA - International Series	8:15 p.m.

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Popejoy Hall Programs
1968-69

March 1969 (cont'd)

24	UNM Band, rehearsal	3:00-6:00 p.m.
24	UNM Band, performance	8:15 p.m.
25	Charles Evers, Speakers Committee, Asso. Students	8:00 p.m.
29	BLACK COMEDY	8:15 p.m.
30	Albuq. Civic Light Opera -- BOY FRIEND, rehearsal	7:00-11:00 p.m.
31	" " " " " " "	"

April 1969

1	San Francisco Mime Troupe, Nat'l & Internat'l Affairs Com	8:15 p.m.
2	Albuq. Symphony Orchestra, rehearsal	7:00-11:00 p.m.
3	" " " , performance	8:15 p.m.
4	Albuq. Civic Light Opera BOY FRIEND, rehearsal	7:00-11:00 p.m.
5	" " " " " " "	"
6	" " " " " " "	"
7	" " " " " " "	"
8	" " " " " " "	"
9	" " " " " " "	"
10	" " " " " " "	"
11	" " " " " " performance	8:15 p.m.
12	" " " " " " "	"
13	" " " " " " "	"
15	Marat/Sade - Performing Art Film Series	7:30 p.m.
17	N.M.M.E.A. District #7 Choral Competition	8:00a.m.-6:00 p.m.
18	Backroads U.S.A. by William Stockdale - Trav.Adv. Series	7:30 p.m.

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 Popejoy Hall Programs
 1968-69

April 1969 (cont'd)

19	S.P.E.B.S.Q.S.A. Parade of Harmony	8:00a.m.-11:00p.m.
21	New Cinema IV, Experimental Film Series	7:30 p.m.
22	Peter Steinfelds, Newman Forum lecturer	8:00 p.m.
23	Albuq. Symphony Orchestra, rehearsal	7:00-11:00p.m.
24	" " " , performance	8:15 p.m.
26	Albuq. Youth Symphony, rehearsal	8:00a.m.:12:00 noon
26	Albuq. Symphony Orchestra Youth Concert, rehearsal	12:30-2:00 p.m.
26	" " " " " , performance	2:00&3:00 p.m.
27	Albuq. Youth Symphony, performance	4:00 p.m.
30	Highland High School Music Festival	8:15 p.m.

May 1969

1	UNM Orchestra, rehearsal	3:00-6:00 p.m.
2	UNM Orchestra, performance	8:15 p.m.
3	Yucca Chapter Sweet Adelines, rehearsal	8:00a.m.-12:00 noon
3	" " " " , performance	1:30 p.m.
3	" " " " , performance	8:15 p.m.
4	UNM Rodey Theater WONDERFUL TOWN rehearsal	7:00-11:00 p.m.
5	" " " " " rehearsal	"
6	" " " " " rehearsal	"
7	UNM Band, rehearsal	3:00 p.m.
7	" " performance	8:15 p.m.
8	Rodey Theater WONDERFUL TOWN, rehearsal	7:00-11:00 p.m.
9	" " " " "	"
10	" " " " "	"
11	" " " " "	"
12	" " " " "	"

Page 9
 Popejoy Hall Programs
 1968-69

May 1969 (cont'd)

13	UNM Rodey Theater WONDERFUL TOWN, rehearsal	7:00-11:00 p.m.
14	" " " " " "	"
15	" " " " " "	"
16	" " " " " performance	8:15 p.m.
17	" " " " " "	"
18	" " " " " "	"
20	UNM Orchestra and Chorus, rehearsal	7:00-11:00
21	" " " performance	8:15 p.m.
23	Haley Dance Studio, rehearsal	7:00-11:00 p.m.
23	Dr. Paul Dudley White lecture, Heart Association	8:00 p.m.
24	Haley Dance Studio, rehearsal	11:00-3:00 p.m.
24	" " " performance	8:00 p.m.
25	St. Pius High School Commencement	2:00-6:00 p.m.
26	Cassius Clay - Kiker Memorial Lecture	8:00 p.m.

June 1969

5	UNM School of Medicine Commencement , rehearsal	1:00-4:00 p.m.
5	" " " " " performance	7:00-10:00 p.m.
6	Albuq. Civic Light Opera KISMET, rehearsal	7:00-11:00 p.m.
7	" " " " " "	"
8	" " " " " "	"
9	" " " " " "	"
10	" " " " " "	"
11	" " " " " "	"
12	" " " " " "	"

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 Popejoy Hall Programs
 1968-69

June 1969 (cont'd)

13	Albuq. Civic Light Opera, KISMET, performance	8:15 p.m.
14	" " " " " "	"
19	" " " " " rehearsal	6:00-11:00 p.m.
20	" " " " " performance	8:15 p.m.
21	" " " " " "	"
22	" " " " " "	"
23	Albuq. Civic Light Opera WEST SIDE STORY, rehearsal	7:00-11:00 p.m.
24	" " " " " " " "	"
25	" " " " " " " "	"
26	" " " " " " " "	"
27	" " " " " " " "	"
28	" " " " " " " "	"
29±	" " " " " " " "	"
30	" " " " " " " "	"

Experimental Films

A series designed to whet the appetite of the most jaded movie buff.

Wed., Oct. 31
from the underground
Chafed Elbows
Warhol Sampler
Summer War

Two Programs from the
Brilliant Bell and Howell Series

Fri., Nov. 15
Animation and Abstraction

Fri., Dec. 13
The California Underground

Program to Be Selected

DATE TO BE ANNOUNCED

In Person:

Shirley Clarke and her
Prize Winning Documentary
Portrait of Jason
(Discussion After the Film)

Single Tickets:

Adults \$1.50 Faculty \$1.25
Students and Children \$1.00

Subscriptions:

Adults \$6.00 Faculty \$4.00
Students and Children \$3.00
Five Admissions Good Any Time



CONCERT HALL

AND

The Cultural Program Committee

Present

The
1968-69

Season

of

**Cultural
Entertainment**

The Fine Arts Center
College of Fine Arts
University of New Mexico
Albuquerque, New Mexico

Dear Patron:

The complaint that "There is nothing to do in Albuquerque" is no longer a valid one. Even a cursory glance at this booklet should be enough to make many of you run for your appointment calendars.

The programming described herein—its quality and scope—has been made possible thru the unprecedented cooperation of the Associated Students and the University of New Mexico who now share in underwriting a significant portion of every program presented by the Concert Hall.

Because of this subscription, we are able to keep ticket prices well below those asked for the same programs in other cities.

Unfortunately there is a limit to the number of season tickets available to the general public, so

We have adopted the policy that former subscribers will have first choice to order subscriptions this year. This priority will not pertain after *May 10* on which date the remaining subscriptions if any will be sold on a first come basis.

An order blank is enclosed. We urge you to place your order without delay.

William J. Martin
Director—Concert Hall
The University of New Mexico

The Best of Broadway Theater Series '68-'69

A Series of Six Bright Fresh Broadway Hits, Three Musicals, Three Comedies, beautifully produced: Stars will be announced later.

Thurs., Sept. 26

Still Running in N.Y. After 4 Solid Years

Fiddler on The Roof

Fri., Oct. 25

B'way's Brightest Comedy

Cactus Flower

Sat., Nov. 23

Neil Simon—Mike Nichols Hit Comedy

The Star Spangled Girl

Fri., Jan. 10

A Truly Great Musical

The Man of La Mancha

Wed., Feb. 26

A Heartful of Music & Laughter

The Apple Tree

Late March (Dates to be announced)

The Fun Begins When the Lites Go out

Black Comedy

Single tickets if available will be \$6.50, \$6.00,
\$5.50, \$5.00, \$4.50, \$4.00, \$3.50.

Series Prices

Value—\$35.00,	\$32.00,	\$29.00,	\$25.00,	\$21.00
Gen'l Pub.—\$30.00,	\$27.00,	\$24.00,	\$21.00,	\$18.00
UNM Fac.—\$27.00,	\$24.00,	\$21.00,	\$18.00,	\$15.00
UNM Stu.—\$10.00,	\$9.00,	\$8.00,	\$7.00,	\$6.00

The International University Series

A New Series of Four Major Programs of Dance, Music & Theater.

Mon., Oct. 7

Theater Royal Windsor of England

In Hit Restoration Comedy

The Beaux' Strategem

Mon., Oct. 21

"Breathtakingly Beautiful"

Danseurs Africain du Senegal

Fri., Nov. 29

The Sensational (See Time Mar. 15)

Joffrey Ballet

Fri., Mar. 21

The Incomparable Master of Guitar

Segovia

Single tickets if available will be \$6.50, \$6.00,
\$5.50, \$5.00, \$4.50, \$4.00, \$3.50.

Series Prices

Value—\$23.00,	\$21.00,	\$19.00,	\$16.50,	\$14.00
Gen'l Pub.—\$20.00,	\$18.00,	\$16.00,	\$14.00,	\$12.00
UNM Fac.—\$18.00,	\$16.00,	\$14.00,	\$12.00,	\$10.00
UNM Stu.—\$8.00,	\$7.00,	\$6.00,	\$5.00,	\$4.00

Special Combination Discount Offer

For convenience and discounts, subscribe to both series. You will receive the same seats for all ten programs.

★ Combination Series Prices

Value—\$58.00,	\$53.00,	\$48.00,	\$41.50,	\$35.00
Gen'l Pub.—\$46.00,	\$41.00,	\$37.00,	\$32.00,	\$28.00
UNM Fac.—\$42.00,	\$37.00,	\$32.00,	\$28.00,	\$24.00
UNM Stu.—\$15.00,	\$14.00,	\$13.00,	\$12.00,	\$10.00

Bonus

Gen'l public subscribers to either series may subscribe to any film series at faculty rates.

Faculty subscribers to either series may subscribe to any film series at students rates.

(See Reverse Side)

Subscribers to either series on this page or to travel series will receive free reserved area parking permits.

P.S.—None of the dates offered on these series conflict with Lobo football or basketball home games.

If you were a subscriber last year and wish to occupy the same seats, you may so request on the enclosed order blank.

The Number of Subscriptions Available Is Strictly Limited

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Travel-Adventure

With Five of America's Finest
Producers and Commentators—in Person

Mon., Oct. 14

Gene Wiancko Returns With
A New Film

Japan

Sat., Nov. 16

Jens Bjerre's Electrifying
Red China

Fri., Dec. 6

Kenneth Armstrong Views
South Viet Nam

Thurs., Feb. 27

Eric Pavel Visits The
Three Worlds of Peru

Fri., April 18

William Stockdale Presents
Backroads U.S.A.

Single Tickets:

Adults \$1.50 Faculty \$1.25
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Subscriptions:

Adults \$6.00 Faculty \$4.00
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Five Admissions Good Anytime

Performing Arts Film Series:

Five Major Film Events, Three of
Them Exclusive Showings:

Fri., Oct. 11

The D'oyly Carte Opera Co.
New Production of
Gilbert and Sullivan's

The Mikado

Fri., Nov. 8

Laurence Olivier in
Shakespeare's Great Classic

Henry V

Thurs., Dec. 19

A Marx Brothers' Fun Fest

Duck Soup

&

Horse Feathers

Fri., Feb. 7

The Fabulous Bolshoi Ballet Co.
Production of

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ONE ADDITIONAL PROGRAM
TO BE ANNOUNCED

Single Tickets:

Adults \$2.00 Faculty \$1.50
Students and Children \$1.00

Subscriptions:

Adults \$7.00 Faculty \$5.00
Students and Children \$3.00
Five Admissions Good Any Time

HANDY ORDER BLANK ENCLOSED

THE REPORT OF KNME-TV, CHANNEL 5

July 1, 1968 - June 30, 1969

F. Claude Hempen, Director of Television

On May 1, 1969, KNME-TV, Channel 5, entered into its twelfth year of broadcasting television for educational purposes to viewers throughout New Mexico.

The station's license is held by the Board of Regents of the University of New Mexico and the Board of Education of the Albuquerque Public Schools, and is operated in cooperation with the New Mexico State Department of Education.

The schedule for the 38 week academic year (Labor Day to Memorial Day) averages more than 13 hours per day, Monday through Friday. For 14 weeks in the summer months, the schedule is reduced to five hours a day, five days a week. With the Advent of the Public Broadcasting Corporation Network, KNME began broadcasting on Sunday for 5 hours from 5:00 to 10:00 P. M. Four hours of the Sunday broadcast time was live-interconnect network which fed all 180 non-commercial stations throughout the United States.

UNIVERSITY OF NEW MEXICO TELECOURSES

HUMANITIES (Philosophy 101 and 102) was broadcast again for the tenth consecutive year. The principal instructor and host for the series was once again Dr. H. G. Alexander of the Department of Philosophy. Various lecturers from departments throughout the University

appeared on the programs. The hour-long programs were broadcast twice each week -- Monday and Wednesday at 9:00 P. M., and Tuesday and Thursday at 11:30 A. M. The morning broadcast was a repeat of the preceding evening presentation. Television broadcasts were complemented for those viewing them for credit by once-a-week periods of discussion in the classroom.

ELECTROMAGNETIC FIELDS AND WAVE I AND II (EE-361 and 362) replaced EE-202 as the live EE telecourse. Dr. Martin D. Bradshaw, associate professor of electrical engineering at UNM, was the television teacher. The individual programs were broadcast each Monday and Friday at 5:30 P. M. Students enrolled in this course also attended one classroom quiz session each week. EE-361 and 362 was then dubbed to one-inch videotape for closed circuit viewing to be viewed in selected rooms in the College of Engineering.

INTRODUCTORY CIRCUITS (EE-202) was not broadcast on open circuit this year. It was dubbed to one-inch videotape for closed circuit use and was seen in the College of Engineering.

Both courses, ELECTROMAGNETIC FIELDS and INTRODUCTORY CIRCUITS, will not be presented via open circuit television next year. These two courses have been placed on one-inch videotape format and are to be played by the Electrical Engineering Department on their local closed circuit television system.

TELECLASSES FOR THE ALBUQUERQUE PUBLIC SCHOOLS AND THE
NEW MEXICO STATE DEPARTMENT OF EDUCATION

GENERAL SCIENCE 9 -- General Science which has been broad-

casting for the last 6 years for use in the Albuquerque Public Schools System, will terminate at the end of the school year. During the life of this program, it received two National Awards as examples of exemplary instruction.

ELEMENTARY SCIENCE SIX, a twice-a-week 20-minute program of science instruction for the sixth grade, and the supplementary SCIENCE FARE SIX, were broadcast September 11 - June 4, with George Fischbeck as science teacher.

ELEMENTARY SCIENCE FIVE presented complementary science instruction for grade five throughout the state. Its supplementary program, SCIENCE FARE FIVE, was also in its sixth year. Again, George Fischbeck was on-camera teacher.

ELEMENTARY MUSIC SIX, taught by Mrs. Nancy Johnson, provided music instruction to sixth grade students for its sixth year. The broadcasts were 20 minutes in length and were seen twice each week.

ELEMENTARY MUSIC FIVE was taught by Mrs. Kathleen McVicker for fifth grade students for its seventh year. It was broadcast twice each week in 20-minute segments.

ELEMENTARY MUSIC FOUR, a twice-a-week 20-minute program of music instruction for the fourth grade taught by Mrs. Marinell Dungan completed its eighth year. The emphasis in all music teleclasses was on note reading and pupil participation rather than music appreciation.

HABLEMOS ESPANOL, the beginning course in conversational Spanish, was taught by Alfred Chavez. The programs in beginning

Spanish, now in their 10th year, were broadcast in the evening for home viewers, and then again mornings for in-state school utilization.

BETTER DRIVING. For the past four years, BETTER DRIVING used the mass medium to solve a mass education problem for the Albuquerque Public Schools. BETTER DRIVING should be terminated at the end of summer school.

SERVICE PROGRAMS FOR ALBUQUERQUE PUBLIC SCHOOLS

ELEMENTARY MUSIC ORIENTATION. In-service training for teachers (1 hour), for Albuquerque Public Schools orientation session, and for statewide utilization.

ELEMENTARY SCIENCE ORIENTATION. In-service training for teachers to improve classroom utilization of teleclasses.

Two locally produced programs were scheduled during Dental Health Week (in addition to special SCIENCE FARE programs and seven films scheduled a total of eleven times): DENTAL HEALTH SPECIAL FOR TEACHERS, half-hour in-service training in cooperation with Albuquerque Public School, Albuquerque Dental Association, and New Mexico Dental Association; and TOOTH SOME TALE for in-school viewing in grade two.

GENERAL PROGRAMMING (LOCALLY PRODUCED)

TV KINDERGARTEN with Mrs. Joyce Marron, existed as the only kindergarten instruction received by thousands of pre-school children in New Mexico during the 1968-69 school year. The series is designed to prepare the pre-school child with readiness skills for his first years in school. One-hundred-ninety-five 30-minute programs were broadcast each afternoon and repeated the following morning. A tape network broad-

cast the program nationally in: Lincoln, Nebraska; Columbus, Toledo, Cleveland, Newark, Oxford, Cincinnati, Athens, and Bowling Green, Ohio; Lubbock, Texas; St. Paul, Duluth, and Appleton, Minnesota; Moscow, Idaho; Portland and Corvallis, Oregon; Charlotte, North Carolina; Augusta, Athens, Atlanta, Chatsworth, Columbus, Dawson, Pelham, Savannah, and Waycross, Georgia. As of the end of this school term, TV Kindergarten will no longer be made available to other school systems because of a lack of financial support from the users.

SHIRTSLEEVE SESSION, a weekly 30-minute program of informal discussion of current topics was discontinued on the 21st of November, 1968. This Talk Program will be replaced by a program produced by KOB called A CLOSER LOOK.

CHANNEL 5 REPORTS, a weekly 30-minute documentary presentation of various aspects of life in New Mexico and interviews with distinguished visitors to the state. CHANNEL 5 REPORTS will be discontinued at the end of the summer schedule. It is planned that this time slot will be replaced by a program produced by Channel 7 called PROJECT SEVEN.

NEW MEXICO OUTDOORS, a weekly program of news for sportsmen, featured Jack McDowell and John Davis of the New Mexico Department of Game and Fish. NEW MEXICO OUTDOORS will be produced by KOB next season, but will continue to be broadcast through KNME.

LOBO LAIR. Weekly quarter-hour of UNM sports information with Eddie Groth and guests.

COMPLETED PLANS

Construction on the KNME studio building started the middle of June. The original building could not be built at this time due to the lack of funding. Funds were made available for the studio in 1964 and due to increased building costs during the past 4 years, approximately only one-half of the original building could be built for the \$550,000.00. The building should be finished in March, 1970, and KNME plans to move into the building during the summer of 1970.

SPECIAL PROJECTS

In 1967, the Corporation for Public Broadcasting was inaugurated and enacted by Congress. As a result of this action, it is believed that the Corporation for Public Broadcasting should become an Americanized version of the British Broadcasting Company or the Canadian Broadcasting Company. As a result of the National action, the television stations in the Rocky Mountain States formed a non-profit organization in the name of the Rocky Mountain Corporation for Public Broadcasting. The 8 states in the Rocky Mountain area now have a live-interconnect network for two hours each Tuesday from 8:00 to 10:00 P. M. Funds to operate this center, which is located in Denver, are made available through the National Corporation for Public Broadcasting. Tom L. Popejoy, former President of the University of New Mexico, is the President of the Rocky Mountain Corporation for Public Broadcasting.

Report of the Office of the University Architect

July 1, 1968 to June 30, 1969

Van Dorn Hooker, AIA, University Architect

The building and construction program on the campus of the University of New Mexico during the fiscal year 1968-69 showed a slight decline in dollar volume from the previous years. During the year the Farris Engineering Center, the College of Business Administration, the Automotive Building for the Physical Plant Department, the Mathematics Lab Addition to the Research Center, and a Building for Continuing Education were completed and placed in use. They represented a total construction cost of \$ 3,323,596 and project cost of \$ 4,342,086.

At the beginning of the fiscal year, \$ 6,612,907 in construction contracts were in force. This declined to \$ 5,786,479 in contracts in force on June 30, 1969.

Projects totalling \$ 8,500,000 were in the planning stage as the fiscal year ended. Some of these projects were started in 1967-68, but for lack of funds were held in abeyance. Continued delay in the allocation of Federal money will force a reevaluation of priorities and possible changes in funding.

BUILDINGS COMPLETED DURING THE YEAR1. College of Business Administration, UNM Project #624

This building, bid on August 1, 1967, was completed and occupied during the summer of 1968.

The site on Las Lomas between Hokona Dormitory and Bratton Hall (Law) was chosen primarily for ease of access by the many off-campus visitors who will be using the services offered by the College and by the Bureau of Business Research. The architect has designed the structure so that it faces both toward the campus on the south and the street on the north. Entrance is through a beamed-over court running north and south between the two buildings with a crosswalk on the second floor. The external spaces in and around the building are planned to be landscaped as soon as possible following occupancy.

The two-story building contains four arena-type classrooms with complete audio-visual capabilities, typing and office practice labs, a library, and a closed circuit television studio for the College. The upper floor houses the Bureau of Business Research, its offices, work spaces, and library, and the faculty and administrative offices of the College.

The construction is concrete with an exposed column and beam system, concrete block curtain walls, precast concrete "T" floor and roof system, and precast panels used as sun screens on the exterior. The outside surfaces are covered with an applied epoxy base coating, integrally colored. The interior partitions are

mostly vinyl-covered laminated gypsum board on steel studs with a "T" bar lay-in ceiling system.

Architect:	John Reed
Structural Engineer:	Howard Cottrell
Mechanical Engineers:	Bridgers & Paxton
Electrical Engineer:	Dean Powell
General Contractor:	Lembke Construction Company, Inc.

Final project cost, including fixed and movable equipment, site development, utility extensions and fees totalled \$ 1,115,524.

2. Farris Engineering Center, UNM Project #621

Construction on this facility, which was bid on May 10, 1967, was substantially completed in November, 1968. This building is located in the far southwest part of the campus, houses the major research and some instructional labs for all the Departments of the College, including heat transfer, fluid mechanics, vacuum, laser, low temperature labs and a building for the Department of Nuclear Engineering, which is a separate, heavily shielded unit. These facilities are all located on the ground level and can be serviced by truck from University Boulevard. The upper floors provide for administrative and faculty offices, small labs, seminar and reading rooms, and graphics labs.

The building is four stories with the second level reached on grade from the east at the main entrance. The concrete frame is exposed on the lower floors, and the battered concrete walls have been bush-hammered to give them a warm and rugged feeling. The second level is almost all glass with precast integrally colored concrete panels, sand-blasted to expose the aggregate. The highest

panels have extruded window reveals which add contrast to the plain surfaces below. A subtle slope on the exposed columns and the panels recalls the shapes of other campus buildings.

The size of the large specialized laboratories and their need for direct truck service dictated that they be on the ground level, and the architect was faced with the difficult task of developing a structural module that would not impose columns and beams in them and would still work with the smaller elements above. In order to accomplish this, the entire floor framing system in both buildings is post-tensioned.

Architect:	Flatow, Moore, Bryan and Fairburn
Mechanical Engineers:	Bridgers & Paxton
Electrical Engineers:	Uhl and Lopez
General Contractor:	K. L. House Construction Company

The final project cost including fixed equipment, movable equipment, site development, utility extensions and fees was \$ 2,642,698.

3. Automotive Building for the Physical Plant Department, UNM Project #635

A building was erected east of University Boulevard near the present Physical Plant, to provide space for automotive maintenance, storage of supplies and service of University-owned vehicles. This is the first of the new buildings planned for this area to satisfy the growing needs of the Physical Plant Department.

The building is a single story concrete frame, with concrete black panels on the exterior coated with an applied epoxy-base surfacing.

Bids were received on March 26, 1968 and the building was completed in December, 1968.

Architects:	Gathman and Long
Structural Engineer:	Howard Cottrell
Mechanical Engineers:	Bridgers & Paxton
Electrical Engineer:	Dean Powell
General Contractor:	R. M. Swain and Son

4. Continuing Education Building, UNM Project #644

In 1967 an office building on the northwest corner of Lomas Boulevard, NE and Yale Boulevard, NE was purchased and this year a second story was added and the first floor remodeled to provide space for the Department of Continuing Education and the Office of Civil Defense. Bids were received on July 10, 1968, and the construction completed in December. Total Project cost was \$ 56,172.

Architect:	Joe Boehning
Mechanical Engineer:	Allison Engineering, Inc.
Electrical Engineer:	A. L. Zerwer
General Contractor:	Cole-Templeton, Inc.

5. Research Center Addition (Math Lab), UNM Project #643

This project, bid on September 5, 1968 and completed in May, 1969, is an addition to the Computing Center to house instructional laboratories for the Department of Mathematics in which they will use on-line computer units. This program was supported, in large, by a grant from the National Science Foundation. The main addition is a single story unit on the west of the present building. A small addition on the east side provides a drafting room for the University Architect to replace one lost to the new construction. Included in the work is

the updating of the air conditioning system in a portion of the present building and changes in the utility supply to the building.

The new addition matches the present structure in appearance.

Final project cost was \$ 357,515.

Architect:	William Buckley
Structural Engineer:	Fred J. Fricke
Mechanical Engineer:	Bridgers & Paxton
Electrical Engineer:	Carl A. Albach
General Contractor:	R. M. Swain and Son

PROJECTS BEGUN IN FISCAL YEAR 1968-69

1. Chemistry Building Addition, UNM Project #628

This is a three story plus basement addition to the south side of Clark Hall, the Chemistry Building, of 46,500 gross feet, which will provide instructional and research laboratories, and faculty offices for the Department of Chemistry.

Bids were received for the project on September 26, 1968 and construction began immediately thereafter. It will be completed in December, 1969 in time for occupancy prior to the Spring semester, 1970.

The building is monolithic concrete with post-tensioned beams and slabs. The air conditioning system provides heating and cooling with 100% exhaust from the laboratories through the fume hoods.

Grants from the Higher Education Facilities Act for both graduate and undergraduate facilities in this project total \$ 603,639.

The contract was let in the amount of \$ 1,599,488.

Architect:	Ferguson, Stevens, Mallory and Pearl
Mechanical & Structural:	Ferguson, Stevens, Mallory and Pearl
Electrical Engineer:	Engineering, Inc.
General Contractor:	Bradbury and Stamm Construction Company

2. 1967 Dormitories, UNM Project #629

This project was bid on May 15, 1968 and construction began the first of July with completion scheduled for September 1, 1969.

This complex will provide housing for about 375 students and dining and commons facilities for over 1200. It is north of the existing women's dormitories on Redondo and east of Hokona Dormitory. The design is based on a house unit of 50 students with two students to a bedroom and four to a study room and bath. A number of rooms have been set up as economy double rooms, or as single rooms, depending on demand. It is an effort to personalize the living in the dormitories, create a better study environment, and make dormitory living more attractive to the upper classmen.

The Commons Building will house the administrative offices, kitchen, and five dining rooms. The serving area and the dining rooms surround a center patio which will add an outdoor serving area under a plexiglas skylight. This building is a concrete frame with exterior precast concrete panels.

The dormitories are steel framed with precast concrete panels on the exterior. Carpeting is used extensively throughout both buildings.

The interior courts and patio will be landscaped as part of the project.

Architect:	William W. Ellison and Associates
Consultant:	Ernest Kump and Associates
Structural Engineer:	Randy Holt
Mechanical Engineer:	Bridgers & Paxton
Electrical Engineer:	W. Dean Powell
General Contractor:	Lembke Construction Company, Inc.

The construction cost including built-in equipment, site work, and utility extensions will total about \$ 3,150,000.

3. 1967 Heating Plant Addition, UNM Project #634

In order to supply steam and chilled water to the many new buildings built and under construction, plans were made for a major addition to the Heating Plant which would provide housing for a 100,000 lb/hr boiler, offices for the personnel operating the plant, and modernize the control systems. The boiler contract was let on October 31, 1967, in the amount of \$ 97,641 and then the building was designed around the boiler. The boiler was delivered in January, 1969. The building contract was let on June 28, 1968, in the amount of \$ 655,800. Completion is scheduled for July, 1969.

The building is a single story addition to the north and east side of the present building. It is steel frame with concrete block exterior walls, stuccoed. It will match the architecture of the existing building.

Engineers:	Bridgers & Paxton
Architects:	Holien and Buckley
Structural Engineer:	Fred J. Fricke
Electrical Engineers:	Uhl and Lopez
General Contractor:	George A. Rutherford, Inc.

4. KNME Studio Building, UNM Project #637

This building, a joint venture with the Albuquerque Public Schools, is located on the east side of University Boulevard north of the Physical Plant Department. It will provide offices and studios for the educational television station.

It is a two story building with a partial basement constructed with a concrete frame and concrete block walls.

Bids were received on April 15 and a contract awarded in the amount of \$ 462,583. Completion is scheduled for February, 1970.

Architects:	Neuner and Cabiness
Mechanical Engineers:	Allison Engineering, Inc .
Electrical Engineers:	A. L. Zerwer
General Contractor:	Bradbury and Stamm Construction Company

5. Naval Science Alterations, UNM Project #646

After the University Health Service moved to its new building, their building on Yale Boulevard was remodeled to provide quarters for the Department of Naval Science. Four rooms on the west end of both the north and south wings were thrown together to make two classrooms. Most of the other work consisted of repainting, adding lighting, floor covering, and improving the heating and ventilation system. The contract was awarded on March 20 and the work was essentially completed by the end of the year. Total project cost was \$ 65,000.

Architects:	Crawford and Oravec
Mechanical Engineer:	Claude Lyon
Electrical Engineer:	Dean Powell
General Contractor:	C. W. Murphey Construction Co.

6. Guest Room Modifications-New Mexico Union, UNM Project #120

During the year the administration of the Union decided to eliminate the guest rooms on the second floor, northwest corner, and remodel them for use by the Department of Development. This project consisted of removing some existing partitions, refinishing the floors and walls, and installing additional light fixtures. The contract was awarded in May and the work was to be completed by September.

Architect:	William Buckley
General Contractor:	Weaver Construction Co.

7. Addition to Dressing Rooms at University Arena, UNM Project #626

During the development of preliminary drawings for the construction of facilities on the South Campus for the Department of Athletics, the University administration decided that only dressing rooms and some storage space would be added to the Arena, and the rest of the facility would be built adjacent to the Football Stadium. The Arena Addition was bid separately on June 4, 1969 and a contract awarded for \$ 65,908. Completion is scheduled for October 15.

Architect:	Joe Boehning
Mechanical Engineers:	Bridgers & Paxton
Electrical Engineers:	Uhl and Lopez
Structural Engineer:	Howard Cottrell
General Contractor:	K. L. House Construction Co.

PROJECTS IN THE PLANNING STAGE1. Psychology Building, UNM Project #622

A new building to house the Department of Psychology, its faculty, research programs, and instructional laboratories, is in the planning stage. The site selected by the Campus Planning Committee, because of the Department's strong relation to Biology, is south of the Pharmacy Building and west of the Biology Building. The program calls for a net square footage of 22,971. The project cost is estimated at \$ 1,700,000. Funds were requested from the National Institutes of Health and the State Bond Issue of 1967. No further work will be done until funds are allocated.

Architects: Flatow, Moore, Bryan and Fairburn

2. New Bratton Hall (Law Building), UNM Project #636

A new facility for the School of Law, to be located on the north end of the North Campus, west of Stanford Boulevard, is now in the final working drawing stages. The building will provide two large, arena-type classrooms, one smaller conventional classroom, faculty and administrative offices, a large concourse which allows for informal furniture groupings for study, a moot court, and a two-level library. The library wall, which is almost solid glass floor to ceiling, faces northeast toward the Sandia Mountains and will provide a spectacular vista from the second level reading rooms. The structure is a concrete frame, deep concrete coffered ceiling, with precast concrete panels on the exterior.

Title II (graduate) HEFA funds for this project have been allocated in an amount substantially less than requested. Additional funds will be sought from state sources. It will go to bid early in the next fiscal year.

Estimated project cost is \$ 1,814,000.

Architects:	George Wright and Associates
Structural Engineers:	Howard Cottrell
Mechanical Engineers:	Bridgers & Paxton
Electrical Engineers:	Engineering, Inc.

3. Fine Art Center Addition, UNM Project #080

This is an addition of approximately 11,000 gross square feet to the west side of the Music Building which will complete the west facade of that building. This addition will provide more space for the slide collection, reading rooms, and book collection of the Fine Arts Library. It will have provision for a loading dock and work-storage room for the Fine Art Museum. A visual arts laboratory will be located in the basement. A few additional faculty offices will be on the third level. The project has received all necessary approvals and the architect is proceeding with the work.

Architect:	William Buckley
Structural Engineer:	Fred J. Fricke
Mechanical Engineer:	Bridgers & Paxton
Electrical Engineer:	Carl A. Albach

4. Building for the Department of Athletics, UNM Project #626

During this year preliminary plans have been developed for a new facility to house intercollegiate athletics on the South Campus. This would be a separate building located southwest of the football stadium near University Boulevard, SE. It will provide team rooms for football, baseball, and track, with attendant facilities, and offices for the Director of Athletics, coaches, ticket sales, etc. As planned, this would be a two-story concrete frame building done in a contemporary design compatible with the Arena. Project estimate is \$ 738,000.

Architect:	Joe Boehning
Structural Engineer:	Cottrell, Vaughan & Associates
Mechanical Engineer:	Bridgers & Paxton
Electrical Engineer:	Uhl and Lopez

5. Faculty Office-Classroom Building, UNM Project #640

This project will be the first building on the old football field and will be located in the northwest quadrant opposite Mitchell Hall and Zimmermann Library. The program has been completed and approved by the Modern Language Department which is the largest department to be housed here and the one with the most specialized facilities. The building is programmed at 51,000 gross square feet at an estimated project cost of \$ 1,692,000. Preliminary plans have been approved and the architects are proceeding with the further development of the design.

Architects:	Ferguson, Stevens, Mallory and Pearl
Structural Engineer:	James MacCornack and Associates
Mechanical Engineer:	Lyon Engineering
Electrical Engineer:	Uhl and Lopez

6. Anthropology Building Addition, UNM Project #648

This addition is planned for the south side of the Anthropology Building and will provide additional space for the museum, storage, work rooms, faculty offices, and laboratories. Extensive remodelling will be done in the existing building to convert present spaces to other uses and improve the heating and air conditioning system. Approximately 14,000 net assignable square feet will be added and 4,500 net square feet remodelled. The project budget is \$ 750,000 of which \$ 354,000 is being requested as a grant from the National Science Foundation and \$ 125,000 from outside sources. Preliminary plans have been completed and further architectural work is awaiting approval of the NSF grant.

Architects:	McHugh and Kidder
Structural Engineer:	Earl P. Wood
Mechanical Engineer:	Lyon Engineering
Electrical Engineer:	Carl Albach

7. Research Center Addition, UNM Project #743

An addition to the south side of the Research Center will provide space for the relocation of Data Processing from the College of Education. This will allow a doubling of the present staff which will occur by 1975 as the Data Processing Center expands its functions. The 15,290 gross square feet contains computer rooms, work and storage rooms associated with the computer, offices for staff, conference rooms, and public areas. Project budget is \$ 381,000. The architect is preparing working drawings for bid in the fall of 1969.

Architect:	William Buckley
Structural Engineer:	Fred J. Fricke
Mechanical Engineer:	Bridgers & Paxton
Electrical Engineer:	Carl Albach

8. Physics Laboratories - Lecture Halls, UNM Project #050

Preliminary planning has been done on this project, but since funding will apparently not be available this year, work by the architect has been halted. This building, which has 11,177 net assignable square feet exclusively in laboratories, laboratory storage, and faculty offices, has been designed as an underground structure with a landscaped terrace on the roof. It will be located east of the Farris Engineering Center between it and the proposed Psychology Building. Project budget is set at \$507,000.

Architect: Pacheco & Graham

During the fiscal year the following people and firms were employed by the University in building projects:

Architects:

Crawford & Oravec
Joe Boehning
William Ellison and Associates
Ferguson, Stevens, Mallory and Pearl
Flatow, Moore, Bryan and Fairburn
Walter Gathman and Joe Long
William Buckley
W. C. Kruger and Associates
Neuner and Cabaniss
Pacheco and Graham
John Reed
George Wright and Associates
McHugh and Kidder

Engineers:

Carl Albach, Electrical
Albuquerque Testing Laboratory
Associated Land Surveyors
Bridgers and Paxton, Mechanical
Milton Costello, Mechanical
Fred Fricke, Structural
Herkenhoff and Associates

Consultants:

Arthur Dana, Food Services
Ecko, Austin, Dean and Williams, Landscape Architects
Purcell, Noppe & Associates, Acoustics

The following General Contractors had contracts with the University for building and site work:

Bradbury and Stamm
Cole-Templeton
K.L. House Construction Company
Lembke Construction Company
C. W. Murphey Construction Co.
George A. Rutherford Construction Company
R. M. Swain and Son
Weaver Construction Company

Professional Affiliations

One or more people from this office belonged to and were active in each of the following professional organizations:

- American Institute of Architects
- A.I.A. Committee on School and College Architecture
- American Society of Civil Engineers
- Association of University Architects
- Construction Specifications Institute
- National Society of Professional Engineers
- New Mexico Society of Architects
- New Mexico Society of Professional Engineers
- Society of American Military Engineers

THE REPORT OF THE COLLEGE OF ARTS AND SCIENCES

July 1, 1968 - June 30, 1969

Hoyt Trowbridge, Dean

Activities of the College of Arts and Sciences during the 1968-69 academic year will be summarized in this report under the following main headings:

- I. Enrollment Statistics and Trends
- II. Students
- III. Faculty Promotions, Separations, and Appointments
- IV. Teaching
- V. Research

I. ENROLLMENT STATISTICS AND TRENDS

A reduced rate of growth has been evident in both the University and the College for the past three years. Tables I and II below show the number of students enrolled for AAS degrees and the number of student credit hours taught in each of the last six years. By the latter measure, growth over the preceding year slowed down to less than four per cent in 1968-69, though the number of students enrolled increased by about twice that percentage. The College of Arts and Sciences continues to produce two-thirds of all student credit hours taught in the University.

TABLE I

ENROLLMENTS IN THE COLLEGE OF ARTS AND SCIENCES, 1963-69

YEAR	Sem. I	% Inc. over Prev. Year	Sem. II	% Inc. over Prev. Year
1963-64	1,270	19.9	1,296	14.1
1964-65	1,438	13.2	1,532	18.2
1965-66	1,667	15.9	1,860	21.4
1966-67	1,993	19.5	2,032	9.2
1967-68	2,239	12.3	2,248	10.6
1968-69	2,367	5.7	2,474	10.0
<hr/>				
5-Year				
Total				
Enrollment	1,097	86.4	1,178	90.9

TABLE II
STUDENT CREDIT HOURS TAKEN, UMN AND A&S

YEAR	STUDENT CREDIT HOURS UMN	A&S	A&S PER CENT OF TOTAL
1963-64	214,123	145,965	68.2
1964-65	248,253	168,552	67.9
1965-66	290,852	194,863	67.0
1966-67	317,490	208,845	65.8
1967-68	336,749	219,298	65.1
1968-69	348,706	228,690	65.0
One-Year Increase	11,957 3.55%	7,392 3.37%	
Five-Year Increase	134,583 62.86%	80,725 55.31%	

The number of degrees awarded by the College continues to increase much more rapidly than the number granted by other divisions of the University at both the baccalaureate and the graduate levels. The number of bachelor's degrees has doubled in the last five years, and the steady increase in the number of doctorates is especially gratifying.

TABLE III
DEGREES AWARDED, 1964-69 (A&S only)

YEAR	BACHELOR'S DEGREES		ADVANCED DEGREES				
	No. of Degrees	% Inc. Over Prev. Year	Master's(a) No. & Inc.		Doctor's No. & Inc.		Total No. & Inc.
1964	301	30.9	76	31.0	14	-28.6	90 18.4
1965	351	16.3	89	17.1	29	107.1	118 31.1
1966	396	12.3	112	25.8	20	-31.0	132 11.0
1967	423	6.8	130	16.0	41	105.0	171 30.5
1968	511	20.8	171	31.5	47	14.6	218 27.5
1969	601	17.6	170	-0.6	62	31.9	232 6.4
5-Year Inc.	300	99.7	94	123.7	48	342.8	142 157.8

(a) These figures do not include Master of Arts in Teaching and Master of Education in Science degrees.

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TABLE IV

COLLEGE	BACHELOR'S DEGREES			ADVANCED DEGREES		
	1964	1969	% Inc.	1964	1969	% Inc.
Arts and Sciences	301	601	99.7	90	232	157.8
Other Colleges	497	862	73.4	243	369	51.8
UNM	798	1463	83.3	333	601	80.5

Rates of growth vary quite widely among the seventeen departments of the College. As measured by percentage increases in student credit hours during the last five years (Table V), they range from 33.9 per cent in geography to 169.6 per cent in journalism--by coincidence, the two smallest departments. The two largest departments, English and mathematics, have both increased by approximately 40 per cent, while the increase in the same period for the College as a whole is 55.3 per cent.

In terms of degrees awarded (Table VI), the department of English led all levels, with 75 bachelor's, 23 master's, and 16 doctor's degrees--a total of 114. Biology had the next largest numbers at both the bachelor's (70) and master's (21) level, while psychology and history were next highest in production of doctor's degrees, with 8 and 7 respectively.

TABLE V
STUDENT CREDIT HOURS BY DEPARTMENTS

DEPT.	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	% INCR. 1964-69
Anth.	7,945	8,505	10,523	12,380	13,139	15,098	102.6
Biol.	13,553	15,195	17,122	17,816	18,665	18,794	40.0
Chem.	8,950	9,709	11,270	12,227	12,620	12,597	40.7
Econ.	5,346	5,986	7,482	8,347	9,609	9,298	73.9
Engl.	24,937	28,331	32,841	33,069	35,014	34,917	40.0
Geog.	2,833	2,474	2,829	3,165	4,017	3,994	33.3
Geol.	5,533	6,196	7,385	7,328	7,858	9,100	64.5
Hist.	13,774	16,884	19,612	21,672	23,058	23,684	71.9
Journ.	648	884	1,060	1,392	1,601	1,747	169.6
Math.	16,963	19,610	22,269	24,517	24,733	23,417	38.0
Med.	14,438	16,357	17,346	18,479	19,397	20,888	44.7
Phil.	3,243	3,638	4,215	4,589	5,198	4,709	45.2
Phys.	6,065	6,529	7,265	7,608	8,091	8,753	44.3
Pol. Sci.	5,061	6,991	8,232	8,436	7,892	9,683	91.3
Psych.	9,266	10,976	12,623	13,634	13,911	15,563	67.9
Socio.	3,933	5,702	6,995	8,171	6,843	8,119	131.8
Speech	3,477	4,385	5,761	6,015	6,497	6,529	87.8
Inter- Dept.	--	--	--	--	1,155(a)	--	--
TOTALS	145,965	168,352	194,820	202,845	219,298	226,690	55.3

(a) This figure represents student credit hours earned in an experimental no-grade interdisciplinary course taught during Semester I, 1967-68. The course attracted many students who would ordinarily have enrolled in introductory courses in political science, sociology, and other departments.

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TABLE VI

BACHELOR'S AND ADVANCED DEGREES AWARDED, 1967-69

DEPARTMENT	B.A., B.S.			M.A., M.S.			Ph. D.		
	1967	1968	1969	1967	1968	1969	1967	1968	1969
Anthropology	21	37	31	7	9	6	0	1	3
Biology	54	60	70	14	18	21	1	1	5
Chemistry	18	29	45	3	9	3	6	6	2
Comp. Lit.	1	0	5	1	0	0	-	-	1
Economics	16	18	21	4	7	8	-	-	1
Econ-Phil.	0	0	2						
English	49	61	75	22	18	23	7	12	16
Engl-Phil.	4	7	1						
For. Studies	12	22	24	3	4	16			
Geography	3	4	13						
Geology	4	10	8	7	9	8	4	2	2
History	48	72	66	11	19	14	6	3	7
Journalism	12	15	31						
Mathematics	29	24	22	3	22	13	5	6	6
Math	40	37	40	14	21	9	3	0	4
Philosophy	10	10	10	4	4	3			
Physics	8	13	17	10	7	12	4	7	2
Pol. Sci.	42	41	55	3	3	8			
Psychology	40	40	63	9	8	6	2	6	8
Sociology	19	21	22	3	1	1			
Speech	16	12	10	12	12	11			
Medical Tech.	0	2	5						
Art*	2	4	1						
American Studies**							2	1	3
Inter-American Studies**							1	2	3
Home Economics*	3	1	2						
M.A.T.				18	10	4			
M. Ed. Science				18	20	4			
TOTALS	451	540	639	166	201	170	41	47	62

* Not departments of the College of Arts and Sciences, but major or minor is allowed under certain conditions.

** Interdisciplinary programs at the doctoral level.

NOTE: Excluding the M.A.T. and M. Ed. Science degrees, the totals for A&S are 130, 171, and 162.

II. STUDENTS

Students on probation during the fall semester for unsatisfactory academic performance normally amount to approximately one-eighth of all students enrolled in the College, with a somewhat smaller percentage in the spring. Figures for 1968-69, as shown in Table VII, were significantly lower in both numbers and percentages for students suspended or on probation than they have been in previous years.

TABLE VII
COMPARATIVE PROBATION AND SUSPENSION FIGURES

SEMESTER I	1966-67		1967-68		1968-69	
	No.	%	No.	%	No.	%
On Probation	262	13.1	283	12.6	266	10.1
Suspended	48	2.4	44	2.0	31	1.3
Released from Probation	50	1.7	68	3.0	94	4.0
SEMESTER II						
On Probation	244	12.0	245	10.9	212	8.6
Suspended	43	2.2	47	2.1	37	1.5
Released from Probation	54	2.6	73	3.2	72	2.9

Students on the dean's list, those with the highest level of academic achievement, usually include approximately one-fifth of all students enrolled in the College. Four hundred and seventy one students were listed in Semester I and 534 in Semester II. Thirty seven of these earned straight A grades in the fall and 34 in the spring.

TABLE VIII
STUDENTS ON DEAN'S LIST

Grade Average	1967-1968				1968-1969			
	Semester I No.	Semester I %	Semester II No.	Semester II %	Semester I No.	Semester I %	Semester II No.	Semester II %
4.00	29	1.3	39	1.7	37	1.6	34	1.4
3.90-3.99	115	5.0	130	5.0	137	5.8	167	6.7
3.80-3.89	278	12.4	316	14.0	297	12.5	333	13.5
TOTALS	420	18.7	485	21.6	471	19.9	534	21.6

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Honors awarded to graduating seniors and to some outstanding A&S juniors are summarized below.

TABLE IX
FINAL UNDERGRADUATE HONORS (A&S only)

Honors in General Studies		
Cum laude	11	
Magna cum laude	<u>9</u>	20
Departmental Honors		
English	9	
History	1	
Mathematics	1	
Political Science	1	
Psychology	<u>5</u>	17
Graduated with Distinction		56
Elected to Phi Kappa Phi		
Juniors	4	
Seniors	<u>29</u>	33
Elected to Phi Beta Kappa		
Juniors	7	
Seniors	<u>26</u>	33

III. FACULTY PROMOTIONS, SEPARATIONS, AND APPOINTMENTS

ADMINISTRATIVE CHANGES

After eight years as Dean of the College, 1961-1969, Hoyt Trowbridge will retire from administrative duties on August 30, 1969, to return after sabbatical leave in the fall semester to full-time teaching as Professor of English. After an extensive search by a committee of A&S faculty members and students (Professor Frank Logan, Chairman), Professor Nathaniel Wollman, chairman of the department of economics since 1960, was appointed as the new Dean, effective September 1. Robert Jespersen, assistant professor of Modern Languages will replace Frederick B. Warner, Jr., as assistant dean at the same time, and Howard Dittmer, long-time assistant dean for student affairs will be promoted to associate dean.

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Professor William H. Roberts, who has been chairman of the department of Spanish and Portuguese for the last six years at Vanderbilt University, will become chairman of the department of modern and classical languages at the beginning of the 1969-70 academic year. A graduate of Williams College with honors in French and Spanish, Professor Williams earned his Ph. D. at Wisconsin in 1950. He is a specialist in Portuguese and Latin American literature. He succeeds Robert M. Duncan, who retired from the faculty at the end of the report year.

Edwin C. Hoyt resigned as chairman of the department of political science to return to full-time teaching. Harold V. Rhodes will serve as acting chairman during 1969-70.

Joseph Frank, chairman of the department of English, resigned to accept a similar position at the University of Massachusetts. Acting chairman next year will be Joseph Zavadil, associate professor of English.

A search for a new chairman of the department of geology, to succeed Vincent Kelley when he retires July 1, 1970, was begun during the year but will not be completed until the fall.

Two chairmen were on leave during the year. Richard Murphy of the department of geography and Paul Schmidt of philosophy. Iven Bennett and Melbourne Evans served as acting chairmen of the respective departments in 1968-69.

PROMOTIONS IN RANK

Associate Professor to Professor

CHARLES BECKEL (Physics - molecular structure and dynamics). Ph. D. Johns Hopkins, 1954. Formerly taught at Georgetown University; Fulbright lecturer, Pakistan, 1957-58, and Taiwan, 1963-64. At UNM since 1966.

WAYNE BUNDY (Speech - radio and television). Ph. D. Michigan, 1960. Taught at Louisiana Polytechnic, 1948-55; TV production manager, University of Detroit, 1952-59. At UNM since 1959.

JOHN HOWARTH (Physics - radiology, biophysics). B.A. Cambridge, B. Sc. (first-class honors) London; M. Sc. and Ph.D. London. Sheffield National Centre for Radiotherapy, Sheffield, England, 1946-53; Lovelace Clinic and Foundation, 1953-64. At UNM since 1964.

JOHN M. RHODES (Psychology - physiological psychology). Ph. D. Southern California, 1959. Whittier College, 1958-59; NSF research, Naples, 1959-60; postdoctoral fellow, University of Aix-Marseille, 1960-62; research anatomist, Brain Research Institute, UCLA, 1962-64. At UNM since 1964.

SIDNEY ROSENBLUM (Psychology - clinical and developmental). Ph. D. Iowa, 1953. At UNM since 1962. Formerly at Wayne State and University of Colorado; chief of training, Children's Asthma Research Institute and Hospital, Denver, 1960-62. Associate Dean of the Graduate School, 1963-66; administrative intern, San Diego State College, 1966-67.

GUNTHER ROSENBERG (History - modern Europe, military history). Ph. D. Illinois, 1954. Faculty member Southern Illinois, 1958-62; Guggenheim fellow, 1962-63. At UNM since 1963.

Assistant to Associate Professor

JANE BALTZELL (English - medieval literature). A.B. Pembroke College, Brown University, 1955; B.A. Cambridge, 1957; Ph. D. California (Berkeley), 1963. At UNM since 1964.

JOHN W. BEAKLEY (Biology - microbiology). Ph. D. Arizona, 1962. Bacterial research, U.S. Army Medical Corps, Dugway, Utah, 1962-64. At UNM since 1964.

CLAUDE-MARIE BOOK (Modern Languages, French). Ph. D. Sorbonne, Paris, 1968. Mrs. Book, who joined the UNM faculty in 1960, had previously taught Latin and French for five years in Tennessee and Texas high schools. She has published several short stories as well as a number of scholarly articles on Gautier and other nineteenth- and twentieth-century French writers.

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ROGER C. ENTRINGER (Mathematics, number theory). Ph. D. New Mexico, 1963. Dr. Entringer taught in the department as an instructor, 1958-63, and since 1963 as an assistant professor. He has published ten papers on coprime integers, abelian groups, asymptotic functions, binary matrices, and similar topics.

DOUGLAS P. FERRARO (Psychology - animal learning, operant conditioning). Ph. D. Columbia, 1965. Dr. Ferraro, who had published seven papers before joining the UNM faculty in 1965, has developed a highly productive experimental research program. He has had substantial support from NSF and NASA.

LEE D. HANSEN (Chemistry - inorganic). Ph. D. Brigham Young, 1965. In the spring of 1969, Dr. Hansen was awarded a Research Career Development award by the National Institute of General Medical Studies. At UNM since 1963.

ROBERT HOLZAPFEL (Modern Languages - German). Ph. D. Iowa, 1965. Dr. Holzapfel's field of specialization is contemporary German drama and fiction. He studied for a year at the Free University of Berlin, 1957-59, and in the summer of 1967 had a Fulbright grant at the Goethe Institut, Munich. He came to UNM in 1964 and since the fall of 1968 has served as assistant chairman of the department.

TAMARA HOLZAPFEL (Modern Languages - Spanish, Russian). Ph. D. Iowa, 1964. Mrs. Holzapfel, though a native of the U.S.S.R., had both her secondary and university training in this country. Her scholarly interests are in contemporary Latin American literature, especially the Argentinian writer, Ernesto Sabato. She taught for a year at Iowa as an instructor before coming to UNM in 1964.

WILLIAM W. JOHNSON (Biology - genetics). Ph.D. Minnesota, 1963. Dr. Johnson taught for a year at the University of Florida before joining the UNM faculty in 1963. He has a long-range research program on locomotor activity and mating activity of fruitflies with known genetic characteristics and has taken a leading role in departmental seminars, the biological honorary society, and similar activities.

KARL KOENIG (psychology - experimental social psychology). Ph. D. University of Washington, 1963. Postdoctoral trainee, V.A. Hospital, Palo Alto, 1963-64; visiting assistant professor, Stanford, 1964-65. His field of research, experimental psychotherapy and techniques of behavior change, includes studies of cigarette smoking. He has been at UNM since 1965.

RICHARD C. METZLER (Mathematics - topology). Ph. D. Wayne State, 1965. Dr. Metzler, who has published half a dozen scientific papers and technical reports, has been in charge of the calculus sequence of courses. He came to UNM in 1965.

HAROLD V. RHODES (Political science - political theory, history of political thought). Ph. D. Arizona, 1964. Taught at Wake Forest College, 1964-66. A monograph by Dr. Rhodes, Utopia in American Political Thought, was published in 1967. As previously noted, he will serve as acting chairman of the department in 1969-70. He came to UNM in 1966.

BRUCE J. RIGSBY (Anthropology - linguistics). Ph. D. Oregon, 1965. Dr. Rigsbey's research specialty is American Indian languages, especially of the Plateau and Northwest coast regions, but he is also interested in African language classification. He was on leave in the spring semester, 1969, for a visiting appointment at Harvard. He taught at the University of Toronto, 1964-66, before coming to UNM.

DONALD E. SKABELUND (History - history of science). Ph. D. in physics, Utah, 1956. A member of the UNM faculty since 1957, Dr. Skabelund taught physics for seven years before transferring to the department of history in 1964. He has taught steadily in the General Honors program in addition to his teaching in Western Civilization and the history of science.

Instructor to Assistant Professor

FERENC SEASZ (History - U.S. social history). Ph. D. Rochester, 1968. At UNM since 1967.

SEPARATIONS FROM THE FACULTY

Two veteran members of the faculty retired at the end of the year. STUART HORTZROF, Research Professor of Geology and Curator of the Geology Museum, was chairman of the department for many years and also served as acting Dean of the Graduate School. He first joined the UNM faculty in 1920. ROBERT H. DUNCAN, Professor of Modern Languages, came to New Mexico ten years later, in 1930. He also was a department chairman for many years, 1942-63, and acting chairman in 1960-69. As a matter of historical interest, it is worth noting that the starting salaries for each of these men, as assistant professors thirty and forty years ago, was well under \$3,000. Both have been fine scholars and leading citizens of the academic community, who will be missed by their many friends throughout the College.

Nineteen full-time faculty members resigned to accept other appointments. These were full professors, three associate professors, ten assistant professors, and three instructors. They are listed below in alphabetical order.

Raynaldo Ayala, Instructor in Geography
 Herschel Bentley, Assistant Professor of Mathematics
 D. W. Betz, Instructor in Speech and Supervisor of the
 Speech and Hearing Center
 Ronald Biorstett, Assistant Professor of Mathematics
 Philip Campbell, Assistant Professor of Physics
 Norton B. Crowell, Professor of English
 Ralph D'Arco, Assistant Professor of Economics
 Henry Davis, Assistant Professor of Mathematics
 Joseph Frank, Professor of English
 John E. Glibb, Assistant Professor of Speech
 Wendie L. Gonzalez, Associate Professor of Anthropology
 and Sociology
 Joseph Hassett, Associate Professor of Philosophy
 Helen Ingram, Assistant Professor of Political Science
 George A. Joaze, Assistant Professor of Modern Languages
 Marilyn Olancha, Instructor in Modern Languages
 George Ridgway, Professor of English
 Patricia Sanborn, Assistant Professor of Philosophy
 Henry Tobias, Associate Professor of History
 Bruce West, Assistant Professor of Chemistry

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Six visiting professors also terminated temporary appointments:

Robert Cresley, English
 Odd Grande, Sociology
 George W. F. Hallgarten, History
 Arthur M. Hanhardt, Jr., Political Science
 Leon Howard, English (Semester I)
 Allen V. Kneese, Economics

ADDITIONS TO THE FACULTY

Thirty-eight new professors, lecturers, and instructors, appointed during the year, will be joining the A&S faculty in the fall of 1969. Seven of the new staff members are in mathematics and statistics, six in modern and classical languages, four in history, and from one to three each in other departments of the College. Most of the appointments were to replace faculty members who retired or resigned, and approximately a third of the total number are visitors.

Of four additions at the rank of professor, three are on visiting appointments: THEODORE ABEL, Sociology (Semester I); TOCCARY BASTOS, Political Science; and MICHEL DUFOR, French. The only permanent appointee at that rank is William H. Roberts, new chairman of the department of modern and classical languages. His training and experience have been briefly summarized above.

Other new members of the faculty are listed below by departments.

Chemistry

David L. VanderVegt, assistant professor
 Lorraine Distefano, instructor and administrative assistant
 E. P. Papadopoulos, associate professor

Economics

Shaul Ben-David, associate professor
 Leo Brown, assistant professor
 Paul Craig Roberts, visiting associate professor

English

James Barbour, assistant professor
 Joel Jones, associate professor and chairman, program in American Studies

Geography

Elmore M. Szarett, assistant professor

Geology

George A. Clark, assistant professor

History

John Russell, visiting assistant professor (Ph. D.
New Series, 1969)

Jonathan Porter, instructor

Richard Robbins, assistant professor

Charles E. Steen, visiting assistant professor

Journalism

Mrs. Emma Melrod, assistant professor

Mathematics and Statistics

Alfred Carasso, assistant professor

Gustave Eifrymson, assistant professor

Richard M. Grassi, instructor

Ik-Ching Hsu, assistant professor

Ezio Marchi, associate professor

Cornelia W. Caspary, assistant professor

William Zimmer, visiting associate professor

Modern and Classical Languages

Rebecca C. Bassett, visiting lecturer, Semester I

John J. Bergen, visiting assistant professor

Garland Ellis, assistant professor

Ernest Nelson, instructor

Political Science

Norma Gilbert, visiting assistant professor

Harley D. Holt, visiting assistant professor

Psychology

Vernie Feeney (Ph. D. UCLA, 1969)

Sociology

Joseph Fashing, assistant professor (Ph. D. Oregon, 1969)

David Strataen, visiting assistant professor, Semester I

Speech

Marilyn Gombartling, instructor

David B. Fotherson, supervisor of the Speech and Hearing
Clinic

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IV. TEACHING

Frank Ikle, chairman of the department of history, was selected by Las Campañas and Chakaa as Professor of the Month for April and later as Professor of the Year.

Richard Griego, assistant professor of mathematics, was named Outstanding Teacher of the Year, an award made annually as a project of the Greater UNM Fund. It carries a \$1,000 grant and the winner is also given a plaque commemorating the honor. In the four years since the award was established, it has always been won by a member of the Arts and Sciences faculty.

The A&S Committee on the Improvement of Instruction devoted most of its energies during 1968-69 to preparations for Self-Evaluation Day, April 15, when all classes were dismissed to free both faculty and students for a day of study and discussion concerning University objectives, policies, and practices. Two members of the Committee, Charles Beckel and Sidney Rosenblum, served as co-chairmen for the program.

Almost fifty students enrolled in the new Andean Research and Study Center in Quito, Ecuador. Sabine Ulibarri was director of the Center during its first year, and Karl Schwerin, anthropology, also taught there during the spring semester. Director in 1969-70 will be Theodore Sackett, assistant professor of Spanish.

Among a number of new courses added during the year, a few may be mentioned as particularly unusual or interesting:

English 490. Negro literature in the U.S. (Taught in Semester II by Professor Robert Fleming in cooperation with a negro teaching assistant; the course will be offered again in 1969-70.)

History 350, 351. Chinese History.

Mathematical Computation Laboratory (a new instructional facility, using remote-access consoles, for students in all sections of the calculus sequence)

Physics 108. Introduction to Musical Acoustics.

Political Science 476. Civil Rights

By an odd coincidence, two A&S departments modified their requirements for the major in exactly opposite ways. The department of philosophy, which formerly had no specific course requirements, moved to a core program of prescribed courses plus some electives. Conversely, the department of English eliminated all specific requirements, though continuing to recommend a few particular courses for students intending to obtain a teaching certificate or to do graduate work in English. A new degree program for the Bachelor of University Studies, approved by the University faculty in the spring of 1969, has no requirements except 128 credit hours, with a certain proportion at the upper-division. Early applications and inquiries suggest that most students interested in the new degree program are seeking to avoid the Arts and Sciences language requirement.

Efforts to improve and modernize teaching continued throughout the College. The computing labs in the calculus sequence have already been mentioned. The new alternate freshman courses in biology and chemistry (Biology 121L, 122L, Principles of Biology, and Chemistry 121L, 122L, General Chemistry) were both further developed during the year and are proving to be increasingly attractive to abler and better prepared students. Several departments also expanded their efforts to provide more adequate training and supervision of graduate assistants who teach laboratories, discussion sections, or actual classes in lower-division courses.

Frederick Warner, assistant dean of the College, coordinated a project for the purchase and installation of new audio-visual equipment in several classrooms used for large lectures. The project was recommended almost two years ago by the A&S Committee on the Improvement of Instruction.

Discussion of possible new programs in Ethnic Studies were begun in the spring, and a committee of three students is

spending the summer gathering information on resources already existing here and on courses and programs at other institutions. Programs in American Indian, Afro-American, and Mexican American studies are under consideration. One of the students, Anna Boyd, an Indian from the Crownpoint area of the state, will be a panelist at the annual meeting of the Council of Colleges of Arts and Sciences in Tucson next November. Dean Trowbridge was chairman of the Program Committee which made arrangements for the meeting.

New Ph. D. programs in Political Science and in Romance Languages, finally approved by the Legislative Finance Committee, will be in operation in 1969-70, and a new master's program in Public Administration was also authorized. Most of the first candidates for the latter degree will be supported by fellowships under the Science Policy and Administration program, sponsored by NASA and directed by Albert R. Rosenthal of the department of political science. He will also head the new interdisciplinary and inter-collegiate Division of Public Administration.

V. RESEARCH

Achievements of the College faculty in research are listed in detail in the departmental reports. As usual, the departments of anthropology, chemistry, history, mathematics, and psychology were particularly productive in article-length publications. New book-length texts, anthologies, and scholarly publications (omitting revised editions and reprints) are listed below.

BOOKS PUBLISHED BY MEMBERS OF THE COLLEGE FACULTY, 1968-69

ROGER Y. ANDERSON and D. W. KIRKLAND, eds., Paleocology of an Early Pleistocene Lake on the High Plains of Texas. Geological Society of America, mem. 113.

BILLY R. and LEWIS R. BINFORD, eds., New Perspectives in Archaeology. Chicago: Aldine.

PHILIP K. BOCK, Modern Cultural Anthropology: an Introduction.
New York: Knopf.

_____, ed., Peasants in the Modern World. UNM Press.

WILLIAM J. BRISK, Anguilla, the Mini-State. University of
South Carolina Press.

JOANNE COCKELNEAS, Writing the Essay: an Analytical Approach.
New York: Holt, Rinehart, and Winston.

DONALD CUTTER, ed., The California Coast. University of
Oklahoma Press.

JOSEPH FRANK, Hobbled Pegasus: a Descriptive Bibliography of
Minor English Poetry, 1641-1660. UNM Press.

GENE FRUMKIN, The Rainbow-Walker (poems). Albuquerque: Grass-
hopper Press.

DAVID HAMILTON, A Primer on the Economics of Poverty. New York:
Random House.

ARTHUR M. HANHARDT, Jr., The German Democratic Republic.
John Hopkins Press.

C. CLAYTON HOFF and M. L. RIEDESEL, eds., Physiological Systems
in Semiarid Environments. UNM Press.

VINCENT C. KELLEY, Albuquerque: Its Mountains, Valley, Water,
and Volcances. Socorro: New Mexico Bureau of Mines and
Mineral Research.

JACK KOLBERT, Guide to Camus' The Stranger. Littlefield-Adams-
ERA Series.

R. R. MACCURDY, Francisco de Rojas Zorrilla. New York: Twayne.

ROY PICKETT, ed., The Theme of the Hero. Dubuque: William C. Brown.

THEODORE SACKETT, Perez Galdos: an Annotated Bibliography.
UNM Press.

PATRICIA SANBORN, Existentialism. Pegasus Press.

RODMAN SNEAD, Physical Geographical Reconnaissance: West
Pakistan Coastal Zone. UNM Press.

GEORGE W. SMITH and CHARLES B. JUDAH, Chronicles of the Gringos.
UNM Press.

W. W. WAGAR, ed., Science, Faith, and Man: European Thought Since 1914. New York: Harper and Row.

_____. ed., The Idea of Progress since the Renaissance. New York. Wiley.

CHARLES WOODHOUSE and HENRY TOBIAS, Minorities and Politics. UNM Press.

The Institute for Social Research and Development, a new agency for basic research, applied research, and developmental action programs in the social sciences, was established on July 1, 1968. It put together the staffs, budgets, and activities of two long-existing units, the Division of Government Research and the Bureau of Business Research, along with a number of federally funded projects. The Board of Educational Finance recommended a substantial increase in state appropriations to support the new agency, but in the last days of the 1969 session the legislature not only cut out the additional funding but reduced the total budget well below that for 1968-69---apparently as a highly inappropriate and illogical punitive response to the "Poem" controversy. In spite of this very discouraging development, ex-Governor Jack Campbell accepted an appointment as half-time director of ISRAD and will be on duty after July 1, 1969.

Another sign of the times, in a different way, was the imposition by the National Science Foundation of a ceiling on expenditures during the 1968-69 academic year under grants, contracts, and fellowship programs. All approved grants were continued without reduction in the dollar totals, but the intent of the Foundation, as stated in a letter from the Director, Leland J. Haworth, was to "extend the time for completion of the work supported." As originally set by NSF, the cutback was from approximately 1.2 million dollars in approved expenditures (\$750,000, or almost two-thirds of the total, were grants to A&S faculty members and departments) to \$747,000---a reduction of over 30 per cent. Fortunately, later adjustments in the amount allowed brought the final total to approximately \$905,000, including expenditures for a number of new projects approved by NSF

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after the ceiling was imposed.

A similar situation will exist in 1969-70, except that grants for fellowships, traineeships, institutes, and certain other categories will be exempt from the ceiling and funded in full. The ceiling for non-exempt expenditures next year has been set at \$605,000.

Information on the volume of sponsored research is not available from the Office of Research Services at the time of writing this report. A sampling of 1968-69 research projects, somewhat arbitrarily selected, is listed below. Complete information is included in departmental reports.

ANTHROPOLOGY

John M. Campbell continued his archaeological and ethnological studies in Alaska, with teams working in the summers of 1968 and 1969 at two sites, Walakpa near Pt. Barrow and Anaktuvuk Pass in the Brooks Range. His research has been supported by a variety of agencies, including NSF, OSR, the Arctic Institute of North America, and the American Museum of Natural History.

James Spuhler, Leslie Spier Professor of Anthropology, read a paper on differential fertility in human populations at the Eighth International Congress of Anthropological and Ethnological Sciences, held in September, 1968, at Tokyo and Tyoto, Japan. It was part of his long-term researches on human genetics.

BIOLOGY

James Findley, on sabbatical leave during 1968-69, did research on the ecology of bats in Europe and the U.S. The continuing study is sponsored by NSF.

Dr. John Cloudsley-Thompson of the University of Khartoum, Sudan, was an NSF Visiting Scientist in the department during the spring semester and the summer of 1969.

CHEMISTRY

As mentioned above under Promotions, Lee D. Hansen was awarded one of the few, much-coveted five-year Career Development grants of the National Institutes of General

Medical Studies, NIH. He will work chiefly on the thermodynamics of proton ionization.

The department obtained two major pieces of research equipment during the year, an E.S.R. spectrometer with magnet and cavity and a Cary UV-visible spectrophotometer.

ECONOMICS

Gerald Boyle is developing a new research program in public finance. He served as consultant to a special legislative study committee and obtained a contract from the state Bureau of Revenue for further tax studies, with additional support expected from the Department of Housing and Urban Development.

The department was again active in research on water resources. Ralph D'Arge had a contract with the Water Resources Research Institute, and Professors Gisser, Brown, and Ben-David will be working on other projects in 1969-70.

GEOGRAPHY

Richard Murphy, chairman of the department, was on leave during the year to serve as Fulbright Lecturer in the Institute of Geography, Tohoku University, Sendai, Japan. He continued research on the classification of landforms.

GEOLOGY

Wolfgang Elston's moon project, a volcanological approach to the interpretation of lunar features, will be continued with NASA support through 1971. He has also submitted a proposal for similar studies of Martian dynamic processes.

Klaus Keil, professor of geology and director of the Institute of Meteoritics, has been designated as one of the scientists to analyze lunar samples brought back from Apollo XI, using electron microprobe and laser microprobe analyzer techniques. The electron probe was obtained through a matching grant from NSF, originally awarded to Albert M. Kudo of the department. Dr. Keil, formerly of the research staff of the NASA-Ames Research Center in California, also helped to negotiate a UNM cooperative agreement with NASA -Ames, under which research in a variety of fields may be funded by as much as \$135,000 annually.

\$273,000 in research grants to members of the department were in effect during the year.

HISTORY

The Doris Duke project in American Indian History, directed by Donald Cutter, will continue in 1969-70 with a \$50,000 grant.

Edwin Lieuwen's research on social revolutions in Latin America, supported by a long-term grant from the Ford Foundation, continued to benefit a number of the faculty members and graduate students. Professor Lieuwen is currently collaborating with Martin Needler, director of the Division of Inter-American Affairs, on a book-length study of U.S. policy in relation to social revolutions in Latin America.

MATHEMATICS AND STATISTICS

1968-69 was the first year of full operation under the NSF Departmental Development grant, emphasizing research and teaching in applicable analysis. Several visiting professors and postdoctoral fellows were brought to the campus. Ezio Marchi, an associate professor specializing in game theory, will join the faculty under the grant in September, 1969.

PHYSICS AND ASTRONOMY

Two members of the department launched experiments on satellites. Christopher Leavitt's instruments for measuring neutron radiation in space went aloft on NASA's OSO-G flight. He also has a solar neutron experiment, funded by NSF and using balloons. Victor Regener's project for ultraviolet solar radiation, on which he has been working since 1966, was launched from the Goddard Space Flight Center. He also has projects on atmospheric ozone and on cosmic rays, sponsored by NSF and the Air Force. Total expenditures in the department for sponsored research during the year were estimated at \$520,000.

PSYCHOLOGY

In his first year at UNM, Distinguished Professor G. Robert Grice set up a research laboratory and received a five-year NIMH grant for studies of conditioning and response organization. He also published two scientific papers during the year.

Outside support for research by members of the department totalled approximately \$220,000 in 1968-69.

The Report of the Department of Anthropology
 July 1, 1968 - June 30, 1969
 John M. Campbell, Chairman

I. General departmental information.

A. Significant achievements during the academic year, 1968-69.

During the year 1968-69, thirty-one students received the Bachelor of Arts degree in Anthropology and an additional thirty-three were awarded baccalaureate degrees minored in Anthropology. Five students received the Master of Arts degree in Anthropology. Three received the Ph. D. Two of the Ph. D.'s have been hired as Assistant Professors of Anthropology: one by The George Washington University, and one by Florida State University. The other Ph. D. has been hired as Assistant Director, Technology Application Center, University of New Mexico.

The 38th Annual Field Session in Anthropology was held on the site of Sapawe near Abiquiu, Rio Arriba County, New Mexico. This was the fifth season of excavations by the University of New Mexico at this locality. The work was directed toward examinations of a Pueblo IV settlement, the largest Pueblo ruin known.

Graduate and undergraduate students in Anthropology participated in or conducted research projects in the states of Alaska, Arizona, Colorado, Maryland, New Mexico, Texas, Washington, Wyoming, and also in British Columbia, Ecuador, France, Manitoba, and Mexico.

During the period covered by this report, the following numbers of Anthropology graduate students either were notified of awards of grants-in-aid or received from the organizations listed: Arctic Institute of North America research grant, one; Clover Enterprises, Inc., grants for American Indian Historical Project, five; Ford Foundation grants for Social Revolutionary Process in Latin America, two; Fulbright Graduate Fellowship, one; Horizon Land Corporation, one; National Defense Education

Act Title IV Fellowships, seven; National Defense Education Act Title VI, one, National Institutes of Mental Health Fellowships, three; National Science Foundation Dissertation grants (awarded to faculty members for graduate student research), two; National Science Foundation Traineeship, one; University of New Mexico Graduate Fellowships, two; Wenner-Gren research fellowship, one. It is significant that during the academic year 1968-69, forty-two of a total of sixty-three graduate students in Anthropology were supported by fellowships or assistantships of one kind or another. This represents a percentage increase over previous years and it is expected that this percentage will continue to grow.

The following visiting scholars presented lectures or led seminars in the Department: Clark Howell, University of Chicago; R. S. Mac Neish, R. S. Peabody Foundation; Dean Albert Spaulding, University of California, Santa Barbara; Francois Borde, Musee a l'Homme.

Numbers 2, 3, and 4 of Vol. 24 and No. 1 of Vol. 25 of the Southwestern Journal of Anthropology were published. This publication is sponsored by the Department and edited by Dr. Harry Basehart and Dr. Stanley Newman. The Southwestern Journal now has a total of 2500 subscribers, approximately 500 of whom reside in foreign countries. Between July 1, 1968 and June 30, 1969, subscriptions increased by 150 over the same period for the preceding year.

The Museum of Anthropology continues to grow, both in its acquisitions of valuable collections and in services offered to the University and to the community. As noted in the last annual report, museum attendance during the period of June 1, 1967 to May 30, 1968 was approximately 59,255, showing an increase of about 6,870 over the same period in 1966-67. Museum attendance during the academic year 1968-69 was as follows: attendance in guided groups 11,176, other

attendance (approximately) 50,000 -- total 61,176. Number of guided tours 459, number of pre-tours 33, total tours 492. The attendance figure represents an increase of 8,791 over a shorter period than reported in the previous year. This figure also shows that museum attendance by public school children and the general public has been increasing at the rate of 6 to 9 thousand persons per year. In the last year those museum visitors participating in guided tours and pre-tours were from the Albuquerque Public School System. However, thanks to our newly implemented docent program, the museum now serves many state and civic organizations as well. Attendance figures show that the majority of children who visited the museum were from grades 3, 4, 5, and 6, indicating that the addition of social science units in the third grade curriculum has led to substantial increases in third grade attendance. Navajo school children from Chinlee, Gallup, Many Farms, Lukachukai, and other areas of the Navajo Reservation attended the museum this year, as well as other groups from as far away as Aneth, Utah. In addition, museum guests included delegations from Bernalillo County Hospital; St. Mary's Parochial School, Santa Fe; and Socorro and Belen science classes. Twelve Maori chieftens from New Zealand were among our most notable visitors.

Museum collections - From June 1, 1968 to May 19, 1969, there were 65 accessions including 1,746 objects. The approximate value of the gift accessions total \$26,000. Most notable additions to the museum included the Martha G. Westfeldt Memorial Collection of more than 450 ethnological specimens from Pakistan donated by Mrs. Frederick H. Bunting of Charleston, South Carolina; an extensive collection of Eskimo artifacts contributed by Mrs. Helen A. de S. Canavarro of Vancouver, British Columbia; two large collections of Pueblo Indian material from Dr. Florence H. Ellis of Santa Fe, New Mexico; and two small but

comprehensive collections of ethnological specimens from Africa donated by Dr. Frank C. Hibben, University of New Mexico.

Museum exhibitions - The major, new exhibit, entitled "North American Indian Basketry" constituted the largest and most comprehensive collection of basketry ever exhibited in New Mexico. No brochure accompanied this exhibit but much interest in the gallery was shown by other museums and universities in the United States, Canada, and Mexico. Other new semi-permanent exhibits include two on Africa (including one on the Pygmies); one on the Australian Aboriginies; one on Oceania; one on the Sind Valley, Pakistan; one on Shell Jewelry of the Pre-historic Southwest; and one dealing with the P.I and P.II periods of Southwest pre-history.

Museum Sales Desk - The Museum Sales Desk continues in its third year in the main gallery. It has proven to be even more successful than the previous year. Its profits have permitted both the purchase of museum specimens for the museum collections and the payment of salary for the sales desk manager. The sales desk has greatly diversified its stock this year, and now carries Navajo and Pueblo silver jewelry, Eskimo craft-arts, Wools, and reproductions of pre-historic Southwestern ceramics.

As noted most recently in the 1968-69 Catalog Issue and Graduate Bulletin, significant revisions of our curriculum and our undergraduate and graduate requirements have been inaugurated. This past semester we have made further changes. At the undergraduate level we believe that those revisions are resulting in broader, more comprehensive training which serves equally the liberal arts goal of the student who may not continue in Anthropology beyond the B. A., and the student who intends to pursue graduate work in the discipline.

At the graduate level these revisions have resulted, for the successful M. A. student, in the attainment of that degree in an actual average time of very slightly more than two years, as compared with an estimated average time of four years or thereabouts under the old program. At the Ph. D. level, while the necessary figures are not yet available, we have every reason to think that the revisions will result in that degree being attained by the successful student in an average of four or five years from the time the student enters the program. If this proves to be true or even approximately true the average time required to attain the Ph. D. in this department will be half that of the national average in Anthropology. At the same time the student will have received excellent training, both in his subdiscipline, and broadly within the field in accordance with our generalist philosophy.

During the past two years, on your authority and on the authority of the Dean of the Graduate School, we have radically restricted the number of entering students. Our aim is to maintain a ratio of four students per professor. This has permitted us to be highly selective, and the rapidly increasing quality of our graduate student body in part reflects this new policy.

In addition to these several changes, we are also emphasizing our Ph. D. program and to a degree de-emphasizing the M. A. program. While we recognize a responsibility to produce a certain number of terminal M. A.'s, our major graduate goal is to contribute outstanding professional anthropologists at the Ph. D. level. This goal has resulted in our giving preference to the entering student who is committed to the higher degree.

B. Significant plans and recommendations for the future.

I refer to my reports to you of the past four years. Most of our recommendations as stated in those reports have been or are being met. In particular, in addition to revising and enlarging the anthropology curriculum, we are attracting excellent graduate students, and we are hiring additional high caliber faculty members. Several innovative recruiting and advertising procedures, as well as changes in our graduate program have resulted in a measurably improved graduate student body. This faculty is excellent, and the additions of Associate Professors Lewis R. and Sally R. Binford, and the joint appointment of Associate Professor Bernard Spolsky promise to add further general luster to the staff and to specifically strengthen our resources in archeology and linguistics. It is intended that future appointments will continue to reflect a rational expansion of an anthropological program which aims at building and maintaining strength in archaeology, general ethnology, linguistics, and physical anthropology.

As I remarked to you in my report of June 1, 1968, a critical need is that of expanding our physical plant. However, since I wrote that report we have raised more than \$100,000.00 from private sources, we have been given fair assurance of \$300,000.00 from the State of New Mexico, and it seems probable that my proposal to the National Science Foundation will result in our being granted, within the next six months, another \$350,000.00 from that organization. These monies will be used for the construction of a \$750,000.00 addition to the Anthropology-Maxwell Museum Building, the architectural plans of which have been drawn these past two semesters. As of the moment, therefore, it appears that we may soon meet this need.

A much more critical problem, now, is that relating to annual Faculty salary increase and monies with which to hire new Faculty

members. I truly fear the possibility that this Department will lose several of its most illustrious members unless, in regard to salaries, we rather quickly become more competitive with other leading Anthropology Departments in the United States.

More specifically distressing is that the Central Administration has neither permitted me to replace Associate Professor Nancie Gonzalez (who announced her resignation Semester I, 1968-69) nor to use even a portion of her salary for purposes of increasing Departmental Faculty raises for the coming year. Further, my colleagues and I feel that the Central Administration had not satisfactorily explained to us the reason for these negative decisions. With greatest respect for you, and with high regard for the President and Academic Vice President, permit me to submit that this kind of thing seriously hurts morale and otherwise does injury to the Department.

C. Appointments to staff.

None.

D. Separations from staff.

Nancie S. Gonzalez, Associate Professor. Resigned to become Professor of Anthropology and Assistant Chairman for Anthropology, University of Iowa.

IV. Composite of information requested on individual biographical supplements.

Karl Schwerin. Visiting professor, Quito, Ecuador; no report submitted.
George Springer. Dean of the Graduate School; no report submitted.

1. Advanced Study:

Brody, J. J. -Completed dissertation at U. N. M. in Fine Arts (Art History).
Sebring, J. M. -Ph. D., June 1968, University of California at Berkeley.

2. Sabbaticals, leaves of absence, summer teaching elsewhere, travel, etc., during the period:

Binford, Sally R. -Summer and Fall semester 1968 on NSF research project in France.
Brody, J. J. -Leave of absence from September to June (9/68 - 6/69)
Gonzalez, N. L. -Returned August 31, 1968, from 14 months research in the Dominican Republic sponsored by the National Science Foundation.
Hibben, F. C. -Reconnaissance and excavation in East Africa.
Rigaby, B. -Visiting lecturer on Linguistics, Dept. of Linguistics, Harvard University.
Spolsky, B. -Visiting lecturer, English Teachers' Summer Institute, The Planning Center for the Teaching of English in Israel, summer, 1968.
Spulker, J. W. -Three (3) weeks in Japan, late August and early September, to attend the Eighth International Congress of Anthropological and Ethnological Sciences.

3. New scholastic honors, fellowships, etc.:

Basehart, H. W. -Chairman, Cultural Anthropology Fellowship Review Committee.
Binford, Lewis R. -Elected to Sigma Xi (April 1969).
Binford, Sally R. -Elected to New York Academy of Sciences.
Brody, J. J. -National Foundation of Arts & Humanities Museum Internship; Fellow Northern Arizona Society for Arts & Sciences.
Ellis, F. H. -President: Society for American Ethnohistory.

4. Publications:

- Basehart, H. W. -Review: Dan L. Thrapp, "The Conquest of Apacheia," American Anthropologist, 1968, 70:837-853.
- Binford, Lewis R. -"Stone Tools and Human Behavior," by Sally and Lewis R. Binford, Scientific American, vol. 220 no. 70-84, April 1969.
- Binford, Sally R. -Senior editor, "New Perspectives in Archeology," Aldine Publishing Co., Chicago, 1968.
 -"Variation and Change in the Near Eastern Mousterian of Levallois Facies," New Perspectives in Archaeology, S. R. and L. R. Binford, eds., Aldine Publishing Co., Chicago, 1968.
 -"Ethnographic Data and Understanding the Pleistocene," Man the Hunter, I. Devne and R. Lee, eds. Aldine Publishing Co., Chicago, 1968.
 -Review: R. Lahrman, "Race, Evolution, and Mankind," American Anthropologist, vol. 70: 169-70, 1968.
 -"Early Upper Pleistocene Adaptations in the Lavant," American Anthropologist, vol. 70: 707-17, 1968.
 -Review: C. Gal "Analysis of Prehistoric Economic Pattern," American Anthropologist, vol. 70:1225-26, 1968.
 -"Stone Tools and Human Behavior," by S. R. and L. R. Binford, Scientific American, vol. 220 no. 70-84, April 1969.
- Hock, F. K. -"Some Generative Rules for American Kinship Terminology," Anthropological Linguistics, June 1968, pp. 1-6.
 -Modern Cultural Anthropology: An Introduction. Knopf, New York, 510 pp. 100 figs, index.
 -Peasants in the Modern World, (edited with introduction), University of New Mexico Press, Albuquerque, 170 pp., 1968.
- Campbell, J. M. -(with Cynthia Irwin-Williams) Editors. Abstracts of Papers, Thirty-third Annual Meeting, Society for American Archaeology.
 -"Birds of Chandler Lake, Brooks Range, Alaska." The Murrelet, May-August, 1968, vol. 49, no. 2, pp. 15-24.
 -"The Kavik Site of Anaktuvuk Pass, Central Brooks Range, Alaska." Anthropological Papers of the University of Alaska, vol. 14, no. 1, 1968.
 -"Neolithic Implements as Magical Objects Among the Negritos of Pampanga, Luzon." Anthropology at the Eighth Pacific Science Congress in Asian and Pacific Archaeology, Series No. 2, Social Science Research Institute, University of Hawaii, 1968, pp. 1-5.

- Records of Falco sparverius from the John River valley, Arctic Alaska. The Auk, vol. 85, no. 3, July 15, 1968, pp. 510-511.
- Territoriality Among Ancient Hunters: Interpretations from Ethnography and Nature. Anthropological Archaeology in the Americas, published by The Anthropological Society of Washington, 1968, pp. 1-21.
- "The Canvasback, Common Goldeneye and Bufflehead in Arctic Alaska." The Condor, vol. 71, no. 1, p. 80.
- Subspecific Status of Branta canadensis in the Central Brooks Range, Alaska. The Condor, vol. 71, no. 1, pp. 80-81.

Ellis, F. H.

- "An Interpretation of Prehistoric Death Customs in Terms of Modern Southwestern Parallels," Collected Papers in Honor of Lyndon Lane Hargrave, Papers of the Archaeological Society of New Mexico, vol. 1, Museum of New Mexico Press, pp. 57-76, 1968.
- "What Utahtecan Ethnology Suggests of Utahtecan Prehistory," Utahtecan Prehistory, Occasional Papers of the Idaho State University Museum, no. 22, pp. 53-105, 1968.

Gonzalez, N. L.

- "El Progreso del Campesino: Dominicanos en Nueva York," Series of the Universidad Catolica Madre y Maestra, Santiago, Republica Dominicana, 1969.
- "The Neoteric Society" presented before the American Anthropological Ass'n. Meetings, Seattle, Nov. 1968, to be published in Comparative Studies in Society and History.
- "Toward a Definition of Matrifocality," to be published in Afro-American Anthropology: Problems in Theory and Method. Edited by Norman Whitten, Free Press.

Hibben, F. C.

- Revision and up-dating of the book The Lost Americans, Crowell Publishing Co.
- Revision and up-dating of the book Prehistoric Man in Europe, University of Oklahoma Press.
- Two book reviews for the Archaeology.

Newman, S.

- "Morris Swadesh (obituary)," Language 43:948-57, 1967.
- "Classical Nahuatl," Linguistics, vol. 5 of Handbook of Middle American Indians, pp. 179-99, University of Texas Press, 1968.
- "Zuni Equivalents of English 'To Be'" in The Verb "Be" and Its Synonyms, pt. 2, pp. 60-70, D. Reidal Publishing Company, 1968.

-"Bella Coola Grammatical Processes and Form Classes, International Journal of American Linguistics, 35:175-79, 1969.

-Two reviews: IJAL, 44:189-91; W. Folklore 27:129-30.

Rigsby, B.

-Review: S. C. Gutschinsky, How to Learn an Unwritten Language, and William J. Samarin, Field Linguistics: A Guide to Linguistic Fieldwork. American Anthropologist, 70:1040-41.

-w/ M. Silverstein, Hex Perca Vowels and Proto-Sahaptian Vowel Harmony, Language, ???, 1969.

Spolsky, B.

-"A Psycholinguistic Critique of Programmed Foreign Language Instruction." International Review of Applied Linguistics, 4:119-29, 1966.

-"Language Testing--the Problem of Validation," Tesol Quarterly, 2:88-94, 1968.

-(with Bengt Sigurd, Masahito Sato, Edward Walker, and Catherine Arterburn), "Preliminary Studies in the Development of Techniques for Testing Overall Second Language Proficiency." Problems in Foreign Language Testing, ed. John A. Upshur, Language Learning, Special Issue No. 3, August 1968, 79-101.

-"Recent Research in Tesol." Tesol Quarterly, December 1968.

Spuler, J. N.

-"Genetics, Roman III. Race and Genetics." International Encyclopedia of the Social Sciences, vol. 6, 108-113, 1968.

-"The Incest Taboo and the Mating Patterns of Animals." (With D. F. Aberley, et. al.) ed. J. Bohannan and J. Middleton, A Source Book in Marriage, Family, and Residence, Garden City, Natural History Press, 1968, pp. 3-19.

-"Sociocultural and Biological Inheritance in Man." D. C. Glass, ed. Biology and Behavior: Genetics, pp. 102-110, Rockefeller Press, New York, 1968.

-"The Maximum Opportunity for Selection Due to Differential Fertility in Some Human Populations." Abstracts, Symposia, 11th International Congress of Anthropological and Ethnological Sciences, Sept. 3-10, 1968, Tokyo and Kyoto, pp. 8, 4-5.

5. Other Research Projects or Creative Work in Progress or Completed during the period:

Baughart, H. W.

-Comparative village organization among the Matengo of Tanzania (analysis of census and Genealogical data completed).

-Paper for symposium in progress: "Mescalero Apache Leadership and Band Organization"

Binford, L. R.

-Principle Investigator Research Grant from Wenner-Gren Foundation for Anthropological Research, entitled: "The Economics of Reindeer Hunters: Past and Present." Amount \$7,000.00, June-November 1969.

Binford, Sally R.

-Invited to write a paper for and read it to a UNESCO-sponsored symposium on the Origins of Modern Man; to be held in August in Paris.
-Working on a book on human biological and cultural evolution.

Bock, P. K.

-Working, with Bruce Rigby, on an anthology tentatively entitled "Controversies in North American Ethnology," to be published during 1970-71 by U. N. M. Press.
-Applied for N. S. F. research grant to do fieldwork in Iceland during 1970-71 (my sabbatical year).

Ellis, F. H.

-"The Possible Prehistoric Homes of Today's Southwestern Pueblo Peoples," 300 pp. and Bib. (in manuscript)
-"Parallels Between Matters of Religion in the Southwestern Pueblos and in Mexico," 180 pp., U. N. M. Press (in press).
-Indians of the Southwest: Archaeology and Ethnology. (book in preparation for Chandler Publishing Co.)

Gonzalez, N. L.

-"The Problems of Relevancia Or: The Frustration of Seeing Many Sides," presented before the 28th Annual Meeting of the Society for Applied Anthropology, Mexico City, April 9-15, 1969.
-Manuscript in progress on the Dominican Republic.

Hibben, F. C.

-Excavation on Paleo Indian sites in the Middle Rio Grande Valley. This project was sponsored by American Petroleum and Realty Co.

Newman, S.

Analysis of grammatical field data and writing of linguistic description of Bella Coola, a Salish language of British Columbia.

Rigby, B.

-Fieldwork in Nass-Gitksan language, July-August 1969, National Museum of Canada \$1000 summer contract.
-Completed monograph, "The Wailaitupan Problem: More on Cayuse-Molala Relatedness," now in press w/ Northwest Anthropological Research Notes.
-Two weeks' fieldwork in Gitksan language w/ informant in Cambridge, Mass.

Spulker, J. N.

-Contract for book on Ecological Anthropology, 30 chapters to be completed by Dec. 31, 1969.

Stuart, W. T.

-Continued progress on report on Gilberto Resettlement, to be completed August 1, 1969.

6. Activities in Learned and Professional Societies:

Basehart, H. W.

- American Anthropological Association annual meeting, Seattle, Nov. 1968:
- Editorial council, American Anthropologist.
- Chairman, session on Kinship and Marriage (Africa)
- "Shamanism and Peyote Use Among the Apaches of the Mescalero Indian Reservation", (L. B. Boyer, R. M. Boyer, and H. W. Basehart).
- Annual meeting, Southwestern Anthropological Association, Las Vegas, Nevada, April 1969.
- Chairman, Symposium on Popular Anthropology.
- Paper, "Settlement Patterns and Types of Agriculture Among the Matengo of Tanzania."

Binford, Sally R.

- Invited to attend and wrote a paper for a symposium on Culture and Human Evolution, sponsored by the American Institute of Biology.

Bock, P. K.

- Attended 1968 (Nov.) meeting of American Anthropology Association, Seattle.
- Attended 1969 Spring meeting of Southwest Anthropology Association, Las Vegas, Nevada.
- Delivered paper entitled "The Silent Dimension: A Critique of the Work of Edward Hall."

Brody, J.

- Paper on Pottery Mound Murals presented to the International Congress of Americanists (in press).

Campbell, J. M.

- Appointed as archaeologist member to Preliminary Nominations Committee American Anthropological Association.
- Delegate to Academic Convocation, 100th Anniversary, American Museum of Natural History.
- Chaired Session on Arctic Archaeology, Annual Meeting, Society for American Archaeology.
- Served as Assistant Editor, American Antiquity.

Ellis, F. H.

- Pecos Conference, 2 days in August 1968, El Paso, paper given.
- Southwestern Pottery Conference, March 20-23, 1968, San Diego (President).
- U. S. Park Service Conference, May 12-13, 1969, Santa Fe (consultant).

Gonzalez, N. L.

- American Anthropological Association, National Meetings, Seattle, November 1968.
- Society for Applied Anthropology, Mexico City, April 9-15, 1969.
- Elected member of the Council on Anthropology and Education -- Steering Committee.

Hibben, F. C.

- Presented paper at the national meeting of the Society for American Archaeology.
- Presented paper at the meeting of American Academy of Science.
- Chairman at regional meeting of AAA, and also presented paper.

Newman, S.

- Reviewer of two research proposals submitted to the National Science Foundation.
- Consultant for summer workshop, Institute in the Social Studies in Navaho Indian Education, June, U. N. M. 1968.

Rigsby, B.

- Read paper "Some Linguistic Insights into Recent Tsimshian Prehistory" before Harvard Faculty Linguistics Group, 3-69, and University of Pennsylvania Grad. Colloquium, 4-69.

Spolsky, B.

- Presented paper "What does it mean to know a language or how do you get someone to perform his competence?", University of Southern California Language Testing Conference in Los Angeles, November 7-9.
- Attended Conference of Editorial Board of Current Trends in Linguistics, volume XII in Washington, D. C., November 19-20.
- Presented paper "Psycholinguistic and Sociolinguistic Aspects of Bilingual Education" to Conference on the Teaching of the Bilingual Child, U. N. M. Albuquerque, November 22-31.
- Attended Annual meeting of the Linguistic Society of America in New York, December 26-31. Member of the Program Committee.
- Annual meeting of American Council on the Teaching of Foreign Languages in New York, December 68.
- Meeting of the Executive Committee of Association of Teachers of English as a Foreign Language in New York, December 28.
- Meeting of National Advisory Council for Test of English as A Foreign Language (TOEFL), in New Jersey, January 15-17.
- Tenth Anniversary Conference of the Center for Applied Linguistics on the Teaching of English as a World Wide Problem (National Advisory Council on the Teaching of English as a Foreign Language) in Harper's Ferry, February 26- March 1. Representative of Association of Teachers of English as a Second Language.
- 1969 Convention of the Association of Teachers of English to Speakers of Other Languages (TESOL), Chicago, March 7-9. Chairman of the Research Committee.

- Invited speaker at the Twentieth Annual Georgetown Roundtable on Linguistics and Language Study, Georgetown University, March 11-15. Paper: Linguistics and Language Pedagogy--Applications or Implications?
- Meeting of TESOL Research Committee, Washington, D. C., March 12-13.
- Center for Applied Linguistics Conference on Navajo Orthography, Albuquerque, May 2-3.
- Bilingual Education Conference, College of Education, U. N. M., Albuquerque, May 4-6.
- Linguistic Society of America: member of the Program Committee.
- Teachers of English to Speakers of Other Languages (TESOL): chairman, Research Committee; member, Conference Planning Committee 1970; member of the University-School Relations Committee.
- National Association of Foreign Students Association: Chairman, Journal Search Committee; member, Conference Committee; member, Publications Committee; member, Executive Committee ATESL.
- New Mexico Association for TESOL and Bilingual Education: Chairman of the Interim Committee and First President of the Association.
- Reader or Member of Editorial Board for Foreign Language Annals, TESOL Quarterly, and Review of Educational Cybernetics and Applied Linguistics.

Spulher, J. W.

- Genetics, Austin, Texas, October 1968.
- Social Science Research Council, Conference on Genetics and Behavior, San Juan, Puerto Rico, February 1969. Associate editor, American Journal of Physical Anthropology, and Human Biology.

Stuart, W. T.

- AAUP: Elected to the Executive Committee of the local chapter.

7. Other Professional Activities:

Baschert, R. W.

- Chairman, Cultural Anthropology Fellowship Review Committee, National Institute of Mental Health. Meetings: Seattle, November 1968, Chicago, March 1969, Washington D. C., June 1969.

Binford, L. R.

- Lecture to annual meeting of Sigma Xi, University of Texas, El Paso, May 14, 1969.

- Brody, J.
- Lecture to Scottsdale Arts & Crafts Auxiliary.
 - Judged Indian Paintings at Gallup, New Mexico.
 - Acted as consultant for TV-film "Discovery."
- Campbell, J. M.
- Lecture on the Eskimos to Sandoval Elementary School, January 16, 1969.
 - Appointed Collaborator, U. S. National Park Service.
- Ellis, F. H.
- Lecture "Excavating the First Capital of New Mexico" for San Gabriel Historical Society, November 1968.
 - Lecture "Indians of the Southwest" for U. N. M. Law School Faculty Enrichment Program, May 19, 1968.
 - Lecture "The Effect of Cultural Environment on Group Personality" for Sandia Corporation, May 16, 1969, Albuquerque.
 - Preparation and delivery of testimony for N. E. A. on the anthropological data backing water claims of Santa Clara and San Juan Pueblos.
- Gonzalez, N. L.
- Lecture at Indiana University, "Power Structure And Politics in the Dominican Republic".
 - Lecture at UNY, "Dominican Migration to New York."
 - Lecture at UNM, "The Structure of Foreign Aid and Its Relation to Power in the Dominican Republic."
 - Lecture to Professional Women's Club, Albuquerque, "Nutrition in Guatemala."
 - Lecture to Mortar Board-UNM, "An Anthropologist in the Dominican Republic."
 - Lecture for HEW Conference, University of Oklahoma, "Aboriginal and Modern Diets of American Indians"
 - Faculty Advisor -- Anthropology Club.
- Hibben, F. C.
- Series of Lectures for the Archaeological Institute.
 - Lecture at Rutgers for Distinguished Scientists Program.
 - Talks and TV appearances before various groups and societies in Texas, New Mexico, Arizona, and California.
- Newman, S.
- Reviewer of two research proposals submitted to the National Science Foundation.
 - Consultant for summer workshop, Institute in the Social Studies in Navaho Indian Education, UNM, June 17-28, 1968.

- Rigsby, B. -Read paper "Some Linguistic Insights into Recent Tsimshian Prehistory" before Harvard Faculty Linguistics Group, 3/69 and University of Pennsylvania Grad. Colloquium, 4/69.
- Spolsky, B. -Consultant to the Bureau of Indian Affairs; Contract for Evaluation of beginning ESL materials.
-Chairman of Committee of Examiners for Test of English as a Foreign Language (Educational Testing Service--College Entrance Examination Board).
-Member of the State of New Mexico Department of Education Advisory Committee on TESOL.
- Spulher, J. W. -Consultant, National Institute of Health, two site visits during the period.
- Stuart, W. T. -Addressed West Mesa High School student body on "Prejudice toward Southwestern Minority Groups."
8. Non-teaching University Service.
- Basehart, H. W. -Co-Editor, Southwestern Journal of Anthropology.
-Graduate Advisor, Anthropology.
-University Committee on Human Subjects.
-Acting Chairman, Anthropology, Summer 1968.
- Binford, Sally R. -Advisor to student journal in Anthropology.
- Bock, P. K. -Member, Cultural Committee.
-Departmental Committee: Admissions & Scholarships (member), Comprehensive Examinations (chairman).
- Campbell, J. M. -Served on Student-Faculty Association Discussion Group.
-Served on Committee on the University.
-Served on Committee on the Reorganization of College of Arts and Sciences.
-Chairman of ad hoc Committee on the Chaco Canyon Project -- U. S. Park Service and U. W.
-Served on R. O. T. C. Committee.
-Faculty Advisor, Student Veterans Association.
- Ellis, F. H. -Director of UNM Field School in Anthropology, Summer 1968, Sapawe.
-Faculty advisor for University College.
- Gonzalez, N. L. -Faculty advisor, Anthropology Club.
- Hibben, F. C. -Faculty advisor.

Newman, S.

-Co-Editor, Southwestern Journal of Anthropology.
 -Faculty Advisor, University College.
 -Ad Hoc Committee on a UNM Media Center.
 -Chairman, Committee on Graduate Applications, Anthropology.

Rigsby, B.

-Supervising fieldwork and guiding dissertation of John A. Dunn, a Ph. D. candidate in Anthropology

Spolsky, B.

-Chairman, Program in Linguistics and Language Pedagogy (Chairman of the Ad Hoc Committee preceding Program).
 -Member of the Advisory Committee on Bilingual Education.
 -Member of the Advisory Committee for the Center for the Improvement of Communication Skills.
 -Member of the Academic Policy Group for Upward Bound College Enrichment Program.

Spulher, J. W.

-Member and Chairman of the University Publishing Committee.

Stuart, W. T.

-Secretary for the Departmental Faculty.
 -Advisor to Anthropology majors.

9. Public Service:

Binford, Sally R.

-American Civil Liberties Union.

Gonzalez, N. L.

-P. T. A.

Hibben, P. C.

-Chairman, New Mexico Game & Fish.
 -Chairman, Rio Grande Zoo Board.
 -Advisor to the U. S. Department of State.
 -Chairman on the Governors Council for Recreation.

Spolsky, B.

-Vice-President and Member of the Board, Albuquerque Gan-- Nursery School and Kindergarten.

10. Personal Information:

Beck, P. K.

-Resigned commission as Captain, U. S. A. F.
 *Reserve.

The Report of the Department of Biology

July 1, 1968 - June 30, 1969

Loren D. Potter - Chairman

I. General Departmental Information

A. Significant Achievements During the Academic Year

1968-69:

This was a second year of adjustment to the increased laboratory and research space of the Biology Addition. The teaching program has been decidedly improved by the additional laboratory space and the additional scientific equipment available. Lecture space has become very critical and an increasing number of lower division courses have exceeded the capacity of the department's lecture rooms requiring the teaching schedule to be adjusted around the availability of Geology 122. The university is operating with an increased expense by staffing multi-sections of lectures in an inadequately ventilated and equipped lecture room in contrast to what could be done in a lecture room of some 900 seating capacity with proper visual aid equipment. There are now about 350 biology majors including sophomores, juniors, and seniors. The increased enrollment in upper division courses continues and we have been forced to increase the number of graduate assistants who are used to teach the laboratory sections in the advanced courses. Although there has been a slight decline in the number of graduate majors, the percentage of Ph.D.

candidates has increased. Efforts have been continued to further the biological viewpoint of the department by conducting regular departmental seminars inviting special guest lecturers to the department and to the Phi Sigma Society, the honorary biological organization. Guest lecturers in the department have included:

Dr. F. C. Steward, Cornell University

Dr. John Brewer, Planetary Quarantine Advisory
Committee to NASA

Dr. John Cloudsley-Thompson, University Khartoum,
Sudan

Dr. Earl Aldon, Rocky Mountain Forest and Range
Experiment Station

Dr. van den Tooren, University of Utrecht,
Netherlands.

In addition to the above, faculty from the department and the Medical School have presented lectures and seminars.

The cooperative research program of the Association of Western Universities has resulted in the appointment of both undergraduate and graduate students who are conducting research at Lovelace Foundation in Physiology and Radiation Biology.

The cooperative research program between the Biology Department and the U. S. Forest Service, Rocky Mountain Forest and Range Experiment Station has continued with cooperative research grants under Dr. Gordon Johnson for laboratory studies on the germination of browse species and a research program under Dr. Loren D. Potter of field germination and establishment of important shrubs in

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New Mexico. The cooperative research grant program with the National Park Service has continued with a study under Dr. William Degenhardt in Big Bend National Park and a study under Dr. Loren D. Potter of the ecology of plant communities in the Guadalupe Mountains including an ecological land use report of the area to be added to Carlsbad National Monument.

Drs. David Kidd and Gordon Johnson have received approval of a research proposal from the Waters Resources Institute for a study of nutrient cycling and productivity in Elephant Butte Reservoir.

The National Science Foundation has supported a research grant to Dr. James Findley, on sabbatical leave in 1968-69, for a world-wide study of the biology of a genus of bats. The Atomic Energy Commission and the National Science Foundation have provided research support for radiobiological investigations of Dr. Marvin Riedesel during part of the academic year.

The Thirteenth Radiation Biology Institute sponsored by NSF and AEC was completed in 1968 and a reduced program, because of the shortage of funds in the National Science Foundation, has been approved for the summer of 1969 to be limited to research participation of past participants of institutes and under the directorship of Dr. Marvin Riedesel.

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The department, especially Dr. David Kidd, has been active in the planning and fulfillment of state meetings of biology teachers both college and high school to improve biological education under the sponsorship of CUEBS (Committee for Undergraduate Education in the Biological Sciences). A successful meeting was conducted at Highlands University in May, 1969.

During the year, Dr. Clifford Crawford has directed bi-weekly meetings of the Conservation Round Table sponsored by the department and open to all members of the public and interested organizations to discuss the problems of conservation and environmental sciences. The meetings have been most successful in bridging a gap between the university and a portion of the interested community.

The Biology Department was fortunate in receiving approval of the National Science Foundation appointment of Dr. John Cloudsley-Thompson, Chairman, Biology Department of Khartoum, Sudan, as a Visiting Scientist, during Semester II and the summer of 1969. He has participated in seminars, taught a seminar in animal behavior, given several special lectures, attended several science meetings, and has been active in research on desert insects.

During 1968-69, 85 graduate majors were enrolled, 19 masters degrees and 5 doctoral degrees will be completed during the year.

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B. Significant plans and recommendations for the future:

Although the space problem for laboratory teaching, research, and offices has been solved, it is once again necessary to repeat the increased acute problem of inadequate lecture space. It is strongly recommended that immediate attention be given to the priority of a large science lecture auditorium with a capacity of 900 to 1000 students. Apparently this project, needed several years ago when it could have been filled to capacity by the science departments, has been lowered in priority each year instead of receiving increased attention.

With the increasing inadequate budget for the operation of science departments which are faced with increasing enrollments; with more complex, technical equipment of costly nature to purchase, maintain, and operate; with inflationary costs of glassware and supplies; and with a serious attempt to up-grade, up-date, and improve education which means an investment in equipment and additional supplies, the science departments can no longer continue to operate without increased financial support which if not received by appropriation must come from a system of laboratory fees. Without this adjustment there can be no alternative but to turn away enrollment and to lower the caliber of science education to the point of teaching "about" things and a description of "how it

would be done" rather than the provision of actual laboratory experience. This is a step backwards in educational philosophy of several decades and would be a serious step in degrading the University of New Mexico.

Attention and action must be given to the responsibility of the university toward the graduate program which in the past has received no support but which is generally recognized to be more costly and demanding of personal attention than the undergraduate program. If the University of New Mexico is to take a place in the state as the leading university of graduate education, a change in this policy must be made. In the past the graduate program has been operated as a "shoestring" operation. It is recommended that the university can scarcely afford the basic fundamental undergraduate and graduate programs and should seriously consider the effects of additional types of programs. It must make a decision on its desire to maintain high quality in a limited number of fields.

A comparison with biology departments in adjacent states and with New Mexico State University indicates that the University of New Mexico Biology Department is sadly understaffed in regard to the number of faculty to number of undergraduate students, graduate students, and course offerings. Plans for the addition of faculty members for which there have been an abundance of highly qualified applicants have been repeatedly cancelled.

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C. Appointments to staff:

The equivalent of 36 graduate assistants, although only 35 were allowed in the budget, were appointed in 1968-69. Appointments were made for 2 NSF trainees and 4 NDEA Title IV trainees. No additional appointments were allowed to be made for the academic year of 1969-70.

Mr. Harrison Burrall was employed on a part-time basis as botanist responsible for the greenhouse to replace Mr. Frank Feather who has taken an 18-month leave of absence for an appointment to South America.

Mr. Bruce Dahrling was appointed as Administrative Assistant in the Department of Biology effective July, 1968, to replace Mr. Harold Haas.

Mr. Walter Joyce was appointed as stockroomkeeper-technician to replace Mr. Fred Fossler.

Mrs. Joan MacCormack was appointed as departmental secretary to replace Mrs. Mary Coe.

D. Separations from staff:

Mrs. Mary Coe left the position of departmental secretary for other employment.

II. Composite of Information Requested on Individual Biographical Supplements:

1. Advanced Study

None

2. Sabbaticals, leaves, etc.

Degenhardt, William G., 1) Herpetological collecting throughout N. Mex., 2) Ecological studies, Big Bend Nat'l Park during summer and Easter recess.

Findley, James S. 1) Research project, N.S.F. support to work on ecology of bats in Europe and U.S. Sabbatical leave Sem. I and II, 1968-69.

Koster, William J. 1) Western Europe, seven weeks, summer 1968.

Ligon, J. David 1) Taught at University of Montana Biological Station, Summer 1968.

Potter, Loren D., 1) Continued Sem. II 1968-69 sabbatical leave by U.S.A.I.D. and N.S.F. appointment as educational and professional consultant to Institute in Ecology at Banaras Hindu University, India. Travel in Nepal, Alps, and Norway.

Traut, Gerald L., 1) Program director, Philmont Scout Ranch, (B.S.A.) Cimarron, N. Mex.

3. New Scholastic Honors, fellowships, etc.

Degenhardt, William G., 1) Elected a Fellow of the American Association for the Advancement of Science.

Hoff, C. Clayton, 1) Listed in World Who's Who in Science, First Edition, 1968

4. Publications

- Beakley, J. W., 1) Oswalt, F.W., L.W. Hughes, M.E. Morris, and J.W. Beakley, 1968. An improved technique for microbiological sampling of surfaces: agar spray, SC-RR-68-593, Sandia Labs, Albuquerque.
- 2) Morris, M.E., L.W. Hughes, A. Parisi, J.W. Beakley, W.J. Whitfield, and H.D. Divinski. 1968. An improved model of the vacuum probe. SC-RR-68-592, Sandia Labs, Albuquerque.
- 3) Staat, R.H., and J.W. Beakley. 1968. Evaluation of laminar flow microbiological safety cabinets. Appl. Microbiol. 16:1478-1482.
- 4) Hughes, L.W., F.W. Oswalt, M.E. Morris, and J.W. Beakley. 1968. Surface sampling with an agar spray technique. Appl. Microbiol. 16:1935-1936.
- 5) Whitfield, W.J., J. W. Beakley, V.L. Dugan, L.W. Hughes, M.E. Morris, and J.J. McDade. 1969. Vacuum probe: New approach to the microbiological sampling of surfaces. Appl. Microbiol. 17:164-168.
- 6) Beakley, John W., and M.E. Morris. 1969. Production of aerosols of viable particles of different sizes. Proc. Amer. Assoc. Contamination Control.
- 7) Staat, Robert H., and John W. Beakley. 1969. Dry heat inactivation characteristics of Bacillus subtilis var. niger spores. Bacteriol. proc.
- 8) Beakley, J.W., and L.W. Hughes. 1969. Section 6. Microbial contamination and its control, pp. VI-1 - VI-40. In Sivinski, H.D. et al., Contamination control handbook. NASA CR-71264, Marchall Spacecraft Center, Huntsville, Ala.
- Crawford, Clifford S., 1) Oviposition rhythm in Crambus teterrellus: temperature-depression effects and apparent circadian periodicity. Ann. Entomol. Soc. Amer. 61:1481-6, 1968.
- Degenhardt, William G. 1) An unusual individual of Cnemidophorus gularis. Texas Journal of Science In press (tentatively Vol. 21(1) 1969).
- Dittmer, Howard J. 1) Phylogeny and Form in the Plant Kingdom. D. Van Nostrand Co., Inc. (1964). Asiatic Edition affiliated East-West Press Ltd. New Delhi, 642 p. 1968; 2) Characteristics of the roots of some xerophytes. Physiological systems in semiarid-arid environments. University of New Mexico Press p. 231-238, 1969; 3) Roots. The Encyclopedia of the Biological Sciences. 2nd Ed. Reinhold Book Corp. (In press); 4) Modified Stems. The Encyclopedia of the Biological Sciences 2nd Ed. Reinhold Book Corp. (In press).

Hoff, C. Clayton, 1) Editor (with Marvin L. Riedesel) *Physiological Systems in Semiarid Environments*, UNM Press, 293 pp.

Ligon, J. David, 1) Recent data on summer birds of the Chiricahua Mountains area, Southeastern Arizona, 1968. *Trans. San Diego Soc. Nat. Hist.*, 15:41-50; 2) Review: A comparative life-history study of four species of woodpeckers by L.D.K. Lawrence, *Auk*, 85:700; 3) Starvation of spring migrants in the Chiricahua Mountains, Arizona. 1968. *Condor*, 70:387-388; 4) First record of the Gyrfalcon in Idaho. 1968. *Condor*, 70:397; 5) Factors in influencing breeding range expansion of the Azure Bluebird. 1968. *Wilson Bull.*, 81:104-105.

Potter, Loren D., 1) Potter, L.D. 1968. Ponderosa pine grassland competition, pp. 285-286. In *Physiological systems in semiarid environments*, ed. C.C. Hoff and M.L. Riedesel, 293 pp. 2) Potter, L. D. 1968. Differential pollen accumulation in water-tank sediments and adjacent soils. *Ecology* 18:1041-1043.

Riedesel, M. L., 1) Hoff, C. Clayton and M.L. Riedesel. 1969. Editors. *Physiological Systems in Semiarid Environments*. UNM Press. 293 p. 2) Bintz, Gary L. and M.L. Riedesel. 1969. Tissue Catabolism by Laboratory Rats and Spermophilus lateralis during acute negative water balance. Accepted for publ. in *Journal of Mammalogy*. 3) Chuang, Tsin Fu, Morris B. Snipes, Clifford S. Crawford and M.L. Riedesel. 1968. ¹³Cs metabolism in Blatta orientalis at various temperatures. *Comp. Biochem. Physiol.* 24:997-1002.

5. Other research projects in progress

Beakley, John William, 1) Revision completed of A Laboratory Manual for Pathogenic Bacteriology.

Crawford, Clifford S., 1) Continued studies on various aspects of reproductive biology of crambine moths. 2) Collaboration with visiting scientist on cockroach behavior studies.

Degenhardt, William G., 1) National Park Service grant, \$2400, "Status of Diurnal Lizard Populations" one year, 2) Proposal to N.P.S. for \$2000 for second year, 3) U.N.M. Research comm. grant \$940 for work on New Mexico Herpetology. 4) Study of relationship between Tantilla cucullata and T. diabolus in Big Bend region.

- Dittmer, Howard J., 1) Continued studies in desert zone research of plant roots, conservation and population problems, and local flora.
- Hoff, C. Clayton, 1) Working on what is probably a new species of fresh-water sponge from New Mexico.
- Johnson, Gordon V., 1) U.S.D.A. Forest Service, \$2500 June 68-Dec. 69, Factors influencing frost hardiness of fourwing saltbush (Atriplex canescens) and winterfat (Eurotia lanata), 2) U.N.M. Research Committee, \$400, Iron containing enzymes in mitochondria of higher plants, May 68-June 69, 3) Influence of gibberellin on iron metabolism in plants-research in progress.
- Johnson, William W. 1) Heterozygous and homozygous viabilities of second chromosomes from a laboratory population of Drosophila melanogaster. 2) Respiration rates of selected lines of Drosophila melanogaster.
- Kidd, David E. 1) Grant No. 3109-32, July 1, 1969-June 30, 1970, Water Resources Research Institute Las Cruces, N.M. \$9,919.00, U.S. Department of Interior.
- Koster, William J. 1) One ms. in galley form.
- Ligon, J. David, 1) Student Award Committee at Annual Meeting of Cooper Ornithological Society, 2) Paper read - Foraging behavior and competitive interactions of the White-headed Woodpecker, Cooper Ornith. Soc., Tucson.
- Martin, William C., 1) Attended divisional meeting AAAS Colorado Springs, Colorado, May 7-10.
- Potter, Loren D., 1) Elected as President-Elect of Southwestern and Rocky Mountain Division of AAAS. 2) Editorial service for Ecology, Ecological Society of America, 3) Senior author of paper on "Cesium-137 in arctic tundra vegetation" at SW and Rocky Mt. Div. AAAS and junior author of two other papers given, Colo. Springs.
- Riedesel, M.L., 1) Coester, W.K. and M.L. Riedesel, 1969. Retention of trained visual discrimination behavior by several ground squirrels, paper at SW and Rocky Mt. Div. of AAAS, May 7-10, Colo. Springs.

Traut, Gerald L. 1) N.M. Biology Curriculum Conference,
Las Vegas, N.M. May 16-17.

7. Other professional activities.

Beakley, John W. 1) Consultant to Planetary Quarantine
Department at Sandia Corporation.

Crawford, Clifford S. 1) Book reviewing for MacMillan
Publishing Co.

Degenhardt, William G., 1) Research Advisory Council,
Big Bend National Park, 2) Assisted Educational
TV, 3) Assisted Action Line and Mr. Fixit,
4) Worked with the Museum of Albuquerque.

Dittmer, Howard J. 1) Visiting Science Program through
New Mexico Academy of Science. Seven out-of-town
visits to high schools in New Mexico; 2) Talks to
Rotary, Unitarian Church, Los Alamos, New Mexico
Women's Press Association, and local groups; 3)
Reviewed one manuscript for Amer. J. of Botany and
one book manuscript for D. Van Nostrand Book Co.,
Princeton, New Jersey.

Fleck, M. W. 1) Large number of speeches at conferences,
conventions, schools, several television speeches;
several appearances on Channel 5 science programs.
N.M. Dental Seminar; N.M. Land Title Assn Convention;
Medical Technologists Convention; Annual meeting
of N.M. Dry Cleaners Ass'n; Albuquerque Science
Teachers Ass'n.; N.M. Multiple Sclerosis Society;
and others.

Hoff, C. Clayton, 1) Assisted Dr. van den Tooren
(University of Utrecht, Netherlands) with his
research, January-April.

Johnson, Gordon V., 1) TV appearance with KNME-TV on
May 22, 6th grade science program. 2) Part-time
instructor in AEC-NSF Radiation Biology Institute,
summer 1968.

Kidd, David E., 1) Judge at regional science fair.

Ligon, J. David, 1) Talk and tour, New Mexico Ornith-
ological Society - U.N.M. Campus, March 1969.

Martin, William C., 1) Off-campus talks on flora of
New Mexico, 2) Judge - regional science fair.

Potter, Loren D., 1) Departmental seminar on "An educational visit to India." 2) Participation in state meeting of CUEBS on improvement of Biology education, Las Vegas, N.M. 3) Lectures to Anthropology seminar. 4) Consultant to National Park Service on proposal and symposium on establishment of a cooperative research program with U.N.M. on Chaco Canyon, Santa Fe. 5) Participant, Rocky Mountain Conference on "College-Community-Conservation, Denver, Colo., Nov. 1968.

Riedesel, M.L. 1) Chairman, Symposium on Health Problems in Arid Lands, Sponsored by Comm. on Desert and Arid Zones Research, SW. and Rocky Mtn. Div. AAAS April, 1971, 2) Lecturer, New Mexico Academy of Science, Visiting Scientist Program for Jr. & Sr. High Schools; 3) Lecturer, American Institute of Biological Sciences, Visiting Biologists Program for Colleges, 4) Consultant, A.I.B.S. Biological Sciences Communications Project, Office of Technology Utilization, Life Sciences, NASA. 5) Member, Committee on Desert and Arid Zones Research, SW. and Rocky Mtn. Div. AAAS. 6) Chairman, Zoological Sciences Section, SW. and Rocky Mtn. Div. AAAS. 7) Reviewer, Research Grant Proposals, Physiological Processes Section, NSF. 8) Attendee, AEC Institute Director's Meeting, University of Utah, April 24-25.

8. Non-teaching University service.

Beakley, John W. 1) Registration Committee; 2) Graduate Advisory Committee - Biology Dept; 3) Prospective Faculty Screening Committee - Biology Dept; 4) Med. Tech. Advisor.

Bourne, Earl W., 1) Graduate Assistant Selection Committee, 2) Curriculum Committee, 3) Pre-medical Advisement.

Crawford, Clifford S., 1) Faculty adviser for majors and two graduate students. 2) Member: Biology Dept. Undergraduate Curriculum Committee, 3) Member. Campus Safety Committee, 4) Coordinator: Conservation Roundtable.

Degenhardt, William G., 1) University College Advisor, 2) Graduate Advisor (9 students) 3) Advisor to the Phi Sigma Society (Biology honorary) 4) Research Allocations Committee, 5) Curator of the Museum of Southwestern Biology.

- Dittmer, Howard J., 1) Assistant Dean, College of Arts and Sciences; 2) Entrance and Credits Committee; 3) Arts and Science Scholarship Committee, Chairman; 4) Department Curriculum Comm; 5) Graduate Ass't Selection Comm. 6) N. Mex. Visiting Scientist Comm. 7) N. Mex. Acad. of Sci. Advisory panel on summer science training program (Meetings in Las Cruces and Silver City.) 8) Statistician for UNM football team.
- Fleck, M.W. 1) Acting Chairman Biology Dept. summer 1968, 2) A&S and pre-med advisor, 3) Faculty member of UNM Alumni Board.
- Hoff, C. Clayton, 1) Member of the Publications Committee; 2) Member of the A&S College Dean's Committee on Advancements (Science); 3) Faculty advisor, A&S College; 4) Selection of books, Biology Dept. Library allocations.
- Johnson, Gordon V. 1) University College advisor, 2) University Library Committee
- Johnson, William W., 1) Supervisor of Biology Sectioners, 2) Judge at New Mexico State Science Fair, Socorro.
- Koster, William J., 1) Dept. major advisor, 2) Dept. comm. personnel selection, 3) Senior Seminar, 4) Curator of fishes, 5) Pharmacy college - research on human subjects; 6) Chairman, University Curricula Committee.
- Ligon, J. David, 1) Committee Chairman for 4 master's degree candidates. 2) Curator of Birds, Mus. Southwestern Biology.
- Martin, William C., 1) Curator of the Herbarium, 2) Dept. graduate committee, 3) Summer session committee, 4) Advisor for biology majors, 5) Graduate advisor for plant taxonomy.
- Potter, Loren D., 1) Member, Lawrence Ranch Advisory Committee, 2) Member, Advisory Comm., Earth Resources Survey Program, Data Bank T.A.C. 3) Talk, "India Revisited" to A.A.U.W. 4) Member, Advisory Comm. on Teacher-Education. 5) Faculty advisor, U.N.M. Ski Club. 6) Advisor of biology graduate students. 7) U.N.M. Committee on possibility or reorganizing the College of Arts and Sciences. 8) Chairman of biology department.

Riedesel, M. L., A&S College Committee: 1) Human Research Comm. 2) Research, Patents & Contracts, 3) Ad Hoc Comm. for review of role of ROTC at UNM, 4) Comm. for Selection of Dean of College of Arts & Sciences, 5) Exec. Comm. UNM Chap. AAUP, 6) Comm. on Radiological Control, UNM, 7) Mobile University Comm. Biology Department Committee: 8) Graduate Program, 9) Advisor for biology majors, 10) Graduate advisor, animal physiology.

Traut, Gerald L., 1) University College advisor, 2) Selection Committee for outstanding H.S. Biology teacher in N.M.

9. Public Service.

Beakley, John Wm. 1) Deacon, Hoffmantown Baptist Church; 2) Supt.-College and Career SS Dept, Hoffmantown Baptist Church.

Crawford, Clifford S. 1) Member, Cibola National Forest Multiple Use Advisory Council; 2) Interim Trustee, New Mexico Conservation Coordinating Council, Inc.

Degenhardt, William G., 1) Judge at Highland H.S. and regional science fairs, 2) Supplied information on New Mexico animals and plants.

Dittmer, Howard J., 1) Judge New Mexico State Science Fair, Socorro, N. Mex. 2) Judge for New Mexico State Youth for the Atom Contest (Albuquerque) \$50.00 gift to UNM from Public Service Co. for judging. 3) Answered numerous questions by mail and phone for individuals and newspapers on botanical questions.

Fleck, M. W., 1) Vice-Pres. Rotary Club; 2) Vice-Pres. Board of BCMC; 3) Scientific Staff BCMC; 4) N.M. Radiation Advisory Council; 5) Bern. Co. Quality Air Control Board; 6) Metropolitan Environmental Health Board; 7) Chairman of Education Division UCF; 8) Little Theatre Board; 9) Mid-Rio Grande Health Planning Council.

Johnson, Gordon V., 1) Judge in regional science fair, 2) Local board member of Geneva House, 3) board member, Sombre Del Monte Christian Church.

Koster, William J., 1) Member Education Committee, St. Paul Lutheran Church, 2) New Mexico Council on Environment.

Ligon, J. David, 1) Help with boy scout activities - Troop 166.

Martin, William C., 1) Committee on Stewardship and Finance, Central Methodist Church.

Potter, Loren D., 1) Board of Directors, Zoological Society, Albuquerque.

Riedesel, M. L., 1) Member, United Campus Ministers, Local Operating Committee, UNM. 2) Member, Finance Committee, Boy Scouts, Troop 166, Albq.

THE REPORT OF THE DEPARTMENT OF CHEMISTRY

June 1, 1968 - June 1, 1969

R. N. Castle, Chairman

I. General Departmental InformationA. Significant Achievements during the Academic Year 1968-69.

Eleven undergraduate majors received the B.S. degree and 29 students received the B.A. degree. Two students received the M.S. degree and three students received the Ph.D. degree. During this academic year more undergraduate majors received either the B.S. or B.A. degree (total 40) than in any other year in the history of the department.

The E.S.R. Spectrometer console given to the department by Sandia Corporation (see 1967-68 annual report) has been set up and the magnet, revolving base, power supply and cavity have been added from funds made available from the University Administration for which we are grateful. A Cary -14R UV-visible spectrophotometer was purchased with funds made available from the Atomic Energy Commission and matched by the University Administration. This instrument has been widely used since its arrival last fall and has been of great aid to the research programs in the department.

Professor Lee D. Hansen received a much coveted Career Development Award for five years from the National Institutes of Health. This pays his annual salary and releases him from most teaching duties to spend his time in research.

The addition to the Chemistry Building was started in October and is scheduled for completion in December, 1969. The additional space will relieve the problems encountered by the department for several years both

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in the undergraduate laboratories and in the graduate program. The space will allow the improvement and continued modernization of the undergraduate program and the revision and expansion of the graduate program.

However, in order to implement these programs, funds for

- (a) an increased number of graduate assistants;
- (b) an approximately doubled supply and expense budget;
- (c) a spendable permanent equipment budget; and
- (d) additional staff, including an electronics man, a glass blower, a machinist and additional faculty,

must be forthcoming.

B. Significant Plans and Recommendations for the Near Future.

Most of the needs are outlined in the last paragraph of Part A, however, it is planned to move vigorously in improving both the undergraduate and graduate programs along lines already in progress, following recommendations in the Danforth Report. At least one new faculty member should be added to the staff each year. An additional storeroom man is required during fiscal year 1969-70.

C. Appointments to Staff.

Dr. E. P. Papadopoulos has been appointed as Associate Professor of Chemistry with funds liberated from the Career Development Award of Professor Lee Hansen. He will join the staff this coming academic year-1969-70.

Dr. David L. VanderJagt has been appointed Assistant Professor of Chemistry for the 1969-70 academic year from funds liberated by Dr. West's

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departure. On July 1, 1970, Dr. VanderJagt will be the joint appointee between Chemistry and Biochemistry.

With the funds liberated from the shift of Dr. VanderJagt, an additional physical chemist will be added to the Chemistry staff the fall of 1970, but still replacing Dr. West.

Miss Lorraine DiStefano has been added to the department as an Instructor. Her duties will be to serve as administrative assistant to the Departmental Chairman and to supervise the Chemistry 101 and 102 laboratories.

D. Separations from Staff.

Dr. Bruce D. West, Assistant Professor, and Mr. T. R. Duffin, Administrative Assistant, will leave the Department during the summer of 1969.

II. Composite of Information Requested on Individual Biographical Supplements.

1. Advanced Study:

- (a) WILLIAM M. LITCHMAN: Summer faculty traineeship awarded by AWU from June 1 to September 1, 1968 at Los Alamos, New Mexico.
- (b) NICHOLAS E. VANDERBORGH: Summer 1968: Staff Member, Sandia Laboratories Analytical Methods Section, Organization 5421.

2. Sabbaticals, Leaves of Absence, Summer Teaching Elsewhere, Travel, etc.

- (a) RAYMOND N. CASTLE: (1) Lectured at Park Davis Company in Ann Arbor, Michigan, on "Condensed Pyridazines and Benzo[c]cinnolines" on June 13th; (2) lectured before the Norwich subsection of the Birmingham Section of the ACS on the "Founding of a Journal", June 17th; (3) travelled to Israel, Iran, Egypt, Lebanon and Greece in October: Attended by invitation the International Symposium on the Physical-Chemical Mechanisms of Carcinogenesis in Jerusalem, Israel on October 20-25; gave a lecture at the University of Tehran on the "Condensed Pyridazines and Benzo[c]cinnolines" on October 14th; lectured at the American University in Beirut on October 15th and at the Research Center in Cairo on October 16th; returned home by Greece.
- (b) ROY D. CATON, JR.: (1) Summer teaching: Taught course in "Instrumental Methods of Analysis" at Oregon State University, 7 weeks, National Science Foundation Institute for College Teachers (Summer 1968). (2) Visited Washington State University to confer with Audio-Visual Center there.
- (c) DONALD R. McLAUGHLIN: Associated Western Universities orientation fellow at Lawrence Radiation Laboratory at Livermore, June - August 1968.

3. New Scholastic Honors, Fellowships, etc.

NONE

4. Publications:

(a) RAYMOND N. CASTLE:

- (1) The Synthesis and Some Reactions of Acetylpyridazines, J. Heterocyclic Chem., 5, 379 (1968) with T. Nakagome.
- (2) The Synthesis of Pyrimido[4,5-c]pyridazines and Pyrimido-[5,4-c]pyridazines, J. Heterocyclic Chem., 5, 523 (1968) with H. Murakami.
- (3) The Synthesis of Pyrimido[4,5-d]Pyridazines, J. Heterocyclic Chem., 5, 845 (1968) with T. Kinoshita.
- (4) The Synthesis of Benzo[c]cinnoline Dioxides, J. Heterocyclic Chem., 5, 583 (1968) with F. E. Kempter.
- (5) The Synthesis of Imidazo[4,5-d]pyridazines. VI. v-Triazolo[4,5-d]pyridazines, Pyrazino[2,3-d]pyridazines and 7H-Imidazo[4,5-d]tetrazolo[1,5-b]pyridazine, J. Heterocyclic Chem., 6, 93 (1969) with S. F. Martin.
- (6) The Synthesis of Pyrazines, Pyrazino[2,3-d]pyridazines and a Dipyridazino[4,5-b:4',5'-e]pyrazine, J. Heterocyclic Chem., 6, 255 (1969) with R. Bhima Rao.

(b) GUIDO H. DAUB:

- (1) Liquid Scintillators. XIV. The Synthesis and Evaluation of Some trans-1,2-Diarylethylenes as Liquid Scintillators. The Steric Effects of a Methyl Group, Molecular Crystals, 4, 343 (1968) with F. N. Hayes, D. W. Holty, Lavinell Ionescu and J. L. Schornick.
- (2) Turnbull's Blue and Prussian Blue: $KFe(III)[Fe(II)(CN)_6]$, J. Chem. Ed., 46, 46 (1969), with L. D. Hansen, and W. M. Litchman.

(c) LEE D. HANSEN:

- (1) Thermodynamics of Proton Ionization from Some Substituted 1,2,3-Triazoles in Dilute Aqueous Solution, J. Am. Chem. Soc., 90, 6588 (1968).
- (2) Turnbull's Blue and Prussian Blue: $KFe(III)[Fe(II)(CN)_6]$, J. Chem. Ed., 46, 46 (1969).

(d) ULRICH HOLLSTEIN:

- (1) The Structure of a C-19-diketone from Ryanodine, J. Am. Chem. Soc., 90, 3864 (1968).
- (2) The Structure of a C-19-Acid derived from Ryanodine, J. Am. Chem. Soc., 90, 3866 (1968).

(e) MILTON KAHN:

- (1) A Bibliography on the Determination of Nitrogen by Activation Analysis, Sandia Laboratory Document SC-R-68-1723 (with N. D. Stalnaker and B. T. Kenna) - 20 pages.
- (2) A final report for Lawrence Radiation Laboratory, Contract No. 2196507, UCRL-13401, 200 pages, (with H. A. Boyd, Jr.).
- (3) Three quarterly progress reports for Sandia Corporation Contract No. 16-7857 (with N. Stalnaker), report No. 1, 1 page; report No. 2, 7 pages, report No. 3, 2 pages.
- (4) A final report for Sandia Corporation Contract No. 16-6555, 14 pages (with N. Stalnaker).
- (5) Autoradiographic Detection of Iodine-131 Using Polaroid Film (with Darryl Jackson). Accepted for Publication.

(f) WILLIAM M. LITCHMAN:

- (1) Turnbull's Blue and Prussian Blue: $\text{KFe(III)[Fe(II)-(CN)}_6\text{]}$, J. Chem. Ed., 46, 46 (1969).
- (2) ^{15}N NMR Shifts in $^{15}\text{NH}_3$ and $^{15}\text{ND}_3$ Liquid and Vapor, J. Chem. Phys., 50, 1031 (1969).
- (3) ^{15}N NMR Chemical Shifts in $^{15}\text{ND}_3$, $^{15}\text{ND}_2\text{H}$, $^{15}\text{NDH}_2$ and $^{15}\text{NH}_3$, J. Chem. Phys., 50, 1897 (1969).
- (4) An Unexpensive Motor-Driven Burette", J. Chem. Ed. submitted.
- (5) A Study of ^{15}N NMR Shifts in Liquid $^{15}\text{NH}_3$ -Solvent Mixtures, submitted to J. Am. Chem. Soc.

(g) ROBERT E. TAPSCOTT:

- (1) Stereochemistry of Tartrato(4-)-Bridged Binuclear Complexes, accepted for publication in Coordination Chemistry Reviews, R. L. Belford and I.C. Paul, coauthors.

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(h) NICHOLAS E. VANDERBORGH:

- (1) Review of Scientific Instruments, in press, (1969).
- (2) A Cryoscopic Study of the Association of Phenolic Compounds in Benzene, J. Phys. Chem., submitted for publication.

5. Other Research Projects or Creative Work in Progress or Completed during the Period.

(a) RAYMOND N. CASTLE:

- (1) Sandia Contract #58-3749 on the "Synthesis of Substituted Pyridazines and Condensed Pyridazines: New Heteroaromatic Explosives with Potentially Superior Properties", contract expires December 31, 1969; Total Amount: \$53,270, work in progress.
- (2) Walter Reed Contract #DA-49-193-MD-3013, for 3 years, expiring August 31, 1969; Total Amount: \$81,158 for which \$24,500 was available during the current period. Research work is on "Synthesis of Condensed-ring Pyridazines as Potential Antimalarial Agents".
- (3) Completed "Topics in Heterocyclic Chemistry" to be published by John Wiley Interscience in the summer of 1969; served as Editor of this volume.

(b) ROY D. CATON, Jr.

- (1) Effect of $\text{Na}_2\text{O}/\text{P}_2\text{O}_5$ ratio on diffusion transport of electroactive ions in molten metaphosphate glasses (with John Miglio).
- (2) Ion exchange of metal ions in nonaqueous solvents using macro-reticular resins (with Howard Shafer).
- (3) Tetrapentyl ammonium cation as a quantitative analytical reagent (with Robert Dosch).
- (4) The electrochemistry of organic compounds in acetonitrile (with Newton Fawcett).

(c) GUIDO H. DAUB

- (1) Liquid Scintillators. Steric effects; trans-stilbenes; photo-oxidation of PPO, POPOP, and others; self-quenching studies.
- (2) Synthesis of condensed polycyclic hydrocarbons for use in cancer research, Benzo[a]pyrenes and benz[a]anthracenes.

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- (3) Synthesis of azabenz[a]pyrenes and study of their effects as carcinogens and anticarcinogens.
 - (4) Grant: Continuation grant of \$12,000 from U.S.A.E.C. for period of Sept. 14, 1969. Title of project: The Synthesis and properties of compounds which may be used as scintillator solutes in liquid scintillators.
- (d) LEE D. HANSEN:
- (1) American Chemical Society, Petroleum Research Fund, \$24,000; Thermodynamics of Ionic Processes in Dielectric Media, August 1, 1968 to August 31, 1971.
 - (2) U.S. Dept. of H.E.W., Public Health Service \$75,000 (approx.), Career Development Award for a study of Hydrophobic Bonding, July 1, 1969 to June 30, 1974.
 - (3) A Study of THAM for use as a Calorimetric Standard, a report submitted to the Standards Committee of the U.S. Calorimetry Conference and U.S. Nat'l. Bureau of Standards.
 - (6) An Inexpensive Motor Driven Burette, paper submitted to Journal of Chemical Education and to UNM Patent Committee.
 - (7) Thermodynamics of Proton Ionization from Alkyl Aronic Acids, 5-substituted Tetrazoles, and β -Diketones, work completed, three papers being written.
- (e) ULRICH HOLLSTEIN:
- (1) Grant: NSF, \$17,000, expired May 31, 1969. Title of Research: In vivo Oxidicoupling of Anilines.
 - (2) American Chemical Society, \$31,619, on Antibiotic, through August 31, 1969.
 - (3) National Institute of Health, \$18,676, on Alkaloids, till December 31, 1970.
- (f) MILTON KAHN:
- (1) Recovery of Iodine-131 Incorporated in Soil and Organic Material as a Result of a Nuclear Detonation (with H. A. Boyd, Jr.) work completed.
 - (2) Isotopic Exchange of Titanium Atoms between Ti(III) and Ti(IV) in Aqueous Media (with C. Orth and J. D. Knight) work completed.
 - (3) Isotopic Exchange of Vanadium Atoms between V(III) and V(IV) in Aqueous Media (with C. Orth and J. D. Knight), work completed.

- (4) Determination of Nitrogen in Organometallic Compounds Via Activation Analysis, (with N. Stalnaker and B. T. Kenna) work in progress.
 - (5) The Kinetics of Isotopic Exchange of Iodine Atoms between Tetrabutylammonium Iodide and Methyl Iodide in Nitrobenzene - Carbon Tetrachloride Mixtures (with Chien-chang Lin) manuscript in preparation.
 - (6) The Preparation of Dilute, Dry, Nonaqueous Solutions of Molecular Iodine Inoculated with Iodine-131 (with G. Van De Steeg) manuscript in preparation.
 - (7) Grants: Sandia Corporation, "Development of Activation-Analysis Procedures for the Determination of Elements in Organometallic Compounds", June 1969-June 1970, \$11,465.
 - (8) Atomic Energy Commission, "Behavior of Carrier-Free Tracers and the Kinetics of Isotopic Exchange Reactions", 1968-1969, \$8,524.
- (g) WILLIAM M. LITCHMAN
- (1) Studies of solvent effects on Amine protons", work in progress.
 - (2) Studies in the formation and trapping of free radicals", work in progress.
 - (3) Studies of Alkyl Chain Configuration by NMR, work in progress.
 - (4) Preparation of a manuscript for a general Chemistry textbook.
 - (5) ^{13}C -H Satellite Study of Indirect Coupling Between Equivalent Protons.
- (h) DONALD R. McLAUGHLIN:
- (1) Three research projects completed and submitted for publication during this period.
- (i) ROBERT E. TAPSCOTT
- (1) Petroleum Research Fund, \$20,000, on "A Stereochemical Investigation of Tartrato(4-)Bridged Binuclear Complexes.
- (j) NICHOLAS E. VANDERBORGH:
- (1) Cryoscopic Titrations of Selected Lewis Acids.

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- (2) Laser Decomposition of Polymeric Materials.
- (3) Studies of Solute-Solvent Interactions in Nonaqueous Solvents, supported by Sandia Corporation, \$18,000.

(k) EDWARD A. WALTERS:

- (1) Construction of a Temperature-Jump Apparatus, support from Research Corporation, \$4,000.

6. Activities in Learned and Professional Societies.

(a) RAYMOND N. CASTLE:

- (1) Attended the 11th Medicinal Chemistry Symposium of the ACS in La Val College, Quebec, Canada, June 23-26, 1968.
- (2) Attended ACS meeting in Minneapolis, Minn., April 13-through 18, 1969.

(b) ROY D. CATON, JR.:

- (1) Attended Pittsburgh Conference on Analytical Chemistry, Cleveland, Ohio, March 2-7, 1969 and presented two papers. "A Reference Electrode for Electrochemical Studies in Fused Equimolar $\text{NaPO}_3\text{-KPO}_3$ " and "Electrode Potential & Chronopotentiometric Investigations in Molten Equimolar $\text{NaPO}_3\text{-KPO}_3$ ".

(c) GUIDO H. DAUB:

- (1) Member: Sigma Xi, Phi Kappa Phi, Phi Lambda Upsilon, ACS, AAAS (fellow), Blue Key, Alpha Chi Sigma.

(d) LEE D. HANSEN:

- (1) Papers read at the 23rd U.S. Calorimetry Conference, Midland, Michigan, August 1968.
- (2) Papers read at the 157th National American Chemical Society Meeting, Minneapolis, Minn., April 1969.

(e) ULRICH HOLLSTEIN:

- (1) Attended Robert Welch Meeting, Houston, Texas, Nov. 1968.

(f) MILTON KAHN:

- (1) Member of Sigma Xi, Phi Kappa Phi, American Chemical Society, Inorganic Section, Physical Section, AAAS (fellow).

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(g) WILLIAM M. LITCHMAN:

- (1) Attended the Southwest Regional meeting of the American Physical Society held at Los Alamos, New Mexico, June 15-17, 1968.
- (2) Attended the National American Chemical Society meeting Minneapolis, Minn., April 13-19, 1969 (presented a paper).

(h) MIRIAM P. MALM:

- (1) Attended spring meeting of the American Chemical Society, Minneapolis, Minn., April 13-18th.
- (2) Appointed as Corresponding Secretary for the newly organized International Society of Heterocyclic Chemistry.
- (3) Technical Editor, Journal of Heterocyclic Chemistry.

(i) NICHOLAS E. VANDERBORGH:

- (1) Attended Eastern Analytical Symposium, New York City, November 1968.

(j) EDWARD A. WALTERS:

- (1) Attended American Chemical Society meetings in Santa Fe and Las Vegas.
- (2) Presented a paper to student affiliates of the American Chemical Society.

7. Other Professional Activities.

(a) RAYMOND N. CASTLE:

- (1) Editor, Journal of Heterocyclic Chemistry
- (2) American Advisory Editor for the English Translation of "Chemistry of Heterocyclic Compounds", Faraday Press, Inc. translated from Russian.
- (3) Joint-chairman with Prof. N. Cromwell, Jean-Louis Imbach, and Prof. R. Jacquier to sponsor the 2nd International Congress of Heterocyclic Chemistry in Montpellier, France, July 7 - 11, 1969.

(b) ROY D. CATON, JR.:

- (1) Consultant: Toys by Boys, Albuquerque, New Mexico
The Sandia Laboratories, Albuq. New Mexico
FMC Corporation, Colorado Bureau of Mines
Research Foundation, Golden, Colorado.

(d) GUIDO H. DAUB:

- (1) Delivered seminar lecture to UNM Chemistry Department weekly seminar on Synthesis of Some Methylated Benz[a]-anthracenes.
- (2) Referee for papers submitted to J. Org. Chem. and J. Heterocyclic Chemistry.

(e) MILTON KAHN:

- (1) Acted as an Examiner for a Ph.D. thesis based on work performed at the University of Rajasthan, Janpur, India.

(f) WILLIAM M. LITCHMAN:

- (1) Reviewed five papers for the journal of Heterocyclic Chemistry.
- (2) Patent search for an unexpensive motor-driven burette instigated.

(g) NICHOLAS E. VANDERBORGH:

- (1) Lecture: "Safety in the Academic Chemistry Library", New Mexico Society of Safety Engineers, Sept. 20, 1968.
- (2) Lecture: "University Careers", Santa Fe High School Career Day, Santa Fe, October 9, 1968.

(h) EDWARD A. WALTERS:

- (1) Read a paper on Isotope Effects on Hydroxide Ion at a Gordon Conference in New Hampshire.

8. Non-teaching University Service.

(a) RAYMOND N. CASTLE:

- (1) Faculty advisor for sophomores, juniors and seniors.
- (2) Faculty advisor for graduate students.
- (3) Member, Dept. Undergraduate Curriculum Committee.
- (4) Member, Department Stockroom Committee.
- (5) Chairman, Seminar Committee, dept.
- (5) Member, Ad Hoc Committee - to define the duties for the Vice President for Research.

(b) ROY D. CATON, JR.:

- (1) University College Advisor.
- (2) Member of Registration Committee (University).

- (3) Member of Psychological Services Committee (University).
 - (4) Member of the following Departmental Committees:
 - Undergraduate Curriculum, Chairman
 - Stockroom Committee
 - Freshman Chemistry
 - (5) Author of Undergraduate Equipment Proposal to NSF.
 - (6) New Mexico Regional Science Fair Judge, Las Vegas, N.Mex.
 - (7) Councilor for Central New Mexico section of the American Chemical Society.
 - (8) Organized and presently the faculty sponsor of the Undergraduate Student Affiliates of the American Chemical Society, UNM Chapter.
 - (9) Participated in Student-Faculty Association meeting.
 - (10) Member of Graduate School Scholarship Selection Committee.
- (c) GUIDO H. DAUB:
- (1) Chairman, Athletic Council
 - (2) Engineering Doctoral Committee
 - (3) Faculty Representative to WAC, UNM delegate to National NCAA Meeting.
 - (4) NCAA Delegate to American Council on Education meeting in November 1968.
 - (5) Faculty advisor to sophomores, juniors and seniors, chemistry majors, with Castle and Litchman.
 - (6) Member of departmental committee on Graduate Curriculum.
 - (7) Member - Department Committee on Graduate Student Recruitment.
- (d) LEE D. HANSEN:
- (1) UNM Research Allocation Committee member.
 - (2) A & S Scholarship Committee member.
 - (3) University College advisor.

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(e) ULRICH HOLLSTEIN:

- (1) University College advisor.
- (2) Committee on Radiological Control, member.

(f) MILTON KAHN:

- (1) Member of several Departmental Committees.
- (2) Member of Woodrow Wilson National Fellowship Foundation Committee.
- (3) Advisor to Honor Students
- (4) Member of General Honors Council
- (5) Member of Selection Committee for the "Outstanding Teaching Award".
- (6) Participated in an "unstructured session" for the evaluation of the teaching-learning process on the UNM campus.

(g) WILLIAM M. LITCHMAN:

- (1) Member of Departmental Committees.

Graduate Curriculum Committee
Stockroom Committee
Honors Committee
Seminar Committee

- (2) Member of Summer Undergraduate Research.
- (3) Arts & Sciences Faculty advisor.
- (4) Sponsor of Wagon Wheels Square Dance Club (UNM).

(h) MIRIAM P. MALM:

- (1) Member of Student Affairs Committee
- (2) Scheduling and Supervisor of Registration for Chemistry Department.

(i) DONALD R. McLAUGHLIN:

- (1) Active member of Committee on Computer Use.
- (2) Chairman, Departmental Graduate Recruitment Committee.

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(3) Member Curriculum Committee.

--(g) ROBERT E. TAPSCOTT:

(1) University College Advisor.

(2) Member, Departmental Freshman Chemistry Committee.

(h) NICHOLAS E. VANDERBORGH:

(1) Member, Library Committee

(2) Chairman, Subcommittee of Federal Funds.

(3) Chairman, Safety Committee (departmental)

(4) Member, Departmental Recruiting Committee.

(i) EDWARD A. WALTERS:

(1) Served on Undergraduate Curriculum Committee in Chemistry Department.

(2) Graduate Student Advisory Committee, member.

9. Public Service.

(a) RAYMOND N. CASTLE:

(1) High Councilman in the Albuquerque Stake of the Church of Latter-Day Saint.

(2) Chairman, Albuquerque Stake Scout Committee.

(b) GUIDO H. DAUB:

(1) Member of Governor's Scientific Advisory Committee, State of New Mexico.

(2) Quartermaster, Advancement Chairman, Boy Scout Troop 9.

(c) LEE DUANE HANSEN:

(1) Serving as a Boy Scout Committeeman and as Ward Clerk (Historian) of the Albuquerque Fourth Ward of the Church of Jesus Christ of Latter-Day Saints.

(d) WILLIAM M. LITCHMAN:

(1) Professional square dance caller and member of the Central New Mexico Caller's Association.

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(e) MIRIAM P. MALM:

(1) Member, Immanuel Presbyterian Church

(2) Team mother, Little League.

(f) NICHOLAS E. VANDERBORGH:

(1) Member, Immanuel Presbyterian Church.

(g) EDWARD A. WALTERS:

(1) Participated in a Share Group and was appointed to Youth Activities Committee at Faith American Lutheran Church.

10. Personal Information.

(a) WILLIAM M. LITCHMAN:

(1) One more daughter, Born 8 February 1969.

Report of the Department of Economics

July 1, 1968 - June 30, 1969

Nathaniel Wollman, Chairman

I. General Departmental Information

A. Significant achievements during the academic year 1968-69.

Teaching of the sophomore principles course was revised. Economics 200 became a general education course in modern economic problems given as a large lecture class. Economics 201 became an introductory course in economic theory, serving as the prerequisite for upper division courses. Also, because of the well-defined body of material handled in Economics 201, it is being taught by advanced graduate students who thereby gain experience in teaching. Except for handling quiz sections the previous year (now eliminated at least temporarily) in Economics 200, this is the first occasion in which graduate students have taught economics courses. Student instructors are fully responsible for their classes, but teach under the general supervision of a senior faculty member.

Also of significance was the award, after a previously unsuccessful application, of an NDEA teaching institute for high school social science teachers. The institute is under the direction of Professor Parker, with assistance of Professor Doxtator of the College of Education and Professor Chung of the economics department. Guest lecturers from our own and other campuses will also participate.

Also of significance was introduction of a new research program in public finance under the direction of Professor Boyle. Professor

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Boyle served during the summer and fall as a consultant to a special legislative study committee, has received a contract for work for the state's Bureau of Revenue, and expects to receive another contract for a planning, programming, budgeting project for state agencies from the U.S. Department of Housing and Urban Development in conjunction with the State Planning Office. Closely related to Professor Boyle's research program was establishment of a course in programming and budgeting for New Mexico state employees in Santa Fe. The course was given in Santa Fe every Monday morning.

Research financed by the Office of Water Resources Research of the Department of the Interior via the Water Resources Research Institute has continued under the direction of Professor d'Arge and will reach a higher level next year with the financing of three new projects in which Professors Gisser, Ben-David and Brown will participate. One of these projects envisages a one-semester visit to UNM in 1970-71 of Professor L. M. Falkson of Cornell, should the project on elasticities of substitution between capital and water in U.S. manufacturing be successful in its first year and receive support for a second and concluding year. Professor d'Arge will serve as a consultant on those projects with which he was identified.

The department conducted an experiment with a senior thesis. Five seniors enrolled for Economics 495 and 496, departmental seminar, and, under direction of a member of the staff wrote an original

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research paper that was presented to the seminar and submitted as a written document. The seniors said they thought the program should be continued, that for several it was the first time they had a chance to do original research, and that it should be required of all economics majors.

B. Significant Near Term Plans

Beyond the necessary planning needed for improving the array and timing of our courses, especially the need for systematic scheduling of graduate courses that are only given intermittently, the department's attention will be directed to establishing a senior thesis on a permanent basis. Another problem area to receive attention is treatment of foreign graduate students, many of whom founder in our regular M.A. program but who may be worthy of some survival treatment.

C. Appointments:

September 1, 1969 - Lee Brown, Assistant Professor of Economics

September 1, 1969 - Shaul Ben-David, Associate Professor of Economics

D. Separations

June 1, 1969 - Allen Kneese

September 1, 1969 - Ralph d'Arge

II. Composite of Information Requested on Individual Biographical Supplements

1. Advanced Study

Professor Ralph d'Arge has completed his Ph.D. work and will be awarded the degree at Cornell University June, 1969.

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Dissertation Title: International Capital Flows

Professor A. Parker was awarded the Ph.D. from The Ohio State University, December 14, 1968. Thesis

Title: "A Sectoral Analysis of the Determinants of Cyclical and Secural Changes in the Velocity of Money."

Professor T. Van Cott has completed his Ph.D. work and will be awarded the degree from the University of Washington in June, 1969. Thesis Title: Wealth, Income and the Transfer Problem.

Wolfram Liepe spent semester I, 1968-69 under a Social Science Research Council grant to write a Ph.D. dissertation on Colombian Monetary policy.

2. Sabbaticals, Leaves of Absence, Summer Teaching Elsewhere:

Professor Hufbauer has been on leave of absence during the entire year as an economic advisor with Harvard University Development Advisory Service, Lahore, Pakistan. He will return February, 1970.

Professor Jonas taught at Brooklyn College of the City University of New York, Summer, 1968

Professor Liepe was on leave of absence and returned February, 1969. He was in Colombia from the end of June to beginning of October, 1968, in connection with study on Colombia and in Washington, D.C. on leave of absence first semester 1968-69, to work on above studies.

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Professor Therkildsen has been on sabbatical leave for second semester 1968-69 and will return to teach summer session, 1969.

Professor Tailby spent 7 weeks with A.I.D. in Costa Rica, Aug-Sept. 1968.

3. New Scholastic Honors

None

4. Publications:

WOLLMAN, NATHANIEL

The Water Resources of Chile, Johns Hopkins Press, 1968

COHEN, SANFORD

"Dualism in Labor Standards Law," Labor Law Journal, 85-93, V20, No. 2.

"The Relevance and Validity of Social Insurance in Developing Countries", in Kassalow (ed.) The Role of Social Security in Economic Development (U.S. Gov't Printing Office, 1969) Ch. 11

Review of Chaplin, Peruvian Industrial Labor Force, Technology and Culture, Jan. '69.

BOYLE, GERALD J.

"The Anatomy of Fiscal Imbalance," - National Tax Journal, Dec. 1968.

CHUNG, PHAM

Manuscript on Money, Banking and Income: Theory and Policy completed and submitted. Will be published in Fall, 1969, or early 1970.

d'ARGE, RALPH

"Note on Customs Unions and Direct Foreign Investment" Economic Journal, June, 1969; Quantitative Water Resource

d'ARGE, RALPH (Cont)

Basin Planning, New Mexico Water Resources Institute, June, 1969, pp. 224; "On The Economics of Estuary Management", AWRA, Symposium Proceedings, Denver, 1968.

GISSER, MICHA

Introduction to Price Theory, Second Edition, International Textbook Company, 1969

"Schooling and the Farm Problem," Econometrica, July, 1965

"Needed Adjustment in the Supply of Farm Labor", Journal of Farm Economics, Nov. 1967

"The Benefit-Cost Analysis of Investment in Schooling in Rural Farm Areas," American Journal of Agricultural Economics.

HAMILTON, DAVID

A Primer on the Economics of Poverty, Random House, July, 1968

Review of Technology in Western Civilization, edited by Melvin Kranzberg and Carroll W. Pursell, in Rocky Mountain Social Science Journal, April, 1969.

Review of The Medical Messiahs: A Social History of Health Quackery in Twentieth Century America, by James Harvey Young, in Journal of Consumer Affairs, Winter, 1968.

HUFBAUER, GARY C.

"Consumer Goods or Capital Goods -- Supply Consistency in Development Planning: A Comment", Pakistan Development Review, Spring, 1968.

"Cereal Consumption, Production, and Prices in West Pakistan", Pakistan Development Review, Summer, 1968.

(co-author with F. M. Adler) "Foreign Investment Restraints -- Objective Removal", Columbia Journal of World Business, May-June, 1969.

"American Selling Price Valuation and Benzenoid Chemical Tariffs", Review of Economics and Statistics, November, 1968

JONAS, PAUL

"The Redistribution of the Product Mix in a Centrally Planned Economy," Southern Economic Journal, July, 1968

"Competition in a Two Dimensional Market" Annals of Regional Science, December, 1968.

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JONAS, PAUL (Cont)

"National Income in East-Central Europe" (Review)

Federalist, December, 1968.

"The Best Industrial Location in an $N \times N$ Grid: A Transportation Oriented Model" Annals of Regional Science, June, 1968.

KNEESE, ALLEN

Co-author with Robert V. Ayres - "Pollution and Environmental Quality" in The Quality of the Urban Environment: New Resources in An Urban Age, The John Hopkins Press, 1969
Managing Water Quality--Economics, Technology, Institutions, Johns Hopkins Press, 1968 - Blair Bower, co-author
The Economics of Water Utilization in the Beet Sugar Industry, Resources for the Future, 1968, George Lof, co-author
Approaches to Regional Water Quality Management (In Japanese) Japan Economic Institute, 1968

"Environmental Pollution" in a compendium to be published by the Joint Economic Committee, co-author, Robert Ayres

"Production, Consumption, and Externalities," co-author, Robert Ayres, to be published in the American Economic Review, June, 1969

"Pervasive External Diseconomies and the Response of Society" (with Ralph d'Arge) Joint Economic Committee U.S. Congress, Compendium Economic Analysis of Public Expenditure Decisions - Forthcoming

"Comment on the Use of Shadow Prices" in Samuel B. Chase editor Problems in Public Expenditure Analysis, The Brookings Institution, Washington, D.C.

"Regional Water Quality Management" In The Pollution Reader, Harvest House, Montreal, 1968

"Pollution and a Better Environment" Transactions of the North American Wildlife Federation, 1968

"Environmental Pollution and Social Costs" (with Robert Ayres) Economic Issues Mc-Graw Hill, 1969

Testimony in Hearings before the Air and Water Pollution Subcommittee of the Senate Committee on Public Works, 89 Congress 1st session, in Joseph L. Soc, editor, Water Law Planning and Policy. The Bobbs-Merrill Co., 1968

PARKER, ALFRED

"Economic Education in New Mexico," The New Mexico Journal For The Social Studies, p. 16-19.

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5. Other Research Projects or Creative Work in Progress or Completed during period:

WOLLMAN, NATHANIEL

U. S. Supply of and Demand For Water - Manuscript completed, Resources For the Future, grant of \$50,000 plus \$10,000 from OWRR. Three years.
Paper : "Economic Potential of Arid Lands" for A.A.A.S. Conference on Arid Lands, Tucson, June, 1969.

COHEN, SANFORD

Writing revision for 3rd ed. of Labor in the U.S., Charles Merrill Publishers.

BOYLE, GERALD J.

Research Proposals submitted NSF, A Study of Fiscal Imbalance of N.M.
Bureau of Revenue and Dept. of Finance and Admin. "A Tax Revenue Estimating Model and a Study of Tax Incidence; Proposal to Dept. of Housing and Urban Development, "Program of Planning and Budget Estimating in N.M."; A proposal to Dept. of HEW to finance a study in property tax exemption for Aged in N.M.

d'ARGE, RALPH

Research on Water Basin Planning, U.S. Dept. of Interior.
Funded, OWRR
Research on Costs of Information and Resource Planning, OWRR grant

GISSER, MICHA

The Benefit Cost Ratio of Investment in Schooling in the U.S.
Growth in the Soviet Union (with Paul Jonas)
Schooling and Farm Policy (with Ralph d'Arge)
Semi-Flexible Exchange Rates.

HAMILTON, DAVID

Doing a study of Cooperative and Public sectors of American economy for a symposium edited by Professor Paul Lambert of the University of Liege, Belgium.

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HUFBAUER, GARY C.

The Importance of Country and Commodity Characteristics on Trade in Manufactured Goods", forthcoming in a volume published by the National Bureau of Economic Research.
 West Pakistan Exports: Effective Taxation, Policy Promotion, and Sectoral Discrimination", forthcoming in a volume published by Harvard University.

JONAS, PAUL

"Production Index Bias as a Measure of Economic Development" Forthcoming Oxford Economic Papers, Nov. 1969
 "The Gerschenkron Effect: A Re-examination" accepted by Review of Economics and Statistics.
Stability Conditions in the Edgeworth Duopoly Model submitted American Economic Review
 "An Econometric Model for the International Comparison of Soviet Type Economies" submitted for the winter meetings of the Econometric Society.

LIEPE, WOLFRAM

"Optimal and Improved Trade Policies with Intermediates Considered".

PARKER, ALFRED L.

Sectoral Analysis of the Velocity of Money
 EPDA Institute in Economics for High School Social Studies Teachers, HEW, \$44,000, January, 1969 through August, 1969.

TAILBY, DONALD

Author - "Income Distribution in Costa Rica", Completed November, 1968, for A.I.D.
 Co-author - "Planning and Development Districts For the State of New Mexico", State Planning Office, Santa Fe, N.M., 1969.

VAN COTT, THEODORE N.

Re-writing dissertation for publication.

6. Activities in Learned and Professional Societies:WOLLMAN, NATHANIEL

Paper - Economic Potential of Arid Lands for A.A.A.S. conference on Arid Lands, Tucson, June, 1969

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COHEN, SANFORD

Attended meetings, American Econ. Assoc. Dec. 1968
Chicago
Consultant - Southern Educ. Lab., Austin, Texas, Aug. 1968

d'ARGE, RALPH

Paper on Customs Unions read at Rocky Mountain Social Sciences Assn. Lectures on Resource Planning at Cornell University and Univ. of California, Berkeley

GISSER, MICHA

Expect to present a paper for the "American Agricultural Economics Association", Summer, 1969

HAMILTON, DAVID

Member of Executive Council, Rocky Mountain Social Science Assoc.
Member of Executive Board, Assoc. for Evolutionary Economics (Terminated at end of 1968)

HUFBAUER, GARY C.

Papers previously mentioned under II5 were read at the National Bureau of Economic Research Conference on Technology and Trade, October, 1968, New York, and Harvard Development Advisory Service Conference, Sept., 1968, Sorrento, Italy

JONAS, PAUL

Elected in the editorial board of the Annals of Regional Science:
Read Paper, "An Assault on the Gerschenkron Hypothesis", Western Economic Association, Aug. 23, 1968, Corvallis, Oregon;
Read paper "The Best Industrial Location in an N x N Grid" Western Regional Science Association, Feb. 8, 1969;
Read paper "A Model for the Examination of New Economic Mechanism in Eastern Europe", Slavic Conference, Lincoln, Nebraska, March, 1969.

II 7. Other Professional ActivitiesWOLLMAN, NATHANIEL

Board of Consultants, North Atlantic Regional Water Resource Study.
Consultant, Arthur D. Little, Development of a Model for Water Resources Council.
Program Advisory Board, Water Resources Research Institute, NMSU
Consultant, National Water Commission, Wash. D.C.

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COHEN, SANFORD

Numerous off-campus talks, occasional arbitrator, labor disputes.

CHUNG, PHAM

Gave a talk on "Aspects of American Foreign Assistance" to the Albuquerque Association of University Women, April, 1969

PARKER, ALFRED

Economic Consultant - Friedman, Koven, Shapiro, Salzman, Koenigsberg, Spects and Homer, Chicago Law Firm - Antitrust Case in New Mexico

Speaker in a program for the New Mexico Council for the Social Studies: Topic: "Economic Education in New Mexico".

8. Non-teaching University ServiceWOLLMAN, NATHANIEL

Chairman, Committee on the Enhancement of Education

COHEN, SANFORD

Graduate Committee, Search Committee for Dean of Business College, AAUP Vice-President, Committee to Select Popejoy Visiting Prof., Departmental Administrative Duties.

CHUNG, PHAM

Faculty Advisor and member of a number of departmental committees.

d'ARGE, RALPH

Computer Use Committee - Chairman; Sub-Committee on Computer Services for the Social Sciences; Contract Research Committee; Dept. Committee on Graduate Studies.

GISSER, MICHA

A committee on graduate studies, Department of Economics. M.A. Exams. Several Committees on studies.

HAMILTON, DAVID

Library Committee
Committee on Mobile University
Normal departmental duties

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JONAS, PAUL

Faculty advisor for two students who present paper
for departmental seminar;
Student-Faculty Committee Chairman, Dept. of Economics

LIEPE, WOLFRAM

Service on departmental student advisory committees
for graduate students; service on examination and
dissertation committees in Ibero-American Studies,
Latin American Studies, International Relations.

PARKER, ALFRED L

Chairman, Committee for the Principles Course
Chairman, Graduate Evaluation Committee
Member of the Athletic Council

TAILBY, DONALD G.

Curricula Committee - Various Departmental Committees
Various dissertation/thesis committees

9. Public serviceCOHEN, SANFORD

Division Chairman, Pct. 52, Demo Party

JONAS, PAUL

Member, Board of Directors, Albuquerque Montessori Society, Inc.

10. Personal Informationd'ARCE, RALPH

His wife, Sherry, will receive a B.A. from UNM, June, 1969

HUFBAUER, GARY

Baby girl, Ellen, born January 12, 1969

The Report of the Department of English
July 1, 1968 - June 30, 1969

Joseph Frank, Chairman, July 1, 1968 - April 10, 1969
Joseph Zavadii, Acting Chairman, April 16 - June 30, 1969

I. GENERAL DEPARTMENTAL INFORMATION

A. SIGNIFICANT ACHIEVEMENTS DURING THE ACADEMIC YEAR 1968-69

(See Appendix A for a memorandum from Professor Frank.)

In spite of the turmoil in the last quarter of the year, the department can point to substantial achievement in both the undergraduate and graduate programs. As a result of the work of a special committee on curriculum evaluation, composed of both students and faculty, the department has eliminated the requirement of particular courses for the undergraduate major. Beginning in the fall of 1969 students will be expected to work out English programs on their own initiative in consultation with an advisor, and only the 33-hour total (including at least 18 hours of upper division credit) will be required. We think that this change will build more individuality into the program and foster a healthy independence in our students.

At the graduate level our program continued to expand. The number of M.A.'s completed jumped from 15 in 1968 to 23; and the number of Ph.D.'s increased from 12 to a new high of 16. Since this expansion has now reached the limit of our capacity, we are moving into a period of consolidation. The fact of expansion, however, seems a remarkable achievement in three years.

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1. ENROLLMENT TRENDS

	<u>Semester I</u>			
	1965-66	1966-67	1967-68	1968-69
Freshman Writing	3200	2916	2427	2665
LD Wrtg. & Ling.	375	363	202	123
LD Lit.	1211	1480	1653	1656
UD & Grad.	933	1079	1274	1330
General Studies	69	42	58	109
English 010	212	291	188	205

	<u>Semester II</u>			
	1965-66	1966-67	1967-68	1968-69
Freshman Writing	2420	2308	2397	2378
LD Wrtg. & Ling.	346	246	146	109
LD Lit.	1256	1486	1589	1408
UD & Grad.	1036	1003	1166	1405
General Studies	45	67	38	
English 010	359	435	166	36

Statistics on enrollment indicate an increase in freshman students of about 14% for Semester I and a hardly measurable decrease in Semester II. Lower division writing courses continue to decrease in enrollment because we taught only five sections of English 264 (Informative Writing) instead of the eight taught in 1967-68. Literature courses enrolled about the same total of students (increase of eighteen students) over the entire year. The only significant change appears in the shift of numbers from lower division to upper

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division and graduate courses in Semester II, and no reason seems obvious. The decrease in English 010 in Semester II apparently is the result of lack of coordination with University College. Students who should have enrolled in 010 were not directed to do so. We will double-check entrance scores for all freshman students in the fall so that this failure in communication does not happen again.

2. ADE SEMINAR

From June 16 to June 20 the University was officially host for a seminar for new English Department Chairmen organized by the Association of Departments of English. All local arrangements were made by Joseph Frank, and sessions met at Western Skies. Some fifty chairmen attended from many parts of the country. All participants praised the department for its role in the success of the seminar.

3. THE D. H. LAWRENCE FELLOWSHIP FOR THE SUMMER OF 1969

The D. H. Lawrence Fellowship was awarded to poet Edward Dorn. Mr. Dorn has been writer-in-residence at the University of Kansas during the past year and previously taught at the University of Essex for three years. His published works include The Shoshoneans, Hands Up!, The Newly Fallen, From Gloucester Out, Geography, The North Atlantic Turbine, and Idaho Out. He is currently working on the third volume of what will be a long poem in four volumes, The Gunslinger. Volumes I and II have already been published.

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In addition, Eric Barryman, a graduate student in English, was appointed to live in the Lawrence Cottage itself for the summer as custodian and guide for visitors. Mr. Barryman is the second student to receive this appointment and the stipend attached to it. He reports that he has plenty of time to do his own work along with his special duties.

4. INTRODUCTION TO THE CINEMA

The course, English/Fine Arts 210, Introduction to the Cinema, got off to a good start. Because we allowed thirty more people than we had seats for in FA 218, there was some confusion, but despite this and other difficulties, the better students were enthusiastic about what we accomplished. A weekly film supplemented the lectures and class films. The basis for a permanent art-film society was established so that we were able to bring films weekly during the second semester when the course was in abeyance. In the coming semester we will have one less lecture weekly and will have the Fine Arts Recital Hall instead of 218. Movie history and appreciation will be illustrated in films from D. W. Griffith to the present. As last time, we will try to bring the films which all students of film should know.

5. COURSE IN BLACK LITERATURE

Offered for the first time was a course in black literature, concentrating on twentieth century novels written by black Americans. Because the class was almost evenly balanced between black and white students, interchange of ideas, experiences, and interpretations stimulated discussions of the novels and fostered racial understanding. The use of a black teaching

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assistant contributed greatly to achieving good rapport with the entire class and frankness in dealing with sensitive racial problems. Although social issues are inherent in the novels, an essentially literary approach to the works enabled students to comprehend the relationships between art and propaganda or social protest.

6. POETRY PROGRAM

September 20, 1968, Kelli Robertson
 " " " , William Harris
 September 26, 1968, Galway Kinnell
 October 11, 1968, Robert Creeley
 November 2, 1968, Leslie Fiedler
 November 15, 1968, William Dodd
 " " " , Dean Syracopoulos
 " 22, 1968, Bert Meyers
 December 6, 1968, Michael McClure
 February 14, 1969, W. S. Merwin
 " 24, 1969, Lewis Macadams
 " " " , William Pearlman
 March 21, 1969, Charles Bolt
 " 28, 1969, Douglas Fisherty
 " " " , Jim Bradford
 " " " , David Till
 April 11, 1969, Joanne Kyger
 " 25, 1969, Edward McCord
 May 9, 1969, Edward Dorn

7. MAT

The new MAT program has progressed modestly during the year with the first graduate expected to finish this summer. Applications for admission have increased, but the program will not function properly until English and Secondary Education are able to schedule the special new courses for the degree on a regular basis. English 512 was taught successfully during 1968-69; but English 527 and Secondary Education 521 will not be offered until

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Semester II next year, and English 528 cannot come before Summer 1970.

By 1970-71 we expect to schedule these courses regularly in a manner that will make the program efficient as well as academically rich.

8. M.A. FOR JUNIOR COLLEGE TEACHERS

This program does appear in the Graduate Catalogue, but no students have yet applied to enter it. Dialogue with junior college English faculties seems desirable before anything further is claimed for the program.

9. LINGUISTICS

Seven members of the department are among the associated faculty of the new Program in Linguistics and Language Pedagogy. Professor Pickett will teach the program's Introduction to the Study of Language in the fall, and four other English offerings are included on the fall list of courses of special interest to students of Linguistics.

10. DEPARTMENTAL GRANTS-IN-AID

During the year the departmental Grants-in-Aid Committee distributed \$3,204 to 26 students and faculty members.

11. THE DOVIS MAE CALKINS MEMORIAL FUND

A small loan fund has been established by faculty, alumni, and friends in memory of the late Mrs. Davis Mae Calkins, for fourteen years

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well-known and loved Secretary of the Department of English. The fund is to be used to aid graduate students in English with small loans which will be interest-free for up to one year. The fund is administered by the Office of Student Aids.

12. NDEA FELLOWSHIPS AND URM FELLOWSHIPS

Three new NDEA Fellows in English were appointed for 1969-70. In addition, five NDEA Fellows have been renewed, and four new URM Fellows have been selected from among English graduate students.

B. SIGNIFICANT PLANS AND RECOMMENDATIONS FOR THE NEAR FUTURE

1. FRESHMAN ENGLISH

Paul Davis, new Director of Freshman English, has been revising syllabi for English 101 and 102 with the help of the Freshman English Committee. Revision includes re-emphasis of the principal writing objectives of both courses, changes in textbooks for both courses, clarification of assignments expected, and procedures for regular counseling of teachers in the freshman program. In the fall we expect the program to have clear focus and direction. The importance of variety and individuality will be recognized, but at the same time the entire department will be assured that its April 11 statement of responsibility for Freshman English is being implemented realistically.

2. UNDERGRADUATE PROGRAM

With the new unstructured major in effect, next year may well be a time for examining the possibility of a more extensive undergraduate seminar program than is presently available to students. Now that the student

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is encouraged to play a more important role in organizing his own program, we will probably want to provide further opportunity for that same independence to grow in the classroom. In fact, the success of the Department Honors Seminar (498 and 499) indicates that classes of seminar-size are becoming increasingly more important to our students. Added small classes at one level will probably mean larger classes somewhere else, but the challenge to the department seems clear.

C. APPOINTMENTS

1. James F. Barbour. B.A., Concordia Seminary, St. Louis, Mo., 1955; M.A., Washington University, St. Louis, 1960; Ph.D., UCLA, 1969. American Literature, especially Herman Melville, Mark Twain, and southwest humor. Assistant Professor, starting September, 1969.
2. Joel M. Jones. B.A., Yale University, 1960; M.A., Miami University, 1963; Ph.D., University of New Mexico, 1966. American Studies Director, starting September, 1969.
3. Harvann Richter. B.A., University of New Mexico, 1938; M.A., New York University, 1955; Ph.D., New York University, 1967. Creative Writing, starting September, 1969.
4. Angus Ross. M.A., University of St. Andrews, 1949; Ph.D. Trinity College, Cambridge, 1954. Seventeenth and eighteenth century English literature; the English novel; contemporary English Society and literature; American literature. Visiting Professor, Summer Session, 1969.
5. Hoyt Trowbridge, Dean of the College of Arts & Sciences, will return to fulltime teaching on the Faculty of English in the spring term, 1970.

D. SEPARATIONS FROM STAFF

1. Norton Crowell, Professor.
2. Joseph Frank, Professor.
3. George Ridenour, Professor.
4. Robert Grealey, Visiting Professor.
5. Joanne Cockelreus, Instructor and Assistant Director of Freshman English, will return to graduate study.

II. COMPOSITE OF INFORMATION REQUESTED ON INDIVIDUAL BIOGRAPHICAL SUPPLEMENTS

1. Advanced Study

Susan V. Dewitt

Candidate for Ph.D., University of Washington.

Ellen Spolsky

Ph.D. awarded by Indiana University, January, 1969.

Marcia Tillotson

Candidate for Ph.D., University of Chicago.

2. Sabbaticals, leaves of absence, summer teaching elsewhere, etc.

George Arms

Sabbatical leave, I, 1968-69. Conferences at Howells Center in Bloomington, Indiana, June 1968, Jan. 1969. Travel and research in Ireland, Scotland, England, Sept.--Oct. 1968. Center for Editions of American Authors Conference, Chicago, April, 1969.

Joanne Cockelreus

May 31-June 10, Natchez-Adams County Schools, Natchez, Mississippi (teaching composition to teachers at workshop).

Gene Franklin

Poetry reading, University of Arizona, Tucson (October, 1968).

Joseph Frank

MLA meeting, Chicago, December; Association of Departments of English Executive Board Meeting, Chicago, April; University of Kansas, to chair a panel at the Renaissance Conference, Lawrence, Kansas, April; Fort Lewis College, Colorado, to act as a consultant on reforming their English Curriculum, November; RMMLA, Air Force Academy, October (Colorado Springs).

James Llewellyn Thoreon

Travel to New York for MLA meeting and to attend theater.

Fred B. Warner, Jr.

Travel to New York for MLA meeting, December, 1968.

Joseph Zavadii

Taught Literary Criticism in NDEA English Institute at Trinity College, Hartford, Conn., July-August, 1968.

3. New Scholastic honors, fellowships, etc.

George Arms

Center for Editions of American Authors (Mod. Lang. Assoc.) Grant \$2,500. American Philosophical Association Grant, \$770. UNM Research Allocations Grant, \$300.

Gene Franklin

Listing in Who's Who in the West, 12th Biennial Edition.

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II-3 continued 6/69

David A. Remley

NDIA grant from UWM English Dept. for summer research, 1969.

Katherine Simons

Professor of the Month, February, 1969, award from Las Campanas.

Mary Jane Power

Grant-in-aid of \$500.00 from the English Department for projected research in Ireland.

4. Publications

George Arms

/Twenty-five Explications of Poetry and Fiction/, The Explicator Cyclopedic (Chicago: Quadrangle Press, 1968), passim. Reprints of short articles previously published.

Ernest Warren Baughman

Review: 100 Armenian Tales and Their Folkloristic Relevance. Folktales of Germany. Tales from the Fens. More Tales from the Fens. Western Folklore, XXVII (October, 1968), 279-281.

Review: The Headless Cobbler of Smallett Cave, Journal of American Folklore, LXXXI (October, 1968), 360-361.

Jane Baltzell

Book manuscript on medieval poetic in process of publication by Mouton & Co. publishers.

Trans. of *Poetria nova* by Geoffrey of Vinsauf in process of publication by University of Chicago Press.

Joanne Cockelrean

Writing the Essay: An Analytical Approach. Holt, Rinehart.

Writing About Literature: A Rhetoric. Holt, Rinehart.

Gene Franklin

The Rainbow-Walker, Grasshopper Press, book of poems published December, 1968. "Stanford Street Poem," The Nation, Dec. 30, 1968. Poem in Minnesota Review, Spring, 1969. Article in The Nation, Fall, 1968. Three poems in New Orleans Review, issues #2 and #3; 5 poems in Cafe Solo, spring, 1969; 2 poems in Read Apple.

Joseph Frank

Robbled Pegasus: A Descriptive Bibliography of Minor English Poetry, 1641-1660, UNM Press, 1968; as ed. - McCarthy's Campaign: The New Look in Politics, UNM Press, 1968; two short scholarly book reviews in SEVENTEENTH CENTURY NEWS.

Willis Dana Jacobs

"William Carlos Williams' To a Poor Old Woman," Concerning Poetry, Vol. 1, No. 2, Fall, 1968, p. 16. "William Carlos Williams' Great Mullen," The Explicator, Accepted, Scheduled for publication in 1970 or 1971. "William Carlos Williams' Between Walls," The Explicator, Accepted, Scheduled for publication in 1970 or 1971. "William Carlos Williams' The Young Housewife," The Explicator, Accepted, Scheduled for publications in 1970 or 1971. "William Carlos Williams' A Coronet," English Language Notes, Accepted, Scheduled for publication in 1970-1971. "William Carlos Williams' To Waken an Old Lady," The Explicator, Accepted, publication awaiting scheduling.

Roy Pickett

Editor, The Theme of the Hero, Wm. C. Brown Company, Publishers, 1969. Editor, English 101: Instructor's Manual, U. of New Mexico Printing Service, 1969.

David A. Remley

"There Are No Local Problems," Rio Grande Sierran, VI (July, 1968), 3-5. "Conservationists and the Corps Battle for Big Walnut Valley," Sierra Club Bulletin, LIV (March, 1969), 5-7. LIV (March, 1969), 5-7. Reprinted as "Big Walnut Valley: It Must Not Be Destroyed" for general distribution by Indiana Division, Isaac Walton League of America, Fort Wayne, Indiana.

Stephen Rodefer

Poems in Is. (Toronto), Collection (London), Connections (Buffalo), Oriental Blue Streak (Placitas), Placitas Jelly Roll and Refried Bean Bag (Placitas) -- all 1968.

E. W. Tedlock, Jr.

Wrote memorial statement for Steinbeck Newsletter, Ball State University. Wrote introduction for UNM Press, Steinbeck and His Critics.

5. Other Research Projects

George Arms

Continuing work on the W. D. Howells letters.

Jane Baltzell

Book on Chaucer in progress.

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Edith Buchanan

Working on three articles on Milton, two short, the third longer.

Norton B. Crowell

Work in progress: Robert Browning: A Reader's Guide, to be about 1000 pages of manuscript, of which about 700 are completed.

Paul Davis

Projects on Dickens and theory in the Victorian novel in progress.

Franklin M. Dickey

UNM summer grant for work at Huntington Library and in LA film archives.

Gene Frumkin

225 pages of novel (first draft) completed as of April 24, 1969 -- about 70 more pages to go.

Robert E. Fleming

This year I developed two new courses. English 350 (Old English Literature in translation) was proposed and accepted as part of the English curriculum. The Black Novelist in America, under English 490, served as a pilot for a Black literature course which will probably be added to our offerings soon. In connection with the latter project, I am engaged in research on several Black authors -- with emphasis on James Weldon Johnson and Richard Wright.

Joseph Frank

A book -- just begun -- on a seventeenth-century poet, pamphleteer, and journalist; an article on G. B. Shaw; a couple of scholarly book reviews.

Joanne Field Holland

Paper completed on The Winter's Tale, to be read at the 1969 meeting of the Philological Association of the Pacific Coast; review for Seventeenth-Century News of E. H. Emerson, English Puritanism from John Hooper to John Milton; book in progress on the historical materials in The Faerie Queene.

Willis Dana Jacobs

Work in progress: 2 further articles on William Carlos Williams are completed; three others are under progress. One article on Eugene Ionesco is completed.

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Dorothy M. Logan

Textbook titled Writing Essays About Literature: A Literary Rhetoric, in collaboration with Joanne Cockelreass; to be published by Holt, Rinehart & Winston; tentative date February, 1970.

Ivan Melada

Research for a new course in American popular fiction. Research for a future course in the Doppelganger.

Mary Jane Power

Work in progress: a critical and biographical study of the modern Irish novelist, Flann O'Brien.

David A. Remley

Erna Fergusson (Austin: Steck-Vaughn Company, 1969). This is a booklet to be published in June in the Steck-Vaughn "Southwest Writers Series"; it is completed. I am beginning a study of the planning, construction, and early uses of the Alaska Highway (summer, 1969) with research in Washington, D. C. (National Archives, State Dept., etc.). Presently at work on 3 articles, 1 on the Lewis and Clark Expedition, 2 on the relationships between William and Henry James and their father. I have completed an article on Mencken for which I have not found a publisher.

Stephen Rodefer

Life Pesat, book of poems, to be published, Fall, 1969, by San Marcos Press, Cerillos, N. M.

Katherine Simons

Continuation of work on Medieval and Renaissance thought and backgrounds. Initial preparation for a new course in General Studies, 401, with Professor Skabelund, a continuation of the present G. S. 302, Major Traditions in Western Culture.

Fred B. Warner, Jr.

In progress a study of Robert Louis Stevenson; a study of minor Edwardian novelists.

Dudley Wynn

Continuing work on Joseph Conrad. Hope to publish an article or two on Conrad and perhaps on Camus within a year.

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6. Activities in Learned and Professional Societies

George Arns

Executive council of Western Literature Association, 1968-71.

Ernest Warren Baughman

Meeting, American Folklore Society, November, 1968. Executive Board, American Folklore Society, through 1971.

Jane Baltzell

Paper, "Ars Amoris from Ovid to the Romance of the Rose," read at annual meeting of the Rocky Mountain Modern Language Association Chairman, MLA Conference on Geoffrey of Vinsauf, December, 1968.

Susan V. Dewitt

Attended P.A.P.C. meeting, Tucson, November, 1968.

Gene Franklin

Guest editor, New Mexico Quarterly, Spring-Summer '69.

Robert E. Fleming

Member of MLA, RMMLA, AAUP.

Joseph Frank

President of the Association of Departments of English, as well as member of its Executive Board and Nominating Committee.

Willis Dana Jacobs

Member: Modern Language Association. American Association of University Professors. National Council of Teachers of English.

Roy Pickett

Member of Executive Committee of the College Conference on Composition and Communication, attended CCCC meeting, April 15-19, Miami Beach.

Mary Jane Power

Attended a comparative literature symposium at Texas Tech in Lubbock, early in February. The subject was James Joyce: His Place in Modern World Literature.

Ellen Spoisky

Attended MLA meetings, December, 1968.

English Dept. -- II-6 continued 6/69 -- page fifteen

James Llewellyn Thorson

Attended MLA meeting in New York, December 26-29, 1968.
Attended national convention of AAUP May 1-3, 1969 in
Minneapolis. President of local chapter of AAUP, 1968-70.

Dudley Wynn

President, 1969-70, of National Collegiate Honors Council, an
organization of about 300 Honors programs throughout the nation.

Zavadil, Joseph

Paper read at meeting of Medieval Association of the Pacific,
February 14, 1969, University of California at Riverside.
Attended reconvoation of NDEA Institute at Hartford,
Connecticut, May 15-17, 1969.

7. Other professional activities

George Arms

Executive committee of the editorial board for the Indiana
University Press 40-volume edition of W. D. Howells. ##Co-editor,
The Explicator, ##Director and president of The Explicator
Literary Foundation. ##Board of editors, American Literature,
1966-69. ##Advisory board, Abstracts of English Studies,
1968-69. ##Board of consultants, American Literary Realism.

Joanne Cockelreass

Series of lectures on communication, executives of Public
Service Co. of New Mexico.

Paul Davis

Production of "Dickens' Christmas Carol: An Adaptation for the
Contemporary Stage," Old Town Studio, Albuquerque, Dec. 1968.
Reader, Educational Testing Service, March 1969.

Gene Franklin

See #2 above and #6 above. Reading with Robert Cresley and
Stephen Redefor scheduled May 10, at UMM. Participant in panel
discussion "The Future of Greek Organizations," April 14, 1969,
UMM Ballroom.

Joseph Frank

Consultant on Curriculum to Fort Lewis College, Colorado, in the
Fall of 1968. Liaison to the State of New Mexico for the National
Academic Freedom Committee of the American Civil Liberties Union;
President of the UMM Faculty Club; General Editor NEW MEXICO
QUARTERLY.

English Dept. -- II-7 continued 6/69 -- page sixteen

Joanne Field Holland
Reader for Colorado Associated Universities Press.

Roy Pickett
Consultant to Prentice-Hall.

E. W. Tedlock, Jr.
Established San Marcos Press, which has published seven books

James Llewellyn Thorson
Thirty-minute interview on KUNM radio on April 5, 1969. Spoke to the First Congregational Church seminar, the Unitarian Church social concerns committee, the Breakfast Lions Club, St. Mark's Episcopal Church and the Mountain States Telephone engineers group about various aspects of academic freedom, due process, and institutional integrity.

8. Non-teaching University Service

George Arms
Member of Committee on American Studies. Chairman of Advisory Committee on Advancement, College of A&S.

Ernest Warren Baughman
Acting Chairman, Committee on American Studies.

Jane Baltzell
Department P&P and Graduate Committees. Chairman, Committee in Charge of Comparative Literature.

Edith Buchanan
English Graduate Committee. Expanded Freshman English Committee. Policy and Personnel Committee. Graduate Adviser.

L. Scott Catlett
Undergraduate Adviser. Grants-in-Aid Committee (English).

Jeanne Cockelkans
Representative, UHM High School Day. Member, Freshman English Committee. University College Adviser. Supervisor, Work-Study Program (English).

Paul Davis
Research Allocations Committee (University). Policy and Personnel Committee. Undergraduate Major Committee. Freshman English Committee. Departmental Honors Committee.

Susan V. Dawitt
Major advisor. Alternate, Student Standards Committee (University).

English Dept. -- II-8 continued 6/69 -- page seventeen

Franklin M. Dickey

Graduate adviser. Vice-president Phi Kappa Phi. Policy & Personnel Committee. Comparative Literature Committee.

Robert E. Fleming

Director of Registration for English Department. Member of University Registration Committee. Faculty Representative on Student Leadership Scholarship Committee.

Joseph Frank

Chairman, Publications Committee (University). Member, Administrative Committee (University). Policy and Personnel Committee. Various departmental standing and ad hoc committees.

Joanna Field Holland

University Speakers' Committee. University Art Museum Committee. English Department M. A. Exam Committee; Committee on the Undergraduate Major. English major adviser.

Willis Dana Jacobs

In charge: Department of English library orders. Expanded Policy and Personnel Committee. Committee on Comparative Literature. Dept. of English Space (Housing) Committee. Adviser of English Majors and Comparative Literature Majors.

Joseph M. Kunts

Committees: Continuing Education,; A&S Scholarship; English Survey Courses. Faculty adviser, English Majors. Member of Expanded Policy and Personnel Committee (English).

Dorothy M. Logan

Adviser to University College students. Freshman English Committee. Non-degree Committee.

Ivan Molada

University Committee on the Jr. College. Graduate Adviser. Chairman, Rev. M.A. for Community and Jr. College Teachers. Ad Hoc Undergraduate Committee. M. A. Exam Committee. Head, Multiple Section 282.

Roy Pickett

Director of Freshman English. University Curricula Committee. Mobile University Committee. Linguistics Committee. MAT in English Committee. Departmental Grants-in-Aid Committee. Freshman English Committee.

English Dept. -- II-8 continued 6/69 -- page eighteen

Mary Jane Power

Secretary, English Department Faculty Meetings. Served on two dissertation committees and is chairman of a third. Undergraduate Curriculum Committee. Adviser, Honors Program.

David A. Remley

Served on a departmental committee to find a new chairman for the URM American Studies Department.

Stephen Rodefer

Freshman English Committee. Poetry Committee.

James L. Ruff

Member, University Library Committee. Undergraduate Adviser. Chairman of the English 257 Committee.

Ellen Spolsky

Adviser to Undergraduate English Majors.

Katherine Simons

Newly appointed member, Board of Popejoy Concert Hall. Chairman, Departmental Committee on Undergraduate Majors. Chairman, Ad Hoc Committee for the departmental statement on freshman course supervision, April, 1969.

James Llewellyn Thorson

Member, Library Committee and chairman of the allocations sub-committee. Elected member of the Administrative Committee. Elected member of the faculty policy committee. Chairman of the Ad Hoc Committee for the review of ROTC at URM. Graduate student adviser. Member of the English Department Graduate Committee.

Fred B. Warner, Jr.

Ad Hoc MAT Committee. Policy and Personnel Committee of English Department. Ph.D. Examination Committee. Freshman English Committee. Assistant Dean College of Arts & Sciences. Entrance and Credits Committee. Arts & Science Coordinator of University Evaluation Day. Audio-Visual Aids Committee. Director, Departmental Registration. Graduate Adviser.

Dudley Wynn

Committee on Enhancement of Educational Process. Ad Hoc Committee on Mobile University. Chairman, Ad Hoc Committee on the University and the Community. Voluntary service on Student-Faculty Assn. Exec. Comm. to put on Sunday evening "Firesides" and Lawrence Ranch Student-Faculty Conference.

English Dept. -- II-3 continued 6/69 -- page nineteen

Joseph Zawadzil

Campus Planning Committee, Ad Hoc Committee to recommend new A&S Dean. Department Graduate Adviser. Departmental Honors Committee. Acting Chairman of Department, April 15--.

9. Public Service

Ernest Warren Baughman

Chairman, Precinct Division 36A, Democratic Party.

Jane Baltzell

Various chores in connection with 1968 presidential campaign. Co-chairman of banquet and initiation arrangements for Phi Beta Kappa.

Edith Buchanan

Friends of New Mexico Libraries, Patron of Santa Fe Opera.

Paul Davis

Teacher, Yale Street Cooperative School.

Joseph Frank

Member of Board of New Mexico Civil Liberties Union. Various speeches and TV appearances.

Willis Dana Jacobs

Chairman and Pronouncer, Annual Scripps-Howard Spelling Bee for the State of New Mexico, sponsored by the Albuquerque Tribune, April, 1969. Elected: Delegate to the Democratic County Convention and Democratic State Presidential Nominating Convention. Member: Democratic Party Credentials Committee. May-June 1968, Albuquerque and Santa Fe.

Dorothy M. Legas

Volunteer collector for The Heart Fund Campaign, Cystic Fibrosis Drive, and Mental Health Drive.

David A. Remley

Active member, Yonah Walton League of America.

James Llewellyn Thorson

Member of the advisory board to Canterbury Chapel. Member of NAACP. Vice-president of Albuquerque Urban Progress. Member of the Nominating Committee for the New Mexico ACLU. Member of New Mexico Citizen's Committee on Human Rights.

Dudley Wynn

Member, Board of Trustees, Albuquerque Academy.

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10. Personal Information

Joseph Frank

Divorced from Margery Goodkind Frank, Jan. 1969; married to
Florence Clark Frank, January, 1969.

Willis Dana Jacobs

Major, United States Air Force, Res.

David A. Ranley

Change of home address to: 7442 Edith Blvd., N. E., Albuquerque,
N. M. 87113.

Joseph Zavadii

Son (Thomas Andrew) born February 16, 1969.

English Dept. -- 68-69 -- Appendix A

APPENDIX A

Prior to April 1, 1969, certain irons which had been put in the fire during 1967-68 became properly tempered. At the undergraduate level the new 010 course apparently was a success pedagogically, though it ran into a few snags in enrolling those students who needed this type of creative remedial work. English 210, taught by Professor Dickey under the aegis of the College of Fine Arts, had them rolling in the aisles; and the new 300 course, under the flexible title of "Genres," helped to fill a gap in our offerings. Finally, the departmental Honors program continued to go well, according to both the teachers and students in it.

On the graduate level, the M.A.T. Program got off the ground and seems well launched. Professor Melada has been working on setting up a program for M.A. candidates who plan to teach at the junior or community college level, though this is still only an iron in the fire.

The Ph.D. program is proceeding satisfactorily, though much remains to be done to iron out minor administrative kinks and ambiguities.

Among projects which might well be continued, though they are still in raw condition, are an interdisciplinary course in urban culture -- and the new course in Black Literature, taught by Professor Fleming, gives strong evidence that such an offering is valid and needed. The regional application for federal funds to subsidize graduate students in the Humanities should, I think, be pushed, even though it may not result in any money for several years. In this connection, more can and should be done regionally to work with other universities and the B.I.A.

Joseph Frank

The Report of the Department of Geography
July 1, 1969 - June 30, 1969
Iven Bennett, Acting Chairman

I. General Departmental Information

A major goal of the department was attained this year when the proposed Master of Arts program in geography was given final approval by University and State authorities. Approval of the program came too late to permit its initiation in the fall semester of 1969, but it is expected the first new courses in the program will be offered in the spring semester of 1970 and that the program will be in full operation by the fall of 1970. New courses necessary for implementation of the program have been approved and will appear in the 1969-70 volumes of the University and Graduate School bulletins. The first student, a young man employed by the New Mexico State Planning Board, has been tentatively accepted into the program and is enrolled in the current summer session. Several other individuals have stated their intention of entering the program in the coming year.

The department was considerably strengthened by the addition in February of Rodman Snead to the staff. Professor Snead came to us from one of the leading graduate schools of geography in the United States, that of Clark University, where his teaching and scholarly activity earned him the reputation as one of the nation's best young physical geographers. His appointment enlarges the full-time teaching staff of the department to four persons.

Mr. Reynaldo Ayala resigned his position of Instructor, effective at the end of the 1969 summer session, to accept an appointment as Assistant Professor in the Imperial Valley Branch of San Diego State College, California. During his three years on the staff, Mr. Ayala made many contributions to the growth in stature of the Geography Department, particularly through his work in the Latin American Studies Program where his fine efforts earned the respect of University Latin Americanists in other disciplines. He will be replaced in September 1969 by Mrs. Elinore Barrett, a young woman completing her doctoral work at the University of California, Berkeley.

Dr. Dietrich Fliedner, Georg - August University, Göttingen, West Germany will join the department for the 1969-70 academic year as a Visiting Scholar. Dr. Fliedner has been granted an American Council of Learned Societies International Fellowship in American Studies. He will do research on the development since the 16th century of the cultural landscape of an area in northern New Mexico.

The department's regular chairman, Professor Richard Murphy, spent the year on leave teaching in Japan (see below for details). His teaching duties were assumed by Professor Curtis Manchester of the University of Hawaii. Professor Manchester enriched the department's program of instruction by teaching courses on the Far East and Exploration Geography, fields in which he is an authoritative scholar. Associate Professor Iven Bennett served as Acting Chairman of the department.

Only one new course, Exploration Geography taught by Visiting Professor Manchester, was offered during the year. However, 380L. Cartography and 481. Geomorphology, offerings of Civil Engineering and Geology respectively, were added to the geography course listing in the 1968-69 University Bulletin. Geomorphology was taught in the spring semester by Professor Snead under an

arrangement that will see the course taught by a geographer one year and by a geologist the next. The new courses listed below were approved by the University Curricula Committee and will appear in the 1969-70 bulletins. The addition of these courses moves the department's offerings closer to those of other universities of comparable size and nature, but still leaves us considerably short of the norm.

- 336. The Middle East and the Indian Subcontinent.
- 373. Map Reading and Air Photo Interpretation.
- 405. Field Methods.
- 501. Seminar in History and Philosophy of Geography.
- 511. Seminar in Physical Geography.
- 512. Seminar in Human Geography.
- 521. Seminar in Regional Geography.
- 599. Master's Thesis.

Under the auspices of the University Press, a new publication series for works in geography, "University of New Mexico Publications in Geography", was started. Professor Snead's, Physical Geography Reconnaissance: West Pakistan Coastal Zone, appeared during the spring as Publication No. 1 in the series.

II. Composite of information requested on individual biographical supplements.

Advanced study.

Mr. Ayala completed the first draft of his doctoral dissertation and submitted it to his committee at Southern Illinois University.

Leaves of absence, travel, etc.

Professor Richard Murphy spent the 1968-69 academic year as a Fulbright Lecturer at the Institute of Geography, Tohoku University, Sendai, Japan. Professor Murphy traveled widely in Japan and plans to return home via the U.S.S.R. and Western Europe. During the year he published at least one paper, continued research on his classification of landforms and gave numerous lectures, other than those scheduled as part of his duties at Tohoku

University, in various parts of Japan. Since the details of many of these activities are not known at this time, they will not be reported in the sections below. Professor Murphy will supply the necessary information on his return when he updates his biographical record.

Between July 1968 and January 1969, Professor Snead conducted field work on the desert coastal morphology of the southeast coast of Iran. The trip was sponsored by the geography Branch, office of Naval Research, Washington, D. C. (ONR Contract N000 14-66-CO104). The Explorers Club of New York also provided funds for the field work.

New Scholastic honors, fellowships, etc.

See Murphy material above.

Publications.

Bennett, I. "Correlation of daily insolation with daily total sky cover, opaque sky cover and percentage of possible sunshine", Solar Energy, Vol. 12, pp. 391-393, May 1969.

Snead, R. "Origin of sands on the east side of the Las Bela Valley, West Pakistan", Bulletin of the Geological Society of America, Vol. 79, pp. 1671-1676, November 1968.

"Weather patterns in southern West Pakistan", Archiv für Meteorologie, Geophysik und Bioklimatologie, Serie B, Vol. 16, pp. 316-346 December 1968.

(with Ian Burton and Robert W. Kates) The Human Ecology of Coastal Hazard in Megalopolis, Research Paper No. 115, University of Chicago Press, 1969.

Physical Geography Reconnaissance: West Pakistan Coastal Zone, University of New Mexico Publications in Geography, No. 1, 1969.

Tuan, Yi-Fu, et. al. The Climate of New Mexico, New Mexico State Planning Office, 1969. (This report was prepared in 1962-64 when Dr. Tuan was on the staff of the Geography Department.)

Other research projects or creative work in progress or completed.

Dr. Bennett continues to assemble hail, sleet and freezing rain data for 300 United States weather stations. When a twenty-year-record has been compiled (mid-1970), the data will be punched on cards for computer analysis

of the climatic characteristics of these three important weather variables. A study of the frequency of daily insolation values in the United States and Canada is about one-half completed.

Dr. Snead is preparing a report of his field studies along the south-east coast of Iran. He is nearing completion of a World Atlas of Landform Features. This latter work has been sponsored and will be published by the publishing company of John Wiley and Sons. It promises to be a major contribution to geomorphological literature.

Activities in learned and professional societies.

Dr. Bennett and Mr. Ayala read papers before the Southwest Division Meeting of the Association of American Geographers, April 4 in Houston, Texas. Dr. Bennett's paper was titled: "The Southwest United States as North America's principal high-intensity insolation center"; Mr. Ayala's: "The origin and development of Ejido Parras, Coahuila, Mexico, as determined from official records."

Dr. Snead read a paper titled, "Pleistocene sands on the east side of the Las Bela Valley, West Pakistan", before the 21st International Geographical Congress, held during November in New Delhi, India. His trip to the meeting was sponsored by a grant from the National Science Foundation.

Dr. Bennett was elected Chairman of the Albuquerque Chapter of the American Meteorological Society. He continued service on the Editorial Review Board of the journal Solar Energy.

Other professional activities.

Professor Snead lectured in January to the Explorers Club of New York on his field work along the coast of Iran. He gave illustrated lectures on his work in Iran and West Pakistan to the Albuquerque Chapter of the American Meteorological Society and the University Geography Club.

Mr. Ayala presented an illustrated lecture on mountains to the Kirtland Grade School of Albuquerque, and one on the sequent occupance of Saltillo, Mexico to the Hospitality Club of Albuquerque.

Non-teaching University service.

Mr. Ayala continued as advisor to the Geography Club. He served on the Ph.D. oral examination committee of Mr. Roland Stewart.

The Report of the Department of Geology
 July 1, 1968--June 30, 1969
 Vincent C. Kelley, Chairman

I. GENERAL DEPARTMENTAL INFORMATION

A. Significant Achievements

The Department of Geology granted 8 bachelor's degrees, 10 master's degrees, and 2 doctor of philosophy degrees. This compared with an average of 7, 8, and 3 degrees respectively during the previous two academic years. About 75 undergraduates were enrolled for bachelor's degrees in geology. Some 45-50 students were enrolled for graduate work of which about one-half were working toward a doctorate. Enrollment in geology was up about 12 percent for the year as compared to some 4 percent for the University as a whole.

The Department continues to receive good financial support for its majors from a number of sources as follows:

Richard L. Ruetschilling	NSF Fellowship	\$2,500
Phillip F. Hock, Jr.	NSF Fellowship	\$2,500
Richard L. Burroughs	NSF Faculty Fellowship	\$4,000
Frederick W. Bachhuber	NASA Predoc. Trainee	\$2,400
William Noel McAnulty	NASA Predoc. Trainee	\$2,400
John W. Petersen	NDEA Title IV Fellowship	\$2,400
Jan Huzarski	NDEA Title IV Fellowship	\$2,400
Pao-Chin Chao	University Fellowship	\$1,900
Thomas R. Fisher	NASA Undergrad. Res. Asst.	\$ 400
Steven Young	NASA Undergrad. Res. Asst.	\$ 500
Marvin Palmer	ACS Research Assistantship	\$1,000
Subramaniam Natarajan	ACS Research Assistantship	\$1,200
Wayne R. Sigleo	NASA Undergrad. Res. Asst.	\$2,000
Judith Brower	NASA Undergrad. Res. Asst.	200
Ronald P. Geitgey	NSF Summer Trainee	\$ 700
John B. Anderson	C. L. Herrick Scholarship	\$ 400

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Robert L. Taylor	Harry Leonard Scholarship	\$ 250
Karen Kuehlthau	Aztec Oil & Gas Scholarship	\$ 400
Pao-Chin Chao	Alb. Gem & Mineral Scholarship	\$ 200
John B. Anderson	N. M. Geol. Soc. Thesis Grant	\$ 100
Merritt James Aldrich	Res. Associate (NASA)	\$3,400
Ronald P. Geitgey	Res. Assistant (NSF)	\$1,800
Fred D. Busche	Res. Assistant (NASA & IM)	\$4,950
Rodney C. Rhodes	Res. Assistant (UNM & NASA)	\$3,000
Glen A. Krinsky	Res. Assistant (NASA)	\$1,800
James Douglas Causey	Res. Assistant (NASA)	<u>\$ 100</u>

Total: \$42,900

The following staff research grants were in effect:

R. Y. Anderson	NSF Grant GA 922	\$11,500
W. E. Elston	NASA Grant NGL 32-004011	\$50,000

Post Doctoral Research Associates:

	William Laughlin	\$ 3,000
	Peter J. Coney	\$ 3,500
A. M. Kudo	NSF Grant GA-1623	\$55,000
	NSF Grant GA-4428	\$14,900
	UNM Research Allocations	\$ 1,900
E. F. Cruft	Sandia Lab	\$ 1,500
	NSF GA 922	\$11,500
	American Chemical Soc. 3137-A22	\$13,087
Klaus Keil	NASA, MSC Lunar Sample Analysis	\$41,940
	NASA Goddard Center Probe Standard	\$ 4,416
	NASA Ames Hawaiian basalts	\$14,403
	UNM Research Allocations	\$ 500
	NASA Ames Loan Laser Probe	\$42,000
V. K. Kelley	UNM Research Allocations	\$ 900
	NMINT	<u>\$ 3,000</u>

Total: \$273,046

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Several industrial or institutional grants were made during the year to the Department in recognition of its programs of training and research as follows:

Gulf Oil Company	\$1,500
Atlantic Richfield	\$1,000
Mobil Oil Company	\$ 500
Bear Creek Mining Company	\$ 750
William F. Curtis Award	\$3,318
Albuquerque Gem & Mineral Club	\$ 500
Chevron Oil Company	<u>\$2,000</u>

Total: \$9,568

Pan American Petroleum Corporation established a completely operational Seismic Analog Computer Lab valued at about \$225,000 in one of our lab rooms. More equipment for field studies of earthquakes is also indicated to be coming to us if we enlarge geophysics in the department.

Many scientific and industrial visitors came to the campus during the year for consultation with staff members, for just visiting the facilities, for presentation of papers, for national evaluation, for job interviews, and for recruiting of students. A dozen or so of major petroleum and mining companies interviewed students as prospective employees.

The following people visited and delivered talks before the students and staff:

Theodore Ernst, University Erlangen, West Germany

R. M. Stewart, Anaconda Research

A. F. Trendall, Geological Survey, Western Australia

Fred Hoars, Cal Tech

A. M. Reid, University of California, La Jolla

Kurt Fredriksson, Smithsonian Institution

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Donn Gorsline, University Southern California

Gilbert Fielder, London University

A. A. Smales, British A.E.C.

F. E. Fricker, NASA Ames Research

M. Blander, Staff Research Scientist, North American Aviation

Karl Klement, Texas Tech

David Strangway, University of Toronto

H. Voshage and H. Wanka, Max-Planck-Institute for Chemistry,
Mainz, West Germany

Ian Blayden, University Newcastle, N.S.W. Australia

Some 20 of our graduate students gave talks before our Graduate Conference held Thursdays at 4:00 p.m. Cash prizes amounting to \$100 were given to the best three talks as follows:

John B. Anderson	\$50
Ronald Fodor	\$25
Richard L. Burroughs	\$25

Through Dr. Keil's contacts with NASA the University succeeded in negotiating an Ames-UMM Cooperative Research Agreement for as much as \$135,000. Anyone in the University, including graduate students, having research of interest to an Ames investigator may obtain financial support in amounts up to \$10,000 - \$15,000. At the end of the year several men in the Department were beginning research under this Agreement.

Perhaps the highlight of the year was the preparation and submittal of an Institutional Facilities Proposal to the National Science Foundation requesting \$240,000 to aid in \$548,000 addition and renovation project for the Geology Building. In March an NSF site visit and evaluation was made by Richard A. Carrigan (NSF), John C. Maxwell (Princeton), and

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Brian J. Skinner (Yale). State funds were budgeted and action by the Foundation is expected by early fall 1969.

At mid year the Civil Engineering Department gave up the last of the space that it had occupied on the third floor, and it is this space that will be renovated when the NSF proposal is granted.

Another highlight of the year was the securing of an ARL electron microprobe on an NSF research grant request submitted by Dr. Kudo. Coupled with this Dr. Keil was secured to take over our Institute of Meteoritics. Drs. Kudo and Keil set up the Probe Lab and George Conrad of Sandia was hired to operate the facility. As an unexpected development Dr. Keil secured on loan a laser microbeam analyzer to assist in his research and preparations for studying the expected lunar samples.

Dr. Kudo completed his Phase Equilibrium (Bomb) Lab during the year and began his researches on igneous rock crystallization histories.

The following new equipment was purchased from agency grants and departmental funds.

(1) Zeil Photomicroscope No. II	\$10,225
(2) Astro-furnace, high temperature controlled atmosphere and vacuum	\$ 5,384
(3) Leitz Micro-hardness Tester	\$ 1,650
(4) Eight--Sample Stage	\$ 1,152
(5) Kossel Microdiffractometer Camera	\$ 2,500
(6) Binocular Stereo--Microscope (\$500)	Free
(7) Two Syntex Polishers	\$ 1,800
(8) Probe Sample Holders	\$ 1,100
(9) Atomic Absorption Unit	\$ 7,000
(10) CBC Vacuum Evaporator	\$ 4,000
(11) High Pressure Diamond Cell	\$ 2,000
(12) Miscellaneous Equipment	<u>\$ 5,000</u>

Total: \$41,800

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The Department continued review and modification of its curriculum. The three formal option choices were abandoned in favor of a general statement allowing course variations within the B.S. for students of "hard" and "soft rock" areas of geology. Three hours of geology electives and English 264 were dropped from the B.S. Two new courses were added:

Geology 518L	Microprobe Analysis	3 credits
Geology 513L	Meteoritics	3 credits

B. Plans and Recommendations

1. Plans are being formulated for setting up a rock and mineral preparation laboratory in our basement. Saws, crushers, polarizers, grinding laps, mounting equipment, polishing apparatus, etc. would be assembled in one large shop and a skilled technician would be hired.

2. The meteoritics collections must be moved to Geology from Physics. The best material will be exhibited in our present museum and a secure storage and curating room will be built in the basement for the working part of the collection.

3. It is recommended that a geophysicist be added to our staff next year. If the right man is obtained we could likely double the financial research support in our department.

4. We hope to obtain a skilled lab technician to man our Mass Spectrometer Lab under the direction of one of our staff.

5. Many in the geology staff hope that the next large item of equipment to be secured in the department will be a scanning electron microscope, and space is planned for such equipment in our forthcoming new space.

6. A full-time research associate is urgently needed in the Institute of Meteoritics beginning July 1, 1970. An Institute is hardly worthy of the name with only one man.

7. In order to support our efforts in geochemistry and materials analysis we urgently need a wet analyst. We are hoping to get Dr. Ken-ichiro Aoki from Tohoku University, Sendai, Japan join us on an NSF Senior Foreign Scientist Fellowship for 1970-1971. He is the foremost rock analyst in the world. He has indicated a desire to come. After his visit we would wish to replace him with a permanent man.

C. Dr. Stuart A. Northrop (1928-1969) retired after a long career in the Department, first as chairman (1929-1961) and later as Research Professor (1962-1969). He will be our first Emeritus Professor.

Mr. William Hale, U. S. Geological Survey, was appointed Faculty Associate.

Dr. Lawrence A. Frakes (UCLA) was appointed Associate Professor beginning September, 1969. His specialty is sedimentology.

Dr. George R. Clark (Cal Tech) was appointed Assistant Professor beginning September, 1969. His specialty is Paleontology and he will take over the teaching of Dr. Northrop.

No resignations occurred.

II. COMPOSITE OF INDIVIDUAL BIOGRAPHICAL SUPPLEMENTS

1. Advanced Study

Abraham Rosenzweig. Chinese (Mandarin) language lessons, Taipei Language Institute.

Sherman A. Wengerd. Survey of the latest literature on stratigraphic principles, October to December 1968 (self-imposed study program).

2. Sabbaticals

Edgar F. Cruft. Travel to South West Africa, July-August 1968, Dec. 1968, March 1969 in connection with research and consultation.

Wolfgang E. Elston. Summer field work on NASA sponsored research, southwestern New Mexico. Conducted tour of area for researchers from Jet Propulsion Lab, U.S. Geological Survey. Visited Jet Propulsion Lab., Graduate Research Center of the Southwest, NASA Ames Research Center, U.S. Geological Survey Branch of Astrogeological studies.

J. Paul Fitzsimmons. Sabbatical leave, Semester II, 1968-69.

Dr. Klaus Keil. Annual Meeting of the Meteoritical Society, Cambridge, Mass., October 7-11, 1968. Joint Japanese-American discussion on "Progress in Electron Microprobe Analysis". Sponsored by the National Academy of Sciences and the Japan Society for Promotion of Science (10 selected Japanese and U.S. participants). East-West Center, University of Hawaii, Honolulu, Hawaii, November 11-15, 1968. Meteorite expedition to Pueblito de Allende, Chihuahua, Mexico, February 12-15, 1969. Annual Meeting of the American Chemical Society, Symposium on the Returned Lunar Sample, Minneapolis, Minn., April 14-18, 1969. Meeting of Principal Investigators of the Returned Lunar Sample, NASA Manned Spacecraft Center, Houston, Texas, April 28-30, 1969.

Vincent C. Kelley. Travel to Sonora, Mexico with grad. students Summer session UNM 1968 & 1969.

Albert M. Kudo. Travel to Salt Lake City to read paper at annual meeting of Rocky Mountain Section of Geological Society of America, May 7-11, 1969.

Abraham Rosenzweig. Leave of Absence Sem. I, Sabbatical Leave Sem. II. Visiting Professor of Geology, National Taiwan University Sem I & II, under grant from National Council for Scientific Research & Development, Republic of China. Traveled to Tokyo, Nikko, Kyoto, Osaka, Kobe, the inland Sea, Hiroshima, Japan, from September 6-21; to Okinawa from Sept. 21-22, and to

Taiwan, traveling extensively throughout the island and to the nearby Pescadores from Sept. 23-June 1. Includes visits to several mines, the northern volcanic areas, two trips in the metamorphic terrain of the Central Mountain Range, the west coast, the east coast.

Sherman A. Wengerd. Sabbatical leave U.S.A. and Mexico Sept. 1968-Feb. 1, 1969 (Semester I). Total of 17,000 miles of travel Sept. 1968-Jan. 1969: Albuquerque to Boston to San Francisco to Mexico City, Yucatan, west coast Mexico. Four Corners Geological Society Powell Centennial Memorial Expedition down the Colorado River April 27-May 3, 1969 (Float trip down the rapids to study structure and stratigraphy, take geological photographs, climbed Kaibab Trail from Phantom Ranch to Yaki Point on South Rim). C. Geological Reconnaissance of the Bahio San Francisco Area, Sonora, June 16-23, 1968; D. Trip to San Francisco for oil company conferences July 13-19, 1969 (Buttes Gas and Oil Co., and Sunland Refining Co.). E. Trips to Phoenix for meeting of Board of Directors, Thompson International Corp. January and April 1969.

Lee A. Woodward. Travel to Colorado, Wyoming, Montana, Idaho, Utah, and Nevada.

3. New Scholastic Honors, etc.

Wolfgang E. Elston. Listed in Who is Who in the West.

Dr. Klaus Keil. "Elected Fellow of the Mineralogical Society of America" (Dec., 1968); listed in "Dictionary of International Biography", London, England (1969).

Sherman A. Wengerd. Listed in 1969 Edition of "Who's Who in the West", A. N. Marquis.

4. Publications

- Anderson, R. Y., and Kirkland, D. W. (1969), (Editors),
Paleoecology of an early Pleistocene lake on the
High Plains of Texas: Geol. Soc. America Mem. 113.
201 p.
- _____, (in above volume), Geological Setting
of the Rita Blanca Lake Deposits: p. 3-13.
- _____, (in above volume), Paleoecology of
the Rita Blanca Lake deposits--a synthesis: p. 141-
152.
- Anderson, R. Y. and Koopmans, L. H. (in above volume),
Statistical analysis of the Rita Blanca varve time-
series: p. 59-75.
- Kirkland, D. W. and Anderson, R. Y., (in above volume),
Composition and origin of the Rita Blanca varves:
p. 15-46.
- _____, (in above volume), Systematic list
of fossils in the Rita Blanca lake deposits: p. 77-
81.
- _____, (in preparation). Origin of enter-
olithic folding in banded evaporites.
- Anderson, R. Y., 1969, Annual News Report for Rocky
Mountain Region: Micropaleontology, v. 15,
p. 130-132.
- Cruft, Edgar F., Kinetic considerations of the gypsum-
anhydrite transition. (1969).
- Cruft, Edgar F., Third International Salt Symposium,
Cleveland, Ohio. (In press).
- Cruft, Edgar F., Gypsum deposits of the coast of S. W.
Africa. (1969) with F. Cagle.
- Cruft, Edgar F., Atomic absorption analysis of trace
elements in calcium sulfate minerals using an
organic enrichment technique. (1969). With
J. Husler. (Submitted to Anal. Chem.)

- Cruft, Edgar F., Direct reading emission spectrometric analysis of trace elements in calcium sulfate minerals by organic enrichment. (1969) With J. Husler. Vol. 41, p. 175-177. Analytical Chemistry.
- Elston, W. E., Bickerman, Michael, and Damon, P. E., 1968, Significance of new K-Ar dates from southwestern New Mexico: in Correlation and chronology of ore deposits and volcanic rocks, U.S. Atomic Energy Comm. Ann. Progr. Rept. 600-689-100, p. AIV-1 to AIV-20 (same manuscript being prepared for publication by Geol. Soc. America Bull.)
- Elston, W. E., Coney, P. J., and Rhodes, R. C., 1968, A progress report on the Mogollon Plateau Volcanic province, southwestern New Mexico, in Cenozoic Volcanism in the Southern Rocky Mountains (R. C. Epis, Ed.): Colo. School Mines Quarterly, v. 63, no. 3, p. 261-287.
- Elston, W. E., Lambert, P. W., and Smith, E. I., 1968, Striated cones: Wind abrasion features, not shatter cones, in Shock Metamorphism of Natural Materials (B. M. French and N. M. Short, eds): Mono Book Corp., Baltimore, p. 287-290.
- Elston, W. E. and Aldrich, M. J., 1969, Non-random distribution of major lunar craters (abs): Am. Geophys. Union Trans., v. 50, no. 4, p. 219. (Complete paper being prepared for publication in Jour. of Geophys. Res) .
- Elston, W. E., Five other articles in various stages of publication.
- Fitzsimmons, J. Paul, Four articles for the McGraw-Hill Encyclopedia of Science and Technology: Archeozoic, Precambrian, Proterozoic, and Basement Rock (in press).
- Keil, Klaus, Application of solid-state energy dispersion spectrometer in electron microprobe x-ray analysis. Science 159, 528-530, 1968 (with R. Fitzgerald and K.F.J. Heinrich).
- Keil, Klaus, Zincian daubreelite from the Kota-Kota and St. Mark's enstatite chondrites. Amer. Mineral. 53, 491-495, 1968.

- Keil, Klaus, Chemical and mineralogical relationships among enstatite chondrites. *J. Geophys. Res.* 73, 6945-6976, 1968.
- Keil, Klaus, Determination of vanadium in the presence of titanium by electron microprobe techniques. *Amer. Mineral.* 53, 1770-1773, 1968 (with K. G. Snetsinger and T. E. Bunch).
- Keil, Klaus, Review of "Elektronenstrahl-Mikroanalyse. Vol. IV of Handbuch der mikrochemischen Methoden. E. Malissa, Springer-Verlag, Wien - New York, 1966", in *Amer. Mineral.* 53, 2107, 1968.
- Keil, Klaus, Special applications, cathode luminescence. In "The electron microanalyzer and its application. Proc. Meeting sponsored by the National Science Foundation of Science, East-West Center, Univ. of Hawaii, Honolulu, Hawaii, November, 1968", pp. 65-69, 1969.
- Keil, Klaus, Lattice parameters of kamacite by the Kossel technique. *Amer. Mineral.* 54, May, 1969, (with J. Frazier and A. M. Reid).
- Keil, Klaus, Special applications of the electron microprobe. Joined Japanese-U.S. microprobe meeting, East-West Center, Univ. of Hawaii, Honolulu, Hawaii, November 11-15, 1968.
- Keil, Klaus, Mineral composition and petrology of silicate inclusions in iron meteorites. Meteoritical Society, Annual Meeting, Cambridge, Mass., 1968.
- Keil, Klaus, Chemistry of chromite in non-chondritic meteorites. Meteoritical Society, Annual Meeting, Cambridge, Mass., 1968 (with T. E. Bunch).
- Keil, Klaus, Electron microprobe x-ray analysis. Symp. on Returned Lunar Sample, American Chemical Society, April 14-18, 1969, Minneapolis, Minn. (with T. E. Bunch).
- Keil, Klaus, Ilmenite in ordinary chondrites. *Trans. Amer. Geophys. Un.* 50, 223, 1969, (with K. G. Snetsinger).

- Kelley, Vincent C., Geology of the Alkaline Precambrian Rocks at Pajarite Mountain, Otero County, N.M.: Geol. Soc. Amer. Bull: v. 79, p. 1565-1572, 1968.
- Kelley, Vincent C., Albuquerque: Its Mountains, Valley, Water, and Volcanoes; N. Mex. Bur. Mines & Min. Res. Scenic Trips to the Geologic Past, No. 9, 101 p.
- Kelley, Vincent C., Westward Overturning Near the Absaroka Thrust, Uinta County, Wyoming, Geol. Soc. America Bull., May, 1969.
- Kudo, Albert M., Initial melting in alkali feldspar-plagioclase-quartz systems, Geological Magazine, vol. 105, no. 4, 1968, pp. 325-337.
- Kudo, Albert M., Inclusions of ultramafic and sedimentary rocks in volcanic necks, Sandoval and Valencia Counties, New Mexico, Program, Annual Meeting of the Rocky Mountain Section, Geological Society of America, 1969, May 7-11, p. 10.
- Northrop, Stuart A., History of the New Mexico Geological Society, 1947-1968: New Mexico Geol. Soc. Spec. Pub. No. 2 (mss. of 219 p.) in press.
- Rosenzweig, Abraham, with M. M. Karnowski, "The gold-tin-lead alloys; the gold-lead-tin system", Trans. Met. Soc. AIME, vol. 242 (1968), p. 2257.
- Rosenzweig, Abraham, with D. T. Cromer, "The crystal structure of $(\text{NH}_4)_4\text{UF}_6$ ", Acta Crystallographica, in press.
- Rosenzweig, Abraham, with Ryan, R. R. & Cromer, D. T. "The crystal structure of $(\text{NH}_4)_4\text{ThF}_6$ ", Acta Cryst., in press.
- Wengert, Sherman A., "Bioherm" Articles in Revisior of McGraw-Hill Encyclopedia of Science.
- Wengert, Sherman A., "Biostrome", Technology, New York, 1969, (Page numbers not available to me).
- Wengert, Sherman A., "Pennsylvanian Correlations in South-western Colorado," New Mexico Geological Society Guide-book for the 19th Annual Field Conference, p. 159-164, October, 1968 (with Dr. E. Szabo).

- Woodward, Lee A., Lower Cambrian and Upper Precambrian Strata of Beaver Mountains, Utah, 1968: Am. Assoc. Petroleum Geologists Bull., v. 52, p. 1279-1290.
- Woodward, Lee A., 1968, Pre-Beltian Geologic History of Central Montana: Geol. Soc. American Ann. Mtg. Program, Nov. 11-13, 1968, Mexico City, p. 328-329.
- Woodward, Lee A., 1968, Basin and Range Landscape: Encyclopedia of Geomorphology, Reinhold Book Corp., p. 60-62.
- Woodward, Lee A., 1969, Significance of Comparative Tectonics in Petroleum Exploration: West Tex. Geol. Soc. Newsletter, v. 9, p. 12-13.
- Woodward, Lee A., 1969, Petroleum Exploration in Western United States in Light of Principles of Comparative Tectonics: Am. Assoc. Petroleum Geologists Bull., v. 53, p. 210-211.
- Woodward, Lee A., 1969, Large-Scale Tectonic Bending Associated with Major Thrust Plate, Western Utah (abstract): Geol. Soc. America Abstracts with Programs for 1969, Part 5, p. 91.
- Woodward, Lee A., 1969, (with J. Michael O'Neill), Precambrian Carbonate Rocks of the Pilor Range, Nevada and Utah, and Their Regional Significance (abstract): Geol. Soc. America Abstracts with Programs for 1969, Part 5, p. 91-92.
- Woodward, Lee A., 1969, (with John W. Petersen), Structural Analogs of Sangre de Cristo Uplift Based on Experimental Models: Program New Mexico Geol. Soc. 23rd Ann. Mtg., Santa Fe, New Mexico, April 25-26, 1969.
- Woodward, Lee A., 1969, Comparative Tectonics in Petroleum Exploration: Oil and Gas Jour., v. 67, no. 17, p. 106-111.

5. Other Research Projects, etc.

Roger V. Anderson. Principal Investigator, NSF, Grant GP 4200-cont., two years, \$49,000; Climatic Cycles and Patterns in Varved Sediments - Geochemistry of Evaporites. Origin of Enterolithic Folding in banded evaporites. Sedimentation in Recent Lakes and reservoirs.

Edgar F. Cruft. American Chemical Soc. \$13,097. Nucleation-kinetics & $\text{CaSO}_4\text{--H}_2\text{O}$ system. 68-69. National Science Found. \$46,000. Geochemistry of evaporites. 1967-69 Sandia Corp. \$5000 max. Materials research analysis. 1968-69.

Wolfgang E. Elston. Awarded NASA grant NGL-32-004-011, Volcanological Approach to the Interpretation of Lunar Features, initial 3-year (1968-71) step funding of \$101,000. Awarded 1-year cooperative grant from NASA Ames Research Center, A joint investigation of lava tubes and other possible volcanic analogs of lunar features, \$12,000. Wrote proposal for NASA grant, Mars: Search for evidence of dynamic processes, informally assured of support for first year pilot study of \$5,000. Applied for renewal of 3 ½ year step funding, 1969-73, of NASA grant NGL-32-004-001 (see above), total requested \$75,375; was informally promised renewal at unspecified amount. Awarded \$828.15 travel grant from UWM Research Allocations Committee to attend symposium and field trips of International Association for Volcanology and Chemistry of the Earth's Interior. Great Britain, August 20 to September 20, 1969. Listed as Collaborator of AEC contract AT (11-1)-689, Correlation of ore deposits and volcanic rocks (Dr. P. E. Damon, Univ. of Arizona, Principal Investigator). Continued cooperative program with U. S. Geological Survey Branch of Astrogeological Studies; one Ph.D. candidate awarded support of \$1,800. Continued cooperation with U. S. Geological Survey Wilderness Program.

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J. Paul Fitzsimmons. Translation of book from Russian for Plenum Publishing Corporation: Topics in Mathematical Geology, 290 pages. Orbicular rocks of the Sandia Mtns. Interference Phenomena in uniaxial minerals.

Dr. Klaus Keil. Research contract with NASA Manned Spacecraft Center, Houston, Texas, entitled "Electron microprobe analysis of the returned lunar sample". Duration: February 11, 1969 to July 31, 1969 (to be renewed after July 31, 1969); Total grant: \$41,940.00. Research contract with NASA Goddard Space Flight Center, Greenbelt, Maryland, entitled "Preparation of Standards for electron microprobe analysis". Duration: March 14 - September 14, 1969. Total grant: \$4,416. Cooperative working agreement with NASA Ames Research Center, Moffett Field, California, entitled "Mineralogy and Petrology of Hawaiian basalts". Duration: April 15, 1969 to September 15, 1970. Total grant: \$14,403.00. Grant from UNM Research Allocations Committee, entitled "Mineralogy, Petrology, and Chemistry of the Burdett, Kansas, stone meteorite". Duration: November 7, 1968 to June 30, 1969. Total grant: \$500.00. Total grants awarded: \$61,259.00. Laser beam microprobe, Moseley X-Y recorder, several strip-chart recorders, and other equipment was brought from NASA Ames Research Center to UNM for work on meteorites and rocks. Estimated value of equipment \$42,000.00. Total grants and equipment: \$103,259.00. Set-up from scratch a complete electron microprobe and laser microprobe laboratory, including involved computer programs.

Vincent C. Kelley. Geology of the Pecos Slope. Petrology of the Lincoln County Porphyry Belt. Geology of Capitan Mountain. Study of Idaho-Wyoming Thrust Belt. Tularosa South Fork Graben. Tectonics of Rio Grande Depression.

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Distreme of Canjilon Hill. Geology of the Mescalero Quadrangle, Otero County.

Albert M. Kudo. Continuing research on ultramafic inclusions: working on manuscript for publication and continuing research on volcanic plugs: Organized Research. Received \$55,000.00 from NSF (Grant Number: NSF-GA1623) to purchase electron microprobe and set up lab: Laboratory is operating full time now. It is now under Dr. Keil's direction. Received \$29,800.00 from NSF (GA-4428) for two years starting Nov. 1968.

Stuart A. Northrop. Service record of all members of the New Mexico Geological Society, including committee memberships, papers read at annual spring meetings, papers written for guidebooks of annual fall field conferences, etc.: mss. nearly completed. History of New Mexico earthquakes, 1855-1968; in progress.

Abraham Rosenzweig. Completed: with R. R. Ryan, "The crystal structure of $(\text{NH}_4)_3\text{CeF}_7 \cdot \text{H}_2\text{O}$ "; with E. J. Graeber, "The crystal structure of yavapaiite and goldichite". In progress: the crystal structure of spangolite; (with C. K. Huang) Grossularite and Sahlite from Fengtien, Hualien Hsien, Taiwan, (with George Hu) Hypersthene from the Tatun volcanics, Taipei Hsien, Taiwan. Colloidal sulfide deposition at Chin-kuashih, Taipei Hsien, Taiwan.

Sherman A. Wengerd. "Time Surfaces in Stratigraphic Analysis"; "Sequences in Salt Tectonics"; "Genesis of the Paradox Geosyncline" (with E. Szabo); "Anatomy of an Atoll - The Majuro Example"; "Stratigraphic Sections, Oil Tests and Oil Potential of Southwestern New Mexico" (with Kottowski and Foster); "Geology and the Tectonic Control of Oil Occurrence in the Western Paradox Basin, Four Corners Region"; "Coastal Geomorphology of Bahia San Carlos Area, Western Sonora, Mexico.

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Lee A. Woodward. Structural analysis of major thrust plates in western Utah. Origin of iron-rich sedimentary rocks.

6. Activities in Learned and Professional Societies

Roger Y. Anderson. Member GSA, AAAS.

Edgar F. Cruft. Read paper & co-authored another paper @ 3rd Int'l. Salt Symposium, Cleveland, Ohio, April 1969. "Geology of S.W. Africa." Albuquerque Geological Society, Nov. 1968.

Wolfgang E. Elston. Elected member, Commission 17 (The Moon); International Astronomical Union, submitted names for far-side lunar features. President, Albuquerque Geological Society (until Dec. 1968). Attended Am. Astronautical Soc. Conf. on Advanced Space Experiments, Ann Arbor, Mich., September 16-18, 1968. Attended Western Ann. Meeting, Am. Geophysical Union, San Francisco, Calif., December 2-5, 1968. Attended Ann. Meeting, Rocky Mtn. Sec., Am. Assoc. of Petroleum Geol. Albuquerque, February 23-26, Co-chairman of opening session and field trip leader. Attended Ann. Meeting, Am. Geophys. Union, Washington, D. C., April 20-25, 1969, read paper (see publications, item 4). Attended Ann. Meeting, Cordilleran Soc., Geol. Soc. of America, Salt Lake City, Utah, May 7-10, 1969, Session Co-Chairman.

J. Paul Fitzsimmons. Vice-president UNM Chapter of Sigma Xi. Annual field trip of New Mexico Geological Society (San Juan-San Miguel-La Plata region).

Dr. Klaus Keil. Elected President of the Meteoritical Society (1968-1970 term), an international society devoted to the study of meteorites, planets, and extraterrestrial geology. Elected Secretary of the Commission on Meteorites, The International Union of Geological Sciences (1968-1972 term).

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Re-elected for a second two-year term (1968-1970) as U.S. representative, Commission on Meteorites and Extraterrestrial Mineralogy, International Mineralogical Association. Member, Planetology Advisory Subcommittee of the Space Science and Applications Steering Committee, National Aeronautics and Space Administration, Washington, D. C. Annual Meeting of the Meteoritical Society, Cambridge, Mass., October 7-11, 1968. Presented two papers: a) Mineral composition and petrology of silicate inclusions in iron meteorites, and b) Chemistry of chromite in non-chondritic meteorites. Joint Japanese-American discussion on "Progress in Electron Microprobe Analysis", University of Hawaii, Honolulu, Hawaii, November 11-15, 1968. Presented paper on: Special applications of the electron microprobe. Annual meeting of the American Chemical Society, Symposium on Returned Lunar Sample, Minneapolis, Minn., April 14-18, 1969. Presented paper on: Electron microprobe x-ray analysis. American Institute of Mining Engineers, Western Skies Motel, Albuquerque, N.M., October 19, 1968. Presented talk on: Extraterrestrial rocks: their origin and significance.

Vincent C. Kelley. Mem. Advisory Board U.S. Bur. Land Management. Mem. U.S. Geol. Survey. Registered Engr. New Mexico Prof. Engrs. Chairman, Grants and Aids Committee, N.M. Geol. Society. Board of Directors, N. M. Mining Association. Attended AIME meetings, Washington, D. C. Feb. 17-18. Attended Soc. Econ. Geol. Meetings, Wash., D. C. Feb 19-20. Member Soc. Econ. Geologists, National Nominating Committee. Chairman, Field Trip Comm. AAPG, Rocky Mountain Section. Member Advisory Committee, AAPG, Rocky Mountain Section. Mem. Educational Committee, N. M. Mining Association. Attended Executive Comm. Meeting, N. M. Geol. Soc., Albuquerque. Attended Geol. Soc. Am.,

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Rocky Mountain Section, Salt Lake City. Cochairman Tech. Sess. Geol. Soc. Mtg. Salt Lake City, Utah.

Albert M. Kudo. Presented talk at Albuquerque Geological Society Luncheon, Dec. 17, 1968. Presented paper in Salt Lake City, Utah, to Rocky Mountain Section, Geological Society of America, May 9, 1969. Attended Annual Meeting of AAPG, in Albuquerque, N. M., March.

Stuart A. Northrop. Final editing and proofing of "The San Andres Limestone, a reservoir for oil and water in New Mexico, Symposium," New Mexico Geol. Soc. Spec. Pub. No. 3, 51p., published April, 1969. Served as editor and judge of papers written for presentation at New Mexico Junior Academy of Science, Northwest Region, March 29, 1969.

Abraham Rosenzweig. Annual meeting, Geological Society of China, April, 1969 (became member). Lecture: "Uranium Deposits of the Colorado Plateau", to Geological Society of China, March 15, 1969.

Sherman A. Wangerd. AAPG Business Committee Meeting as District Representative and Delegate from Albuquerque, April 13, 1969, Dallas; AAPG Editors Meeting, April 14, 1969, Dallas, as Associate Editor and as Past National Editor; AAPG Past Officers Meeting, April 14, 1969, Dallas; SEPM Founders Memorial Reception, April 14, 1969, Dallas. Attended Meeting of the American Stratigraphic Commission, Mexico City, Nov. 13, 1968; Technical programs, G.S.A. Scientific Convention, Mexico City, November 10-14, 1968; Technical programs, AAPG Scientific Convention, Dallas, April 12-16, 1969; SEPM Business meeting, April 15, 1969, Dallas; AAPG-SEPM Awards Banquet, April 15, 1969, Dallas; AAPG Advisory Board meeting, April 12, 1969, as delegate from New Mexico Section,

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Dallas; AIPG Publications Committee 1969; AIPG Océans Committee 1968-69; AAPG Annual Business meeting, April 16, 1969, Dallas; Annual Meeting of AIPG, Oct. 11-12, 1968, San Francisco; District Representatives meeting, Rocky Mountain Section, AAPG, Feb. 24, 1969, Albuquerque; AIPG Advisory Board Meeting, Oct. 10, 1968, San Francisco, as New Mexico delegate; AIPG New Mexico State Section meeting, Feb. 26, 1969, Albuquerque; Annual Meeting, Rocky Mountain Section, AAPG, Feb. 22-26, 1969, Albuquerque; Chairman and Chief Judge A. I. Lavorsen Memorial Award Committee, Rocky Mountain Section, AAPG, Feb. 22-26, 1969; Albuquerque; Respondent to the Publications Committee, SEPM "Suggestions for Graphic Standards in Lithologic Recordation", March 12, 1969; Lectured at annual geological meetings of the Museum of Northern Arizona, Flagstaff, August 30, 1968, "Time Surfaces, Vacuity, and the Search for Petroleum" (by invitation); Attended the Chinle Symposium, and Plateau Symposium of the Museum of Northern Arizona, Flagstaff, Aug. 29-30, 1968.

Lee A. Woodward. Invited to present a paper "Significance of Comparative Tectonics in Petroleum Exploration" to West Texas Geological Society in Midland, Texas, January 14, 1969. Presented a paper "Petroleum Exploration in the Western United States in Light of the Principles of Comparative Tectonics" at annual meeting of Rocky Mountain Section of American Association of Petroleum Geologists, February 24, 1969 in Albuquerque, New Mexico. Member of Program committee and Field Trip committee of Rocky Mountain AAPG meeting in Albuquerque, February 23-26, 1969. Invited to present a paper on Tectonics to the Roswell Geological Society on April 24, 1969 at Roswell. Attended Geological Society of America Rocky Mtn. Ann. Mtg. in Salt Lake City, May 6-10, 1969, and presented a paper.

7. Other Professional Activities

Roger V. Anderson. Correspondent for Rocky Mountain Region for Journal MICROPALAEONTOLOGY. Review of manuscript for Canadian Jour. Sci. Review of research proposals (3) for National Science Foundation.

Edgar F. Cruft. Consultant, Nord. Corp., mineral deposits of S. W. Africa.

Wolfgang E. Elston. Gave talks to Albuquerque Geological Society, Los Alamos Geological Society. Several newspaper interviews. Reviewed papers for Jour. of Geophys. Research. Advised public, mining and oil companies on mineral resources.

J. Paul Fitzsimmons. Editing of Russian translations of articles for publication by Plenum Publishing Corporation. Talk to sixth-grade class at Monte Vista School on "Rocks and Minerals."

Dr. Klaus Keil. Sandia Research Colloquium, Sandia Laboratories, Albuquerque, November 27, 1968. Presented talk on: Origin and history of meteorites. Albuquerque Astronomy Club, December 11, 1968. Presented talk on "Meteorites". Albuquerque Geological Society, January 21, 1969. Presented talk on "Mineralogy and Petrology of the surface of the Moon: the returned lunar sample program". Albuquerque Gem and Mineral Club, January 27, 1969. Presented talk on "Meteorites". Department of Chemistry, New Mexico Highlands University, Las Vegas, New Mexico. Presented talk on "Origin and significance of meteorites". May 25, 1969. Initiated joint colloquium series between Sandia Laboratories and the Department of Geology and Institute of Meteoritics. Editorial consultant, Plenum Press, New York. Reviewed papers for the American Mineralogist; Geochimica et Cosmochimica Acta; Meteoritics; and Science.

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Reviewed two proposals submitted for funding to NASA. The Society of American Military Engineers, Albuquerque, New Mexico, May 21, 1969, presented talk on preparations for the analysis of the returned lunar sample. Several radio and television interviews (live and taped) on Returned Lunar Sample Program.

Vincent C. Kelley. NSF Consultant, Institutional Facil. Prog. Talk to Albuquerque Gem & Mineral Society, "Inside UMM Geology". Talk to Am. Assoc. Petrol. Geol. Rky. Mtn. Sec. Feb. 25, 1969. Talk to Geol. Soc. Amer, Rdy. Mtn. Sec. Salt Lake. Represented Am. Assoc. Petrol. Geol. at inaug. of Dr. Heady. Talk to Bernal Co. Med. Assoc., "Albuquerque Geol. Setting". Pan Am. Oil Corp. Field Guide and Speaker. Talk to Albuquerque, Geol. Society.

Albert M. Kudo. Reviewed paper for publication in the Bulletin, Geological Society of America, Jan. 1965. Reviewed proposal sent to NSF for possible support, February, 1969.

Stuart A. Northrop. Geologist, w.a.e., U. S. Geological Survey. New Mexico Collaborator in Seismology, Seismological Field Survey, U. S. Coast and Geodetic Survey. Made questionnaire survey of earthquake near Socorro, Jan. 29, 1969. 22:17:52 MST. Gave lecture on paleopathology to UMM Anthropology Club, May 14, 1969.

Abraham Rosenzweig. Visiting staff member, Los Alamos Scientific Laboratory, Summer 1968. Lecture: "Uranium Exploration Methods in the Colorado Plateau". Reactor Power and Nuclear Fuels Corporation, Tokyo, Sept. 9, 1968. Lecture: "X-ray Diffraction", The Physics Club, National Taiwan University, Nov. 1968.

Sherman A. Wengerd. Lecture to Albuquerque Geological Society, May 6, 1969. "Glen Canyon of the Colorado"; Attended numerous lectures by visiting geologists (Frakes, Crawford, Clark, Boucot, Lawrence, Greeley, Lovering, Lowe); Editorial critic for chapter by Kottlowski, Foster, and Pierce to be published by AAPG on "Possible Future Oil Provinces of the United States"; Lectures to Instituto de Geologia, University of Mexico, on Stratigraphic Analysis, Salt Tectonics, Time-Surfaces, Paleotectonics, and Genesis of Geosynclines, December, 1968; Elected Director of the Thompson International Corporation (Manufacturing-Space Research-Natural Resources) Phoenix, July 1968; Co-editor of the Guidebook for the 20th Annual Field Conference of the New Mexico Geological Society, to be held in Chihuahua, Mexico, October 1969.

Lee A. Woodward. Talks on geology to scout and school groups.

8. Non-teaching University Service

Roger Y. Anderson. Chairman, Univ. Committee on Paleogeology. Host and participant in Faculty-Student Association discussions. Faculty Adviser for Radical Rush (now defunct). Unofficial draft counseling of students.

Edgar F. Cruft. Chairman, Research Allocations Committee. Member, Ad Hoc Committee on Vice President for Research. Member, Departmental Committee on Chairman Recruiting.

Wolfgang E. Elston. Member, University Contract Research Committee and Chairman, Subcommittee on Indirect Costs, Member, A & S Scholarship Committee. Member, A & S

Dean's Committee to search for new Dept. Chairman; Chairman, A & S Advancement Committee, Science Depts.

J. Paul Fitzsimmons. University College advisor.

Dr. Klaus Keil. Initiated and completed a University-wide working agreement between The University of New Mexico and NASA Ames Research Center, Moffett Field, California. Under this agreement, NASA provides up to \$135,000.00 per year to UNM to finance joint research projects; furthermore, UNM scientists may make use of NASA facilities without charge. Administration of Institute of Meteoritics, including the meteorite collection.

Vincent C. Kelloy. Mem. Grad. Comm. Mem. Chaco Canyon Research Comm. Member Ad. Hoc Loan Committee. Member Mobile University Committee. Entertain numerous visitors, students, and staff. Chairman, Department of Geology. Wrote NSF Proposal for Geol. Bldg. Renovation and Addition. Member Advisory Comm. Earth Resources Survey Data Bank.

Albert M. Kudo. Faculty adviser: University College, Semester I and II, 1968-69. Member of about 15 thesis and dissertation committees (chairman of one M.S. completed). Chaperon for sorority formal dance, May 2, 1969; a non-greek campus sorority (Town Club).

Stuart A. Northrop. Curator, Geology Museum. See separate annual report. Member, Committee on Gifts to Libraries, Museums, and Galleries. Chairman, dept. subcommittee to help college dean select a dept. chairman for fall of 1970. Member, Tom L. Popejoy Dissertation Prize Committee, 1969.

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Abraham Rosenzweig. on leave.

Sherman A. Wengerd. Chairman Departmental Ad Hoc Committee for choice of a sedimentologist March-April 1969. Member Departmental Ad Hoc Committee for choice of a paleontologist February-March 1969. Invited to participate in inauguration of President Ferrel Heady as representative of (1) American Geological Institute, (2) Geological Society of America, and (3) American Association of Petroleum Geologists (Sabbatical leave prevented me from honoring these invitations); Entertained Dr. A. R. Crawford, University of Canberra, for his lecture on Rb-Sr dating in India and Ceylon, April 10-11, 1969. Respondent to National Survey of Higher Education, Carnegie Commission on Higher Education, American Council on Education, March 1969. Staff-participant in National Science Foundation site visit by N.S.F. representatives, March 14, 1969. Geology Department Representative for Annual High School Senior Day, March 15, 1969, Albuquerque. Wengerd's Saturday Forum for beginning Geology students (Saturday Forum for beginning Geology students (Sem II)). Wrote many letters of recommendation for students, to graduate schools, Federal Gov't., oil companies, and for NSF grants. Negotiated final transfer of Henry Carter Rea geological library to the University of New Mexico for Mr. and Mrs. Tom Laney, April 1969. In charge of publication of Historical Geology Laboratory Manual in 1000 copies for the Dept. June-July, 1969.

Lee A. Woodward. Faculty advisor for Sigma Gamma Epsilon. Member of 20 thesis and dissertation committees; chairman of 7 of these.

9. Public Service

Roger Y. Anderson. Lectures at Del Norte and Valley

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High Schools on student activism. Short courses in History of Viet Nam at Intern. Center and Unitarian church. Lecture at civic group (philosophers anonymous) on student activism.

Wolfgang E. Elston. Gave talks in classes of Albuquerque Public Schools, active in Boy Scouts and Cub Scouts.

Dr. Klaus Keil. Two talks on "Meteorites" to Albuquerque High School students, October 15, 1969. Talk on "Meteorites" for Questers, First United Presbyterian Church, Albuquerque, New Mexico, March 9, 1969. Examined some twenty rocks of suspected meteoritic nature donated by citizens.

Vincent C. Kelley. Mem. Albuq. Rotary Club.

Albert M. Kudo. Gave two presentations including instruction to Grade 2 class at Zia Public School and to Grade 2 class at Five Points Public School.

Stuart A. Northrop. Identified numerous fossils and some rocks and minerals for the public. Answered many inquiries on earthquakes.

Sherman A. Wengerd. Counseling Board USNR Training Center Augmentation Team Group Command, Albuquerque, July 1968-March 1969; Member of the Speakers Bureau, National Oceanography Association 1968-69; Advisor on Oceanography to students of the Albuquerque Academy, May 24, 1969; Advisor and Sailing Trainer for the Mariner Patrol, Senior Girl Scout Troop 42, Chaparral Girl Scout Council, May 1969; Identification of rocks and minerals for the general public.

Lee A. Woodward. Field trips for scout groups.

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10. Personal Information.

Albert M. Kudo. Bought house in NE Heights.

Stuart A. Northrop. Retiring June, 1969 after 41 years at UNM

Sherman A. Wengerd. "21" Club, Sem. II, 1969 (member since 1949); Member First Congregational Church; Member Cross Roads Flying Club; Registered Professional Engineer and Land Surveyor #1037 (since 1949); Certified Professional Geologist (AIPG charter member since 1964); Private Pilot FAA License (SEL); Member Harvard Club and H.W.P. Club of New Mexico; Moved into new home at 1040 Stanford NE in June 1968; Second grandchild, Elizabeth Marie Riffey (Beth) born July 5, 1968.

The Report of the Institute of Meteoritics

Department of Geology

July 1, 1968-June 30, 1969

Klaus Keil, Director

In the report period, the physical transition of the Institute of Meteoritics into a Division within the Department of Geology began. The decision to have the Institute associated with the Department of Geology was a very fortunate one: not only are the facilities of the Department of Geology available to members of the Institute (and vice versa) but, for the first time, graduate students may receive advanced degrees in Geology while working in meteoritics and related fields. This, together with special courses on meteoritics, cosmochemistry, and the origin of the solar system, has tremendously enhanced the former scope of the Institute, namely, from a laboratory largely devoted to the collection and description of meteorites, to a scientific institution with emphasis on graduate student training in meteoritics and advanced research on meteorites and other extraterrestrial materials using a geological-geochemical approach.

The Institute is still in a transition period and, although critical facilities are operational, it will remain transitional until more space is available. At the present time, the Institute occupies temporary laboratory space on the third floor of the Geology Department, which is inadequate in terms of total floor space available as well as in terms of availability of important facilities such as cutting and

polishing laboratories, wet-chemical research facilities, general meteoritics research laboratories for permanent staff, students, and visiting scientists, meteorite storage, and space for public exhibition of the meteorite collection. Pending approval of the NSF facilities proposal submitted by the Department of Geology, adequate space for the Institute should become available by the end of the next fiscal year.

A brief summary of some of the significant achievements of the Institute of Meteoritics in the report period are listed below:

1. Final preparations for the analysis of the returned lunar sample were completed. These preparations were largely concerned with establishing from scratch an electron microprobe laboratory equipped with the most advanced instrument. The electron probe was purchased by matching funds from UNM and NSF (the moneys were originally awarded to Dr. A. M. Kudo, Assistant Professor of Geology, who has turned over responsibilities for direction, upkeep, and maintenance of the facilities to the Director of the Institute of Meteoritics). The returned lunar sample is expected by September 15, 1969 and research will be carried out by Klaus Keil (Principal Investigator) with the assistance of three co-investigators, Drs. T. E. Bunch and K. G. Snetsinger of NASA Ames Research Center, Moffett Field, California, and Dr. M. Prinz (co-investigator in permanent residence at the Institute of Meteoritics). Drs. Bunch and Snetsinger will be working intermittently at the Institute for the next 18 months.

2. Total outside contracts and grants (including equipment)

awarded to Klaus Keil total \$103,259.00.

3. A University-wide working agreement between UNM and NASA Ames Research Center, Moffett Field, California, was initiated by the Director of the Institute. Under this agreement, NASA provides up to \$135,000.00 per year to UNM to finance joint research projects, use of NASA facilities with no charge to UNM, etc.

4. An expedition to the site of the fall of the Pueblito de Allende, Chihuahua, Mexico, stone meteorite by members and students of the Institute of Meteoritics resulted in the recovery of six meteorites weighing about 75 pounds. Furthermore, several meteorites from U.S. localities were purchased for the collection of the Institute.

5. The following prominent scientists visited the Institute of Meteoritics. Most visitors presented talks before staff and students of the Department of Geology and Institute of Meteoritics:

Dr. Milton Blander
North American Rockwell Science Center
Thousands Oaks, California

Prof. Theodore Ernst
Mineralogisches Institut Der Universitat
Erlangen, Germany

Dr. Kurt Fredriksson
Smithsonian Institution
U.S. National Museum
Washington, D. C.

Dr. Arch M. Reid
Geological Research Division
University of California, San Diego
La Jolla, California

Dr. A. A. Smales
Atomic Research Establishment
Harwell, England

Dr. Hans Voshage
Max Planck Institut Fur Chemie
Mainz/Rhein, Germany

Prof. H. Wanke
Max Planck Institut Fur Chemie
Mainz/Rhein, Germany

Plans and Recommendations:

1. Much of the future development of the Institute of Meteoritics depends upon availability of more laboratory space. Extent of present student training, student thesis work, and sponsored research is limited by inadequate laboratory facilities, and it is hoped that the third floor of the Geology Building will be refurbished via a pending NSF proposal by the end of the next fiscal year.

2. Every effort must be made to obtain a full-time Ph.D. level Research Associate for the Institute of Meteoritics. Considerably more sponsored research could be attracted to the Institute if another permanent staff member would be available. More sponsored research would not only foster the cause of the Institute but of the Department of Geology as well, particularly in terms of more aid to students, summer employment, purchase of equipment, and participation of students in exciting research projects. It is suggested that July 1, 1970, be set as a target date for hiring of a Research Associate.

3. Every effort must be made to provide a full-time secretary for the Institute of Meteoritics. The present one-half time allotment is inadequate in view of the increasing number of Associates of the Institute (e.g. three co-investigators and one visiting scientist as of September 1, 1969).

Appointments to Staff

July 1, 1968: Dr. Klaus Keil, Director of the Institute of Meteoritics and Professor of Geology

Sept. 9, 1968: Mrs. Hope Kendall, Secretary (1/2 time)

Sept. 1, 1968: Mr. Fred Busche, Curator-Graduate Assistant (1/2 time)

Oct. 1, 1968: Mr. George Conrad, Microprobe Operator

June 1, 1969: Dr. Martin Prinz, Research Associate (on NASA contract)

No Resignations

11. Composite of individual biographical supplements

1. Advanced study

None

2. Sabbaticals, etc.

Klaus Keil

Annual Meeting of the Meteoritical Society, Cambridge, Mass., October 7-11, 1968.

Joint Japanese-American discussion on "Progress in Electron Microprobe Analysis". Sponsored by the National Academy of Sciences and the Japan Society for Promotion of Science (10 selected Japanese and U.S. participants). East-West Center, University of Hawaii, Honolulu, Hawaii, November 11-15, 1968.

Meteorite expedition to Pueblito de Allende, Chihuahua, Mexico, February 12-15, 1969.

Annual Meeting of the American Chemical Society, Symposium on the Returned Lunar Sample, Minneapolis, Minn., April 14-18, 1969.

Meeting of Principal Investigators of the Returned Lunar Sample, NASA Manned Spacecraft Center, Houston, Texas, April 28-30, 1969.

3. New Scholastic honors, etc.

Klaus Keil

Elected Fellow of the Mineralogical Society of America

Listed in "Dictionary of International Biography",
London, England

4. Publications

Klaus Keil

Scientific articles:

Application of solid-state energy dispersion spectrometer
in electron microprobe x-ray analysis. *Science* 159,
528-530, 1968 (with R. Fitzgerald and K.F.J. Heinrich).

Zincian daubreelite from the Kota-Kota and St. Mark's
enstatite chondrites. *Amer. Mineral.* 53, 491-495, 1968.

Chemical and mineralogical relationships among enstatite
chondrites. *J. Geophys. Res.* 73, 6945-6976, 1968.

Determination of vanadium in the presence of titanium by
electron microprobe techniques. *Amer. Mineral.* 53,
1770-1773, 1968 (with K. G. Snetsinger and T. E. Bunch).

Review of "Elektronenstrahl-Mikroanalyse. Vol. IV of
Handbuch der mikrochemischen Methoden. H. Malissa, Springer-
Verlag, Wien - New York, 1966", in *Amer. Mineral.* 53, 2107,
1968.

Special applications, cathode luminescence. In "The electron
microanalyzer and its application. Proc. Meeting sponsored
by the National Science Foundation of Science, East-West
Center, Univ. of Hawaii, Honolulu, Hawaii, November, 1968",
pp 65-69, 1969.

Lattice parameters of kamacite by the Kossel technique. *Amer.
Mineral.* 54, May, 1969 (with J. Frazier and A. M. Reid).

Abstracts:

Special applications of the electron microprobe. Joined
Japanese-U.S. microprobe meeting, East-West Center, Univ. of

Hawaii, Honolulu, Hawaii, November 11-15, 1968.

Mineral composition and petrology of silicate inclusions in iron meteorites. Meteoritical Society, Annual Meeting, Cambridge, Mass., 1968.

Chemistry of chromite in non-chondritic meteorites. Meteoritical Society, Annual Meeting, Cambridge, Mass., 1968 (with T. E. Bunch).

Electron microprobe x-ray analysis. Symp. on Returned Lunar Sample, American Chemical Society, April 14-18, 1969, Minneapolis, Minn. (with T. E. Bunch).

Ilmenite in ordinary chondrites. Trans. Amer. Geophys. Un. 50, 223, 1969 (with K. G. Snetsinger).

5. Other Research Projects, etc.

Klaus Keil

Research contract with NASA Manned Spacecraft Center, Houston, Texas, entitled "Electron microprobe analysis of the returned lunar sample". Duration: February 1, 1969 to July 31, 1969 (to be renewed after July 31, 1969). Total grant: \$41,940.00

Research contract with NASA Goddard Space Flight Center, Goddard Space Flight Center, Greenbelt, Maryland, entitled "Preparation of standards for electron microprobe analysis". Duration: March 14-September 14, 1969. Total grant: \$4,416.00

Cooperative working agreement with NASA Ames Research Center, Moffett Field, California, entitled "Mineralogy and petrology of Hawaiian basalts". Duration: April 15, 1969 to September 15, 1970. Total grant: \$14,403.00

Grant from UNM Research Allocations Committee, entitled "Mineralogy, petrology, and chemistry of the Burdett, Kansas, stone meteorite". Duration: November 7, 1969 to June 30, 1969. Total grant: \$500.00

Total grants awarded: \$61,259.00

Laser beam microprobe, Moseley X-Y recorder, several strip-chart recorders, and other equipment was brought from NASA Ames Research Center to UNM for work on meteorites and rocks. Estimated value of equipment \$42,000.00

Total grants and equipment: \$103,259.00

Set-up from scratch a complete electron microprobe and laser microprobe laboratory, including involved computer programs

6. Activities in Learned and Professional Societies

Klaus Keil

Offices:

Elected President of the Meteoritical Society (1968-1970 term), an international society devoted to the study of meteorites, planets, and extraterrestrial geology.

Elected Secretary of the Commission on Meteorites, The International Union of Geological Sciences (1968-1972 term).

Re-elected for a second two-year term (1968-1970) as U.S. representative, Commission on Meteorites and Extraterrestrial Mineralogy, International Mineralogical Association.

Member, Planetology Advisory Subcommittee of the Space Science and Applications Steering Committee, National Aeronautics and Space Administration, Washington, D. C.

Meetings and professional papers:

Annual Meeting of the Meteoritical Society, Cambridge, Mass., October 7-11, 1968, Presented two papers:

- a) Mineral composition and petrology of silicate inclusions in iron meteorites
- b) Chemistry of chromite in non-chondritic meteorites

Joint Japanese-American discussion on "Progress in Electron Microprobe Analysis", University of Hawaii,

Honolulu, Hawaii, November 11-15, 1968. Presented paper on: Special applications of the electron microprobe.

Annual Meeting of the American Chemical Society, Symposium on Returned Lunar Sample, Minneapolis, Minn., April 14-18, 1969. Presented paper on: Electron Microprobe x-ray analysis.

American Institute of Mining Engineers, Western Skies Motel, Albuquerque, N.M., October 19, 1968. Presented talk on: Extraterrestrial rocks: their origin and significance.

7. Other Professional Activities

Klaus Keil

Sandia Research Colloquium, Sandia Laboratories, Albuquerque, November 27, 1968. Presented talk on: Origin and history of meteorites.

Albuquerque Astronomy Club, December 11, 1968. Presented talk on "Meteorites".

Albuquerque Geological Society, January 21, 1969. Presented talk on "Mineralogy and petrology of the surface of the Moon: the returned lunar sample program".

Albuquerque Gem and Mineral Club, January 27, 1969. Presented talk on "Meteorites".

Department of Chemistry, New Mexico Highlands University, Las Cruces, New Mexico. Presented talk on "Origin and significance of meteorites". May 25, 1969.

Initiated joint colloquim series between Sandia Laboratories and the Department of Geology and Institute of Meteoritics.

Editorial consultant, Plenum Press, New York.

Reviewed papers for The American Mineralogist; Geochimica et Cosmochimica Acta; Meteoritics; and Science.

Reviewed two proposals submitted for funding to NASA.

8. Non-teaching University Service

Initiated and completed a University-wide working agreement between the University of New Mexico and NASA Ames Research Center, Moffett Field, California. Under this agreement, NASA provides up to \$135,000.00 per year to UNM to finance joint research projects; furthermore, UNM scientists may make use of NASA facilities without charge.

Administration of Institute of Meteoritics, including the meteorite collection.

9. Public Service

Klaus Keil

Two talks on "Meteorites" to Albuquerque Highschool students, October 15, 1969.

Talk on "Meteorites" for Questers, First United Presbyterian Church, Albuquerque, New Mexico, March 9, 1969.

Examined some twenty rocks of suspected meteoritic nature donated by citizens.

Appendix: Equipment purchased from Grant and Contract money
during the report period

1. Zeiss photomicroscope II	\$10,200.00
2. Kossel microdiffraction camera	2,500.00
3. Leitz miniload hardness tester	1,650.00
4. Olympus binocular microscope	550.00
5. Eight-sample stage for electron microprobe	1,150.00
6. Sample holder for electron microprobe	1,000.00
7. Spare-part kits for electron microprobe	1,000.00
8. Astro high-temperature furnace (controlled atmosphere, vacuum)	5,300.00
9. Miscellaneous equipment	2,500.00
TOTAL	<u>\$25,850.00</u>

The Geology Museum
July 1, 1968--June 30, 1969
Stuart A. Northrop, Curator

PURPOSE AND SCOPE

The Geology Museum has a double purpose: it is designed to serve the general public (especially school children) and to supplement the departmental instructional program. The Museum has a total of 26 cases, 14 of which are one-way and 12 of which are two-way, providing a total of 38 exhibit areas with a running total of more than one-third of a mile. In addition there are several low tables for exhibit of larger specimens.

Exhibits include a systematic series of minerals (in 6 two-way trapezoidal cases), a stratigraphic series of fossil plants and animals (in 6 one-way cases), a paleontologic series of fossil and modern plants, invertebrates, and vertebrates (in 6 two-way cases), and series of igneous, sedimentary, and metamorphic rocks (in 2 one-way cases). Other notable features are an exhibit illustrating how fossils are preserved (1 case); an exhibit of metallic and nonmetallic ores of New Mexico (1 case); an exhibit of the Katharine Balcomb collection of modern gastropods and pelecypods (1 case); and a geologic cross section through the Sandia Mountains, Albuquerque, and Mount Taylor, together with numerous rock samples (1 case). There is also a dark room for

viewing fluorescent and phosphorescent minerals under white light and both long-wave and short-wave ultraviolet light.

The Albuquerque Gem and Mineral Club maintains a case for rotating exhibits of specimens, including gems and precious stones. A visual seismic recorder, connected to a seismograph at the U. S. Coast and Geodetic Survey's Seismic Center in the Manzano Mountains southeast of Albuquerque, shows major earthquakes--both natural and man-made--as they occur throughout the world. In corridors adjoining the Museum are 15 large map-frames for exhibiting various geologic materials such as maps, cross sections, seismograms, and other pictorial items.

The Museum is generally open from 8:00 a m to 9:00 p.m. Monday through Saturday.

ACCESSIONS

Members of the departmental staff, graduate and undergraduate students, alumni, and others have donated individual specimens or suites of fossils, minerals, rocks, and ores. Some of these specimens are of museum calibre and eventually will be placed on exhibit. The remainder will be added to departmental teaching or reference collections. (A growing problem is the lack of adequate storage facilities, especially for the reference and research collections.)

A fine collection of Cenozoic fossils from California was obtained by exchange for a collection of New Mexico fossils,

through Dr. C. Noble Beard, of Fresno State College. Outstanding gifts were a fossil duck's egg from Nebraska (Ron Ratkevich) and a fossil crab from the Sahara Desert (Steve Bell).

CURATORIAL WORK

Numerous specimens donated to the Museum and obtained by exchange during the past several years are as yet uncatalogued. No cataloguing was accomplished this year because of the curator's teaching load during Semester I and because during Semester II the curator was packing both catalogued and uncatalogued specimens in cartons which were transferred to basement storage. This was necessary because the curator upon his retirement this June had to move both his office and lab to smaller quarters.

In addition to this backlog of cataloguing, another task facing the new curator is checking identifications of the Katharine Balcomb collection of modern shells, the more showy of which are already on exhibit without labels. Recent revision of the classification of fossil fishes will necessitate changes in the fish exhibit.

A total of 52 temporary labels were prepared for unlabeled specimens in the mineral exhibit. These should be replaced by permanent labels when a new supply of museum-label paper has been obtained.

A major accomplishment was the long-needed repair of our woolly mammoth tusk from Alaska; this tusk is 10 ft., 6 in. long and 7 in. in diameter. The humidified air provided by the air-conditioning system of the Geology Building caused both longitudinal and concentric cracking of the ivory tusk. In 1957 a graduate student, Jerry Harbour, filled the larger fissures with plaster of Paris. However, during succeeding years further fissuring developed and serious disintegration seemed imminent. Last spring the curator's wife, Ivah L. Northrop, who had had some experience with plastics, filled all fissures with plastic and applied a protective coating to the entire tusk.

NEW EXHIBITS

Jean Camp, our student aide, prepared an excellent exhibit of Pleistocene vertebrates in North America. She made small clay models of 22 animals and birds and arranged a landscape restoration with soil, rocks, vegetation, and even a lake. Because funds were not available for purchase of an additional table-top type case, we had to remove the popular exhibit of showy modern corals that we had and use this case for the Pleistocene exhibit.

Exhibits of maps and other material in several of the corridor display-cases were changed during the year. Geologic maps of Great Britain, Spain, and Portugal were mounted in one of the frames.

Under the supervision of W. E. Elston, large photographs of lunar craters were installed in two frames. A striking geologic map of the Spanish Peaks area, Colorado, with its radial dikes, by Ross B. Johnson (U.N.M., B.S. 1946, M.S. 1948) was placed on exhibit in one frame. A set of three earthquake maps of the world showing the distinction between shallow-focus and deep-focus earthquakes was installed in another frame.

The Albuquerque Gem and Mineral Club has installed several rotating exhibits of minerals, rocks, fossils, and lapidary and jewelry work in its own case during the year. One of the exhibits showed 18 steps in facetting a standard brilliant cut stone; glass was used, not diamond. The locked case was pried open and the stone representing the 18th and final step was stolen. The Club has since fitted two new locks to the case.

Joan Camp and Club members surprised the curator by arranging an exhibit commemorating his 41 years at U.N.M.; the exhibit included old photographs of field work, fossils collected by the curator as a student 45 years ago, and several of his publications.

VISITORS

The Museum was visited by a large number of persons, including children, teachers, parents, professional geologists, prospectors, amateur collectors, laymen, and U.N.M. students. During

1968-69 there were, by actual count, 315 organized groups, chiefly children from Albuquerque schools, involving 8,831 individuals, and a grand total of about 10,500 persons. Thus the past year shows an increase over the preceding year of 37 percent in the number of groups, an increase of 29 percent in the number of individuals in these groups, and an increase of 25 percent in the grand total of visitors. It should be noted that these figures do not include the many hundreds of U.N.M. students who visit the Museum several times each semester in conjunction with certain undergraduate courses, such as physical geology, historical geology, mineralogy, and paleontology.

Prior to 1961, no attempt was made to count Museum visitors.

Figures for the last eight academic years are as follows:

<u>YEAR</u>	<u>GROUPS</u>	<u>INDIVIDUALS</u>	<u>GRAND TOTAL</u>
1961-62	57	1,408	1,600
1962-63	67	1,547	1,800
1963-64	75	2,100	2,600
1964-65	117	3,264	4,000
1965-66	140	4,411	5,300
1966-67	133	3,953	5,400
1967-68	230	6,852	8,400
1968-69	315	8,831	10,500
Total, 1961-69	1,134	32,366	39,600

Over the years most teachers and other group leaders have requested a personal guide to direct attention to the several series of exhibits, to explain certain special features, and particularly to answer numerous questions. Prior to the fall of 1968,

we generally called on graduate assistants to perform this chore. In addition, many other students, both graduate and undergraduate, were pressed into service when a graduate assistant was unavailable.

For several years the desirability of having a brochure was apparent, a brochure that would serve as a guide for teachers, enabling them to conduct their group through the Museum. This would lighten the burden on graduate assistants and other students and also lighten the departmental secretary's burden of trying to round up and coerce the students into serving as guides. In several of his annual reports, the curator has mentioned the desirability of having such a brochure prepared.

I am pleased to report that our student aide, Joan Camp, has now prepared three different brochures, as follows:

1. A teacher-guided tour for elementary school, grades 3-6: 7 pages plus plan of exhibits.
2. A teacher-guided tour for secondary school, grades 7-12: 8 pages plus plan of exhibits.
3. A self-guided tour for adults: 3 pages plus plan of exhibits.

Copies of these three brochures are appended as Exhibits B, B. and C to some copies of this report.

The first two brochures were prepared during the summer of 1968 and we started supplying them last fall to teachers when they phoned in to make reservations for their class group tours. Teachers report that the brochures are most helpful, although many still express the desire for a student to answer the numerous questions.

The third brochure was prepared late in Semester II for adult visitors; not enough of these have been distributed to give us a reaction to them.

It should be emphasized that all three brochures are still experimental and should be revised extensively after consultation with teachers and other group leaders.

ACKNOWLEDGMENTS

The assistance of Joan Camp, student aide during Semester I, in preparing the clay models of the Pleistocene exhibit, and also in writing the three brochures, is gratefully acknowledged. The excellent repair work on the mammoth tusk by Ivah L. Northrop, which required four trips to the Museum, is also gratefully acknowledged. We are indebted to the staff of the U. S. Coast and Geodetic Survey's Albuquerque Seismic Center for repairing the seismic recorder on several occasions. Special thanks are due Mary Adwell, departmental secretary, for handling several hundred phone calls from teachers making reservations for group tours and mailing them brochures.

NEEDS AND RECOMMENDATIONS

1. The Museum needs a curator who can devote at least half-time to the position. A staff member, preferably one trained in paleontology and especially invertebrate paleontology, should not be required to teach more than one course in addition to being curator.

2. I urge that Joan Camp be employed either full-time or at least half-time as an assistant curator. The initiative and competence she has demonstrated in arranging several exhibits and writing the brochures for teachers indicate that she would prove highly satisfactory as an assistant curator.

3. I wish to repeat my recommendation (item 2, page 9) of last year that the Geology Museum be enlarged by expanding southward into Room 106, presently the paleontology-stratigraphy laboratory. The three cases of the Stratigraphic Series of exhibits now lining the south wall of the Museum might be shifted to the east wall of Room 106 and either one large or two small archways might be cut in the wall between the Museum and Room 106. Exhibits of meteorites might be placed in the expanded south end of the Museum.

4. At least two additional table-top type cases should be purchased. These are needed for rotating exhibits of special items.

5. As urged in recent annual reports, expanded storage facilities for reference and research collections should be provided at once.

6. As recommended in several preceding reports, the Museum needs a budget of several hundred dollars for occasional "emergency" purchases of high-quality specimens not otherwise obtainable.

7. A supply of museum-label paper matching the paper used since 1936 should be purchased. Many temporary labels should be replaced.

Since 1936--a third of a century ago--the Anthropology Museum has been favored by the Administration. In terms of space, exhibit cases, staff, and funds, the Anthropology Museum has far surpassed the Geology Museum. On the other hand, visitors tell us that the Geology Museum is one of the best departmental-type museums in the country. It is certainly far better than geology museums at many prestigious institutions. In fact, a number of large universities have given up their geology museums in recent years.

From the standpoint of the thousands of children in the Albuquerque school system and those from neighboring cities and towns who visit the Museum each year, adequate financial support is justified. In this, my last annual report, I beseech my colleagues in the Department of Geology to actively support the Museum and campaign for funds to carry out some, if not all, of my recommendations. In my opinion, the most urgent of these is that the Museum be expanded so as to provide space for exhibits of meteorites.

THE REPORT OF THE DEPARTMENT OF HISTORY

July 1, 1968 - June 30, 1969

Frank W. Iklé, Chairman

I. General Departmental Information

A. Significant Achievements

1. The following courses were added to the curriculum effective Semester I, 1969-70:

History 350 Traditional Chinese History

History 351 Modern Chinese History

History 375 Military History of the United States

History 482 The Mexican Revolution

2. Activities beyond the formal curriculum:

- a. Co-sponsored with English Department a public lecture on November 25 by Professor Philip Akrigg of the University of British Columbia.
- b. Co-sponsored with Sociology and Political Science departments a public lecture on March 17 by Professor Dan Jacobs of the University of California, Berkeley.
- c. Co-sponsored with General Honors and Philosophy Department two lectures by Professor Romano Harré of Oxford University, November 4 and 6.

- d. Participated in Gallup Branch College, offering Western Civilization in Sem. I and Western Civilization and U.S. History in Sem. II.
- e. Phi Alpha Theta, History honorary, sponsored the Seventh Annual Southwestern Regional Conference on April 18-19. Major address was given by Professor Harry Rosenberg of Colorado State University.
- f. Participated in first annual convention of the New Mexico Historical Society, April 12.

3. Honors:

- a. Professor Troy S. Floyd named "Outstanding Professor of the Year, 1967-68."
- b. Professor Frank W. Iklé named "Professor of the Month" for April and "Professor of the Year 1968-69" by Las Campañas and Chakaa.
- c. Professor William M. Dabney named Woodrow Wilson Regional Committeeman.
- d. Judith Ewell, Ph.D. Candidate, awarded AAUW \$3000. fellowship for research in Venezuela.
- e. Janet Fireman, Ph.D. Candidate, awarded Woodrow Wilson \$3375. Dissertation Fellowship for research in Spain.

f. Marion Morris Cott, Ph.D. candidate, awarded AAUW \$250. scholarship for research in Mexico.

g. Two new NDEA Title IV fellowships awarded to department.

B. Significant Plans and Recommendations for the near future

1. Addition of staff members in American history field.
2. Additional graduate assistants -- one for each 3% increase in history enrollment.

C. Appointments to Staff

1. Richard Robbins appointed Assistant Professor of Russian History, effective September 1, 1969.
2. Charlie Steen appointed Visiting Assistant Professor of Early Modern European History, effective September 1, 1969.
3. Jonathan Porter appointed Instructor in Far Eastern history, effective September 1, 1969.
4. Mitchell Goldberg appointed Temporary Part-Time Instructor, Semester II, 1968-69.
5. Dwight Smith appointed Visiting Professor of American History, Summer Session 1968.
6. Frederick Nunn appointed Visiting Associate Professor of Latin American History, Summer Session 1968.

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7. Leonard Adolf appointed Visiting Professor of Far Eastern History, Summer Session, 1968.

D. Separations from Staff

Henry J. Tobias resigned, effective August 8, 1969, to accept position as Associate Professor of Russian History at the University of Oklahoma.

E. Promotions

1. Gunther E. Rothenberg promoted to Professor of History, effective July 1, 1969.
2. Ferenc Szasz promoted to Assistant Professor of History, effective July 1, 1969.
3. Donald E. Skabelund promoted to Associate Professor of History, effective July 1, 1969.

II. Composite of information requested on individual biographical supplements:

1. Advanced Study

- a. DOLKART, R. Ph.D. degree awarded June, 1969, by University of California, Los Angeles.
- b. SZASZ, F. Ph.D. degree awarded June, 1969, by University of Rochester.

2. Sabbatical, Summer Teaching, Travel, etc.

- a. CUTTER, D. Summer 1968 - full time direction of American Indian Historical Research Project.

- b. DABNEY, W. Research, Library of Congress, August, 1968.
- c. DOLKART, D. UNM Research Grant, Argentina, Summer, 1968.
- d. ELLIS, R. Summer teaching at Murray State University.
- e. KERN, R. Lecturer, July, 1968, NDEA Conference, "Under-developed Nations, Historically & Socially," University of Chicago.
- f. LIEUWEN, E. Summer, 1968, research on Latin American Revolutions project at Bancroft Library, Library of Congress, and Newberry Library.
- g. NASH, G. Sabbatical Leave 1968-69.
- h. ROTHENBERG, G. Summer, 1968, study and research in War Archives, Vienna, Austria.
- i. TOBIAS, H. Summer Teaching, UNM, 1968.
- j. WAGAR, W. Summer teaching, UNM, and Acting Chairman, 1968

3. New Scholastic Honors, Fellowships, etc.

- a. CUTTER, D. Named to Board of Directors of Advisory Committee for Archival Affairs, Federal Records Center, Denver.
- b. FLOYD, T. Recipient of "Outstanding Teaching Award 1967-68"
- c. IKLÉ, F. Named "Professor of the Year for 1968-69" by Las Campañas and Chakaa.
- d. KERN, R. Greater UNM Fund Summer Grant; UNM Summer Growth Grant.
- e. PUGACH, N. UNM Summer Research Grant-in-Aid.

4. Publications

A. Books and Monographs

- 1. CUTTER, D. Ed., The California Coast (Norman, University of Oklahoma Press, 1969).

2. SMITH, G. Chronicles of the Gringos, co-author with Charles Judah, (Univ. of New Mexico Press, 1968), 523 pp.
3. TOBIAS, H. Ed., (with Charles E. Woodhouse), Minorities and Politics, UNM Press, April, 1969.
4. WAGAR, W. SCIENCE, FAITH, AND MAN: EUROPEAN THOUGHT SINCE 1914 (Anthology, with introduction, headnotes, and bibliography), New York, Harper & Row, 1968 (paperbound edition); New York, Walker, 1968 (hardcover edition); London, Macmillan, 1968 (hardcover edition in United Kingdom).
5. WAGAR, W. THE IDEA OF PROGRESS SINCE THE RENAISSANCE (Anthology, with introduction and headnotes), New York, Wiley, 1969.

B. Articles

1. CUTTER, D. "New Mexico" in Collier's Encyclopedia Yearbook, 1969.
2. ELLIS, R. "General John Pope and the Southern Plains Indians, 1875-1883," Southwestern Historical Quarterly, Oct. 1968, 152-169.
3. ELLIS, R. "After Bull Run: The Later Career of General John Pope," Montana, April, 1969.
4. ELLIS, R. Ed., "Carson and Bent on the Indian Problem, 1865," Colorado Magazine, Spring, 1969.
5. ELLIS, R. Ed., "The Civil War Letters of an Iowa Family," Annals of Iowa, Spring, 1969.
6. IKLÉ, F. "Sir Aurel Stein: A Victorian Geographer in the Tracks of Alexander," ISIS, Vol. 59, No. 197, Summer 1968.
7. IKLÉ, F. Contributor, Historical Abstracts, American Bibliographical Center, Santa Barbara, Calif.
8. KERN, R. "The Crisis of Spanish Agriculture," Agricultural History, 1969.

9. KERN, R. "Antonio Cánovas del Castillo," Historia Moderna (Barcelona), Summer, 1968, special edition on 19th century Spanish politics.
10. KERN, R. "Spain," Collier's Encyclopedia, 1969 edition.
11. PUGACH, N. "Making the Open Door Work: Paul S. Reinsch in China, 1913-1919," Pacific Historical Review (May, 1969).
12. ROTHENBERG, G. "The Austrian Army in the Age of Metternich," Journal of Modern History 40 (1968), 155-65.
13. SKABELUND, D. "Walter of Odington's Mathematical Treatment of Primary Qualities" (with Phillip Thomas, Univ. of Wichita), ISIS, Summer, 1969.
14. SZASZ, F. "The Reverend William Bell Riley and the Minnesota Anti-Evolution Campaign of 1927," Minnesota History, Spring, 1969.
15. TOBIAS, H. "The Jews in Tsarist Russia: The Political Education of a Minority," Minorities and Politics, UNM Press, April, 1969.
16. WAGAR, W. "The Role of Historical Thinking in Cognitive Synthesis," AKTEN DES XIV. INTERNATIONALEN KONGRESSES FÜR PHILOSOPHIE, Vienna, Herder, 1968, II: 462-67.
17. WAGAR, W. "Toward the City of Man," The Center Magazine, I (September, 1968), 33-41.
18. WAGAR, W. "The Outlook for Man," Fellowship, XXXIV (November, 1968), 9-14; also published separately as a pamphlet by Fellowship Publications, Nyack, N.Y., 1969.
19. WAGAR, W. "Historicism and Holism," Forum, II (Jan. 1969), 12-16.

C. Book Reviews

1. CUTTER, D. Hammond & Rey, The Rediscovery of New Mexico in Pacific Historical Review.
2. CUTTER, D. Max Moorhead, The Apache Frontier in Journal of Arizona History.
3. CUTTER, D. Field, Early Days in California in New Mexico Historical Review.
4. CUTTER, D. Pourade, The Call to California in Utah Historical Quarterly.
5. CUTTER, D. Treutlein, San Francisco Bay: Discovery and Colonization, 1769-1776 in Pacific Historical Review.
6. CUTTER, D. Darley, The Passionists of the Southwest, in Journal of the West.
7. CUTTER, D. Blue, Thrilling Narrative of the Adventures... of Pike's Peak Gold Seekers in New Mexico Historical Review.
8. CUTTER, D. Corney, Early Voyages in the North Pacific, 1813-1818 in New Mexico Historical Review.
9. CUTTER, D. Swanton, Indian Tribes of Washington, Oregon and Idaho in New Mexico Historical Review.
10. CUTTER, D. Lee, History of the Spirit Lake Massacre in New Mexico Historical Review.
11. ELLIS, R. LeRoy Hafen (ed.), The Mountain Men and the Fur Trade of the Far West, vol. V, Colorado Magazine, XLV, Summer, 1968.
12. ELLIS, R. David Weber (ed.), The Extranjeros, vol. X, Arizona and The West, Autumn, 1968.
13. ELLIS, R. Albert Pike, Prose Sketches and Poems..., Arizona and The West, vol. X, Autumn, 1968.
14. ELLIS, R. John Ewers, Indian Life on the Upper Missouri, Montana, XIX, Winter, 1969.

15. ELLIS, R. William Brophy, et. al., The Indian: America's Unfinished Business, Montana, XIX, Winter, 1969.
16. ELLIS, R. Harry Stroud, Conquest of the Prairies, Southwestern Historical Quarterly, LXXII, Winter, 1969.
17. ELLIS, R. Deward Walker, Conflict and Schism in Nez Perce Acculturation, Oregon Historical Quarterly, Spring, 1969.
18. FLOYD, T. Reviews in Hispanic American Historical Review, February, 1969.
19. KERN, R. John Womack, Jr., Zapata and The Mexican Revolution in Book World, January 23, 1969.
20. KERN, R. Arthur F. Corwin, Spain and the Abolition of Slavery in Cuba, 1817-1886 in Journal of Modern History, Fall 1968.
21. KERN, R. Leo Katcher, Post-Mortem: The Jews in Germany Today in Los Angeles Times, Oct. 14, 1968.
22. KERN, R. Elie Wiesel, Legends of our Time in Riverside (Calif.) Press Enterprise, Oct. 25, 1968.
23. KERN, R. Colin Cross, The Fall of the British Empire 1918-1968 in Riverside (Calif.) Press Enterprise, Jan. 3, 1969.
24. KERN, R. Oscar J. Mammen, The Red '48ers: Karl Marx and Friedrich Engels in Riverside (Calif.) Press Enterprise, Feb. 23, 1969.
25. LIEUWEN, E. Veliz, Politics of Conformity in Latin America, in Hispanic American Historical Review, August 1968.
26. LIEUWEN, E. Blasier (ed.), Constructive Change in Latin America in Hispanic American Historical Review, February 1969.
27. LIEUWEN, E. Bonilla-Michelena, Strategy for Research in Venezuela in Journal of American Academy of Political & Social Science, Fall, 1968.

28. ROTHENBERG, G. David Mackenzie, The Serbs and Russian Pan Slavism in East European Quarterly, II (1968).
29. ROTHENBERG, G. Lavender Cassels, The Struggle for the Ottoman Empire in Balkan Studies VIII (1968).
30. ROTHENBERG, G. Thomas M. Barker, Double Eagle and Crescent: Vienna's Second Turkish Siege in American Historical Review, October, 1968.
31. ROTHENBERG, G. Hermann Schreiber, Teuton and Slav: The Struggle for Central Europe in Balkan Studies, IX (1968).
32. ROTHENBERG, G. Louise Nelbandian, The Armenian Revolutionary Movement in Canadian Slavic Studies, III (1968).
33. SZASZ, F. Winthrop Jordan, White over Black in New-York Historical Society Quarterly.

5. Research

A. Completed

1. CUTTER, D. Director, American Indian Historical Research Project, sponsor Doris Duke; support \$67,500 for 1968-69, renewed for 1969-70 for \$50,000.
2. DOLKART, R. "Caciquismo in Argentina" in Kern, R. and Cutter, D. Caciquismo in Latin America.
3. DOLKART, R. "Argentine Industrialization in the 1930s: The Case of the Province of Buenos Aires"
4. ELLIS, R. "Civilians, the Army and the Indian Problem on the Northern Plains." Accepted by North Dakota History.
5. ELLIS, R. "Political Pressures and Army Politics on the Northern Plains, 1862-1865," accepted by Minnesota History.

6. ELLIS, R. "General Pope's Report on the West, 1966," (edited): accepted by the Kansas Historical Quarterly.
7. ELLIS, R. "A Campaign Against the Sioux: The Diary of Charles Springer," submitted to Journal of the West.
8. ELLIS, R. "General John Pope and the Indian Problem, 1862-1886," manuscript accepted by UNM Press, pending revisions.
9. ELLIS, R. "Civilians, the Army and the Indian Problem on the Northern Plains." Accepted by North Dakota History.
10. KERN, R. "Caciquismo in the Ibero-American World," edited book accepted by UNM Press.
11. LIEUWEN, E. Book MS: "U.S. Policy & Latin American Social Revolutions (with Needler).
12. LIEUWEN, E. "Latin America: The Social Revolution" for Contemporary Civilization 5.
13. LIEUWEN, E. "U.S. Policy Towards Latin America" in The U.S. & Canada (a Handbook) (Praeger).
14. SKABELUND, D. "The Structure of Theory," submitted to ISIS.
15. SZASZ, F. Ph.D. Dissertation "William Bell Riley, John Roach Straton, and William Jennings Bryan: Three Leaders of Fundamentalism"
16. TOBIAS, H. Book MS "History of the Bund to 1905" accepted by Stanford University Press, 850 pp.

B. In Progress

1. CUTTER, D. "Macquinna, Chief of Nootka"
2. DABNEY, W. Guide to materials in American biography for the Univ. of New Mexico Press.
3. DOLKART, R. "Leopoldo Lugones: A Political Biography"
4. ELLIS, R. Revision of Warren Beck, New Mexico: A History of Four Centuries for Univ. of Oklahoma Press.
5. ELLIS, R. Study of New Mexico Territorial Press and the Indian Problem.
6. ELLIS, R. Study of the reaction to Negro Troops in the Southwest.
7. ELLIS, R. Study of Volunteer Soldiers in the West at the close of the Civil War.
8. ELLIS, R. Introduction to Our Red Brothers... by Laurie Tatum, to be reprinted by University of Nebraska Press.
9. ELLIS, R. "The Army, the Indian Bureau and the Southern Apaches"
10. ELLIS, R. "New Mexico History, A Book of Readings"
11. ELLIS, R. Ed., "The Diary of Lieutenant Frank Baldwin"
12. FLOYD, T. Book MS. "The Spanish Catholic Church in the Late Middle Ages"
13. IKLÉ, F. Book MS. "Diplomatic History of the Far East"
14. KERN, R. "The Crisis of Spanish Liberalism"
15. KERN, R. "Madrid under Siege: A Social History" accepted for publication by Dutton.
16. LIEUWEN, E. Book MS. "Social Revolutions in Latin America"

17. ROEBUCK, J. Volume for Routledge (London) Series English Social History entitled "English Society Since 1850."
18. ROTHENBERG, G. Translation of The Austrian Military Border in Croatia, 1522-1881 to appear Herold Verlag Vienna.
19. ROTHENBERG, G. "The Army of Francis Joseph" for UNM Press.
20. SKABELUND, D. "The Structure of Theory in Physics"
21. SULLIVAN, D. Monograph: "The Prince-Bishops of Germany in the 15th Century"
22. SZASZ, F. Essay "Protestantism and the Search for Stability" for Building the Organizational Society, ed. by Jerry Israel of UTEP.
23. TULGA, L. Research in aspects of Roman regulation of morals at Rome (First Century A.D.)
24. WAGAR, W. Research for book entitled "Good Tidings: The Belief in Progress Since Darwin and Marx"

6. Activities in Learned and Professional Societies

- a. CUTTER, D. General Program Chairman, Western History Assn. Conf. Tucson, October. Council Member, Rocky Mt. Council of Latin Amer. Studies. Banquet address at San Diego Hist. Conv. (Calif. Bicentennial) "Plans for the Occupation of California?" (March); Paper "Tadeo Haenke, Precursor or Fraud" at Annual Conf. Rocky Mt. Council of Latin American Studies; Member, Board of Editors of 1) The Americas; 2) The American West; 3) Arizona and the West; 4) New Mexico Historical Review. Independent evaluator of projects for National Endowment for the Humanities; Chairman of session at 5th Annual San Diego History Conference (March); Chairman of Session at 10th Annual Arizona History Conference, Tucson, (May); Banquet address for First Southwestern History Conference sponsored by New Mexico Historical Society, "Oral History among the New Mexico Indians," (April); Attended organizational meeting of Advisory Committee for Archival Affairs, Federal Records Center, Denver, (March).

- b. DABNEY, W. May 2 and 3, 1969. Attended the Lubbock meeting of the Rocky Mountain Social Science Association; read a paper there on Sir James Steuart Denham's view of the American Revolution.
- c. ELLIS, R. Commentator: Western History Assoc. Conference, Oct. 1968. Papers read at Pacific Northwest Historical Conference, April, 1969; Arizona Historical Conference, May, 1969; Colorado Historical Society meeting, May, 1969.
- d. IKLÉ, F. Paper "Sir Aurel Stein" given at Pacific Coast Historical Meeting, August, 1968, Santa Clara University, California. Panel commentator on Japanese modernization, Western Branch, Association for Asian Studies, Provo, Utah, October, 1968.
- e. KERN, R. Paper presented at Spanish Study Group, AHA, New York, July, 1968.
- f. LIEUWEN, E. Attended American Historical Association meetings, New York, December, 1968 and American Political Science Association meetings, Washington, September, 1968. Delegate to Cuba Bibliography Project, Library of Congress, June, 1968.
- g. PUGACH, N. Chairman of session on Post World War II Problems at Rocky Mountain Social Science Association Convention, Lubbock, Texas, May, 1969.
- h. ROTHENBERG, G. Appointed to Editorial Board of Military Affairs. Read papers: "The State of European Military History in America", Convention of Organization of American Historians, Philadelphia; "Professional Education in the Habsburg Army," USAF Academy Third Annual Conference on Military History.
- i. SZASZ, F. Attended American Historical Association meetings, New York, December, 1968.
- j. TOBIAS, H. Attended American Historical Association meetings, New York, December, 1968.
- k. TULGA, L. Served as History Section Program Chairman for Rocky Mountain Social Science Assn; attended these meetings May 2 and 3, 1969, at Texas Tech., Lubbock, Texas.

1. WAGAR, W. Attended XIVth International Congress of Philosophy, Vienna, September, 1968, and read paper, "The Role of Historical Thinking in Cognitive Synthesis." Attended meeting of Board of Directors, Council for the Study of Mankind, Chicago, October, 1968.

7. Other Professional Activities

- a. CUTTER, D. TV interview KCST (San Diego) (March); Speaker for Albuquerque Chapter of American Meteorological Society (March); Speaker, Phi Alpha Theta, San Diego State College (March); History Guest Speaker, Univ. of Albuquerque (April); Manuscript evaluator for: UNM Press, University of Texas Press, Univ. of Oklahoma Press, Holt-Winston-Rinehart.
- b. DABNEY, W. Various talks to civic groups. Member of Woodrow Wilson Selection Committee, Region 13.
- c. ELLIS, R. Member, Advisory Committee for Archival Affairs, Federal Records Center. Selected as member of Sub-committee on Archival Utilization.
- d. IKLÉ, F. Public lectures, "The Mid-East Crisis" and "Russia Enters the Middle East" at Eastern New Mexico University, Portales, March 19, 1969. The Gleebe Lecture, Washburn University, Topeka, Kansas, April 7, 1969, "Sino-Japanese Relations, 1949-1969."
- e. TOBIAS, H. First Unitarian Church; International Club panel discussion.
- f. TULGA, L. Held an adult study program for five nights (June, 1968) at Faith Baptist Church on the topic of "The Old Testament and Contemporary Culture in the Near East."
- g. WAGAR, W. Three lectures on world order given at The Institute on Man and Science, Rensselaerville, N.Y., July 11-12, 1968. Lecture on world order given at Union College, Schenectady, N.Y., July 11, 1968. Keynote address for world conference of the International Fellowship of Reconciliation, Oslo, August 7, 1968. Four lectures on world order given for University of California (Riverside) Extension course, "The Human Predicament," Jan. 27-30, 1969. Reading of original poetry, St. John's College (Santa Fe), April 27, 1969.

8. Non-teaching University Service

- a. CUTTER, D. Director, American Indian Historical Research Project; Faculty Advisor for Phi Alpha Theta; University Publications Committee; Departmental Advisor for History majors. Prepared UNM Extension High School Correspondence Course, U.S. History.
- b. DABNEY, W. Academic Freedom and Tenure Committee; American Studies Committee; various departmental ad hoc committees; faculty advisor to graduate students in U.S. history.
- c. DOLKART, R. Student-Faculty Committee; University College Advisor.
- d. ELLIS, R. Assistant Director, American Indian Historical Research Project; Member, Board of Editors, New Mexico Historical Review.
- e. FLOYD, T. Library Committee, 1968-69; Chairman, Committee for Evaluation of History Department; Outstanding Teaching Award Committee 1969-70; Advisor, Latin American History graduate students.
- f. IKLÉ, F. Subcommittee on Study of Graduate Residence requirements; UNM Joint Committee with College of Santa Fe regarding summer school program.
- g. KERN, R. Chairman, European Session, Phi Alpha Theta Conference, UNM, April 18-19.
- h. LIEUWEN, E. Director, Ford Research Project on Latin America; A & S Dean Selection Committee; A & S Promotion Committee for Social Sciences; A & S Latin America Research Committee (Chairman).
- i. PUGACH, N. UNM Chapter, Phi Beta Kappa - Historian (May 1969) at initiation ceremony.
- j. ROTHENBERG, G. Chairman, Graduate School Committee on Visiting Lecturers; Member, University Research Allocations Committee.
- k. SKABELUND, D. University College Advisor; Honors Program Advisor; arranged for two guest lectures by Romano Harré, Oxford University, speaking on philosophy of science.

- l. SULLIVAN, D. Faculty Advisor; Member, Committee on Evaluation of History Department.
- m. TOBIAS, H. Chairman: Russian Studies and Western European Studies Committees; Faculty Advisor -- above programs and History majors.
- n. TULGA, L. Faculty Advisor for University College, Fall 1968-69; Faculty Advisor for History majors, Spring, 1968-69. Member, Curricula Committee.
- o. WAGAR, W. Member, National/International Affairs Committee.

9. Public Service

- a. CUTTER, D. Moderator, Immanuel Presbyterian Mariners program "Civil Disobedience." Spoke to Albuquerque Study Group "Spanish & Mexican Land Grants in N.M."
- b. DABNEY, W. Various church talks and activities; Member of Eagle Scout committee.
- c. FLOYD, T. Member, United Campus Christian Ministers' Board; Member, United Nations Association, Albuquerque; Chairman, United Nations Gift Shop Board.
- d. IKLÉ, F. Talk at Albuquerque Congregational Church "The U.S. and Southeast Asia," December, 1968.
- e. ROTHENBERG, G. Talks to Temple Albert, Hadassa Southwestern Regional Conference.
- f. WAGAR, W. Sunday sermons at First Unitarian Church, Albuquerque, June 9, 1968, and Feb. 9, 1969. Chairman, Summer Services Committee, First Unitarian Church, summer, 1968. Talk on feminism for National Organization for Women, Albuquerque chapter, July 21, 1968.

10. Personal Information

None

ANNUAL REPORT, DIVISION OF INTER-AMERICAN AFFAIRS

July 1, 1968 - June 30, 1969

Martin C. Needler, Director

I. General departmental information.

A. Significant achievements.

1. The most notable achievement during the current year was the sharp increase in the number of M.A.'s granted. The figures for the last four years are as follows.

1966: 1

1967: 3

1968: 4

1969: 15

This increase has responded to several factors. The number enrolled in the program has doubled since 1966, some procedures have been simplified, and especial care has been taken with counselling and the attempt to find sources of financial support for needy students. However, the major factor involved was clearly the introduction this year of a "Plan II" option. The large

number of students receiving the degree this year thus represents in part the liquidation of a "backlog" of candidates, and is therefore clearly exceptional. It is expected that next year the number of M.A.'s granted will be around the six set as an annual target by the present Director on assuming the position in 1966.

2. The graduate program appeared to be becoming better known, with some improvement in the quality of the applicants becoming noticeable, and an increase in applications coming from students at more prestigious universities and abroad. Students leaving the program seem increasingly to be going on to doctoral study.
3. A new course, Latin American Studies 495, Undergraduate Problems, was added.
4. The Division was the leading department in number of students enrolled in the university's Quito Center, with four graduates and seven undergraduates, or about 25% of the total enrollment there.
5. A proposal was submitted to AID for the establishment of a Center for Latin American Development Studies at UNM.

6. A reprint series of journal articles written by UNM faculty on Latin American topics was begun, with distribution to over 100 addressees.
7. A consortium of about 140 Latin American area programs has been organized, in collaboration with the Latin American Studies Association. The Director of the Division has been elected to the consortium's national steering committee for a three-year term.

B. Present Problems and Future Plans.

1. The most acute problem felt by the Division is the decline in the availability of financial assistance for graduate students. This has had a significant adverse effect on the recruiting of the better applicants. Of course, there is little that can be done at our level except to wait for the easing of the generally tight money situation everywhere.
2. Changes in the draft regulations meant the interruption of graduate study for some students.
3. Attempts continue to try to get a consortium of Southwestern universities on Latin American Studies organized and to have New Mexico included in the State Department's Partners of the Alliance

program. The Division continued to participate, through the Committee on International Programs and in other ways, in the development of plans and projects for the university in the field of international programs.

C & D. Appointments and Separations.

Mrs. Emma Woodard resigned as secretary, effective August 16, 1968. The position was taken by Mrs. Lydia Sipp (September 1 to September 10, 1968), Mrs. Lupe Browne (September 16, 1968, to February 14, 1969), and finally by Mrs. Cathryn Reed, effective date February 17, 1969.

- II. The professional activities of the Department's only faculty member, its Director, have been reported through the Political Science Department.

THE REPORT OF THE DEPARTMENT OF JOURNALISM

July 1, 1968--June 30, 1969

Anthony G. Hillerman, Chairman

I. General Departmental Information

- A. Progress was made toward the department's goal of broader University program in communications.
 1. Art/Journalism 388 (Cinematic Photography) for which we supplied equipment through a grant and which the Department of Fine Art teaches, has filled an important need for students interested in the visual forms of journalism.
 2. Art/Journalism 277 (Graphic Design), to be offered by Fine Arts in 1969-70, will be another keystone in this program.
 3. Journalism 253, a one credit course offered to LOBO staff members, has been moderately successful and will improve for next year.
 4. Journalism 440 (News Programming) will be designed by Professor Crow this summer and offered in the fall semester. It will fill an important gap in the broadcast news option we now offer in cooperation with the Department of Speech.
 5. If manpower allows, both 401 (Advertising) and 469 (Media Management) will be offered in the next Spring semester.
 6. Experiments with use of video-taped news events as laboratory materials in basic newswriting courses were conducted with enough success to indicate this approach should be expanded and improved.
 7. Instructor Bob Lawrence's plan to enrich and accelerate Journalism 261 (News Photography) proved extremely successful.
- B. Our plan for the future involves an inter-departmental expansion to offer a complete and well-rounded curriculum in broadcast journalism, as first priority. We also hope to gradually add a small number of courses in which students would be prepared for careers in advertising/public relations. This program would involve--if details can be worked out--Marketing Communication 410, Theories of Communication 411, Visual Fundamentals and Graphic Design, all already offered in other departments or colleges.

Journalism Department Report
Page 2

We recommend authorization to add a fifth regular faculty position effective in 1970-71. With this additional person we could--through cooperation with the department of Speech and the College of Fine Arts and the School of Business and Administrative Services, provide the nucleus for a complete and well-founded program across the spectrum of mass media and communications.

- C. Appointments to staff--Mrs. Emma McLeod, as assistant professor effective July 1, 1969. (Filling vacant position authorized in 1967.)
- D. No separations.

THE REPORT OF THE DEPARTMENT OF MATHEMATICS AND STATISTICS

JULY 1, 1968 - JUNE 30, 1969

J. R. Blum - CHAIRMAN

During the academic year 1968-69 the Department provided instruction to 6,945 students totaling 23,411 credit hours. This is an increase of 219 students and a decrease of 809 credit hours compared to the academic year 1967-68. The decrease in credit hours is due to the fact that in 1968-69 we abolished all five hour credit courses.

I. GENERAL DEPARTMENTAL INFORMATION.

A. SIGNIFICANT ACHIEVEMENTS.

This was the first year that the National Science Foundation Departmental Development grant was in full operation. Because of it we were able to bring in on a permanent basis several excellent new faculty members. Also we had with us three visiting professors and two post doctoral fellows who contributed greatly to the scholarly atmosphere of the Department. Next year we will again have several visiting professors and postdoctoral fellows, and one additional permanent appointment on the grant. Thus the quality of the Department is moving up, although we were unable to attract any nationally prominent mathematicians to New Mexico this year.

A second achievement was the initiation of the console computer program in our calculus sequence. This pioneering venture will be in full operation during the next academic year when every calculus student will spend approximately one hour a week in the new Mathematics Computation Laboratory, and from our experience this past year we feel that this is an outstanding pedagogic device.

Our graduate program expanded somewhat due to the initiation of the new Master's degree in Computing Science and we now have eight students enrolled in this program. Seven Ph.D. degrees and twelve Masters degrees in Mathematics were awarded at the June Commencement.

The undergraduate program stayed at approximately the same level as during the year 1967-68. A new course, Mathematics 101, should prove popular with students in the humanities and social sciences.

Research activity in the Department was lively as may be seen by the accompanying data. Three new National Science Foundation research grants were awarded to the Department during the year. During this summer the N.S.F. is continuing its support of the annual Summer Institute for High School Teachers.

B. PLANS AND RECOMMENDATIONS.

To begin with, I must strongly emphasize that unless we do something about the weakening salary structures, we shall undoubtedly lose the major proportion of our good people. This trend has become obvious during the last year or two and it will surely continue unless immediate and drastic action is forthcoming.

Secondly, as I have said in my last two annual reports, there is urgent need for additional office space, conference rooms, and seminar rooms for mathematics. With regard to housing, the Department has been treated as a second rate department, while it is in fact one of the strongest on campus. Consequently I urge again that immediate plans be made for a new mathematics building.

On a final note, I should like to urge strongly that Mrs. Carol Marsh, our administrative assistant, be given a substantial salary increase. I cannot begin to detail all the tasks she performs for this Department, but in my opinion her salary pays for approximately half the services she performs.

C. APPOINTMENTS TO STAFF.

In the Fall of 1968 eleven new appointments were made. They are: Professors Hille (visiting), Basu, Zacks; Associate Professors DeMarr, Guinn; Assistant Professors Allen, Derr, Gevirtz, Gibson, Hahn and Loustaunau. For the Fall of 1969 we have made seven appointments, as follows: Associate Professors E. Marchi and W. Zimmer (visiting); Assistant Professors A. Carasso, G. Efroymson, I. Hsu (one year appointment) and C. Onneweer; Instructor R. Grassl.

D. SEPARATIONS FROM STAFF.

The following people have resigned: Assistant Professor Lamar Bentley, to Bucknell University, Pennsylvania; Assistant Professor Ronald Bierstedt, destination unknown; Assistant Professor Henry Davis, to Brookhaven National Laboratory, New York.

II. INFORMATION FROM BIOGRAPHICAL SUPPLEMENTS.

1. ADVANCED STUDY.

None.

2. SABBATICALS, LEAVES OF ABSENCE, etc.

None.

3. NEW SCHOLASTIC HONORS, FELLOWSHIPS, etc.

Henry W. Davis: Offered National Bureau of Standards Post-doctoral Fellowship.

Richard J. Griego: Mexican government grant to study at the Centro de Estudios Avanzados del Politecnico Nacional in Mexico City for 1969-70.

Richard C. Metzler: Elected to Phi Kappa Phi.

4. PUBLICATIONS.

Debabrata Basu: 'On Invariant Sets for Translation Parameter Families of Measures', (1969) Ann. Math. Stat., Vol. 40, No. 1.
'Sufficient Statistics in Sampling from a Finite Universe', (1967) Proc. 36th Session of Inter. Statistical Institute.

Richard C. Allen, Jr.: 'Numerical Solution of a Certain Class of Non-linear Two-point Boundary Value Problems' (Jour. of Comp. Physics,)

'A Numerical Algorithm Suggested by Problems of Transport in Periodic Media', (Journal MAA, 1969)

'Functional Relationships for Fredholm Integral Equations Arising from Pseudo-transport Problems', (Journal MAA, 1969).

H. L. Bentley: 'T-Categories and some Representation Theorems', UNM Tech. Report, No. 172, March, 1969.

Jeffrey R. Davis: 'Some Remarks on Finite Section Wiener-Hopf Operators', w/I. I. Hirschmann, Jr., Jnl. D'Analyse Mathematique, 1969.

R. C. Entringer: 'Representation of m as $\sum_{k=-n}^n k^K$ ', Canadian Mathematical Bulletin 11 (1968) 289-293.

Archie G. Gibson: 'Triples of Operator-Valued Functions Related to the Unit Circle', Pac. Jnl. Math., Vol 28 (1969) pp 513-542.

'On the Asymptotic Condition of Scattering Theory', Helv. Phys. Acta, Vol. 41 (1968), pp 513-527, w/ J. Janch and B. Misra.

Richard J. Griego: 'Local Times for Transforms of Markov Processes,' J. Math. Kyoto, V. 8, No. 1, 1968.

'A Note on Projections of Continuous Additive Functionals,' Ann. Inst. Stat. Math., V. 20, 1968.

'Random Evolutions, Markov Chains, and Systems of Partial Differential Equations,' PNAS, V. 62, 1969.

'Brownian Motion and Potential Theory', Scientific American, V. 220, March, 1969.

Theodore Guinn: 'Some Approximation and Density Theorems', Proc. Int. Symp. on Top. and its Appl., Belgrade, Yugoslavia, August, 1968 (w/P. H. Doyle).

'An Embedding Theorem for Ordinary Differential Equations,' Jour. Optm. Th. and Appl., Vol. 2, No. 2, 1968. w/M. Hestenes.

'Boundary Arcs for a Class of Differential Games, Journal Opt. Th. and Appl., Vol 2, 1968.

'Minimal Solutions to a Class of Parabolic Partial Differential Equations,' Proc. Am. Math. Soc. Vol. 20, 1969.

Liang-shin Hahn: 'A Theorem on Multipliers of Type (p.q.) May issue Proceedings of American Math. Soc.'

Reuben Hersh: 'Finite Difference Approximations', SIAM J. Numer. Anal. Vol 5, .

'Brownian Motion', w/R. Griego, Scientific American, March, 1969.

'Random Semi Groups', w/Griego, Proc. Nat. Acad. Sci., Feb., 1969.

'A Class of Central Limit Theorems', Trans. A.M.S., May, 1969.

Einer Hille: 'Some properties of the Jordan Operator', aequationes mathematicae, Feb. 1968.

'First-Year Calculus' w/Saturnino Salas, Blaisdell Publ. Co., 1968.

'On the Thomas-Fermi Equation', Proc. Nat. Acad. Sci. 1969.

'Lectures on Ordinary Differential Equations', Addison-Wesley, 1969.

L. H. Koopmans: 'Some Simple Singular and Mixed Probability Distribution'(classroom notes); Math. Monthly, Vol. 76, No. 3, p297-300.

Book Review of 'Stationary Random Processes' by T. A. Raganov, Technometrics, Vol. 10 pp 628-630.

Richard C. Metzler: 'Representation of Ordered Vector Spaces with the Riesz Decomposition Property', Jnl. of the London Math. Soc., Jan. 1969.

Donald R. Morrison: 'Arithmetic in Galois Fields of Characteristic 2,' Mathematical Algorithms, Nov. 1968.

'Matching Algorithms,' Jnl. of Combinatorial Theory, Jan., 1969.

'Patricia - Practical Algorithm to Retrieve Information Coded in Alphanumeric,' Jnl. of Association for Computing Machinery, Oct. 1968.

Clifford R. Qualls: 'On the joint Distribution of Crossings of High Multiple levels by a Stationary Gaussian Process. UNM TR, Oct. 1968.

'Fixed Length Confidence intervals for parameters of the Normal Distribution based on Two-stage Sampling Procedures.' UNM TR, 1969.

Lawrence F. Shampine: 'Existence and Uniqueness for Nonlinear Boundary Value Problems', Jnl. Diff. Eqn. 5(1969)

Error Bounds and Variational Methods for Non-linear Boundary Value Problems', Num. Math. 12 (1968)400-415.

'Concerning Periodic Solutions of $Y' + f(t, y, y') = 0$, ' Jnl. Math. Anal. Appl. 23 (1968)558-574.

'Over-Determine Boundary Value Problems, ' Jnl. Math. Anal. Appl. 23 (1968)558-574.

'Over-Determine Boundary Value Problems, ' 23(1968)117-120.

'On the Eigenproblem for Displacement Integral Equations, ' Num. Math. 12(1968)170-179.

'On Shooting Methods for Two-point Boundary Value Problems, ' J. Math. Anal. Appl. 23 (1968)235-249.

'Boundary Value Problems for Ordinary Differential Equations', SIAM J. Num. Anal. 5 (1968)219-242.

'Contraction Mappings for Nonlinear Boundary Value Problems', Computing 3(1968)205-214

'Some Nonlinear Eigenvalue Problems, ' J. Math. Mech. 17(1968)1065-1072.

'Existence From Uniqueness for Boundary Value Problems, ' J. Math. Anal. Appl. 23(1968).

G. Milton Wing: 'On a Generalization of a Method of Bellmand and Latter for Obtaining Eigenvalue Bounds for Integral Operators, ' J. Math. Anal. and Appl. 23, 2(1968)

'Solution of a Certain Class of non-linear two-point boundary value problems, ' w/R. C. Allen, Jr., and M. Scott. J. of Computational Physics.

Shelemyahu Zacks: 'Bayes Sequential Design of Fractional Factorial Experiments for the Estimation of a Subgroup of Pre-assigned Parameters'. Ann. Math. Stat., 39: 973(1968).

'Bayes Sequential Design of Stock Levels.' Nav. Res. Logistics Quarterly, June, 1969.

5. OTHER RESEARCH PROJECTS IN PROGRESS OR COMPLETED.

D. Basu: Book - 'Role of the Sufficiency and Likelihood of Principles in Sample Survey Theory' to be published in Sankhya this year.

R. C. Allen, Jr.: Project Themis (Bureau of Engineering Research)

J. R. Blum: 'Fixed Precision Estimation in the class of IFR Distributions (w/Rosenblatt) to appear in Annals of Statistical Mathematics.

'Fixed Length Confidence Intervals for Parameters of Stochastic Processes' (w/Rosenblatt) Annals of Mathematical Statistics.

'On Orthogonal arrays of odd index,' (w/J. Schatz) Jnl. of Combinatorial Analysis.

'A Characterization of Weak Stability for Transformations', (w/Natarajan) to appear Zeitschrift fur Wahrscheinlichkeitstheorie.

Henry W. Davis: Submitted two papers on inductive limits of L_p spaces for publication. Have been studying Besicovitch almost p periodic functions on groups.

Ralph DeMarr: 'Convergence of a Sequence of Powers', to be published in Proceedings of AMS.

Notes on Partially ordered linear algebras.

James B. Derr: Submitted one paper on finite solvable groups to the Pacific Journal of Mathematics.

Donald W. Dubois: Continuing research in ordered fields, real varieties, etc. with partial support of National Science Foundation.

R. C. Entringer: 'Enumeration of Permutations of $(1, \dots, n)$ by number of maxima', accepted for publication.

'Enumeration of certain binary matrices' - accepted for publication

'A direct proof of Konig's Theorem'- submitted for publication.

'Divisibility properties of the function enumerating chain topologies,' submitted for publication.

Bernard Epstein: Made progress on research in several topics, supported by NSF Grant No. 12365-000. Completed writing of text on Functional Analysis, to be published January, 1970, by W. B. Saunders Company.

Archie G. Gibson: Doing research on scattering theory and the mathematical foundations of quantum mechanics.

Richard J. Griego: Random Evolutions-Theory and Applications, submitted to Journal of Functional Analysis (NSF Grant GP 8290)

'Crisis in New Mexico' (w/G. W. Merks), submitted to Trans-Action, sociology magazine.

Theodore Guinn: 'A Lagrange Multiplier Rule in Hilbert Space, to be published. (w/Landerman).

Reuben Hersh: Three papers in progress.

Einer Hille: Writing a treatise with tentative title, 'Introductory Functional Analysis' for Addison-Wesley.

Simon T. Kac: Research carried out under the provisions of Grant GE-26880.1 in the amount of \$2000 supplement to the academic year extension for the period June, 1966 to Sept., 1968, sponsored by Special Projects in Science Education section, National Science Foundation.

L. H. Koopmans: 'Fixed Length confidence intervals for Parameters of the Normal Distribution Based on Two-Stage Sampling Procedures' (w/C. Qualls). Submitted for publication.

First draft of a text book on Time Series Analysis completed.

Research on prediction theory. NSF Contract granted (with C. Qualls) for summer 1969.

James V. Lewis: Research on estimation of coefficients in a differential equation from the solution with error.

J. Loustannau: 'On Hypercomplete Locally Convex Spaces', submitted for publication to Journal of Functional Analysis.

R. C. Metzler: 'Abstract Dirichlet Problems and the Choquet Boundary', UNM TR, Dec. 1968 and to be submitted for publication.

Clifford R. Qualls: Two papers in progress, 'In moments of number of crossings of a stationary process' and 'in recursive prediction of time series'.

Lawrence Shampine: Submitted papers: 'Difference Methods for Nonlinear First order Hyperbolic Systems of Equations'; Existence and Uniqueness of Solutions of a Class of Nonlinear Elliptic Boundary Value Problems'; and 'Boundary Value Problems for Ordinary Differential Equations II'.

G. Milton Wing: Research and lecturing sponsored under the following grants: (1) NSF GP 5967 (2) Themis (3) Air Force Special Weapons Center, Air Force Systems Command, Kirtland, AFB and DASA Contract F 29601-68-C-0093.

S. Zacks: Awarded an NSF research Grant GP-9007, July 1, 1968 - June 1, 1969. The seven papers written under this grant have been submitted for publication.

6. ACTIVITIES IN LEARNED AND PROFESSIONAL SOCIETIES.

- a) Meetings attended: Professional meetings in various cities were attended by the following people: R. C. Allen, Jr., D. Basu, H. L. Bentley, J. R. Blum, J. Davis, H. Davis, R. DeMarr, D. Dubois, R. Entringer, B. Epstein, J. Gevirtz, A. Gibson, R. Griego, T. Guinn, L. Hahn, R. Hersh, E. Hille, A. Hillman, S. Kao, L. H. Koopmans, J. Lewis, J. Loustanaunau, D. Morrison, C. Qualls, L. Shampine, A. Steger, S. Zacks.
- b) Offices held:
 - A. Hillman: Governor, Southwestern Section, MAA (Annual Meeting. College Chairman, Albuquerque Council of Teachers of Math.
 - S. Kao: Secretary-treasurer of Southwestern section of MAA.
- c) Papers read, invited addresses, etc.
 - D. Basu - Invited address at IMS Regional meeting, Iowa City.
 - R. DeMarr - Read paper at AMS Meeting, New Orleans.
 - Archie Gibson - Invited address at regional meeting of AMS, MAA, and SIAM in Portland, Oregon.
 - R. Griego - Presented talk AMS Annual Meeting.
 - R. Hersh - Read paper at AMS Annual Meeting.
 - E. Hille - Papers read at Los Alamos, N.M. and Tulane Univ.
 - A. Hillman - Invited talk, Albuquerque Council of Teachers of Mathematics.

7. OTHER PROFESSIONAL ACTIVITIES.

- R. C. Allen, Jr. - Presented talk at Math Conference for Teachers and Administrators, Artesia, N.M.
- Henry Davis - Gave colloquium at Brookhaven National Lab.
- R. C. Entringer - Reviewer for Zentralblatt für Mathematik
- B. Epstein - Presented Colloquium at Drexel Institute of Tech.
- R. Hersh - Consultant for 'Scientific American' Magazine.
- Colloquium speaker at Univ. of Wash, Arizona, Tulane Univ., Drexel and Univ. of Illinois.
- E. Hille - Read and reported on dissertations for three students, one from Monash Univ., one from Australia and one from India.
- A. Hillman - Editor of Elementary Problem Section, Fibonacci Quarterly; Problem Editor, New Mexico Math (Journal of the N.M. Council of Teachers of Math.)
- L. H. Koopmans - Gave short course on Time Series Analysis, Aug, Sandia Corporation.
- J. Loustanaunau - Summer job with White Sands Missile Range.

7. Continued.

Merle Mitchell - Talk at National Council Teachers of Math.
Meeting in Corpus Christi, Tex.;
Talk at Matheson Park Elementary School on their In-Service Day.
Panel discussion on Teacher Training at NMCTM meeting in Artesia.

G. Milton Wing - appointed Associate Editor, Journal of Math.
Analysis and Applications.
Consultant to LASL.

S. Zacks - Consultant to the Logistics Research Project,
The George Washington University.

8. NON-TEACHING UNIVERSITY SERVICES.

During the year most of our faculty served on various Doctoral Committees, Committee on Studies, and advisors at one level or another. Dr. Allen served as Director of the Mathematics Computing Laboratory, Dr. Metzler was supervisor of the Calculus sequence, and Dr. Bentley was in charge of the Mathematics Departmental Library. Various members served on the following committees: Departmental Advisory Committee, Departmental Undergraduate Committee, Faculty Policy Committee, Ad Hoc Committees, Student Affairs Committee, Master's Examination Committee, Retirement and Insurance Committee, Academic Freedom and Tenure Committee, Dr. Griego was Director of the Upward Bound Program, Dr. Hillman is the Director of the Mathematics Honors Program and Director of UNM-ACTM Mathematics Contest for Secondary Students. Dr. Mitchell served as the NSF Institute Director.

9. PUBLIC SERVICE.

R. C. Allen - Active in Church and Scouting activities.
R. Hersh - Albuquerque Friends Meeting.
S. T. Kao - Member of Catholic school board in Archdiocese
L. H. Koopmans - Board of Deacons, First Cong. Church.
J. V. Lewis - Albuquerque Urban Progress - Executive Committee
Conservation Round Table., Boy Scout Troop 432 Committee.
R. C. Metzler - Member executive committee, Rio Grande Chapter
of the Sierra Club.
C. R. Qualls - Member and youth leader, First Assembly of God Church.

The Report of the Department of Modern and Classical Languages

July 1, 1968 - June 30, 1969

R. M. Duncan, Acting Chairman
Robert Holzapfel, Assistant Chairman

I. General departmental information.

A. Significant achievements.

1. A good departmental innovation this year was the appointment of Assistant Professor Robert Holzapfel as Assistant Chairman. He shows a marked ability for painstaking detail and it would now be impossible for a chairman to do without his able assistance.

2. New programs.

- a. The Ph. D. in Romance Languages approved by the General Faculty last year received approval of the necessary state agencies this year and will be ready for candidates in the fall of 1969.
- b. The Andean Center in Quito, Ecuador was inaugurated in September, 1968 under the direction of Professor Sabine R. Ulibarri. Reports from staff and students indicate that the enterprise has the approval of the Ecuadorean community and provides an excellent opportunity for our students to immerse themselves in a Spanish American culture.

3. Cultural activities.

- a. We have continued the lecture series under the title, "Aspectos de la cultura hispánica", financed from overhead funds provided by the NDEA Title IV Fellowship program. The lectures in this series were:
 - (1) "Los toros" by Professor Kenneth Vanderford, October 9, 1968.
 - (2) Voice and guitar recital by Sofia Noël and Jesús González Tutor, December 11, 1968.
 - (3) "No hay tal Generación de 98" by Professor Ricardo Gullón.
 - (4) "El Quijote, prototipo de la antinovela hispánica" by Professor Bruce Wardropper, May 15, 1969.
- b. Allied with this program but done on a more informal level we brought to the campus figures who spoke to students and faculty on a social level:
 - (1) Father Alfonso M. Escudero, Chilean professor and critic, October 10, 1968.
 - (2) Sra. Ana María Matute, Spanish novelist, March, 1969.
- c. Professor Theodore Sackett trained a group of graduate students who gave a reading of Moratin's "El sí de las niñas" on November 1, 1968.
- d. Lacking Title IV overhead money we were, handicapped in providing similar programs for French.

However, it was possible to bring the distinguished French novelist Cl  ude Simon for a lecture entitled "Lectures comment  es des romanciers Borges, Stendhal, Faulkner, Proust, Joyce" on November 4, 1968.

- e. The Department also took advantage of the presence of Professor Germaine Br  e, Phi Beta Kappa guest lecturer, to have her talk to an informal group of French students and faculty on November 11, 1968.
 - f. The French section, in conjunction with the Cultural Affairs Committee, sponsored Moli  re's "Les Fourberies de Scapin" (produced by Le Tr  teau de Paris) on February 12, 1969.
 - g. Professor Jack Kolbert gave a reception for M. Didier Raguenet, Consul G  n  ral de France at Los Angeles, April 20, 1969, to which he invited faculty and students of French (as well as other guests).
3. Plans for new language building.

Professor Robert Holzapfel continued his collaboration with George Pearl, the planning architect for the new language building. Together they visited several universities for observation of technical installations. Professors Robert Jespersen, Robert Holzapfel, and the Director of the Language Laboratory, Neddy Vigil, attended the Conference on Audiovisual Instruction in Portland, Oregon,

April 24-27, 1969, looking for possible new technical improvements that might be incorporated into the building.

B. Significant plans for the future.

1. New courses approved:

- a. Modern Languages 518. Medieval Romance Lyric.
(3) Tomlins, White.
- b. German 105-106. Basic German for Graduate Students.
(3, 3) Staff. Accelerated course for students interested in a reading knowledge of German. Will not satisfy the language requirement in College of Arts and Sciences.
- c. Italian 295-296. Advanced Italian. (3, 3) Staff.
- d. Spanish 502. Proseminar in Spanish Medieval Genres. (3) Tomlins.

- 2. Requirements for the graduate degrees in Spanish have been overhauled with significant changes.
- 3. A committee, made up from the Spanish staff and two representatives of the Union of Mexican American Students, has undertaken a review of the entire undergraduate offerings in Spanish and includes revision of the requirements for the Spanish major.
- 4. The departmental Administrative Committee (composed of the faculty who have two years tenure or more as Associate Professor or Professor) came to the conclusion that perhaps the Department needs reorganization and has proposed that as a first order of

business in September, 1969, a committee should prepare a new "table of organization" in which young faculty have a stronger formal rôle in determining departmental policy. (It seems to this year's Acting Chairman that the young faculty have not been left out of consultations which determine policy but he recognizes the advantage that accrues to a formal arrangement over a mere de facto arrangement.)

C. Appointments to staff

1. Professor William H. Roberts as Chairman, effective September, 1969.
2. Professor Michel Butor as Visiting Professor of French, effective September, 1969.
3. Dr. Garland D. Bills as Assistant Professor of Spanish Linguistics, effective September, 1969.
4. Dr. John J. Bergen as Visiting Assistant Professor of Spanish, effective September, 1969.
5. Mrs. Sigrid I. Dunn as Instructor of German, effective September, 1969.
6. Mr. Delfin Carbonell-Basset as Visiting Professor of Spanish, effective September, 1969.

D. Separations from staff

1. Professor Robert M. Duncan retires June 30, 1969, after 31 years on the faculty.
2. Assistant Professor George A. Jocums resigned as of June 30, 1969.

3. Mrs. Marilyn Metcalf Olachea, Instructor of Russian, resigned as of June 30, 1969.

4. Assistant Professor Enrique Lamadrid has approval for a leave of absence for 1969-70.7

II. Composite information on individual biographical supplements.

1. Advanced study.

- a. Claude Book completed her doctoral dissertation, Théophile Gautier, auteur dramatique, and received the degree of Doctorat de l'Université de Paris on 18 June 1968.
- b. Alice Gilbert attended the German Summer School at Middlebury College.
- c. Robert Herron completed his doctoral dissertation, The Individual, Society, and Nature in the Novels of Lima Barreto, and received the Ph. D. from the University of Wisconsin.
- d. Rosemarie Welsh attended the German Summer School at Middlebury College.

2. Sabbaticals, leaves of absence, summer teaching elsewhere, travel, etc.

- a. Jack Kolbert traveled throughout Ontario and Quebec university systems.
- b. Enrique Lamadrid taught half-time so that he could work on a series of high school texts.
- c. Raymond MacCurdy spent Semester I on sabbatical leave, working in the libraries of Harvard and Spain.
- d. Patricia Murphy spent the summer in France.
- e. Marshall Nason spent Semester II on sabbatical leave

doing research in Argentina. Additional travel in Paraguay, Chile, Uruguay, Colombia, and Ecuador.

- f. David Thompson was in Florence on leave of absence during Semester II.
 - g. Sabine Ulibarri spent the year in Quito as director of the Andean Center.
3. New scholastic honors, fellowships, etc.
- a. Claude Book was elected to the Société d'Histoire Littéraire de la France. She was also chosen to be a founding member of the Centre d'Etudes du Romantisme Français.
 - b. Rubén Cobos was elected Professor of the Month for March, 1969 by Las Campanas.
 - c. Ned Davison was awarded a Fulbright-Hays Research Grant for June and July, 1968. He traveled in Argentina, Chile, Peru, and Colombia.
 - d. Tamara Holzapfel received a summer research grant from the UNM Latin American Fund and spent July and August, 1968 in Buenos Aires, Argentina.
 - e. Sabine Ulibarri was elected President of the American Association of Teachers of Spanish and Portuguese.
4. Publications.
- a. Rubén Cobos, "New Mexico Spanish Proverbs," New Mexico Folklore Record, Vol. 12 (1969-70), pp. 7-11.
 - b. Ned Davison, "'The Raven' and 'Out of the Cradle Endlessly Rocking'", Poe Newsletter, Vol. 1 (April 1968), pp. 5-6; Miscellaneous articles for Las Ultimas Noticias,

- (April-July, 1968); translation of a poem by Enrique Molina Campos, "When a dead one grows icy cold...", Mundus Artium (Winter, 1968), pp. 78-79; Photostory, "Old Town", New Mexico Magazine (October, 1968), pp. 2-5.
- c. Robert Duncan, "Names in the Documentos Lingüísticos de España", New Mexico Folklore Record, Vol. 12 (1969-70), pp. 12-16; "The Impact of Hispanic Culture on the United States", A Handbook for Teachers of Spanish and Portuguese edited by Donald D. Walsh, Lexington, Massachusetts, pp. 114-126; "Adjetivos de color en el español medieval", Anuario de Estudios Medievales, 1969, 10 pages.
- d. Tamara Holzapfel, "Dostoevsky's Notes from the Underground and Sáboto's El túnel", Hispania, LI, 3 (September, 1968), pp. 440-446; "Sobre héroes y tumbas: novela del siglo", Revista Iberoamericana, XXXIV, 65 (January-April, 1968), pp. 117-121; book review: "Anthony N. Zahareas: The Art of Juan Ruiz", Symposium, XXII, 1 (Spring, 1968), pp. 88-89.
- e. Jack Kolbert, Guide to Camus' The Stranger, Littlefield-Adams-ERA Series, New Jersey, 1969; "Romain Rolland-Biographie", Revue de Littérature Comparée, September, 1969, pp. 380-390; "Les Nouvelles Littéraires, History of a Paper", Legion of Honor, No. 1, 1969, pp. 25-40; "Histoire des Nouvelles Littéraires", Les Nouv. Litts., Paris, May, 1969,

- pp. 1-6; book reviews: Butor's Essais sur les Essais, French Review, March, 1969, pp. 627-628; Butor's Répertoire III, French Review, December, 1969, pp. 329-330; Grossvogel's The Limits of the Novel, French Review, February, 1969, pp. 457-458.
- f. Raymond MacCurdy, Francisco de Rojas Zorrilla (New York, Twayne Publishers, 1968), 172 pp.
 - g. Marshall Nason, "Latin American Area Studies at UNM" (brochure), UNM Printing Plant; article: on Latin American Literature, World Book Encyclopedia; review of Englekirk and Ramos critical bibliography and history of Uruguayan Literature, Hispania.
 - h. Theodore Sackett, Pérez Galdós: An Annotated Bibliography (Albuquerque, UNM Press, 1968), 144 pp; review of De Coester's "Artículos de Juan Valera en 'El contemporáneo'", Hispania, LI, iii (September, 1968), p. 557.
 - i. Jack Tomlins, "Toward an Aesthetic of Gil Vicente's Drama", American Portuguese Cultural Society Bulletin (Winter, Spring, Summer, 1968), pp. 42-64; "Visit to the Old Harlequin", Bulletin of Brazilian American Cultural Institute (Fall-Winter, 1968), pp. 2-4.
 - j. Julian White, review of Alain Renoir, The Poetry of John Lydgate, Comparative Literature Studies, Vol. V., # 3, pp. 343-348.
5. Research in progress or completed (not previously reported).
 - a. Claude Book and Jack Kolbert have finished a Butor reader for Oxford Press. Mrs. Book has completed an

article and a review on Gautier and has started work on an edition of Gautier.

- b. Rubén Cobos is completing a work on Spanish games and songs for New Mexico Children.
- c. Ned Davison is working on sound structures in Spanish American poetry.
- d. Robert Herron is reworking his dissertation for publication in Brazil.
- e. Robert Jespersen is working on an article on Feuchtwanger's novel, Jefta.
- f. Raymond MacCurdy had three books completed and accepted for publication in 1969-70: Spanish Drama of the Golden Age: Twelve Plays (Appleton-Century-Crofts), 2016 ms. pp.; edition of Francisco de Rojas, Numancia cercada y Numancia destruida (Madrid, Editorial Porrúa Turanzas), 400 ms. pp; Los isleños de los Estados Unidos: lengua y folklore canarios en Luisiana, 194 ms. pp., to be published as a supplement to the Revista de Estudios Atlánticos (Madrid).
- g. Marshall Nason is working on a chapter for a joint study of the phenomenon of Caciquismo in the Ibero-World.
- h. Theodore Sackett has completed articles on Galdós and Ibáñez.
- i. David Thompson has a book in progress on humanist assessments of Dante, Petrarca, and Boccaccio.
- j. Jack Tomlins has several translations and reviews

in progress. He is also continuing research on Mario de Andrade.

- k. Julian White has corrected galley proofs on his book for Twayne, Nicolas Boileau.

6. Activities in learned and professional societies.

- a. The following persons attended the RMMLA meeting held at the Air Force Academy, October 10-12, 1968: Truett Book, Robert Duncan (Member of Executive Council), Pelayo Fernández, Robert Holzapfel, Tamara Holzapfel, Robert Jespersen, Jack Kolbert, Theodore Sackett (Chairman of the Teaching Section), David Thompson.
- b. The following persons attended the annual meeting of the MLA in New York, December, 1968: Claude Book, Robert Duncan, Pelayo Fernández, Jack Kolbert (Executive Committee of Comparative Literature Section).
- c. The following persons attended the American Association of Teachers of Spanish and Portuguese meeting, San Antonio, August, 1968: Robert Duncan, Raymond MacCurdy, Sabine Ulibarri (President).
- d. Claude Book attended the Congrès de l'Association Internationale des Etudes Françaises in July, 1968.
- e. Rubén Cobos read a paper at the Southwestern Folklore Conference, Ogden, Utah, Summer, 1968.
- f. Robert Duncan and Robert Herron attended the Rocky Mountain Council for Latin American Studies, Denver, May, 1969.
- g. Alice Gilbert is secretary and acting president of

the New Mexico Chapter of the AATG.

- h. Robert Herron was secretary for the Luso-Brazilian Section of the Midwest MLA meeting, Cincinnati, October, 1968.
 - i. Robert Holzapfel and Robert Jespersen attended a Comparative Literature Conference at Los Angeles and the Department of Audio Visual Instruction Meeting at Portland, both in April, 1969.
 - j. Jack Kolbert was elected Executive Council Member for the American Association of the Teachers of French.
 - k. Raymond MacCurdy is a member of the Executive Board of the RMMLA and also of the Program Committee of the Modern Language Association.
 - l. Marshall Nason was the UNM delegate to the first national meeting of the Latin American Studies Association, New York, November, 1968.
 - m. Theodore Sackett is serving as a member of the RMMLA editorial board for the Bulletin.
 - n. David Thompson read two papers at meetings of the RMMLA and PAPC.
 - o. Jack Tomlins read a paper at the Midwest MLA, Cincinnati, October, 1968: "The Hallucinated City Revisited: Mário de Andrade's Poetics".
7. Other professional activities.
- a. Truett Book continued to serve as president of the Alliance Française and was also sponsor of Phi Sigma Iota.

- b. Ned Davison gave a series of lectures in Chile, Summer, 1968.
 - c. Robert Duncan was Vice President of the University Faculty Club.
 - d. Jack Kolbert gave several off-campus lectures.
 - e. Raymond MacCurdy served as a reader-consultant for the University of Pennsylvania and North Carolina Presses.
 - f. Marshall Nason gave a lecture at the University of Cuyo, Mendoza, Argentina, April, 1969.
 - g. Theodore Sackett was director of a Spanish dramatic reading, and co-organizer of a Spanish Poetry Reading.
 - h. Jack Tomlins served on a committee to choose the best article published in Hispania during the last three years.
8. Non-teaching University service .
- a. Claude Book served on the Library Committee and as faculty advisor for foreign students.
 - b. Truett Book served on the Awards and Scholarships Committee.
 - c. Ned Davison was graduate advisor for the Spanish students, chairman of the Advisory Committee on Bilingual Education, and served on the University Committee on Minorities and the Greater UNM Fund Allocations Committee.
 - d. Robert Duncan was chairman of the Committee to Study Reorganization of the College of Arts and Sciences. He also continued to serve as chairman

of the University Committee on Retirement and Insurance and as a member of the Policy Committee.

- e. Alice Gilbert was director of the German Club.
 - f. Robert Herron served as acting director of the Language and Area Center for Latin America.
 - g. Robert Holzapfel served on the Bi-lingual Committee and the Linguistics Committee.
 - h. Tamara Holzapfel and Theodore Sackett were advisors to undergraduate Spanish majors.
 - i. Robert Jespersen was advisor to German majors.
 - j. Jack Kolbert was President of the New Mexico Chapter of the American Association of Teachers of French and served as Coordinator for the Humanities Section on Self Evaluation Day. He also continued to serve on the Policy Committee and on the Cultural Affairs Committee.
 - k. Jack Kolbert served as President and Patricia Murphy as secretary of the local Phi Beta Kappa chapter.
 - l. Marshall Nason arranged the inauguration of the Andean Center.
 - m. Theodore Sackett will be Acting Chairman of the Department during Summer, 1969.
 - n. Jack Tomlins served on the Scholarship Committee.
 - o. Julian White served on the Graduate Committee.
9. Public Service.
- a. Robert Jespersen served on the Albuquerque Council for Children with Learning Disabilities and was

chairman for the New Mexico Conference on Learning Disabilities.

- b. Jack Kolbert was a member of the board of the Albuquerque Jewish Welfare Association.

The Report of the Department of Philosophy
 July 1, 1968 - June 30, 1969
 Melbourne G. Evans, Acting Chairman

I. General Departmental Information

A. Significant Achievements.

During the present year, the department undertook an extensive study and revision of its curriculum. The Symbolic Logic course was extended to a full year, and senior level courses were added in Philosophical Movements and Individual Philosophers, paralleling M.A. level seminars in these same areas. The Introduction to Logic course was raised to the sophomore level, while Philosophy of Language, Philosophy of Natural Science, Philosophy of Social Science, and Philosophy of History were raised to the senior level.

At the same time, the Philosophy Major was raised to 30 semester hours and given a definite structure. Under the present plan, a core consisting in The History of Ancient Philosophy, The History of Modern Philosophy, Introduction to Logic, Ethics, and intensive courses in both Philosophical Movements and Individual Philosophers will be required of all majors. Likewise, a course in either Metaphysics, Symbolic Logic, or Epistemology will be required, as well as a course chosen from among such courses as Philosophy of Religion, Philosophy of Law and Morals, Philosophy of Science, Philosophy of Language, or Philosophy of History. It is anticipated that this strengthening of the major will have a healthy effect on our undergraduate students, forcing them to take at least some of the more difficult and rigorous courses offered in the department. Also, the new major will give a basis on which to evaluate the preparation of new graduate students for serious work toward advanced degrees.

The Minor in Philosophy has been left unstructured, but has been raised to 15 hours in courses numbered 200 or above.

The final two seminars in the Ph.D. cycle, namely, Metaphysics and Ethics, were offered by Professors Hassett and Tuttle, and by Professors Bahm and Sanborn. Also, the Ph.D. Comprehensive Examination was given for the first time. The result was not entirely satisfactory, and the candidate will be required to repeat one part of the examination in the Fall.

The department has contributed to the General Honors program throughout the year, with Professor Hassett teaching in the first semester and Professor Sanborn in the second semester. Likewise, the department was co-sponsor of a lecture by Professor Walter Kaufmann of Princeton University, and two lectures by Professor Romano Harre of Linacre College, Oxford.

B. Significant Plans.

No firm plans have been made for the immediate future. However, new staff must be sought, and it is our intention to do this in a slow and careful manner. Also, further experience with the curriculum will no doubt indicate the need for yet other changes.

C. Appointments to Staff.

None.

D. Separations from Staff.

Professor Hassett, while on leave during the second semester, resigned to become a permanent member of the Environmental Defense Fund. Also, Professor Sanborn resigned so that she might join her husband in Georgia. Both resignations become effective as of the end of the Spring semester. The loss of Professor Sanborn leaves a very large gap which will be hard to fill.

II. Composit of Information on Individual Biographical Supplements

1. Advanced Study.

None

2. Sabbaticals, Leaves, Travel, etc.

Professor Hassett was granted leave of absence for the Spring semester, and Professor Schmidt was on sabbatical for the ^{Fall}~~Spring~~ semester and on leave of absence for the Spring semester.

Professor Alexander taught at the Philosophy Institute, University of the Pacific, June 20 - 26, and at the Philosophy Institute, Northern Illinois University, July 1 - 5.

Professor Tuttle attended the International Phenomenological Society meeting, in Chicago, and the International Congress on Husserl, Waterloo, Canada.

3. New Scholastic Honors, Fellowships, etc.

Professor Tuttle: Danforth Associate; Who's Who in the West.

4. Publications.

(A) Books:

Sanborn, Existentialism. Pegasus Books, 1968.

Tuttle, A Critical Analysis of Dilthey's Doctrine of Historical Understanding. Brill, 1969.

(B) Articles:

Alexander, "Communication, Technology, and Culture." Thesis article for 1968 Philosophical Institutes. The Philosophy Forum, Vol. VII, No. 1, pp. 3 - 40.

Bahm, "Some Aspects of Dialectic: Part I, Synthetic Dialectic." Darshana International, Vol. VII, No. 4, Oct., 1967, pp. 31 - 46.

"Stages in the Development of Religious Experience." Newsletter-Review, Vol. III, No. 1, pp. 26 - 27.

"The Aesthetics of Organicism." The Journal of Aesthetics and Art Criticism, Vol. XXVI, No. 4, Summer, 1968, pp. 449 - 459.

"Is There a Soul or No Soul? The Buddha Refused to Answer. Why?" East-West Studies In The Problem of the Self, The Hague, 1968, pp. 133 - 141. (Invited paper.)

"Interdependence and World Philosophy." Proceedings of the XIV International Congress of Philosophy, Sept. 1968, Vol. I, pp. 54 - 58.

"Organicism as a Way of Integrating Knowledge." Ibid., Vol. II, pp. 321 - 327.

"Philosophy--1968," University of New Mexico Fifteenth Annual Research Lecture, published by Graduate School, Oct. 1968, pp. 24.

"Creativity Through Interdependence." The Personalist, Vol. XLIX, No. 4, Autumn, 1968, pp. 523 - 530.

"World Demo-speci-ocracy." Democracy and World Peace, Vol. I, NO. 3, Dec., 1968, pp. 111 - 119.

"Our Philosophical Revolution." The Journal of Thought, Vol. IV, No. 1, January, 1969, pp. 4 - 11. (Invited paper.)

Schmidt, "Analytic Comparative Philosophy: Nagarjuna and Whitehead." The Visvabharati Quarterly, Vol. 32, 1967, pp. 121 - 129. (Not previously reported.)

"Knowing How in Religion." Religious Humanism, Vol. II, 1968, pp. 80 - 85.

"Comments on Mysticism, in Art, Mind, and Religion. University of Pittsburgh Press, 1967, pp. 151 - 155.

Review of Whitehead's Metaphysics: A Critical Examination, by Edward Pols, in Journal of the History of Philosophy, Vol. VII, January, 1969, pp. 99 - 101.

Review of A Christian Natural Philosophy by John Cobb, in Zygon, Vol. II, 1967, pp. 206 - 209. (Not previously reported.)

Tuttle, "Wilhelm Dilthey's Concept of Ideal Types as a means of Synthesis in Understanding Socio-Historical Wholes." XIV Congress of Philosophy, Vienna, 1968.

5. Other Research Projects, in Progress or Completed.

(A) Books:

Alexander, Meaning in Language. Scott, Foreman Co. Final proofs yet to be read.

Bahm, The Heart of Confucius. John Weatherhill, Tokyo, and Walker, New York. Page proof read.

Bhagavad Gita: The Wisdom of Krishna. Mimeographed edition, 1969. Submitted to publishers.

Polarity, Dialectic, and Organicity. Submitted to publishers.

Why Be Moral? A Humanist Replies. Submitted to publishers.

Interdependence. A proposed cooperative volume by UNM professors representing different fields. Nearly completed.

International Directory of Philosophy, Vol. II. Third co-editor.

Schmidt, Metaphysic of the Concrete. Manuscript completed.

Tuttle, The Role of History in Philosophical Thought. Work started on a book that will examine the thought of Weber, Heidegger, Ortega, Scheler, and Mannheim.

(B) Articles:

Bahm, "Some Neglected Aspects of Dialectic." Accepted by The New Scholasticism for publication in 1969.

"Is a Universal Science of Aesthetics Possible?" Accepted by Proceedings of the Sixth International Congress on Aesthetics.

"Peace Through Interreligious Ecumenism." Accepted by Democracy and World Peace for publication in 1969. Invited paper.

"How Intrinsic Values Interdepend." Accepted by Journal of Value Inquiry. Invited paper.

"Stages in the Development of Interreligious Attitudes." Tentatively accepted, Journal of the Society for the Scientific Study of Religion.

"Science is not Value-Free." Tentatively accepted, Bulletin of the Atomic Scientists.

"Obstacles to Developing Ethics as a Science." Submitted.

"Development of the Organicist Theory of Truth." Submitted.

"Systems Theory: Hocus Pocus or Wholistic Science." Submitted.

O'Neil, Invited Review out to Religious Humanism. Articles in preparation.

Sanborn, "Habit, Change, and Evolution in C. S. Peirce." Submitted.

Schmidt, "Knowledge Without Truth." Submitted.

Zacks, "Is Determinism a Tenable Doctrine?"

"The Identity Theory, A New Doctrine on Mind -Body Relations."

6. Activities in Learned and Professional Societies.

Alexander: Invitation paper, "Rhetoric and the Philosophical Problem of Language," at Convention of Speech Association of America, Chicago, Dec. 27 - 30, 1968. Continued as Secretary-Treas. of New Mexico West Texas Philos. Society. Continued as member of the Executive Council of Phi Sigma Tau.

Bahm: Secretary of the American Philosophical Association Committee on International Cultural Cooperation.

Paper, "Interrelations of Axiology, Aesthetics and Ethics," Taos Aesthetics Institute, June 12, 1968.

Paper, "Is a Universal Science of Aesthetics Possible?" Sixth International Congress on Aesthetics, Uppsala, August 15 - 16.

Paper, "Ethics and Science," Second International Seminar in Philosophy, Zurich, August 21 - 27, 1968.

Lecture, "Interdependence and World Philosophy." Paper, "Organicism as a Way of Integrating Knowledge." XIV International Congress of Philosophy, Vienna, Sept. 2 - 9, 1968.

Paper, "Eastern and Western Ideals: A Comparison." UNM Twenty-One Club, Oct. 28, 1968.

Paper, "Dyadic Logic and Organic Logic: Complementaries." Western Behavioral Sciences Institute, La Jolla, Nov. 13 - 14, 1968.

Attended, Metaphysical Society of America, Nashville, March 14 - 15, 1969.

Paper, "How Intrinsic Values Interdepend," Third Conference on Value Inquiry, Geneseo, N. Y., April 25 - 26, 1969.

Discussant, Society for the Study of Process Philosophers, Cleveland, 5/1/69.

Attended, American Philosophical Association, Cleveland, May 1 - 3, 1969.

Founding member of the International Metaphysical Society; member of the Council of Consultants for the Foundation for Creative Philosophy; and member of the American Academy of Religion.

Invited, Fifth East-West Philosophers' Conference, Honolulu, June 22 - 27, 1969; International Seminar on World Philosophy, Madras, Nov. - Dec. 1970.

Sanborn: Attended, American Philosophical Association, New York, Dec. 1968.

Tuttle: Attended, International Phenomenological Society, Chicago, and International Congress on Husserl, Waterloo, Canada.

7. Other Professional Activities.

Alexander: Continued open-circuit television Humanities Series.

Bahm: Continuing as Editor & Publisher, Directory of American Philosophers.

Co-Editor of International Directory of Philosophy, Vol. II.

Member, Editorial Board, Darshana International.

Member, International Center for Integrative Studies.
 Member, Advisory Board, California Institute of Asian Studies.
 Invited lecture, "The Human Situation: The Philosopher Looks at Man's
 Predicament," Lindenwood College, St. Charles, Missouri. March, 1969.
 Invited to become contributing editor, Lexicon der Philosophie.

8. Non-Teaching University Service.

Alexander: Chairman, Faculty Policy Committee; Chairman, Ad Hoc Special
 Advisory Committee to report on Williams and Pollack; Member, Graduate
 Committee; Faculty Advisor to Phi Sigma Tau; Represented Faculty in talk
 at Presidential Inauguration, and served as Committee Member for Inauguration.

Evans: General Honors Council; Ad Hoc Committee on Faculty Work-Loads.

Sanborn: American Studies Undergraduate Advisor.

Tuttle: Advisor in University College; Philosophy Faculty Secretary.

9. Public Service.

Alexander: Talk to Air Reserve Unit at Kirtland Air Force Base, November, 1968.

Bahm: Lecture on "Comparative Viewpoints of Eastern and Western Minds,"
 Philosophers Anonymous at Tradewinds Restaurant, August 1, 1968.

Member of the Commission on a World University of the World Constitutional
 Convention.

10. Personal Information.

O'Neil: Married, June 1968; one child, three step-children.

Tuttle: One child...Carl.

The Report of the Department
of Physics and Astronomy

July 1, 1968 - June 30, 1969

Victor H. Regener, Chairman

I. General Departmental Information

A. Significant Achievements During the Academic Year 1968/69

1. Departmental Operation

The following table shows student credit hours (averages for Semester I and Semester II) for this department over the last three years, the number of graduate students in the department, and the number of degrees granted. Campus faculty of this department contributed to the teaching at the Los Alamos Graduate Center, with three faculty members commuting in Semester I, and two in Semester II.

Student Credit Hours, Physics and Astronomy

(Average, Semester I-II)

<u>1966-67</u>	<u>1967-68</u>	<u>1968-69</u>
3,796	4,046	4,378
Increase	6.6%	8.2%

-2-

Number of Graduate Students Enrolled

(Semester I figures)

<u>1966-67</u>	<u>1967-68</u>	<u>1968-69</u>
68	68	75

Number of Degrees Granted

	<u>June 1967</u>	<u>June 1968</u>	<u>June 1969</u>
B.S.	8	10	19
M.S.	10	6	12
Ph.D.	4	8	2

The heavy involvement of the department in research, and the growth of this involvement, is shown in the following table for 1966-67 through 1968-69. Starred figures for 1968-69 include extrapolations for the last few months, for which final data are not yet available.

	<u>1966-67</u>	<u>1967-68</u>	<u>1968-69</u>
(1) Departmental budget, original figures	\$233,000	\$263,400	\$280,000
(2) Departmental budget, actual expenditures	233,000	267,000	280,000*
(3) Sponsored research expenditures	965,415	669,133	520,000*
(4) Overhead to University from grants and contracts	93,071	113,603	102,000*
(5) Money for grants and contracts received during the year from outside sources	190,168	536,855	365,300
(6) Active grants and contracts at end of year	2,192,770	1,849,017	2,020,621

2. Reorganization of course offerings

Courses at all levels were scrutinized in the fall of 1968. Three new courses were added:

Physics 108 Introduction to Musical Acoustics
(Dean)

Physics 524 Quantum Mechanics IV
(Thomas)

Physics 540 Introduction to Nuclear Physics
(Leavitt)

B. Significant Plans and Recommendations for the Near Future

The most urgent need for our physical plant remains a building for physics instruction. New instructional laboratories for the department were recommended by the Building Committee in April, 1968. Vice President Sherman Smith, in a memorandum dated December 6, 1968, described construction of this project beginning in the spring of 1970 as a real possibility.

C. Appointments to Staff

James Daniel Finley, III, Assistant Professor of Physics

David N. Glidden, Lecturer

Alan H. Paxton, Lecturer

D. Separations

Philip M. Campbell, Assistant Professor of Physics,
resigned at the end of the report year.

Mohammad Shafi, Visiting Assistant Professor, is leaving
at the end of the report year.

E. Sabbaticals

Howard C. Bryant, Associate Professor of Physics, will return from professional leave without pay at the beginning of the next academic year.

II. Composite of Information Requested on Individual Biographical Supplements

1. Advanced Study

David N. Glidden
M.S. in Physics, June, 1969, UNM.

Stuart F. Hayes
Progress on dissertation.

2. Sabbaticals, leaves of absence, summer teaching elsewhere, travel, etc., during the period

Seymour S. Alpert
Attended Debye Memorial Symposium on Liquids, Cornell University, Ithaca, N. Y., June, 1968.

John G. Breiland
Attended International Ozone Commission Symposium, Monte Carlo, September 2-7, 1968.

Howard C. Bryant
On professional leave at Stanford University for academic year 1968/69 following a year of sabbatical leave.

Charles L. Hyder
15 June 1967 - 30 January 1969 at Sacramento Peak Observatory, Sunspot, New Mexico.

Derek B. Swinson
Travel to Ireland and Canada.

Alan W. Peterson
Travel to Russia in connection with research. See Section 5 below.

Victor H. Regener

Numerous trips on research projects to Goddard Space Flight Center, to west coast, etc. One international meeting, see below.

3. New scholastic honors, fellowships, etc.

Mohammad Shafi

Listed by the American Men of Science

4. Publications

Harjit S. Ahluwalia

"Solar Cosmic Rays of 13-14 July 1961," Bull. Am. Phys. Soc. 13, 908 (1968).

"Forbush Decrease of 23 March 1966," Bull. Am. Phys. Soc. 13, 908 (1968) (with J. Ericksen).

"Unusual Worldwide Decrease of Cosmic-Ray Intensity on 17-18 November 1966," Bull. Am. Phys. Soc. 13, 908 (1968).

"The Physical Significance of the Unusual Worldwide Fluctuations of Cosmic-Ray Intensity on July 14-15, 1961," Solar Physics 4, 453, 1968 (with others).

"The Increase in Low-Energy Cosmic Ray Intensity on 7 July 1966," Annals of IQSY 3, 254, 1969 (with others).

"Solar Cosmic Rays of July 13, 1961," J. Geophys. Res. 74, 1230, 1969.

"On Currently Available Coupling Functions for Underground Muons," Bull. Am. Phys. Soc. 14, 595, 1969 (with J. Ericksen).

"Cogent Arguments Against Mere Local Origin of Storm-Time Increase in Cosmic-Ray Intensity," Trans. Am. Geophys. Union 50, 307, 1969.

Charles L. Beckel

"Power Series Expansions of Vibrational Potentials.IV. Radii of Convergence," J. Chem. Phys. 49, 5199 (1968).

"Rotational Properties Associated with the Heitler-London Model of H₂," J. Chem. Phys. 50, (1969).

John G. Breiland

"Some large-scale features of the vertical distribution of atmospheric ozone associated with the thermal structure of the atmosphere," J. Geophys. Res. 73, 5021 (1968).

John G. Breiland (continued)

"Four-hourly observations of the vertical distribution of atmospheric ozone at Albuquerque, New Mexico," (Abstract) Proceedings of the International Ozone Commission Symposium, Monte Carlo, September 2-7, 1968.

"Variation in the vertical distribution of atmospheric ozone during the passage of a short wave in the Westerlies," accepted for publication in the Journal of Geophysical Research.

Philip M. Campbell

"Classical Transformation Operators and the S-Matrix," Am. J. Phys. 36, 931 (1968).

"A Numerical Method for Discrete Ordinate and Moment Methods in Radiative Transfer," Int. J. Heat Mass Transfer, 12 (May or June) (1969).

"Charged Particles and the Equivalence Principle," Am. J. Phys. (May or June) (1969).

"An Annotated Bibliography on High Temperature Radiation Gas Dynamics," Air Force Weapons Laboratory Report, AFWL-TR-68-119, November 1968; 230 pages.

"An Introduction to High Temperature Radiation Gas Dynamics," Air Force Weapons Laboratory Report, AFWL-TR-69-10, March 1969; 105 pages.

[Three papers on astronomy, radiative transfer, and classical mechanics submitted and under review.]

[An expanded version of the Radiation Gas Dynamics bibliography is currently being reviewed for publication by Gordon and Breach, Science Publishers, Inc.]

John R. Green

"Phase Transformations in Solid Cyclohexanol: Growth Rates and Morphology from Visual Observations," Journal of Crystal Growth, Vol. 5 (1969) 13 pages (with W. T. Griffith).

"Polymorphism in Cyclohexanol Reexamined," Molecular Crystals and Liquid Crystals, Vol. 5 (1969) 18 pp., (with W. T. Griffith).

"X-ray Investigation of Some Crystals I. Structure and Rotation: Cyclopentanol and dl-Camphene" loc. cit., 11 pp. (with D. R. Wheeler).

"X-ray Investigation of Some Plastic Crystals II. Density of Vacancies in Cyclohexane, Cyclohexanol and dl-Camphene" loc. cit., 9 pp. (with D. R. Wheeler).

John L. Howarth

"Acute Response of Germ-free and Conventional Mice to Ionizing Radiation," Arch. Path. 86, 676-680, (1968) (with Anderson, R. E., Stone, R. S.).

"Literature and Science," Rocky Mountain Mod. Lang. Assoc. Bull. 22, 177-182, (1968).

Charles L. Hyder

"A Phenomenological Model for DB Followed by Flarelike Brightening I: The Model, its Consequences and Observations in Quiet Solar Regions," Solar Physics, 52, 49-74 (1967).

"II: Observations in Active Regions," Solar Physics 52, 267-284 (1967).

"Polarized Light, Magnetographs, and Solar Magnetic Fields," Solar Physics 5, 29-41 (1968).

"A Concentric Ellipse Multiple-Arch System in the Solar Corona," Solar Physics 5, 61-68 (1968) (with K. Saito).

"Polarization of Emission Lines in Astronomy .VI. Observations and Interpretations of Polarization in Green and Red Coronal Lines During 1965 and 1966 Eclipses of the Sun," Astrophysical Journal 154, 1039-1058 (with H. A. Mauter and R. L. Shult).

"The Infall-Impact Mechanism and Solar Flares, Nobel Symposium 9: Mass Motions in Solar Flares and Related Phenomena" (Y. Ohman, ed.) 1968, 57-65, John Wiley and Sons, Inc.

"Transits of Mercury and the Sizes of Small Solar Features," Solar Physics (in press) 1969.

David S. King

"Pulsating Stars," Publication of Astronomical Society of the Pacific 80, 365, 1268 (senior author) with J. Cox.

Mohammad Shafi

"Comparison of Actual and Linearly Extrapolated Dissociation Energies of Diatomic Molecules," Bull. Am. Phys. Soc. 13, 425 (1968) (Co-author).

"Vibrational Properties of a Simple Ionic Model and Comparison with the B State of H_2 ," Bull. Am. Phys. Soc. 14, 65 (1969).

Derek B. Swinson

"'Sidereal' Cosmic Ray Diurnal Variations," submitted for publication.

Alan W. Peterson

"The Coronal Brightness at 2.23 Microns," Astrophysical Journal 155, 1009-1015, March 1969.

Victor H. Regener

Final Report, Air Force Contract AF19 (628)-5934 (on atmospheric ozone), March 15, 1969. Air Force Cambridge Research Laboratories.

5. Other research projects or creative work in progress during period

Harjit S. Ahluwalia

Research Proposal, "Fine Structure of Worldwide Cosmic Ray Intensity Variations" submitted as UNM 135/74, approved by NSF

Research Proposal, "An Analytical Study of Solar Energetic Particles" submitted as UNM 139/82 to Sandia Corporation for consideration.

Seymour S. Alpert

Sandia Corporation, \$17,259, "Thermally Induced Optical Interference," July 1, 1968 - June 30, 1969.

Unfunded, "Bragg diffraction by ultrasonic waves in organic liquids."

Charles L. Beckel

Sandia Corporation, \$19,810, "Theoretical Analysis of the Vibrations and Rotations of Diatomic Molecules," July 1, 1968 - June 30, 1969.

John G. Breiland

National Science Foundation Grant GA-426, \$51,000, "The vertical distribution of atmospheric ozone in various weather systems," 24-month project, plus 15-month extension.

Philip M. Campbell

US Air Force Special Special Weapons Lab, \$12,158.78, "A Research Grant to Catalog Basic Radiation Transport Methods," June 17, 1968 - December 31, 1968.

Christopher Dean

National Science Foundation, \$55,300, "Relaxation Effects in Nuclear Resonance," extended to September 15, 1969.

John R. Green

National Science Foundation, Research on organic plastic crystals, \$43,400, September 15, 1965 to December 15, 1969.

Stuart F. Hayes

Development and use of monographs and class outlines for Physics 112.

Development and use of class outlines for Physics 102.

John L. Howarth

NIH Grant: "Application of digital computing techniques in radiological problems," 1964-1969. \$13,044 for year ending September, 1969.

NIH Grant: "The pathology of accelerated aging in germ free mice," (with R. E. Anderson and R. S. Stone of UNM School of Medicine) \$75,312 for July 1966 - June 1970.

Charles L. Hyder

Studies of Primary ESP Responses in Plants (preliminary stages).

Studies of Thermodynamic Equilibrium (TE), Local TE (LTE) and Statistical Equilibrium Effects on Line Formation.

David S. King

National Science Foundation Grant "Stellar Pulsation Theory," renewal for two years, \$18,500.

Christopher Leavitt

NASA OSO-G Neutron Experiment

NSF Solar Neutron Balloon Experiment

CNN Polarized Neutron Experiment at LASL (J. E. Simmons

Mohammad Shafi

Completed: Compilation of data on Dissociation Energies of Diatomic Molecules and Comparison with values predicted from near equilibrium vibrational data.
Partial Vibrational Spectrum of the Hydrogen Molecular Ion.

In Progress: Final Report on Dissociation Energies Comparison.
More on H_2^+ spectrum and related problems.
Three lectures to Philosophy 264.

Derek B. Swinson

NSF Grant, "Solar Activity Influence on the Time Variations of Cosmic Rays Underground," \$120,100, July 1, 1968 - June 30, 1970, with V. H. Regener.

Alan W. Peterson

NASA Grant, "Thermal Emission from Interplanetary Dust," \$36,755, April 1, 1968 - March 31, 1969.

NSF Grant, "Infrared Scans of the Corona and Dust Emission Zones at the Eclipse of September 22, 1968, \$12,700, to 8/15/69.

UNM Research Allocations Grant, "Infrared Photometry," \$1,000, to June 30, 1969.

Victor H. Regener

NASA Grant, Satellite project for ultraviolet solar radiation survey, \$663,000, 1966-69.

AF project on atmospheric ozone, \$35,000, for 1969.

NSF Grant, with D. B. Swinson, on cosmic rays, \$120,100, 1968-70.

6. Activities in learned and professional societies

Harjit S. Ahluwalia

Southwest Meeting, American Physical Society, Los Alamos, 1968.

Golden Anniversary Meeting of American Geophysical Union, Washington, 1969.

Pulsar Symposium organized by National Academy of Sciences, Washington, 1969.

Spring Meeting of American Physical Society, Washington, 1969

Read four professional papers at above meetings.

Charles L. Beckel

Attended the International Symposium on Quantum Chemistry, Solid State Physics, and Quantum Biology, January 13-17, 1969; presented paper entitled "Theoretical Determination of Vibration-Rotation Properties of the $B^1\Sigma_u^+$ State of H_2 ."

John G. Breiland

Presented paper, "Four-hourly observations of the vertical distribution of atmospheric ozone at Albuquerque, New Mexico," at the International Ozone Commission Symposium, Monte Carlo, September 2-7, 1968.

John R. Green

Chairman, Committee "Z", UNM Chapter of the A.A.U.P.

John L. Howarth

Attended Rocky Mountain Modern Language Association Meeting in Colorado Springs, October, 1968.

Read paper on "Literature and Science" (by invitation) at plenary session.

Charles L. Hyder

Annual SPO-HAO Solar Meeting, May 1968 and 1969.

Annual AAS Solar Meeting, February 1968 and February, 1969; presented paper on Solar Flare Observations and Their Interpretations.

David S. King

Attended meeting of American Astronomical Society held in August, 1968 at Victoria, B. C., Canada. Attended and presented a paper entitled "Non-linear Cepheid Pulsation Calculations" at meeting of American Astronomical Society held in Honolulu, Hawaii in April, 1969.

Mohammad Shafi

Read a paper at the American Physical Society Meeting in New York, February 3-6, 1969.

Derek B. Swinson

Paper presented at A.P.S. meeting, June 1968, Los Alamos, "Diurnal Variation of Cosmic Rays Observed Underground" with V. H. Regener.

Alan W. Peterson

Evaluated three research proposals for NSF.
Refereed one research paper for Astrophysical Journal.
Answered numerous questions for Albuquerque Journal "Actionline."

Victor H. Regener

Three papers read on atmospheric ozone in Monaco, September 1968.

7. Other professional activities

Harjit S. Ahluwalia

Judge at New Mexico Science Fair, Socorro, 1969.
Referee for Journal of Geophysical Research Publications, 1969.
Referee for National Science Foundation Research Proposals, 1969.

Seymour S. Alpert

Consultant: Compusys Inc. (design of optical projectors)
Judge: State of New Mexico Science Fair, Socorro.

Charles L. Beckel

Kirtland AFB Seminar June 26, 1968; "Excited Vibrations and Dissociation of Diatomic Molecules."
UNM Physics Dept. Colloquium March 7, 1969; "Some Problems in Molecular Physics."
Attended First Annual Southwestern Regional Conference on the Improvement of University Instruction at New Mexico State University, November 22-23, 1968.
Consultant at Dikewood Corporation

Philip M. Campbell

Delivered summer lecture series at Kirtland AFB on high temperature radiation hydrodynamics.

John R. Green

Colloquium speaker, University of Denver, October, 1968.

John L. Howarth

Consultant: Veterans Administration Hospital, Lovelace Clinic, Lovelace Foundation for Medical Education and Research.

New Mexico Academy of Sciences Visiting Scientist Program - Lectured to High Schools.

Abstractor for Physics in Medicine and Biology.

Christopher P. Leavitt

Member, Los Alamos Meson Physics Facility Users Group.
Advisory Panel for LAMPF Nucleon-Nucleon Area.

Mohammad Shafi

Signed as a consultant to the Dikewood Corporation in February 1969.

Give a talk to the tertiaries of the Carmelite Order on "Why should religion appeal to reason?"

Derek B. Swinson

Guest colloquium speaker at New Mexico State University, Topic - Cosmic Ray Astronomy.

Consultation with G. Goodman, Attorney, on automobile accident reconstruction.

Alan W. Peterson

Gave talk to Albuquerque Astronomical Club.

Gave tour of campus observatory to 75 grammar school students.

Victor H. Regener

One potential patent disclosed to university and submitted to Research Corporation for determination of patentability.

Roy Thomas

Consultant at Kirtland Weapons Laboratory.

8. Non-teaching University service

Harjit S. Ahluwalia

Member of two Ph.D. committees.

Member of one M.S. committee.

Seymour S. Alpert

Advisor to Physics Club.

Charles L. Beckel

Advisor to Physics Club.

Co-chairman Ad Hoc Committee on the Improvement of Instruction; set up day of Teaching Self-evaluation at UNM, April 15, 1969.

Judge for Engineering Open House February 21, 1969.

John G. Breiland

Retirement and Insurance Committee

Philip M. Campbell

Advisor for undergraduate physics majors.

Two Ph.D. committees (engineering), one M.S. (physics).

Christopher Dean

Science Fair, Socorro.

John R. Green

Chairman, Committee on Academic Freedom and Tenure.

Member, Special Advisory Committee.

Member, Contract Research and Patent Committee.

John L. Howarth

Member: Committee of Enhancement of the Educational Process.

Medical Radiosotope Committee (School of Medicine).

Student Publication Board.

Advisor for undergraduate physics majors.

David S. King

Served as member of University Library Committee

Faculty Advisor in the University College.

Continued serving as member of subcommittee on Astronomy to the Rocky Mountain Science Council.

Christopher P. Leavitt

Advisor for Los Alamos Graduate Students.

Moderator for Structured Session of Evaluation Day.

Mohammad Shafi

Advisor to: Islamic Society.

Arab Students Association.

Derek B. Swinson

Faculty advisor to: University College.

Physics Club.

Ski Club.

Men's Ski Team.

Victor H. Regener

Department Chairman

Ad hoc committee of Policy Committee on V. P. Research.

Ad hoc committee on reorganization of A and S College.

Roy Thomas

Library representative for the department.

9. Public service

Charles L. Beckel

President of the Kidney Foundation of New Mexico, Inc.

Stuart F. Hayes

Occasional preaching.

Member of troop committee of Boy Scout Troop 6.

Derek B. Swinson

Ski instructor, Sandia Ski Area.

10. Personal information

Harjit S. Ahluwalia

A son, Raja, born on July 15, 1968.

Seymour Alpert

Second child (son) born July, 1968.

Christopher P. Leavitt

New daughter born November 6, 1968.

The Report of the Department of Political Science
July 1, 1968 - June 30, 1969
E. C. Hoyt, Chairman

I. General Departmental Information

A. The Ph.D. program in Political Science was approved during 1968-69 by the State authorities, having already been approved by the faculty and Regents. Although financing for an additional faculty member and several teaching assistantships, as envisaged in the Department's Ph.D. proposal, did not materialize, the program is under way, with one student already on campus doing post-M.A. work with specialization in Latin American politics (Thomas Walker) and three other students slated to enter the program in September. Part of the plans for the Ph.D. included the offering of a Plan II M.A., in addition to the Plan I M.A. in the Department, to enable students to take additional course work in lieu of the Master's thesis.

New courses inaugurated this year include:

- *359. Politics of Brazil. (3) This course will be taught in the fall by Dr. Tocary Bastos, a Brazilian political scientist visiting under the Ford Foundation Program in Latin American Studies.
- *476. Civil Rights. (3) Sickels
- *542. Pro-Seminar in International Relations. (3) Hoyt, Brisk
- *581. Pro-Seminar in Comparative Government. (3) Staff

Graduate students in the Department took the initiative in requesting conferences with the Department on such matters as improvements in curriculum, advisement, and preregistration. The Department welcomed these suggestions and set up a committee to work with the students, including representation of Pi Sigma Alpha, the

Political Science Honorary. These consultations developed some useful proposals which are being effectuated, including plans to offer preregistration for Department majors on a regular basis.

The Department also collaborated this year in working out the new interdisciplinary Master's degree program in Public Administration, to which Political Science will contribute certain courses, along with the Colleges of Business and Education, and Departments of Economics, Sociology, Architecture, etc.

B.

C. A major activity during the year was the search for a new Chairman of the Department, consequent upon Professor Hoyt's resignation of the Chairmanship. Although a Departmental committee turned up some excellent candidates, four of whom were invited to the campus, and three offers were made, it was not possible to fill this position. Professor Rhodes will be Acting Chairman in 1969-70, while the search for a suitable candidate continues. Because of separations from our faculty (see Paragraph D.) we still have two unfilled positions which we are seeking to fill for the fall.

D. Separations from staff:

Arthur M. Hanhardt, June 30, 1969

Helen M. Ingram, June 30, 1969

II. Composite of Information requested on individual biographical supplements.

1. Advanced Study:

BRISK, WILLIAM J. Ph.D. dissertation--penultimate draft will be finished (May 15), but reading and final revision will be delayed because principal adviser shall be out of country. Anticipated date of oral defense: September 10, 1969.

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2. Sabbaticals, etc.:

INGRAM, HELEN. On leave Spring Semester to study Patterns of Policy Making in Water Resource Development.

NEEDLER, MARTIN C. Research in Mexico, July and August 1968, sponsored by Ford Foundation

NEUWELD, MARK. Travel to the Soviet Union, Czechoslovakia, Yugoslavia and Hungary during the summer of 1968. Conferences with local professors and others working in my field.

STUMPF, HARRY P. Leave of absence without pay to direct research in San Francisco, June, 1967 to September, 1968. (1967-68 Biographical Supplement not submitted.)

3. New Scholastic Honors:

ROSENTHAL, ALBERT H. Wilton Park Fellowship, 1968

WOLF, T. PHILLIP. Awarded UNM Development Fund grant for research in England for the 1969 summer.

4. Publications:

BRISK, WILLIAM J. "Anguilla and the mini-state dilemma," Center for International Studies, Policy Paper (New York University), No. 5 (September, 1968) 40 pp.

CLINE, DOROTHY I. Guest columnist for Fred Buckles, "Inside the Capitol," 6/18/68; "Constitutional Convention," New Mexico Review and Legislative Journal, May, 1969.

HANHARDT, ARTHUR M., JR. The German Democratic Republic (Baltimore: The Johns Hopkins Press, 1968)

HOYT, EDWIN C. Review of C. Wilfred Jenks, Law in the World Community (1967), in Am. Pol. Sci. Rev., Vol. LXIII (1969), 251-2.

INGRAM, HELEN. "The Impact of Constituency on the Process of Legislation," Western Political Quarterly, to be published June, 1969.

NEEDLER, MARTIN C. Political Development in Latin America: Instability, Violence & Evolutionary Change, Random House 1968; "Pol. Dev. & Socio-economic Dev.," American Political Sci. Review Vol. LXII No. 3 Sept. 1968; "Ecuador" Ency. Amer. 1969, ed., Vol. 9; "The Latin American Military: Predatory Reactionaries or Modernizing Patriots?" Journal of Inter-Amer. Studies, Apr. 1969; "The U.S. & the L.A. Military," Forensic Quarterly, May 1969.

RHODES, HAROLD V. "Introduction" to Nullification and Interposition in American Political Thought, by Diane Tipton (The University of New Mexico: Division of Government Research) January, 1969.

ROSENTHAL, ALBERT H. "Preparing the Science Administrators of Tomorrow: An Evaluation of the NASA Manned Spacecraft Center Management Intern Program," Public Personnel Review, April 1969, pp. 70-75.

SICKELS, ROBERT J. "The Power Index and the Electoral College," 14 Villanova Law Review (Fall, 1968) pp. 92-96; Review of Robert Dixon's Democratic Representation in the Winter, 1969, Boston University Law Review.

STUMPF, HARRY P. "New Mexico: The Political State," in Frank Jonas (ed.), Politics in the American West (Univ. of Utah Press, 1969), pp. 258-295 (co-authored with T. Phillip Wolf) (previously reported as forthcoming); "Law and Poverty: A Political Perspective," Wisconsin Law Review, Vol. 1968, No. 3, pp. 694-733; "Judges and the Poor: Bench Responses to Federally-Financed Legal Services," Stanford Law Review, Vol. 21, No. 5 (May, 1969), pp. 1058-1076, (co-authored with Robert J. Janowitz).

WOLF, T. PHILLIP. Co-author with Harry P. Stumpf, "New Mexico: The Political State," in Frank Jonas, ed., Politics in the American West (Salt Lake City: University of Utah Press, 1969), 259-295; Book reviews (3) of: Jack Holmes, Politics in New Mexico in Rocky Mountain Social Science Journal (April 1969), 209; Kurt and Gladys Lang, Voting and Nonvoting and Kurt and Gladys Lang, Politics and Television in The Annals (March 1969), 178-180; Stanley Anderson, ed., Ombudsman for America? in Social Science Quarterly (September 1968), 391-392.

5. Other research projects:

BRISK, WILLIAM J. Anguilla, the Mini-State (a 120 page book) will be published July 1, 1969, by the University of South Carolina Press; Am just beginning a study on interest group analysis of Latin American politics, which, hopefully, will include a publishable manuscript for an article to be prepared by September, 1969.

CLINE, DOROTHY I. National Science Foundation Study; amount of grant, \$3,155; Title of study, Science Advice in New Mexico State Government; duration, July 1968 to July 1969.

HOYT, EDWIN C. Research on John Bassett Moore--still in progress.

INGRAM, HELEN. Matching Grant from UNM and Water Resources Research Institute in Las Cruces; Duration September, 1968 to August 31, 1969; Total amount of grant--\$16,484. Project title: Patterns of Policy Making in Water Resource Development.

NEEDLER, MARTIN C. Completed various articles and chapters on Mexico, Ecuador, and U.S. policy in Latin America for late 1969 and 1970 publication. Continued work on books on U.S. policy in Latin America and on Mexico, under Ford Foundation sponsorship.

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NEUWELD, MARK. A biographical essay on N.S. Khrushchev (to be included in a collection of essays on world Communist leaders).

RHODES, HAROLD V. Manuscript, Recent American Political Thought, under contract to Wadsworth.

STUMPF, HARRY P. Contract with Office of Economic Opportunity (June, 1967-September, 1968--\$80,000) to study the socio-legal impact of legal services programs in Bay Area, California. Final Report completed--352 pp. (mimeographed) plus end notes, appendices and bibliography; Research underway on the political ramifications of Tijerina trial for Theodore Becker (ed.), The Political Trial (Bobbs-Merrill, forthcoming); Research underway (under contract with D. C. Heath) for book: Justice and the Poor: The Politics of the Legal Services Program; "The 1968 Elections in New Mexico," (co-authored with T. Phillip Wolf), for a collection to be issued as a 225-250-page supplement to Jonas (ed.), Politics in the American West.

WOLF, T. PHILLIP. Research with Harry Stumpf on legislative apportionment in New Mexico; Research on the 1968 elections in New Mexico; Research on anti-Hispanic and pro-Hispanic voting in New Mexico; Editorial reading of 2 manuscripts for the Social Science Quarterly.

6. Activities in learned and professional societies:

CLINE, DOROTHY I. Active member, American Society for Public Administration; Executive Committee on Intergovernmental Seminar for Executives.

HOYT, EDWIN C. Executive Council, Am. Soc. of Int. Law; Member of Study Panel, ASIL, on "Relevance of Int'l Law to Governmental Decision-Making."

INGRAM, HELEN. Participated in 14th Annual Water Conference, New Mexico State University.

NEEDLER, MARTIN C. Elected to 3-year term on national steering committee, Consortium on Latin American Studies; attended meetings of Latin American Studies Assn. & Western Political Science Assn.; invited to National Archives Conference in Washington.

NEUWELD, MARK. Chairman of one panel and discussant in another panel during the annual meeting of the Far Western Slavic Conference at Stanford, April 1969.

ROSENTHAL, ALBERT H. Participated in Wilton Park Conference, Wiston House, Sussex, England, July 21-August 3, 1968; Consultant, N.M. State Dept. of Hospitals and Institutions, January 1969-present; Speaker, Society for Personnel Administration, Albuquerque, 1969.

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STUMPF, HARRY P. Executive Council, Southwest Political Science Association; "Legal Services and the Poor: The Response of Local Bar Politics," paper delivered to Rocky Mountain Social Science meeting, May 3, 1969; "OEO Legal Services Programs in the San Francisco Area," paper delivered to Midwest Political Science Association, Chicago, May, 1968.

WOLF, T. PHILLIP. Elected President-Elect of Rocky Mountain Social Science Association, 1969-70; Selected as an associate editor (pol. Science) for the Social Science Quarterly; Elected to the Executive Council of the Western Political Science Association; Presented paper at Southwest Social Science meeting, Houston, April, 1969; Presented paper and served as panel discussant at Rocky Mountain Social Science meeting, Lubbock, May, 1969; New Mexico correspondent for the National Municipal Review; Member of: American Political Science Association, International Political Science Association, Southern Political Science Association, Western Political Science Association, Rocky Mountain Social Science Association, American Society for Public Administration (ex-officio member of Executive Council for New Mexico chapter.).

7. Other professional activities:

CLINE, DOROTHY I. (See #9) Off campus appearances included Duke City Business and Professional Women's Club; New Mexico League of Nursing, Citizens for Humphrey, National Organization for Women, Committee witness, New Mexico Legislature; Special Lecturer, Civil Defense Institute, Battle Creek, Mich.; Awarded first Lifetime membership, New Mexico Recreation and Park Association.

INGRAM, HELEN. Authored New Mexico article in Americana Annual, 1969.

NEEDLER, MARTIN C. Gave lectures by invitation in Cuernavaca and Mexico City; consulted on establishment of School of Political Sciences in Costa Rica, on Yale Political Data Program, and on various publishing projects.

NEUWELD, MARK. Participant in a panel discussion on Czechoslovakia (on campus); Lectures at Sandia Corporation and the Holloman Air Force Base; Lectures to local high schools and civic groups.

ROSENTHAL, ALBERT H. Board of Directors, American Friends of Wilton Park, May 1969; UNM representative on Technical Committee of Urban Observatory, Albuquerque, New Mexico 1969; Member, Steering Committee on Science, Technology and State Government, Federation of Rocky Mtn. States, 1969.

SICKELS, ROBERT J. Talk on the Electoral College to the Bernalillo County Young Democrats, April, 1969.

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WOLF, T. PHILLIP. Panelist, KNME-TV, August 1968 (Opinion Polls and the Primary Election); 1968 State Election Supervisor for NBC News; Election night analysis for KGGM-TV, August 1968; Speech to Sandia School, February 1969 (Public Opinion); Speech to Gallup League of Women Voters, March 1969 (Reform of the Electoral College).

8. Non-teaching University service:

CLINE, DOROTHY I. Director, Division of Government Research 2/3 time; Member of Academic Freedom and Tenure Committee, Political Science Department Chairman Search Committee; Policy Board, Division of Public Administration.

HOYT, EDWIN C. Chairman, Department of Political Science; Committee to plan M.A. Program in Public Administration.

NEEDLER, MARTIN C. Chairman, University Committee on International Programs; chairman, M.A. program in International Affairs; Language & Area Center Committee; etc.

NEUWELD, MARK. Inter-departmental Committee on Russian and West European Studies.

RHODES, HAROLD V. Faculty Publications Committee; American Studies Committee; Faculty Advisor, Pi Sigma Alpha; Chairman, Department Chairmanship Search Committee.

ROSENTHAL, ALBERT H. Promotion of Tenure Committee, Dean of Arts and Sciences, 1969.

SICKELS, ROBERT J. ISRAD Advisory Committee; Faculty Advisor to the New Mexico State Government Intern Program.

STUMPF, HARRY P. Advisory Committee on selection of new Dean of Arts and Sciences.

WOLF, T. PHILLIP. Publications Committee; A & S Committee, Research on Human Subjects (Acting Chairman, Fall 1968); Wesley Foundation Board of Directors.

9. Public Service:

BRISK, WILLIAM J. Speech (American interests in Latin America) delivered March 15, 1969, to 60 women representatives of the International Fellowship Committee (Grants, New Mexico).

CLINE, DOROTHY I. Member, Advisory Commission on Intergovernmental Relations, Washington, D. C.; Local Government Committee, Albuquerque Goals; Governor's Committee on Aging; Steering Committee, Hubert Humphrey Campaign.

ROSENTHAL, ALBERT H. Member, Citizens Committee - Goals for Albuquerque, 1969.

WOLF, T. PHILLIP. Albuquerque Goals Committee: Member of Subcommittee on Government.

10. Personal information:

BRISK, WILLIAM J. Daughter (Angelica Allende Brisk) born March 25, 1969.

HOYT, EDWIN C. Divorced, July 1968.

The Report of the Department of Psychology
 July 1, 1968 - June 30, 1969
 Frank A. Logan, Chairman

I. General Departmental Information

A. Undergraduate education. At the undergraduate level, the department handled a total enrollment of 2650 in introductory lectures (of whom over 880 participated in the optional additional laboratory hour), and 1800 in advanced courses (of whom 105 participated in the advanced laboratory courses). The graduating class of 1969 included 48 psychology majors, of whom 2 were awarded General Honors, and 42 psychology minors. Departmental honors were awarded to 4 graduates: Allen Blue, Janice Couey, Thelma Giomi, and Charles Tatum. Based on a FTE staff of 13, the above figures represent approximately a 34:1 student-faculty ratio.

There were no formal changes in the undergraduate curriculum during the year. Karl Koenig taught a special seminar in the General Honors program during Semester II. The major problem continues to be that of adequately housing and staffing the existing program, which currently is well designed to meet both the specialized needs of our majors and the more general needs of the student body.

B. Graduate education. At the exclusively graduate level, the department handled a total enrollment of over 295, distributed among 62 registered students. The doctoral degree was conferred upon 8 candidates:

<u>Name</u>	<u>Title</u>
Bellingham, William	Stimulus Compounding and Generalization Advisor: Frank A. Logan
Berch, Daniel Bruce	Observing Behavior in Children's Discrimination Learning under Constant, Variable, and Covariable Delay of Reinforcement Advisor: Louis E. Price

<u>Name</u>	<u>Title</u>
Daniel, Terry C.	The Nature of the Effect of Verbal Labels on Recognition Memory for Form Advisor: Henry C. Ellis
Feuge, Robert E.	Verbally-Controlled Selective Perception in Stimulus Predifferentiation Advisor: Henry C. Ellis
Hurlock, Richard	Interhemispheric Transfer of Reaching Skill during Forced-Practice Training in the Rat Advisor: Geo. M. Peterson
Lee, Dean Ray	The Effects of Type of Rule, Instructions and Practice upon Focusing Strategies in Conceptual Behavior Advisor: Peder J. Johnson
Malloy, Thomas E.	The Effects of Concept Learning on Stimulus Selection in Recognition Memory Advisor: Henry C. Ellis
Padilla, Amado M.	An Analysis of Incentive and Behavioral Contrast Advisor: Frank A. Logan

Master's degrees were conferred upon 6 candidates: David Grilly (Advisor: Douglas Ferraro), Kilby Long (Advisor: David Bessemer), Susan Mendenhall (Advisor: Karl Koenig), Ronald Shaffer (Advisor: Henry Ellis), Jules Shrage (Plan II), and Mary Warner (Advisor: Peder Johnson). Based on an FTE staff of 13, the above figures represent approximately a 2.3:1 student-faculty ratio.

New seminars were introduced to take advantage of Distinguished Professor Grice's long experience in experimental psychology: Methods in Behavioral Research, and Classical Conditioning. Our seminar in Social Psychology was reactivated by Assistant Professor Harris. Our application to the National Institute of Mental Health for a developmental training grant in clinical psychology was not approved, largely because the existing base was felt to be inadequate. Additional university support for this part of our total program is a necessity.

The number of graduate students receiving financial support again increased during the past year, principally in conjunction with increased support by our NIMH training grant. The number of graduate teaching assistants was 10, and the number of research assistants supported by extramural funds was 14. The number of fellowships and traineeships was 18, one of which was in conjunction with Professor Rhodes' program. Thus, virtually all of the qualified applicants for financial aid were supported.

C. Staff. The full-time staff during the 1968-69 academic year was composed of Professors Benedetti, Ellis, Grice, Logan and Norman; Associate Professors Price, Rhodes and Rosenblum; and Assistant Professors Bessemer, Ferraro, Harris, Johnson and Koenig. Professor Norman was on sabbatical leave during Semester I and attended several International Congresses. Our staff was thus thirteen, in addition to which Associate Professor Ruebush continued to be active in departmental affairs. There were no losses to the staff during the year, although Professor Benedetti will become part-time Associate Dean of the Graduate School next year.

G. Robert Grice assumed his position as Distinguished Professor of Psychology and Richard Harris assumed his position as Assistant Professor in September, 1968. One new appointment was made for the 1969-70 academic year: Dennis Feeney (Ph.D., 1969, University of California at Los Angeles) was appointed as Assistant Professor to augment our coverage of motivation and physiological psychology. Drs. Lynnette Plumlee, Douglas Spanier and Robert Webster taught on a part-time basis.

Four promotions were effected during the year: John M. Rhodes and Sidney Rosenblum were promoted to the rank of Professor, and

Douglas P. Ferraro and Karl Koenig were promoted to the rank of Associate Professor. Each of these was well-deserved recognition of their varied contributions to the University.

Our faculty continues to be active in regional and national affairs. They recorded 30 convention attendances, at most of which they participated in paper or symposium sessions. They gave 11 colloquia or conference presentations and served as consultants to 16 organizations. Professor Ellis served as President of the Rocky Mountain Psychological Association and Professor Rosenblum as President of the New Mexico Psychological Association. Professor Logan served on the executive committee of the Division of Experimental Psychology of the American Psychological Association; Professor Grice served as chairman of the Experimental Psychology Study Section of the National Institutes of Health; and Professor Norman served as a member of the Commission on Colleges and Universities of the North Central Association.

D. Colloquia. The colloquium series during the year continues to be an important adjunct to our regular graduate program. Included were several informal talks by candidates being interviewed for positions: Dennis M. Feeney (U.C.L.A.), Lawrence Melamed (Kent State University), Terrance R. Dolan (Indiana University), and Sidney R. Roth (University of Pennsylvania). Distinguished visitors were: W. N. Schoenfeld (Queens College), Robert A. McCleary (University of Chicago), Alan N. Epstein (University of Pennsylvania), Neal Miller (Rockefeller University), Frank A. Beach (University of California, Berkeley), Karl H. Pribram (Stanford University), Boyd R. McCandless (Emory University), and Richard F. Tomasson (Chr., Department of Sociology, UNM).

E. Research. The department faculty published 23 articles or monographs during the 1968-69 year and delivered 19 convention papers or invited research lectures. Extramural research support totalled over \$218,000 primarily from the National Science Foundation, the National Institutes of Health, and the Air Force Office of Scientific Research. It is important to note that this figure has grown so as approximately to equal the total departmental budget, and provides the major resource for graduate education within the department.

F. Space. During the year, Professor Rhodes moved his laboratory into the building at 1821 Roma, and Professor Grice moved his research into a portion of the projected space in temporary building Y-1. In lieu of the remaining space, several rooms in Yatoka Hall were made available to house graduate assistants, but the need for the latter space for other research purposes and the need for the remaining space in Y-1 have become critical. The firm of Flatow, Moore, Bryan and Fairburn was appointed as contract architects for a new Psychology Building, and preliminary floor plans were drawn. On the basis of these, application has been made to the National Institute of Mental Health for funds to assist in constructing this building, the remaining funds already being committed. Until this building is completed, both our teaching and research efforts will be below the level of which our resources are already capable.

G. Administration and Support. During the year, Eleanor Orth continued as Departmental Executive Secretary. Elna Parks doubled as Graduate Secretary and secretary to Professor Grice. Ilene Bradley became Research Secretary. Jannine Perkins assisted in the departmental office, and Jackie Cochran, Herbert Briggs, and Paul Zimmerman worked as shop technicians.

H. Summary and Conclusions. The attached table summarizes the most relevant statistical facts about the Department of Psychology over the past five years.

	<u>1964-65</u>	<u>1965-66</u>	<u>1966-67</u>	<u>1967-68</u>	<u>1968-69</u>
FTE Faculty	9	9	10	11	13
<u>Undergraduate</u>					
Introductory enrollment	1900	2200	2300	2450	2650
Advanced enrollment	1500	1500	1750	1600	1800
Majors	34	52	40	44	48
Minors		48	49	54	42
<u>Graduate</u>					
Graduate enrollment	160	200	200	250	300
Teaching assistants	8	9	10	10	10
Research assistants	4	6	11	14	14
Fellows and Trainees	2	5	8	14	18
Master's Degrees	6	4	9	8	6
Doctoral Degrees	1	0	2	5	8
<u>Research</u>					
Books and articles	18	15	19	21	23
Lectures and reports	17	16	11	16	19
Extramural support	\$68,000	\$110,000	\$153,000	\$170,000	\$218,000

The most conspicuous fact in these statistics is the rapid growth in our doctoral training and research program while maintaining a proportional increase in our undergraduate program. The conclusion to be drawn is equally obvious: our staff is too small to carry such an expanding program. We need two additional people to round out our general experimental program and at least five new people to staff an effective clinical emphasis within that program. While several of these might be supported in training grant funds, continued strong University support is vital.

II. Composite of information requested on individual biographical supplements.

1. Advanced study.

None

2. Sabbaticals, leaves of absence, summer teaching elsewhere, travel.

Harris, Richard J.--Employment at UNM began September 1, 1968. Through August 8, 1968 I was Psychology Research Associate in the Behavioral Research Lab, Palo Alto Veterans Administration Hospital, California.

Norman, Ralph D.--Sabbatical leave, Semester I. Travel to United Kingdom, Netherlands, Germany, Switzerland, France, Italy, Denmark, Austria.

3. New scholastic honors, fellowships, etc.

Ellis, Henry C.--Elected fellow, American Psychological Association, Experimental Psychology Division.

Rosenblum, Sidney--Who's Who in the West, Volume 12, 1969.

4. Publications.

Ellis, Henry C.

Generalization gradients in recognition memory for visual form: The role of stimulus meaning. Journal of Experimental Psychology, 1969, 79, 288-294 (with Feuge).

The transfer of stimulus predifferentiation to shape recognition and identification learning: The role of properties of verbal labels. Journal of Experimental Psychology, 1968, 78, 401-409.

Tactual-kinesthetic feedback from manipulation of visual forms and nondifferential reinforcement in transfer of perceptual learning. Journal of Experimental Psychology, 1968, 77, 495-500 (with Bennett).

Transfer in perceptual learning following stimulus predifferentiation. In R. N. Haber (Ed.), Contemporary Theory and Research in Visual Perception. New York: Holt, Rinehart, & Winston, 1968. (Reprinted from Journal of Experimental Psychology, 1964).

Discussion of Prof. E. J. Gibson's paper on "Perceptual Learning" and Prof. M. Wittrock's paper on "Three Conceptual Approaches to Transfer of Training," In R. M. Gagné (Ed.), Symposium on Research Approaches to the Learning of School Subjects. Annual Phi Delta Kappa Symposium, University of California, Berkeley. Itasca, 1968.

4. Publications (cont.)

Ferraro, Douglas P.

Variability of response duration during regular and partial reinforcement. Psychological Reports, 1968, 23, 1023-1031.

Transfer of a differentiation along a response continuum. Journal of Comparative and Physiological Psychology, 1968, 66, 791-796.

A failure to obtain disinhibition in FI operant conditioning. Psychonomic Science, 1968, 15, 47-49.

Effects of reinforcement magnitude. Psychonomic Science, 1968, 10, 177-178.

An inexpensive retract mechanism. Behavior Research Methods and Instruments, 1969 (in press).

From free responding to discrete trials. In Theory of Reinforcement Schedules. Appleton-Century-Crofts, 1969 (in press) with F. A. Logan.

Grice, G. Robert

Stimulus intensity and response evocation. Psychological Review, 1968, 75, 359-373.

Mediational effects in finger conditioning. Journal of Experimental Psychology, 1969, 79, 358-362.

Harris, Richard J.

Deterministic nature of probabilistic choices among identifiable stimuli. Journal of Experimental Psychology, 1969, 79, 552-560.

Dissonance or sour grapes? Post-'decision' changes in ratings and choice frequencies. Journal of Personality and Social Psychology, 1969, 11, 334-344.

A geometric classification system for 2x2 interval-symmetric games. Behavioral Science, 1969, 14, 138-146.

Familiarity vs. novelty in desire to own long-play recordings. Psychonomic Science, in press (scheduled for publication in May, 1969).

Johnson, Feder J.

Yoked group comparison of selection and reception paradigms of concept attainment: A biased procedure. Psychological Reports, 1968, 23, 1143-1149 (with B. Lowenkron).

Effects of stimulus composition upon biconditional rule learning. Journal of Experimental Psychology, June, 1969 (with R. White).

4. Publications (cont.)

Koenig, Karl P.

Self-disclosure and anxiety change. In press, Behaviour Research and Therapy.

False feedback and longevity of the conditioned GSR during extinction: Some implications for aversion therapy. In press, Journal of Abnormal Psychology (with D. del Castillo).

Logan, Frank A.

Avoidance of a warning signal. Psychonomic Science, 1968, 13, 53-54.

Frustration effect following correlated nonreinforcement. Journal of Experimental Psychology, 1968, 78, 396-400.

Norman, Ralph D.

Job preferences and preference shifts as functions of job information, familiarity, and prestige level. Journal of Applied Psychology, 1968, 52, (4), 280-285 (with David W. Bessemer).

Price, Louis E.

Associative interference as a function of amount of first-task practice and stimulus similarity. Journal of Experimental Child Psychology, 1968, 6, 202-211.

Rhodes, John M.

A preliminary report on single unit responses in the thalamus and cortex of the chimpanzee under sedation. New York Academy of Science, in press.

Electrical activity of the brain as a reflection of inhibitory phenomena. Neuropsychologia, in press.

Chimpanzee performance; computer analysis of electroencephalograms. Nature, 1968, 220, 879-881.

Etude chez le chimpanze eveille des relations entre afferences et efferences au niveau du cortex sensorimoteur.

J. Physiologie, 1968, 60 (2), 371.

Rosenblum, Sidney

The academic administrator. College and University Journal, 1968, 7, 35-42.

Ruebush, Britton K.

Review of "To change a child", Contemporary Psychology, in press.

5. Other research projects or creative work in progress or completed during period.

Benedetti, David T.

Wrote review of textbook, The Psychology of Perception, by William N. Dember, for publisher, Holt, Rinehart and Winston.

Ellis, Henry C.

NSF Grant, \$34,000. Conditions of Learning Affecting Perceptual Performance. 1 August 1968 - 31 July 1970.

NSF Grant, \$6,600. Supplement to Conditions of Learning Influencing Perception. 1 May 1968.

NSF Grant, \$7,200. Undergraduate Research Participation. 1 June 1969 - 31 October 1969.

Transfer and retention. Four chapters in M. H. Marx (Ed.), Learning: Processes, New York, Macmillan, 1969.

The learning, retention, and transfer of pattern recognition: A discussion. To appear in B. R. Bernstein (Ed.), Symposium on Learning, Retention, and Transfer.

Continued research on theoretical interpretations of perceptual learning, transfer, memory, mediation, and visual form perception.

Ferraro, Douglas P.

Work on NSF grant in the amount of \$28,192. Grant is entitled "Conditioned Response Variability" and runs from July 1, 1968 to June 30, 1969.

Grice, G. Robert

NIMH Grant 16400, Conditioning and Response Organization, April 1, 1969 to March 31, 1974.

Harris, Richard J.

Research on experimental games (especially the Prisoner's Dilemma), sponsored by UNM Grant-in-Aid and grant of computer time from Computing Center, through June 30, 1969.

Modification of existing computer programs, and development of new programs, for multivariate statistical analysis, with emphasis on use as instructional aids in Psychology 482. Supported by grant of computer time from Computing Center.

Johnson, Peder J.

NICHD Grant \$15,460; Conceptual Rule Learning in Children; February 1968 to February 1971.

5. Other research projects or creative work in progress or completed during period. (cont.)

Logan, Frank A.

N.S.F. grant, \$30,000 (d.c.), Conditions of reinforcement.
N.I.M.H. grant, \$24,000 (d.c.), Free behavior situation.

Norman, Ralph D.

A review of some problems related to the Movement Response on the Rorschach.

Price, Louis E.

Studies of learning in elementary school age Albuquerque children.
Verbal and non-verbal discrimination learning in Pueblo Indian
Pre-school age children.

Planning of conference on Research in Child Psychology applied to Indian children, to be held in June 1969--sponsored by NIMH.

Rhodes, John M.

"Investigations of CNS Inhibition Mechanisms Related to Performance", Air Force Missile Development Center, Contract F29600-68-C-0006, Sept. 18, 1967 to September 17, 1969, \$145,876.50.

Rosenblum, Sidney

Development of sensation-seeking scale for children. Work in progress.

Ruebush, Britton K.

Analysis of learning and other cognitive processes in children with learning disabilities.

Childhood Psychopathology. McGraw-Hill, in progress.

Psychological intervention with children of Mexican ancestry.
A.C.A. Press, in progress.

6. Activities in learned and professional societies.

Benedetti, David T.

Chaired paper session at RMPA convention, May 1969, Albuquerque.
Served as Publicity Chairman for RMPA convention.

Delivered paper at RMPA convention, "Relationships between Adjustive Modes and Adjustive Adequacy."

6. Activities in learned and professional societies. (Cont.)

Bessemer, David W.

Attended meetings of Rocky Mountain Psychological Assn., May, 1969, Albuquerque, N.M.

Read paper: "Instructions in test anxiety research" (with K. K. Long).

Ellis, Henry C.

President, Rocky Mountain Psychological Association.

Presidential address, Albuquerque, N.M., May, 1969: Mediatlional and attentional processes in transfer and perceptual memory.

Read paper at Symposium on Similarity and Human Learning: The transfer of stimulus discrimination and intralist similarity.

Attended meeting of Psychonomic Society, Chicago, October 1968.

Read paper: Linguistic determinants of visual pattern perception following verbal pretraining.

Attended meeting of Southwestern Psychological Association, Austin, Texas, April, 1969.

Read paper: Stimulus codability and recognition memory (with Daniel).

Attended meeting of Midwestern Psychological Association, Chicago, May, 1969.

NSF Visiting Scientist, New Mexico Tech., American Psychological Association.

Ferraro, Douglas P.

Attended meetings of Rocky Mountain Psychological Association, Albuquerque, N.M., May, 1969.

Publicity Director for convention of RMPA.

Read papers: Effects of differential reinforcement of stimulus and response variability on resistance to extinction.

Shape recognition in pigeons.

Effects of probability of reinforcement on bandwidth differentiation choice behavior.

Attended meetings of American Psychological Association, September, 1968, Chicago.

Read paper: Differential punishment of high and low rates.

Attended meetings of Southwestern Psychological Association, Austin, Texas, April, 1969.

Read paper: Effects of conditioned response variability on resistance to extinction:

Attended meetings of Midwestern Psychological Association, Chicago, May, 1969.

Read paper: Free-operant investigation of the partial reinforcement sequential response hypothesis.

6. Activities in learned and professional societies. (Cont.)

Grice, G. Robert

Attended meetings of American Psychological Association,
September, 1968, Chicago.
Attended meetings of Psychonomic Society, October, 1968, St. Louis.
Attended meetings of Midwestern Psychological Association, May,
1969, Chicago.
Attended meetings of Rocky Mountain Psychological Association,
May, 1969, Albuquerque

Harris, Richard J.

Accepted as member of American Psychological Association,
January, 1969.

Johnson, Peder J.

Attended meetings of Psychonomic Society, October, 1968, St. Louis.
Read paper: Direct assessment of mediational responding.
Attended meetings, Rocky Mountain Psychological Association, May,
1969.
Read papers: Consistency of type of solution to conceptual
problems.
Effects of pretraining and type of stimuli upon bicondi-
tional rule learning.

Koenig, Karl P.

Attended meetings and presented paper at Western Psychological
Association, San Diego.
Program Chairman for Rocky Mountain Psychological Association
meetings, Albuquerque, May, 1969.

Logan, Frank A.

Attended meetings of American Psychological Association,
San Francisco, September, 1968 (Exec. Com. Div. 3).
Attended meetings of Psychonomic Society, St. Louis, October, 1968.
Attended meetings of Southwestern Psychological Association,
Austin, April, 1969 (gave paper).

Norman, Ralph D.

Attended: International Congress of Rorschach and Other Proj.
Techniques, London, England, August 5-9, 1968.
International Congress on Mental Health, London,
England, August, 1968.
International Congress of Applied Psychology, Amsterdam,
August, 1968.
President, UNM Chapter, Sigma Xi.

6. Activities in learned and professional societies. (Cont.)

Norman, Ralph D. (cont.)

Member of Commission on Colleges and Universities, North Central Association, and attended Commission meetings, March 1969, Chicago.

Consultant-Examiner, North Central Association.

Chairman, Paper Session, Rocky Mountain Psychological Association meetings, Albuquerque, May, 1969.

Price, Louis E.

Attended meetings of SRCD, Los Angeles, March, 1969.

Session Chairman at Rocky Mountain Psychological Association meetings, Albuquerque, May, 1969.

Paper given at RMPA, Albuquerque, May 1969

Placement Chairman at RMPA.

Rhodes, John M.

Attended Winter Brain Research Conference, Aspen, Colorado, January, 1969.

Attended meetings of the Association for the Psychophysiological Study of Sleep, Boston, March, 1969.

Presented paper at XXIV International Congress of Physiological Sciences, Washington, D. C., August, 1968: Hippocampal EEG Correlates of Learning.

Presented paper at meetings of American Psychological Association, San Francisco, August, 1968: Electrical activity of the brain as a reflection of inhibitory phenomena.

Rosenblum, Sidney

President, New Mexico Psychological Association, 1968-69.

Convention Manager, Rocky Mountain Psychological Association, Albuquerque, May, 1969.

Seminar Leader: New Dimensions of Research and Practice with the Mentally Retarded.

Attended Conference of Officers of State Psychological Associations, San Francisco, August 28, 1968.

Attended meetings American Psychological Association, San Francisco, August 29-31, 1968.

Attended Southwest Conference on Improvement of University Instruction, New Mexico State University, November, 1968.

6. Activities in learned and professional societies. (Cont.)

Ruebush, Britton K.

Chairman, Paper Session: Personality and Motivation. Rocky Mountain Psychological Association meetings, Albuquerque, May, 1969.

Member, Executive Committee, Rocky Mountain Psychological Association.

Chairman, Committee on Public & Professional Affairs. Rocky Mountain Psychological Association.

Attended meetings of American Orthopsychiatric Association, New York.

Read paper: Cognitive and therapeutic innovations in children's centers, AOA, New York.

Member, Committee on Ethics. Division 12, Section 1, American Psychological Association

7. Other professional activities.

Bessemer, David W.

Consultant: (1) George Washington University, Human Resources Research Institute, Division #5 (Air Defense).
(2) Westinghouse Learning Corporation.

Ellis, Henry C.

Invited Talks, Symposia, Colloquia:

University of Missouri (Colloquium)

Texas Christian University (Colloquium)

Oklahoma State University (Colloquium)

New Mexico Tech (Colloquium)

Invited Symposium on Learning, Retention and Transfer, Winter Park, Florida.

Invited Symposium on The Improvement of Instruction, New Mexico State University.

Consultant, New Mexico State University.

Consultant, Texas Christian University.

Editing and Reviewing:

Member, Editorial Board, Journal of Experimental Psychology
Psychological Reports
Perceptual and Motor Skills

Review Proposals for NSF

Consultant to: Westinghouse Corporation

Minneapolis-Honeywell Corporation

Ferraro, Douglas P.

Consultant: (1) Westinghouse Learning Laboratories
(2) Department of Justice

7. Other professional activities. (Cont.)

Grice, G. Robert

Colloquium - University of Arizona - October 1969.

Chairman, NIH Experimental Psychology Study Section, Division of Research Grants

Harris, Richard J.

Consulted with Kirschner Associates on development of coding system for open-ended responses to questionnaire used in study of impact of Head Start program in representative cities around country.

Translated a review of experimental games literature from French to English. (Listed in Translations Register-Index as translation # 68-14980.)

Logan, Frank A.

Consulting Editor: Journal of Experimental Psychology, Journal of Comparative and Physiological Psychology, Wm. C. Brown Co.

Presented paper at Conference on the Smoking Habit sponsored by American Cancer Society.

Colloquia: University of Texas, Texas Christian

Norman, Ralph D.

Consultant, Personnel Training Program, Soil Conservation Service, Western Area Training Program.

Price, Louis E.

Invited address, February 1969, EPI conference, Little Rock, Ark.

Invited paper, April 1969, OEO conference, Los Angeles, California.

Consultant to Indian Community Action Project on Language Research.

Consultant to Albuquerque Public School System.

Rhodes, John M.

Consultant: (1) Holloman Air Force Base.

(2) Wright-Patterson Air Force Base.

(3) UCLA Space Biology Laboratory.

7. Other professional activities. (Cont.)

Rosenblum, Sidney

Consultant, Girls' Welfare Home, 1968 to present.

Advisory Board, Continuing Education Program, UNM Department of Psychiatry, 1968-present.

Professional advisory Committee, Children's Coordinating Council, UNM-APS, 1968 to present.

Public lectures:

Albuquerque Council for Learning Disabilities, July 1968, Intelligence and Learning.

Menaul High School, October 1968, Sex and the Teenager.

Sandia High School, December 1968, Mental Retardation.

Armijo Elementary School, January 1969, The Gifted Child.

Mental Health Association-APS Workshop, February, 1969,

Identifying Disturbed Behavior in the Classroom.

Washington Junior High School, March 1969, Approaches to Motivation of Early Adolescents.

B'nai Israel Religious School, March 1969, Discipline in the Classroom.

Ruebush, Britton K.

The emotionally disturbed child in the classroom. Workshop for teachers, New Mexico State University, Las Cruces, June 1968. Aggression in children. Seminar Series for Teachers, Mental Health Assn., 1969.

The Child Guidance Center. Junior Woman's Club. February 1969. Learning and Work in Teenagers. Seminar for the public. Sponsored by New Mexico Tech University and Socorro Mental Health Association, Socorro, 1969.

Working with Disturbed Children. Albuquerque Exchange Club, June 1968.

Radio appearance on Stretch Shearers Breakfast Club. February 1969. Identification of Problems in Preschool Children. Annual Inservice training program for teachers of Indian Head Start Program, UNM, July 1969.

Panel participant. B.I.A. Conference on Problems of Youth. UNM, October 1968.

Panel participant. Mental Health and the Elementary School Child. Aztec School P.T.A., Albuquerque, November 1968.

8. Non-teaching University service.

Benedetti, David T.

Member, Lawrence Ranch Advisory Committee.

Member, Union Board, Semester II.

Supervisor of University College advising for Psychology Department.

Chairman, Departmental search committee for perception man.

Moderator, unstructured discussion group, UNM evaluation day, April 15, 1969.

8. Non-teaching University service. (Cont.)

Bessemer, David W.

University College advisor

Ellis, Henry C.

Committees: Chr. UNM-Sandia Colloquium

Chr. UNM-Science Colloquium

Chr. Contract Research and Patent

Faculty Advisor, Student-Faculty Association

Arts and Sciences Advisor

Director, Departmental Honors; NSF Undergraduate Research

Participation Program

Conference Participant, Student-Faculty Conference, Lawrence Ranch

Departmental Committees: Colloquium, Building

Ad Hoc Committee on Duties for the Vice-President of Research

Ad Hoc Committee for the Improvement of Instruction

Ferraro, Douglas P.

Student Publications Board

Arts and Sciences Advisor

Harris, Richard J.

Participated on selection committee for local Phi Beta Kappa chapter

Johnson, Peder J.

Summer Session Committee

University College Advisor

Koenig, Karl P.

Committee on the University

Elected to the Policy Committee, Ad Hoc Committee on ROTC

Arts and Sciences Advisor

Logan, Frank A.

Chairman, Graduate advisor

University Committee on Human Subjects (Chairman)

Ad hoc Advisory Committee re selection of new dean of

Arts and Sciences (Chairman)

8. Non-teaching University service. (Cont.)

Norman, Ralph D.

Member, Academic Freedom and Tenure Committee
 Member, Ad Hoc Committee to select Chief Physician of Health
 Service and Dean of Men
 Part-time Consultant in Psychology, Stroke Team, Department of
 Neurology, UNM Medical School
 Chairman, Clinical Training Committee, Department of Psychology
 Chairman, Arts and Sciences Committee on Human Subject Research
 Graduate Advisor

Price, Louis E.

Graduate Committee
 Manzanita Center Policy Committee
 Human Subjects Research Review Committee (COE)
 University College advisor

Rhodes, John M.

Faculty advisor (University College)

Rosenblum, Sidney

Acting Chairman, Department of Psychology, Summer Session, 1968
 Co-chairman, Ad Hoc Committee on the Improvement of Instruction
 Chairman, Arts and Sciences Committee on the Improvement of
 Instruction
 Student Affairs Committee
 Clinical Ph.D. Committee, Department of Psychology
 Graduate Advisor

Ruebush, Britton K.

Director, Child Guidance Center, Dept. Psychiatry
 Research Committee, Dept. Psychiatry
 Committee for development of a Clinical Psychology Training
 Program, Dept. of Psychology
 Committee for development of a program for increasing the number
 of graduate students from minority groups at U.N.M.
 Planning Committee, Rehabilitation Services, U.N.M.
 Administrative and Policy Committee, Manzanita Center, U.N.M.
 Professional Advisory Committee, Children's Advisory Council,
 Albuquerque

9. Public service.

Bessemer, David W.

Delegate - State Democratic Convention, 1968

Ferraro, Douglas P.

YMCA Indian Guides

Rosenblum, Sidney

Scholarship Committee, Fraternal Order of Elks
Building Committee, B'nai Israel Congregation

Ruebush, Britton K.

Committee on Executives, United Community Fund, Albuquerque

10. Personal information.

Harris, Richard J.

Jennifer Mary Harris (first child) born October 10, 1968 in
Presbyterian Hospital.

The Report of the Department of Sociology
July 1, 1968 - June 30, 1969
Richard F. Tomasson, Chairman

I. General Departmental Information

A. The enrollment in sociology courses, the number of majors, and the number of graduate students have increased markedly over 1967-68. Student enrollment in all courses increased by 22% in the first semester of this year compared with first semester 1967-68. The number of majors increased from 74 to 103 in the past year, and the number of graduate students from 24 to 26. We continue to be, relatively speaking, the cheapest operating department in the university and probably the most understaffed.

Five new courses were offered by the department during the year: Sociology of Education (421) taught by Bachelor and cross-listed in Education, Introduction to City Planning (465) taught by W. Weismantel of Architecture and cross-listed in several other departments, Seminar in Comparative Latin American Social Systems (508) taught by Ugalde, and Seminar in the Sociology of Education (581) taught by Bachelor and cross-listed in Education. A special course called Sociology Teaching Practicum (531) supervised by Tomasson was introduced for the assistants in Introductory Sociology.

For new students entering in September of 1969 Elementary Probability and Statistics (Mathematics 241-242) will be a prerequisite for the required course in Research Methods (Sociology 481). This mathematics course will be designed specifically for students in the social sciences.

The department recruited four senior people during the year. Peter Berger (New School for Social Research), sponsored by the University Inter-religious Council, spent almost a week here. It became clear on both sides, however, that this would not be a congenial appointment. Dennis Wrong (New York University) after much serious thought decided to remain at NYU. Lloyd

Rogler (Case Western Reserve University) continues to be interested in an appointment in psychiatry and sociology for 1970 to be paid by psychiatry. Allen D. Grimshaw (Indiana University) continues to be an active candidate for an appointment in this department and ISRAD in 1970. He did not come this year because the ISRAD line was cut from the budget and funds were not available for a 12 month salary. Our recruiting efforts have earned the department several friends from which we have received much favorable publicity. (New additions to our staff for next year are listed under C.)

During the past troubled year members of the sociology department have probably maintained a closer relationship with student radicals and militants than the members of any other department. This has certainly not been something we have sought out but a situation arising out of the nature of our field. Everywhere student radicals are disproportionately attracted to sociology departments. (Both Daniel Cohn-Bandit in France and Rudy Deutsche in Germany are sociology students.) I believe, however, that we have served a genuine mediating role between the university and the militant students. In this role I think we have been a major asset to the university though I am afraid many people do not view us this way. It must be stressed, however, that this department is not and will not become politicized.

B. In the near future the department will write a proposal for a Ph.D. program. We remain the only social science department in the Arts and Sciences College which is not authorized to grant the Ph.D. The number of graduate students has reached the point where it is imperative that we begin plans for this program.

C. Appointments to staff for 1969-70.

John Joseph Fashing (B.A., M.A. University of California, Santa Barbara), Ph.D. University of Oregon, 1969. Specialties: sociology of education, political sociology, ethnic relations.

Pawel Horoszowski (Ph.D. University of Warsaw, 1957), presently Professor of Criminology at the University of Warsaw. It is not yet definite whether he will be with us the first semester next year but the probability is fairly high.

Theodore Abel (Ph.D., 1929, Columbia University), long time chairman of sociology at Hunter College, past president of the Eastern Sociological Society, well known theorist. He will be visiting professor for the second semester.

The following appointment has been made for the 1969 summer school only:

Caroline Banks (B.A., Wellesley; M.A., University of New Mexico).
Will teach race relations and the family.

D. We have had the following separation from the staff:

Nancie Gonzalez, who is one third in sociology, will leave to become vice chairman of sociology-anthropology at Iowa and then chairman of the new anthropology department.

II. Composite of information requested on individual biographical supplements.

1. None

2. Odd Grande participated in UN and ILO conferences in Geneva, April 1969, and lectured to the Norwegian Student Association, April 1969. Anthony Ugalde taught the summer session 1968 at Stanford University. Charles Woodhouse was on sabbatical for the year in New Orleans, Louisiana.

3. Gilbert Marx received a UNM grant to carry out research in Argentina. He was also nominated for the UNM Alumni Outstanding Teacher Award. Anthony Ugalde received a UNM grant to carry out research in Colombia.

4. Publications:

Morris Forslund: "Age, Occupation and Conviction Rates of White and Negro Males: A Case Study," The Rocky Mountain Social Science Journal, April 1969, pp. 141-146; 20 reviews in the Library Journal.

Gilbert W. Markx: "Legalidad, Cambio Político, e Impacto Social en los Cambios de Presidentes Latinoamericanos, 1930-1965," Revista Latinoamericana de Sociología (Buenos Aires), December 1968; "Ciclos Economicos e Intervenciones Armadas en la Argentina, 1870-1966," Revista Latinoamericana de Sociología, February 1969.

Richard F. Tomasson: "Religion is Irrelevant in Sweden," Trans-action, December 1968, pp. 46-53; "The Religious Situation in Sweden," Social Compass, No. 6 (1968), pp. 491-498; Review of Birgitta Linner, Sex and Society in Sweden in American-Scandinavian Review, Summer 1968, p. 200.

Charles E. Woodhouse: Co-editor with Henry J. Tobias of Minorities and Politics, University of New Mexico Press, 1969 (Woodhouse wrote the introduction to this volume which consists of five other original articles.)

Mary Riege (Teaching Assistant): "The Call Girl and the Dance Teacher: A Comparative Analysis," Cornell Journal of Social Relations, 4 (Spring 1969), pp. 58-71.

5. Other research projects completed during period:

Forslund, "Drinking Among High School Students" (with Thomas J. Gustafson) forthcoming in The Journal of the National Association of Secondary School Principals; Review forthcoming of In Their Own Behalf: Voices from the Margin (Charles McCaghy, et. al. eds.) in The American Sociological Review; Article submitted for publication "A Comparison of Negro and White Crime Rates," "Socioeconomic Status and Relative Level of Occupational Aspiration" (with Lenton Malry); In progress, a reader in deviant behavior theory tentatively titled Explanations of Deviance and a study of the contributions of Adolphe

Quetelet to the early development of sociology and criminology.

Grande is working on further development of models for organizations in society related to research projects in which he was involved at Cornell during 1967-68.

Meier has two articles submitted for publication: "Instrumentally and Non-Instrumentally Oriented College Aims of Undergraduates and Their Parents;" "Sex and Status Variations in Modes of Parental Influence on Students' Decisions to Go to College." (the latter tentatively accepted by Ohio Sociological Review; a version of the former accepted for presentation at the 1969 Annual Meetings of American Sociological Association.)

Merix: The following articles are to be published: "Sectoral Clashes and Political Change: The Argentine Experience," Latin American Research Review, July-August 1969; "Crisis in New Mexico" (with Richard J. Griego), Trans-action, August 1969; "Recessions and Rebellions in Argentina," International Journal of Comparative Sociology (Winter 1970); "Revolutionary Ideology in Argentina," In June Nash (ed.) Ideology and Social Change in Latin America; "Mudanca Politica na Argentina Pos-Peron," Dados (Rio de Janeiro), December 1969; Review of Constructive Change in Latin America, Cole Blasler (ed.), American Sociological Review, forthcoming.

Tomasson submitted complete and edited manuscript of Sweden: Prototype of the Modern Society (425 pp.) to Random House, April 1969; final revision of "The Extraordinary Success of the Swedish Social Democrats," (38 pp.) submitted to Journal of Politics for publication in August 1969 issue; final revision of "Scandinavian Students and the Politics of Organized Radicalism," (47 pp.) submitted for publication in S. M. Lipset, ed., Students in Revolt (Boston: Houghton Mifflin, September 1969) with Erik Allardt; Tomasson's co-translation of Tingssten's The Swedish Social Democrats

may go to University of California Press; Tomasson is beginning to learn Icelandic.

Ugalde completed book: Conflict and Consensus in a Mexican City: A Study of Political Integration, forthcoming December 1969, UNM Press.

Woodhouse completed project "Influence of a Campus Environment on Student Commitment to a Para-Military Organization," under grant from Air Force Office of Scientific Research, 1½ years, \$26,000 (wrote technical report, "Officer Training in Transition: A Participant-Observer Study of an Air Force ROTC Summer Field Training Unit." Began research on Negro political organizations in the South, starting with field work in New Orleans, Louisiana.

6. Activities in Learned and Professional Societies:

Forslund attended workshop on the problems of youth and youth serving agencies, Los Alamos, N.M., Sept. 26-27, 1968, sponsored by the N.M. Juvenile Probation Association; Rocky Mountain Social Science Association Meetings, May 2-3, 1969, Lubbock, Texas - Paper Read: "Standardization of Negro Crime Rates for Negro-White Differences in Age and Socioeconomic Status," Southwestern and Rocky Mountain Division, American Academy for the Advancement of Science Meetings, May 7-10, Colorado Springs, Colo. - Paper Read: "The Relative Influence of Peers, Parents, and Sex on the Drinking Behavior of High School Seniors" (with Thomas J. Gustafson).

Grande was appointed chairman of the Constitution and By Laws Subcommittee, International Committee for Rural Sociology, January 1969; reelected vice chairman of FAO Working Party for Rural Sociological Problems in Europe, August 1968.

Markx participated in the First Annual Conference of the Latin American Studies Association, New York City, October 1968; delivered paper on "Revolutionary Ideology and Argentine Social Change" at the 1968 meetings of the American Association for the Advancement of Science, Dallas, Texas, December

1968; delivered paper at the Conference on Sectoral Clashes and Social, Economic, and Political Change in Latin America, University of Wisconsin, Milwaukee, April 15-19, 1969 (paper called "Sectoral Clashes and Political Change: The Argentine Experience").

Tomasson attended national meetings of ASA, Boston, September 1968; read paper "Class Differences in Sweden and the United States: A Comparative Study," at Pacific Sociological Association meetings, Seattle, April 1969.

Ugalde attended Latin American Studies Association, New York, November 1968.

Woodhouse attended meetings of the American Sociological Association, Boston, August 1968, and meetings of the Southern Sociological Society, New Orleans, April 1969.

7. Other Professional Activities:

Forslund gave a lecture "A Sociological Perspective on Drug Addiction," OSI Narcotics Seminar, February 12, 1969, Kirtland AFB; "Alcohol, Alcoholism and Crime," Sandia Base, April 23, 1969.

Tomasson was director, Generic Training, New Careers; lecture "Men and Women in Sweden" at Unitarian Church, January 1969.

Woodhouse conducted an evaluation of the Irish Channel Action Foundation Advocacy Planning Program in New Orleans, La. (OEO) for Kirschner Associates; served as Field Reader for U.S. Dept. of Health, Education and Welfare; presented guest lecture for course in Urban Politics at Tulane University, New Orleans, May 1969.

B. Non-teaching University service:

Forslund was faculty advisor to sociology majors; on scholarship committee of College of Arts and Sciences.

Grande was member ad hoc faculty committee for reinstatement of suspended students, Fall 1968; member ad hoc committee for screening proposals for

Undergraduate Seminar Program in the Social Sciences, Spring 1969.

Meier was faculty advisor for University College and Arts and Science sophomores; College of Arts and Sciences Committee on Human Subjects in Research.

Markx was faculty sponsor, SDS, Black Students Union; Member, Advisory Board, ISRAD; Member, President's Ad Hoc Advisory Committee on Minority Students; Member, Graduate School Fellowship Committee.

Tomasson was chairman, Sociology Department; Member, Graduate School Speakers Committee; Member, Health Services Program Committee; Member, A&S committee to investigate relations between administration and the college. Faculty advisor to graduate students; faculty sponsor of Amigos Anonymous.

9. Public Service:

Forslund was a member of Acoma PTA; member, Crime and Delinquency Committee of Model Cities, Albuquerque; Advisor, State of New Mexico Crime Commission.

Tomasson was advisor, Albuquerque Goals Program.

10. None.

THE REPORT OF THE DEPARTMENT OF SPEECH
July 1, 1968 - June 30, 1969
Wayne C. Eubank - Chairman

I. General Departmental Information

A. Significant Achievements during the Academic Year, 1968-69

1. Enrollment

Enrollment in the Department of Speech for 1968-69 was about the same as for 1967-68--down about 4% the first semester and up about 4% the second semester. However, graduate enrollment in the department was the largest ever--36 students during the first semester and 31 during the second semester. Continued increase in graduate enrollment is expected during the coming year.

2. New Courses

Thirteen new courses were approved during the year--eight in the field of speech pathology and audiology, two in public address and rhetoric, one in communication theory, and two in general speech (General Semantics and Seminar in Foreign Accent).

3. Undergraduate Seminar Program

Under the direction of Dr. Dudley Wynn, a new undergraduate seminar program will be offered next fall. The Department of Speech will participate in this program with an offering entitled "The Rhetoric of Black Power."

4. Linguistics and Language Pedagogy Program

In the Fall of 1969 an interdisciplinary major in Linguistics and Language Pedagogy will be offered. Courses comprising this major will be taken from current offerings in various departments in the Arts and Sciences College and in the College of Education.

The new major is coordinated and administered by a committee composed of members from participating departments. Some nine courses in the Department of Speech fall within the province of this new Linguistics and Language Pedagogy major.

5. Television-Radio

As a result of the agreement with the Department of Journalism for formal interdisciplinary study, it is now possible for a student to pursue an official emphasis in TV-Radio on any of four bases:

- (1) Speech Major with Emphasis in Television-Radio, (2) Dramatic Art Major (College of Fine Arts) with Emphasis in Television-Radio, (3) Speech Major with Emphasis in Television-Radio-Journalism, and (4) Journalism Major with Television-Radio Emphasis. Discussion with Journalism concerning possible additional interdepartmental cooperation and relationship is continuing.

Enrollment in Television-Radio courses remained at about the same levels as in the last two years, with the exception of Speech 520, Seminar in Television and Radio, where, surprisingly, student interest not only justified its scheduling for the third successive year but resulted in an increase in enrollment to 12, doubling previous registration for the course.

Students in Speech 251, Introduction to Radio & Television, this year not only had the opportunity to observe on-the-air operation of KNME-TV but also the operation of KUNM-FM, the student radio station, through the cooperation of KUNM management. Speech 265, Production Procedures in Radio and Television: students participated in one of three weekly lab sections, gaining experience

as cameramen, floor manager, audio control, switcher, assistant director, and director. Speech 480, Advanced Television-Radio Production and Directing: students produced and directed 15-minute program projects with responsibility for all phases of production and opportunity for analysis of the videotaped product. Speech 465, Broadcast Programming and Policy: students made analytical studies of the programming of on-air radio or TV stations and followed these with critical analyses and recommended restructuring. Speech 520, Seminar in Television and Radio: reports and discussion covered virtually every phase of current broadcasting.

During the summer of 1968, Professor Bundy served for the second time as Visiting Lecturer and Coordinator, "Radio-TV for Teachers" at the University of Arizona, with several KNME on-air teachers teaching content units of the course, and also as Visiting Professor for an NDEA Summer Communications Institute at the University of Idaho.

In this year of expanded Public Broadcasting and experimental interconnection, Dr. Bundy continued to lead regional planning and development, serving as Chairman of the Public Broadcasting Committee and Vice-Chairman of the Telecommunications Council of the Federation of Rocky Mountain States and as Vice-President of the Rocky Mountain Corporation for Public Broadcasting and was designated to participate in national policy operational development as a member of the Interim Interconnection Management Group of the Corporation for Public Broadcasting and of the NAEB's Advisory Council of Regional Networks and its Program Selection Committee.

6. Forensic Program

This year about 25 UNM students successfully participated in 21 intercollegiate tournaments in 11 states. Overall squad win-loss performance was above average and the educational benefit to students was both observable and valuable. One of the better Senior Division debate teams was in the final rounds in tournaments in California, Oklahoma and Wyoming. The UNM team representative in the Delta Sigma Rho-Tau Kappa Alpha national tournament in Lincoln, Nebraska won four of their six debates. Next year's Junior Division squad gives promise of being both large and of high quality since a number of good students around the state have indicated a desire to participate in the program. Two outstanding freshmen from out of state have indicated they would enroll at UNM next fall. An increase in the number of students participating in the forensics program is expected in 1969-70. During the year the UNM forensics squad performed numerous services for the high schools of New Mexico. The squad hosted a High School Forensics Festival during the semester break, which attracted about 200 students from throughout the state. This Spring the squad hosted the New Mexico State Championship Forensics Tournament.

The forensics staff and students provided judging and administrative services for a number of high school invitational tournaments in Albuquerque. This summer, high school students and coaches will participate in a forensics workshop held by the forensics staff at UNM. This project should upgrade the number of and interest in forensics by students who should eventually enroll at the University of New Mexico.

Expanding the nature and usefulness of the forensics program, the squad participated in two audience debates at the State Penitentiary in Santa Fe. The squad also provided the services of judges, lecturers and performers at events sponsored by civic organizations such as the American Legion and the Optimists Club. Junior high schools and high schools within the city expressed remarkable interest in interpretation programs that were presented to Speech-English classes and other student groups in the Albuquerque Public Schools system.

The Department of Speech of the University of New Mexico hosted its eighth annual Duke City Intercollegiate Forensics Tournament in December, which was attended by 25 colleges and universities from 12 states. As an opener for the tournament, a public debate was held between the University of Southern California and Furman University of South Carolina.

7. Communication Area

Dr. Hughey continues to perform near miracles in the communication area. Four courses were taught in the area this year. Enrollment increased 250% over last year. Of the 115 students enrolled in communication courses, more than 30% were graduate students. Sixteen masters and doctorate students from Speech, Business Administration, Educational Administration, Educational Foundations, Sociology, and Physical Education are currently working under plans of study with either a major or minor emphasis in communication, nearly double the number of students in the area last year.

During the year, one doctoral study was completed, three dissertations neared completion, and five pilot studies were executed.

This year saw the establishment of an on-going research program concerning communication sensitivity. Several research instruments were developed and refined.

8. Speech Pathology and Audiology

a. Training Philosophy. Concurrent with other program changes has been a rethinking and formalization of the philosophy underlying speech pathology and audiology at the University of New Mexico.

The ultimate goal of the program is to prepare specialists who are concerned basically with systems, structures and functions that make human communication possible and with effects of delay, maldevelopment and disturbances in communicative behavior. The training program at the University of New Mexico endorses the ASHA "Standards of Clinical Competence" with the masters degree as the minimum level of professional preparation.

Basic to the training philosophy is the concept of the individual as a communication unit. With this as a focal point, an attempt is now being made to provide in the undergraduate curriculum a wide sampling of offerings with emphasis on speech and hearing science and on study of the physical, biological and and psychological systems upon which the normal communication process depends.

At the graduate level, students who elect a clinical program are prepared as speech and hearing specialists who can function in a variety of professional settings.

Consistent with the above philosophy, the undergraduate may

receive his first contact with speech and hearing science per se in his sophomore year. From this point on he maintains a one-two course per semester contact in speech and hearing science courses while developing a broad background in adjoining areas such as child development, education, psychology, and physical and biological science. He also is given opportunities to observe in the speech and hearing center and to manipulate certain types of disordered verbal behavior in laboratories attached to speech and hearing science theory courses. However, emphasis is maintained on scientific understanding of the normal processes of communication continuum. At the graduate level, the student moves toward intensive clinical specialization in speech pathology or audiology although the total speech-hearing-language function continues to be stressed.

b. Curriculum Modifications. Recognizing that curriculum development must be an ongoing process and that modification of course content as well as introduction of new courses must keep pace with developments in the profession, the entire speech and hearing curriculum has been placed under close scrutiny.

The staff is studying undergraduate course offerings from other departments in an effort to determine what sequence or sequences of courses might best provide the desired basic science orientation. Undergraduate offerings in the speech department also are being reviewed with the aim of changing departmental requirements for majors in speech pathology and audiology by reducing the number of courses required in other areas. Several changes have been made to strengthen the speech pathology and

audiology curriculum both at the undergraduate and graduate levels (see page 1).

These courses reflect the emerging undergraduate basic speech and hearing science orientation. Also, as can be seen from the course titles and descriptions, formal laboratory teaching is being integrated into the curriculum as a major facet of training. The faculty feels that a lecture-laboratory relationship such as this will afford a unique and fruitful approach in teaching fundamental scientific concepts of the communication process. Current plans are to extend the lecture-laboratory orientation into clinical science courses in speech pathology and audiology taught at the undergraduate and graduate levels.

c. Development of Teaching Materials. A teaching film dealing with evaluation and diagnosis of cerebral palsied children is being prepared under the direction of Dr. Dolores Butt. The film, which follows cerebral palsied children through various steps of speech, language and hearing evaluation, is being made through support from the New Mexico Elks Cerebral Palsy Commission. Dr. Butt also participated in the production of "Watch Them Learn," a film made in conjunction with the Albuquerque Public Schools. This film deals with language and learning in disabled children.

d. Training Facilities and Equipment. Training facilities have been expanded by the addition of space at 1805 Roma, N.E. Two rooms have been designated as primarily research space. These rooms also provide additional space for seminars and staff meetings.

Dr. Fletcher has been granted permission by the Medical School

to use the Medical School anatomy laboratories in teaching the laboratory portion of Speech 450: Anatomy and Physiology of Speech and Hearing. The facilities are made available one afternoon each week for a three hour period. Two adult cadavers were provided for the class.

A number of clinical and research instruments have been acquired during the 1968-69 grant year. Dr. Samuel Fletcher brought approximately \$15,000 worth of equipment with him from Utah State University to be used primarily in the study of speech physiology. A dual beam oscilloscope (Tektronix 502A) was recently purchased to be used both for research in speech and hearing and also as a teaching instrument in basic science courses. New clinical equipment includes a Phonic Mirror (H. C. Electronics), a wet bath spirometer (Collins "Vitalometer"), two portable audiometers (Belton 10D) and an infant screening audiometer (H. C. Electronics). An electro-acoustic impedance meter (Madsen ZO-70) was acquired partially through support from the mental retardation program of the Mental Development Center.

e. Facilities for Supervised Clinical Practicum. Diagnostic speech, hearing, and language evaluations and therapy were conducted by professional staff and by graduate students in a number of settings with a variety of patients during the period covered by this report. These activities are detailed below according to types of problems, ages of patients, referral sources, and facilities at which the services were offered.

1) University Speech and Hearing Center. The number and types of speech and language evaluations performed in the Speech and

Hearing Center as part of the regular training clinics are listed by age groupings in the following table:

<u>Type of Disorder</u>	<u>Pre-School</u>	<u>Ages</u>		<u>Adult</u>	<u>Total</u>
		<u>6-14</u>	<u>15-18</u>		
Stuttering	3	2	0	4	9
Foreign Dialect	0	0	0	39	39
Articulation	8	5	1	1	15
Delayed Speech and Language	9	2	0	0	11
Voice	0	3	1	1	5
Cleft Palate	0	1	0	0	1
Tongue Thrust	<u>0</u>	<u>0</u>	<u>0</u>	<u>4</u>	<u>4</u>
TOTALS	20	13	2	49	84

Referral sources for the above evaluations were as follows:

<u>Medical</u> (Private physicians and Medical School)	20
<u>Speech pathologists</u>	3
<u>Lay persons</u> (Self, family, friends)	22
<u>Agency and other</u>	39

TOTAL 84

In addition to the above, evaluations were conducted in the Speech and Hearing Center on a regularly scheduled basis for children referred through the New Mexico Elks Cerebral Palsy Commission and the Mental Retardation Division of the Community-Medical School Mental Development Center. A total of 29 cerebral palsied children and 33 mentally retarded children received comprehensive evaluations in these clinics. The mentally retarded patients were referred directly by James A. Browder, M.D., head of the mental retardation program. The cerebral palsied children were referred indirectly by various medical sources through the Elks Commission.

Taking into account the regular out-patient clinics and the evaluations for cerebral palsied and mentally retarded children, a total of 146 persons received speech and/or language evaluations in the Speech and Hearing Center during the period September 1 - April 21.

Therapy services in the clinic were provided primarily by graduate students; however, limited treatment was provided by professional staff members on a demonstration basis. Types of problems and numbers of patients seen for therapy are detailed by age groupings in the following table:

<u>Type of Disorder</u>	<u>Pre-School</u>	<u>Ages</u>		<u>Adult</u>	<u>Total</u>
		<u>6-14</u>	<u>15-18</u>		
Stuttering	0	1	0	9	10
Foreign Dialect	0	0	0	28	28
Articulation	4	8	1	2	15
Delayed Speech and Language	3	2	0	0	5
Hyper Nasality	0	1	0	0	1
Voice	0	4	1	0	5
Tongue Thrust	0	3	3	1	7
Aphasia	0	0	0	2	2
Other	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>2</u>
GRAND TOTALS	7	20	5	43	75

Clinical services in audiology as part of the training program were provided at the Speech and Hearing Center and at Bernalillo County Medical Center during this project report period. Plans are being formalized to expand auditory testing and aural rehabilitation services to the Veterans Administration Hospital. The practicum program will be re-initiated at Lovelace Clinic as soon

as audiology students reach an adequate level of clinical proficiency to work in that setting.

Clinical activities at the Speech and Hearing Center during the report period are detailed in the following table:

<u>Type of Disorder</u>	<u>Pre-School</u>	<u>Ages</u>		<u>Adults</u>	<u>Total</u>
		<u>6-12</u>	<u>13-18</u>		
Hearing Evaluations	64	77	10	40	191
Hearing Aid Evaluations	7	5	4	18	34
Hearing Aid Rechecks	<u>1</u>	<u>5</u>	<u>0</u>	<u>4</u>	<u>10</u>
TOTALS	72	87	14	62	235

The aural rehabilitation program was started in February 1969, under the direction of Dr. Richard Hood. Patients in this clinic presently include four hearing-impaired adults and five young school children who are receiving individual treatment, and a group of five hearing-impaired junior high school students. This summer the junior high group will receive intensive aural rehabilitation and academic tutoring three hours daily for six weeks. Approximately ten other patients will receive less intensive treatment during the summer.

2) Bernalillo County Medical Center. Testing at Bernalillo County Medical Center was recently initiated as part of the E.N.T. Out-patient Service. Routine pure tone testing is done in that setting, with patients requiring more comprehensive evaluations being referred to the Speech and Hearing Center. Approximately 30 patients have been tested at the Bernalillo County Medical Center.

3) Veterans Administration Hospital. During this report period six graduate students participated in diagnostics and therapy at the Veterans Administration Hospital. The types of disorders and numbers of patients available for observation or practicum were as follows:

<u>Type of Disorder</u>	<u>Diagnostics</u>	<u>Therapy</u>
Aphasia	102	30
Dysarthria	25	6
Stuttering	2	1
Laryngectomy	3	3
Voice	6	3
Totals	138	43

Clinical activities at the V.A. Hospital were supervised primarily by Dr. Bruce Porch, Chief, Speech Pathology and Audiology. Dr. Samuel Fletcher and Dr. Richard Hood, consultants to the V.A. program, also participated in clinical activities and supervised some practicum.

4) Other Programs. Other facilities and programs utilized for training were the Day Training Center for Retarded Children, the Albuquerque Public Schools, the Grants Municipal School System, and the Office of Economic Opportunity pre-school program. Dr. Dolores Butt had the major responsibility for organization and supervision of the speech and language training activities in these programs.

Recipients of R.S.A. traineeships were required to participate in as wide a variety of the available diagnostic and therapeutic activities as possible with adult patients. However, they also were encouraged to gain practicum experience with children in

order to develop themselves as well-rounded clinicians.

f. Inter-Departmental Cooperation in Planning and Providing Training.

1) A program designed to orient first year medical students from the University of New Mexico School of Medicine to communication disorders will be conducted in May by Speech and Hearing Center personnel. This program will consist of lectures on audiology and speech pathology, a tour of the Speech and Hearing Center, and laboratory demonstrations of diagnostic techniques. Enthusiastic response has been given the program since its inception in 1965. Plans now are being made to expand the program to include lectures and demonstrations for second and third year students and for resident physicians in various specialty areas. This year's program will be increased from four hours to approximately eight hours of lecture and other activities.

2) Resident physicians in pediatrics are now receiving experience with speech, hearing, and language disordered persons as part of their resident training. Each physician spends one-half day a week in the Speech and Hearing Center during his neurology rotation.

3) Reciprocal teaching arrangements have been made with several individuals and programs within the University of New Mexico School of Medicine.

4) A formal proposal has been submitted to the University and Medical School administration for development of a Communication Disorders Unit at the Medical School. The dean of the School of Medicine, Robert Stone, has appointed two of his faculty to serve with Drs. Fletcher and Lamb as a committee to formulate plans

for such a unit and to act as liaison between the present program and the School of Medicine.

g. Collaboration with State Rehabilitation Agencies and Other Community Rehabilitation Programs

1) Practicum training and observation for students in speech pathology and audiology is available in a number of university affiliated programs. These include:

- a. Veterans Administration Hospital
- b. Rehabilitation Center, Inc.
- c. Albuquerque Hearing and Speech Center
- d. Day Training Center
- e. Albuquerque Public Schools
- f. Public school classrooms for the acoustically handicapped
- g. New Mexico School for the Deaf
- h. Bernalillo County Medical Center

2) Lecture Series and Consultants. A speech pathology-audiology lecture series was initiated at the University in the Fall of 1968. The first speaker was Dr. Duane Logue, Director of the Speech and Language Study Unit of the Child Development Center of the University of Miami, Miami, Florida. In November, 1968, Dr. Logue lectured to the speech pathology and audiology group on "Recent Research in Language: Its Clinical Implications." He also presented a talk at the Medical School on "Pediatric Aspects of Communication Disorders."

The second speaker was Dr. Richard Hood, Assistant Professor of Audiology at Colorado State University, who visited the University in December, 1968, to lecture on "Recent Trends in Speech Audiometry."

Dr. Mac Steer, Head, Department of Audiology and Speech Science, Purdue University, visited the University as guest lecturer and consultant to the program in May, 1969. Dr. Steer spoke on the

topic "Speech Pathology, Language Pathology and Audiology: Past, Present and Future." He also consulted with the speech pathology and audiology staff and the University administration regarding program development.

h. Grant Support. Several grants continue to enhance the program in Speech Pathology and Audiology. About \$100,000 will be received by the Department this fiscal year. Twelve traineeships are presently supported from grant funds as well as portions of the salaries of Drs. Fletcher, Lamb and Hood. Additional grant requests are in process and the Department anticipates increased grant aid in the future, primarily for equipment and traineeships and fellowships.

B. Significant Plans and Recommendations for the Near Future.

1. Staff

The Department of Speech anticipates upgrading the position presently held by Dean Betz at the master's level to a supervisor with a Ph.D. for the fall semester of 1970. The large number of graduate students now engaged in clinical training necessitates the upgrading of this position.

During the coming year, the Department will try to fill the vacancy created by the resignation of Dr. J. Douglas Gibb with a candidate in the field of general speech with a specialty in Speech Education.

2. Core Requirements for Department of Speech Majors

The Department of Speech is currently developing a Core requirement for speech majors and minors which would consist of three three-hour courses. The Core program is designed to: 1) eliminate

needless duplication in lower division courses; 2) maximize the advantages of the rich diversity of influences and approaches to communication presently available in the Department; and 3) provide the student with a broad base program of communication theory and practice as early in his career as possible.

3. Space

For years the Department of Speech has contemplated occupying the space presently taken by KNME-TV in the front of the building. Finally the assurance of a new television station building is certain. However, the station will probably not move before the late Fall of 1969. Since the space vacated will require considerable revamping, the departmental office will probably not be moved before the Summer of 1970. Some three or four rooms presently occupied by the departmental office and professors will then be available in the rear of the building for speech pathology-audiology clinical use.

4. Doctoral Program

In May of this year, the Department of Speech submitted an informal request to the UNM administration regarding a tentative date for a doctoral program in Speech. The following reply was received from Vice President Chester G. Travelstead on May 14:

"I appreciate the careful documentation which your memo of May 7 gives to the need, resources, curriculum, and costs of a proposed Ph.D. program in Speech. The BEF moratorium on new graduate programs, however, precludes the possibility of the program receiving final approval for at least a year and perhaps eighteen months.

"Meanwhile, if you feel that you would like to have a fully developed proposal ready to submit at the end of the moratorium, you can plan toward that end; but you should be under no misapprehensions about when approval can be granted and implementation begun."

The Department of Speech is pleased with administrative approval to develop a final prospectus, which will probably be submitted during the first semester of 1970-71. The BEF moratorium on new Ph.D. programs is presumed to be in effect for 12-18 months. Actually, this moratorium will not affect the Department of Speech plans, since our target date for the start of the doctoral program is September, 1971. (Attached is a copy of the informal proposal and Vice President Travelstead's reply.)

5. Speech and Hearing Facilities in the Bernalillo County Medical Center.

Discussions are in progress regarding the development of a clinical facility for Speech and Hearing in the Bernalillo County Medical Center as a part of the joint Speech Department-Medical School program. The timetable calls for allocation of space in the out-patient department of the Medical Center when the new hospital wing is completed. Limited space is already available in the out-patient department for routine testing during weekly E.N.T. clinics.

6. New Housing for Speech Pathology-Audiology Clinic.

Discussions are in progress pertaining to the construction of a joint facility on the UNM campus for study and treatment of communication processes and disorders. Representatives of the Albuquerque Hearing and Speech Center and the New Mexico School for the Deaf have expressed keen interest in such a joint facility through which the speech and hearing programs of each agency could be coordinated and integrated to the maximum benefit of all.

The feasibility of such a facility is being pursued by the two agencies and UNM. If details can be worked out, a formal request for such a building will be prepared in the near future.

7. Proposed UNM Institute for Biocommunication Studies

Early in the Fall of 1968, Dr. Samuel Fletcher submitted a proposal to the UNM administration requesting the establishment of an Institute for Biocommunication Studies.

On February 17 a meeting was held concerning a preliminary proposal for a UNM Institute for Biocommunication Studies. Attendees at that meeting included staff members from a number of departments in Arts and Sciences and in Medicine. The specific purpose of the meeting was to explore on-campus interest in such an institute and desire to participate should it be authorized. The consensus of those in attendance was that:

1. A need exists for closer contact between and among various groups and individuals who are studying the communication process.
2. The proposed Institute could serve as an important focal point for cooperative research and training.
3. Federal interest and support which might facilitate such a development should be explored.

Specific to the final point above was that representatives from the Public Health Service who had previously expressed interest in and encouragement for development of a biocommunication program, should be contacted for further clarification of possible financial support.

On the basis of these recommendations a continuing dialogue has been developed with two agencies of the Public Health Service: the Neurological and Sensory Disease Control Program, and the National Institute for Child Health and Human Development.

The NSDCP has recently expressed interest in establishing a field research laboratory for interdisciplinary study of communication disorders. Such a laboratory could be affiliated with the Institute for Biocommunication Studies if UNM were to be chosen as the site for it.

On April 22-24, 1969, Dr. Joseph Stewart, Director, and Dr. Terry Genz, Program Management Officer, visited our campus for more detailed exploration of the proposal. During the visit Drs. Stewart and Genz expressed keen interest in the proposal and seemed pleased with the interest and numerous facilities available at UNM and in New Mexico. Discussion concerning the feasibility of such a federal laboratory affiliated with the Institute for Biocommunication Studies at UNM will continue in the coming months.

C. Appointments to Staff

Faculty

Samuel G. Fletcher
Utah State University
Professor and Director, Speech Pathology and Audiology
September 1, 1968

Richard B. Hood
Colorado State University
Assistant Professor of Audiology
January 1, 1969

Harold O. Ried
Transferred from Division of Continuing Education
Professor in Speech
September 1, 1968

Non-Faculty

Michael Crum
University of Tennessee
Clinical Supervisor, Audiology
September 1, 1968

Kerstin Engström
Utah State University
Clinical Supervisor, Speech Pathology
January 15, 1969

D. Separations from Staff

Faculty

J. Douglas Gibb
Assistant Professor of Speech
Separation Date: June 30, 1969

Non-Faculty

Dean W. Betz
Supervisor, Speech and Hearing Center
Separation Date: June 30, 1969

II. Composite of Information Requested on Individual Biographical Supplements

1. Advanced Study

a. Judith W. Carey

Continued progress on the Ph.D. degree, to be completed June 1969. A revised draft of the dissertation was submitted to her dissertation committee April 20, 1969 and was approved.

b. Robert C. Dick

Completed doctoral work at Stanford University. Conferral of Ph.D. in Rhetoric and Public Address will be in June, 1969. Final title of dissertation: "Rhetoric of the Negro Ante-Bellum Protest Movement."

c. Lloyd E. Lamb

Received Certificate of Clinical Competence in Audiology, awarded by the American Speech and Hearing Association.

2. Sabbaticals, leaves of absence, travel, etc.

a. E. Wayne Bundy

Visiting Lecturer, Coordinator, "Radio-TV for Teachers," University of Arizona, Tucson, June 17-July 20, 1968 (First and fourth weeks in residence, coordination responsibility other weeks with three of our on-camera teachers instructing.)

Visiting Professor, NDEA Summer Communications Institute, University of Idaho, Moscow, Idaho, July 1968.

b. Fred M. Chreist

Sabbatical leave - Semester II, 1967-68. Work on book - Foreign Accent: Spanish, completion of Lincolnland Conference on Dialectology paper.

c. Wayne C. Eubank

Traveled around the world during the summer of 1968, east through Europe, the Middle East, the Far East, Down Under through Australia, New Zealand, etc.

d. Brenda J. Hancock

Traveled in Spain and Portugal, June-September 1968.

e. Cullen B. Owens

Tour of the Pacific Northwest and California coast.

f. Bruce E. Porch

Invited lectures and workshop on the Porch Index of Communicative Ability - Temple University Medical School, February 1969; San Francisco, California, March 1969.

3. New scholastic honors, fellowships, etc.

a. Robert C. Dick

Was provided \$100 grant from Stanford University for Summer, 1968, to assist in conducting research on Negro history.

b. Samuel G. Fletcher

American Speech and Hearing Association Fellow, Nov. 1968.

4. Publications

a. E. Wayne Bundy

"An Application of Teaching Via Television to Engineering Education," (with D. C. Thorn)--accepted for publication in Engineering Education.

"Report of the Public Broadcasting Committee," Federation of Rocky Mountain States, Inc., 1968.

"Teachers Guide for Classroom Utilization of Elementary Music-4," KNME-TV, Aug. 1968, Editor.

"Teachers Guide for Classroom Utilization of Elementary Music-5," KNME-TV, Aug. 1968, Editor.

"Teachers Guide for Classroom Utilization of Elementary Music-6," KNME-TV, Aug. 1968, Editor.

"Report of the Public Broadcasting Committee," Federation of Rocky Mountain States, Inc., Feb. 1969.

Publication by Broadcast Media:

National network distribution:

"Science Fare" (#'s 14, 15 & 16), 3/1/2-hrs, Producer-Director (1968) (with George Fischbeck) For WHAT'S NEW, National Educational Television Network (N.E.T., N.Y.) 159 affiliate stations--479 half-hrs broadcast 1968-69.

"Science Fare" (#'s 11, 12 & 13), 3/1/2-hrs, Producer-Director (1966) (with George Fischbeck) For WHAT'S NEW, (N.E.T., N.Y.) 159 affiliate stations--479 half-hrs broadcast 1968-69

"Science Fare" (#'s 1-10), 10/17 min. segments, Producer-Director (1963) (with George Fischbeck) 159 affiliate stations--1590 17/min. segments, broadcast 1968-69.

Total national exposures 2548.

Local broadcast:

"Elementary Science Fare-5," 34/20 min. segments, Producer-Director (with George Fischbeck) 34 20 min. bdcsts

"Elementary Science Fare-6," 34/20 min. segments, Producer-Director (with George Fischbeck) 34 20 min. bdcsts

"Performance: New Mexico," 18/1/2-hrs, Producer-Director (with Tom Phillips, UNM Music Dept. & guests) 54 half-hr bdcsts

"Conversation," 14/1/2-hrs, Producer-Director (with Dr. H. G. Alexander, UNM) 14 half-hr bdcsts

"Electromagnetic Waves," (EE-362), 29/1/2-hrs, Producer-Director (with Dr. M. D. Bradshaw, EE, UNM telecourse)

29 half-hr bdcsts

4. Publications

- a. E. Wayne Bundy (continued)
 "The Violin Sonata," 12/half-hrs, Producer-Director
 (with Henri Bittar, UNM) 26 half-hrs bdcst
 "Humanities," 52/hrs, Producer-Director
 (with Dr. H. G. Alexander, UNM) 124 hr bdcsts
 "Humanities Specials," 10/hrs, Producer-Director
 (with Dr. H. G. Alexander, UNM) 20 hrs bdcst
 "General Science-9," 28/half-hrs, Producer-Director
 (with George Fischbeck) 30 half-hrs bdcst
 "The Arts," 30/half-hrs, Producer-Director
 (with Ralph Berkowitz) 62 half-hrs bdcst
 "Dental Health Special for Teachers," 1/half-hr,
 Producer-Director (with George Fischbeck) 1 half-hr bdcst
 "Veterans Day Special," 1/20 min., Producer-Director
 1 20 min. bdcst
- b. Fred M. Chrest
Some Notes on a Philosophy of Disordered Communication:
Language Aspects, Proceedings of the First Lincolnland
 Conference on Dialectology, University of Alabama Press, 1969
 (in press). Conference was held in March, 1968 but publica-
 tion is just now announced.
On Defining the Polyglot, Proceedings of the Second
 Lincolnland Conference on Dialectology, Eastern Illinois
 University, Charleston, Illinois, 1969 (to be published by
 Univ. Alabama press).
- c. Robert C. Dick
 Review: Informative Speaking, Thomas Olbricht, and
Creating a Speech, Fred Amram and Frank Benson, for Quarterly
Journal of Speech, Vol. LV, No. 2, April, 1969, p. 199.
- d. Wayne C. Eubank
 "The 1968 Republican Campaign" -- to be published.
- e. Samuel G. Fletcher
 Fletcher, S. G., Measurement of oral coordination by
 syllable rate, Threshold 3:12-17, 1968.
 Fletcher, S.G. and Meldrum, J.R., "Lingual function and
 relative length of the lingual frenulum." J. Speech Hrng. Res.
 11:382-390, 1968.
- f. Richard B. Hood
 Physical concomitants of speech rhythm of deaf and
 normal-hearing speakers. J. Communication Disorders, Vol. 2,
 1969 (in press).
- g. Lloyd E. Lamb
 Relative impedance measurements in young children.
Archives of Otolaryngology, 88, 1968, pp. 162-168.

4. Publications

h. Marilyn J. VanGraber

"I.A. Richards' Theory of Poetry. By Jerome P. Schiller,"
Educational Theatre Journal, Summer 1969 (a review).

5. Other research projects or creative work in progress or completed during period

a. E. Wayne Bundy

"Science Fare" (#'s 14, 15 & 16), 3 half-hr programs, Producer-Director. For national network distribution on WHAT'S NEW, National Educational Television Network (N.E.T., N.Y.) available to 159 affiliate stations, 479 half-hrs to be broadcast 1968-69.

Drafted Articles of Incorporation and Bylaws for the Rocky Mountain Corporation for Public Broadcasting, 1968.

"Report of the Public Broadcasting Committee," for the Board of Directors, the Federation of Rocky Mountain States, Great Falls, Mont., Sept. 1968.

b. Dolores S. Butt

Preparation of plates for Children's Speechreading Test, grant support from UNM fund \$1,200.

\$5,000 16 mm color film "Communication Problems of the Cerebral Palsied: Evaluation"

Experimental Language Disabilities of Pre-Academic Children - support from Title VI Elementary and Secondary Education Act, \$5,000, January 1, 1969 - August 31, 1969.

Program to improve services to speech-handicapped school children, Summer 1968, \$5,000.

c. Fred M. Chreist

Continued work on Foreign Accent: Spanish; "Speech Pathology, the Team Approach," a ten-year study of the New Mexico State Cleft Palate Team and its work as completed by the Rehabilitation Center, Inc.

d. Robert C. Dick

Negotiating to collaborate with Keith St. Onge, of Southern Illinois University, on a revised edition of Creative Speech, for Wadsworth Publishing Co.

Have submitted a prospectus to William C. Brown Publishers for an argumentation text entitled Rational Debating, and a prospectus to Rand McNally for a history anthology entitled Negro Controversy Over Ante-Bellum Protest Issues.

e. Samuel G. Fletcher

Instrumentation for nasality and oral coordination, Easter Seal Research Foundation Grant No. N-6638, \$16,000. Duration: January 1, 1967 to January 1, 1969.

Continuous Palatography Instrumentation, Los Alamos Scientific Laboratories, \$6,500.

5. f. J. Douglas Gibb
Article sent to Speech Monographs; co-author, David Jabusch.
 - g. Richard B. Hood
In progress: Middle-ear impedance of normal and pathological ears. Book of abstracts of studies in lipreading and auditory training.
 - h. Jim D. Hughey
"Correlates of Communicator Sensitivity" in progress.
 - i. Lloyd E. Lamb
Reliability of pressure-compliance measurements (tympanometry) on normal ears (with Richard Hood).
Clinical applications of tympanometry (with Richard Hood and Thomas Norris).
 - j. Cullen B. Owens
Continuing long-term research in British public address, focusing on the Elizabethan and Stuart periods.
 - k. Bruce E. Porch
VA Hospital grant - \$2,000 "The Differential Effects of Unilateral Versus Bilateral Cerebral Lesions on Test Performance" - 1 year.
VA Hospital grant - \$1,000 "Modification of Auditory Processing Through the Application of Operant Conditioning" - 1 year pilot study.
 - l. Marilyn J. VanGraber
"Functional Criticism: The Rhetoric of Black Power" chapter in criticism volume to appear next year.
6. Activities in learned and professional societies
 - a. Dean W. Betz
American Speech and Hearing Association national convention, November, 1968, read a paper titled "Recovery from Stuttering."
 - b. E. Wayne Bundy
National Association of Educational Broadcasters, Educational Television Stations Division - Member, Advisory Council of Regional Networks (one of 12 from regional groups), appointed Sept. 1968; Advisory Council of Regional Networks, Meeting, Washington, D.C., Nov. 1968, Meeting, Chicago, Jan. 1969; Member, ETS/PS Program Selection Committee--1967-1970 (one of eight) - Meeting, San Francisco, Calif., July 1968, Meeting, Bloomington, Indiana, Sept. 1968, Meeting, Bloomington, Indiana, Feb. 1969; Instructional and Professional Services Division - Member, National Membership Committee--appointed Dec. 1968; Attended NAEB Annual Convention, Washington, D.C., Nov. 1968.

6. b. E. Wayne Bundy (continued)
 Speech Association of America - Member, Radio-TV-Film Interest Group; Member, Freedom of Speech Interest Group, Member, Theatre Interest Group.
 Phi Kappa Phi - member.
- c. Dolores S. Butt
 Vice-President, United Cerebral Palsy Board of Directors.
- d. Judith W. Carey
 Attended the Western Speech Association meeting in Salt Lake City, Nov. 1968.
- e. Fred M. Chreist
 Member, ASHA Committee on History, national committee
 Member, NMSHA Committee on Professional Fees, state committee
 Member, ASHA Conference on Undergraduate Requirements for Speech Pathology and Audiology, New Orleans, La., Feb. 1969. (By invitation of the national committee)
- f. Robert C. Dick
 New Mexico Director of National University Extension Association, 1968-69.
 Directing a "Problems Paper" which is scheduled to be read at a Debut Program of the Western Forensics Association at the Western Speech Association, San Diego, in Nov. 1969.
- g. Wayne C. Eubank
 Member National Council, Delta Sigma Rho-Tau Kappa Alpha Financial Trustee, Delta Sigma Rho-Tau Kappa Alpha
 Member, Nominating Committee, Western Speech Association
 Attended Speech Association of America convention, Chicago, Dec. 1968.
 Attended Western Speech Association Convention, Salt Lake City, Nov. 1968, presented paper, "The Republican Campaign, 1968."
 Attended Delta Sigma Rho-Tau Kappa Alpha National Conference, University of Nebraska, April 1969.
- h. Samuel G. Fletcher
 "The oral-nasal acoustic ratio (TONAR)," paper presented at International Cleft Palate Congress, April 15, 1969.
 "Learning about communication from animals and infants," New Mexico Speech and Hearing Association, October 24, 1968.
 Missouri Speech and Hearing Association, June 1968,
 Invited Guest Speaker, "Biology of Speech."
- i. J. Douglas Gibb
 Attended Speech Association of America convention, Chicago, Dec. 1968, read paper on message variables.
 Attended Western Speech Association Convention, Salt Lake City, Nov. 1968.

6. j. Brenda J. Hancock
Attended Western Speech Association Convention, Salt Lake City, Nov. 1968.
- k. Richard B. Hood
Attended Institute on Aural Rehabilitation, Denver.
Paper read at ASHA Convention, 1968, "Air and bone conduction interaural attenuation." Co-author of another paper at same convention.
- l. Jim D. Hughey
Attended Western Speech Association Convention, Salt Lake City, Nov. 1968.
Attended Speech Association of America Convention, Chicago, Dec. 1968.
- m. Lloyd E. Lamb
President - New Mexico Speech & Hearing Association, 1968.
Member, ASHA Committee on Regional Coordination.
Member, ASHA Committee on Revision of By-laws.
Papers presented: "Present status of the impedance bridge in audiologic evaluation." ASHA Convention, Denver, 1968.
"Relative acoustic impedance measurements with the mentally retarded." ASHA Convention, Denver, 1968.
- n. Cullen B. Owens
Attended Western Speech Association Convention, Salt Lake City, Nov. 1968.
- o. Bruce E. Porch
Invited speaker at the Albuquerque Council for Learning Disabilities - April 1969.
Invited speaker at the Learning Disabilities Conference, Albuquerque, May 1969.
Developed automated equipment for the treatment of aphasic patients.
Application of video-tape and closed circuit television to weekly class lectures.
- p. Harold O. Ried
Secretary-Treasurer, North Central Conference of Summer Schools.
- q. Marilyn J. VanGraber
Western Speech Association -- officer, behavioral science interest group.

7. Other Professional Activities

- a. Dean W. Betz
Summer of 1968, provided daily group therapy for a group of fifth and sixth grade boys who stuttered under Title VI arrangement with Albuquerque Public Schools.

7. b. E. Wayne BundyFederation of Rocky Mountain States:

Chairman, Public Broadcasting Committee, re-elected July 1967.
 Acting Chairman, Telecommunications Council, 1968.
 Vice-Chairman, Telecommunications Council, 1969.
 "Report of the Public Broadcasting Committee," to the Board of Directors, Las Vegas, Nevada, February 1969.
 Telecommunications Council meeting, Denver, Jan. 1969.
 Rocky Mountain Public Broadcasting Network, Chairman of meetings--Washington, D.C., Nov. 1968; Tempe, Arizona, Dec. 1968.
 Corporation for Public Broadcasting, 545 Madison Avenue, New York, N.Y.: Member, Interim Interconnection Management Group (one of six from regions) - meeting, New York, Nov. 1968; Meeting, New York, Dec. 1968; Meeting, New York, Feb. 1969.
 Invited participant, informal meeting with regional leaders in field, New York, Sept. 1968.

Rocky Mountain Corporation for Public Broadcasting:

Member, Board of Directors and Initial Incorporator.
 Vice-President--elected May 1968.
 Meeting of Executive Committee, March 1969, Denver, Colorado.
 Meeting of Expanded Board, March 1969, Denver, Colorado.

National Educational Television (N.E.T.):

Affiliates Meeting, Washington, November 1968.

Western Educational Network (WEN)

Member, Board of Directors 1968-69; Meeting, Washington, Nov. 1968.

Albuquerque Public Schools: TV Program Director; Member, Elementary Music TV Advisory Committees.

Speaking Appearances:

"TV in the Public Schools," P. D. K., Moscow, Idaho, July 1968.
 "Education Via the Television Medium," San-Bern Republican Women's Club, Rio Rancho Estates, April 1969.
 "Report of the Public Broadcasting Committee," to the Board of Directors, Federation of Rocky Mountain States, Las Vegas, Nev., Feb. 1969.

c. Dolores S. Butt

In-service training workshops for Office of Economic Opportunity Child Development Centers.

Workshop for Albuquerque Public Schools Speech Pathology Department.

Talks to Albuquerque Association for Learning Disabilities; New Mexico Association for Retarded Children; Dulce School District faculty.

d. Judith W. Carey

Served as judge in University and High School Forensic competitions.

e. Fred M. Chreist

Member, New Mexico Cleft Palate Team, 1969.

Director, University of New Mexico Voice Clinic, 1969.

7. f. Robert C. Dick
Lecture on "Campus Unrest" at First Congregational Church, Albuquerque, April 27, 1969.
Lecture on "Early American Negro Protest" at Central Washington State College, April 30, 1969.
- g. Wayne C. Eubank
Addressed various off-campus clubs, e.g., Kiwanis Clubs, Lions Clubs, Optimists Clubs, Key Clubs, Circle K Club, church groups and professional groups.
- h. Samuel G. Fletcher
Program committee, International Cleft Palate Congress, Houston, April 1969.
Attended ASHA National Convention, November 1968.
Consultant in Speech, Primary Childrens Hospital, Salt Lake City, Utah, June through August, 1968.
- i. Brenda J. Hancock
Judged speech tournaments at Valley High School and Rio Grande High School.
Traveled with U.N.M. Forensics group to tournaments at Colorado College and the University of Arizona.
Served as Director of the U.N.M. High School Forensics Festival.
Assisted with tournament administration for the Duke City Debate Tournament, and the high school state tournament.
- j. Richard B. Hood
Consultant in Audiology at Veterans Administration Hospital, Albuquerque.
- k. Jim D. Hughey
Talks, National Secretaries Association; Bernalillo Medical Society, Parents Teachers Association.
Consultant for Westinghouse Learning Corporation.
Speech Communication Specialist for Southwest Management Development Conference.
Lecturer for National Association of Nursing Homes.
- l. Lloyd E. Lamb
Coordinator - New Mexico Speech & Hearing Association Communication Disorders Study Project.
Talks to various service organizations and parents groups.
- m. Bruce E. Porch
Invited speaker at the Albuquerque Council for Learning Disabilities - April 1969.
Invited speaker at the Learning Disabilities Conference, Albuquerque, May 1969.
Developed automated equipment for the treatment of aphasic patients.
Application of video-tape and closed circuit television to weekly class lectures.

8. a. Dean W. Betz
Acted as clinic coordinator for the Speech and Hearing Center from January 1, 1969 to present.
- b. E. Wayne Bundy
KNME-TV, Program Director
Chairman, Student Radio Board
Chairman of one Graduate Master's Committee; member of two Graduate Master's Committees.
- c. Dolores S. Butt
University College Advisor;
Manzanita Center Committee;
Vocational Rehabilitation Committee;
Linguistics and Language Pedagogy Committee;
Director, Elks Cerebral Palsy;
Coordinator, Speech Evaluation for retarded children in cooperation with Mental Retardation Center, UNM Medical School.
- d. Judith W. Carey
Member of Student Standards Committee
Chairman, Speech 101 course
Asked to serve as a member of the new Ad Hoc Committee on student and Faculty Rights and Responsibilities.
- e. Fred M. Chreist
Chairman, Library Committee 1968-69 (resigned May 1969)
Member University Committee on Linguistics and Language Pedagogy.
Member, Arts and Sciences Dean's Advisory Committee on Advancement.
Advisor, University College.
- f. Robert C. Dick
Hosted a high school forensic festival, the New Mexico State High School Championship Forensic Tournament, and an annual intercollegiate forensics tournament on the UNM campus this year.
Directed the UNM debate and forensics squad that participated in 20 intercollegiate forensic tournaments throughout the nation.
Member, Speech 255 curriculum committee.
Headed a committee for publication and distribution of an Annual Speech Department Alumni Newsletter.
- g. Wayne C. Eubank
Chairman, Department of Speech.
Faculty Advisor.
Member, Audio-Visual Aids Center Committee.

- h. Samuel G. Fletcher
Member, UNM Center for improvement of communication skills
Subcommittee on rehabilitation planning
Albuquerque childrens coordinating council
- i. Richard B. Hood
Advisor to several undergraduate and graduate students major-
ing in Speech Pathology and Audiology, Department of Speech.
- j. Jim D. Hughey
Graduate Committee work--on 15 masters or doctoral committees
Various departmental committees
- k. Lloyd E. Lamb
Project director - RSA training grant and N & SDCP training
grant.
Coordinator - clinical services in audiology.
- l. Cullen B. Owens
Graduate Committee, Department of Speech
Western Speech Association Committee
- m. Bruce E. Porch
Faculty advisor for students specializing in aphasiology
- n. Harold O. Ried
Harwood Foundation
- o. Marilyn J. VanGraber
Departmental committees (including development of the Core
program, 255 committee, etc.)
University College advisor.

9. Public Service

- a. Dean W. Betz
Little League baseball coach
Public relations for Cub Scouts
Teaching fifth grade Sunday school class, Harwood Methodist Church
- b. Dolores S. Butt
United Cerebral Palsy professional and lay boards
Albuquerque Association for Retarded Children
Day Training Center Committee
Consultant, Albuquerque Public Schools Special Education
Department
- c. E. Wayne Bundy
The Governor's Commission on the Humanities, Member, Commissioned
February, 1967.
The Governor's Commission on Statewide Television for Educational
Purposes, Member, Commissioned November, 1963.
Member and Director, Broadcast Activity, Albuquerque Great
Decisions Committee.

9. d. Fred M. Chreist

United Community Fund Group Chairman for Anthropology,
Chemistry, Geology, Biology, and Speech, UNM.

e. Robert C. Dick

As part of services of UNM Forensics Program, arranged
judging and supervisory help for numerous civic organiza-
tional speech contests, such as the Optimists and American
Legion, and for forensic tournaments at local high schools.
Provided personnel for two audience performances at the
New Mexico State Penitentiary.

f. Wayne C. Eubank

Member, Methodist Men

Aided with Kiwanis Big Brother Program

g. Samuel G. Fletcher

First Counselor - Bishopric, Albuquerque Sixth Ward,
Albuquerque East State, Church of Jesus Christ of the
Latter Day Saints.

h. Jim D. Hughey

National Secretaries Association

PTA

i. Bruce E. Porch

Member of the executive board of the Albuquerque Council
for Learning Disabilities.

10. Personal Informationa. Fred M. Chreist

Added one grandson, Scott Chreist

b. J. Douglas Gibb

Adopted a son, Steven.

UNIVERSITY OF NEW MEXICO
Department of Speech

May 7, 1969

TO: Dean Hoyt Trowbridge
Dean George Springer
Vice President Chester Travelstead
President Ferrel Heady

FROM: Wayne C. Eubank, Chairman
Department of Speech

SUBJECT: Request for a target date for the Ph.D. program in Speech

The request for an approved target date for the Ph.D. program in Speech is based on the following informal presentation of information:

1. Need

Doctoral programs in Speech do not exist in New Mexico or in several of our surrounding states--Wyoming, Nevada, Arizona. We are receiving mail constantly inquiring about a doctoral program in Speech. Furthermore, we estimate that about 20% of our graduate masters degree students would continue graduate work toward the doctorate if such a program were available at UNM.

The proposed doctoral program would offer specialization in two areas: Speech Pathology and Audiology and Public Address, Rhetoric and Communication Theory.

2. Faculty

The Department of Speech faculty at present is not only equivalent to but superior to the faculty of many institutions now granting the Ph.D. Our faculty is a relatively young staff representing many of the best institutions in the country:

E. Wayne Bundy, Ph.D., University of Michigan
 Dolores Butt, Ph.D., University of New Mexico
 Judith Carey, Ph.D.*, University of Illinois
 Fred M. Chreist, Ph.D., Northwestern University
 Robert C. Dick, Ph.D., Stanford University
 Wayne C. Eubank, Ph.D., Louisiana State University
 Samuel G. Fletcher, Ph.D., University of Utah
 J. Douglas Gibb, Ph.D., Wayne State University
 Richard B. Hood, Ph.D., Stanford University
 Jim D. Hughey, Ph.D., Purdue University
 Lloyd E. Lamb, Ph.D., Purdue University
 Cullen B. Owens, Ph.D., Cornell University
 Bruce Porch, Ph.D., Stanford University
 Harold O. Ried, Ph.D., University of Nebraska
 Marilyn J. VanGraber, Ph.D., University of Iowa.

*expected Summer, 1969.

At the date of inception of the doctoral program, probably no additional regular faculty will be needed. During the next two or three years the Department of Speech expects only the normal increase in staff warranted by increased enrollment.

3. Library Holdings

The Department of Speech presently rates its library holdings as "adequate to good." Fortunately, publications in two areas, speech pathology and audiology and television-radio, are confined primarily to the twentieth century. In the last two or three years, members of our faculty coming from Big Ten universities have expressed pleasant surprise at the breadth and depth of our holdings. Publications in related fields, for example, English, History, Anthropology, Psychology, Education, Philosophy and Medicine, supplement our library materials in various areas of Speech.

4. Curriculum

With the courses added to the Department of Speech curriculum this year, we believe that the current offerings could be defended as

adequate for a minimal doctoral program. Certainly modest additions over the next two years would give the Department of Speech a strong beginning doctoral curriculum.

5. Current M.A. Degree Program

The masters program in Speech is now in its eighteenth year. We have graduated some 80 M.A. students. In 1968 we graduated 12 M.A. students. This year, 1969, we expect to graduate 13.

In M.A. degree student enrollment, presently, the Department of Speech ranks well above many departments in the Arts and Sciences College that offer not only the masters but the Ph.D. degree.

M.A. Degree Student Enrollments in Certain A & S Departments

Sem. I	Chem.	Econ.	Geol.	Philos.	Physics	Pol.Sci.	Sociol.	Speech
1966-67	28	18	20	12	25	16	11	21
1967-68	26	21	22	10	26	13	14	26
1968-69	26	28	20	10	31	30	25	36

The quality of our masters degree program is attested to by our many students who have completed or are now continuing their Ph.D. programs in other institutions, e.g., Stanford, USC, University of Illinois, Purdue, Michigan State, Northwestern, University of Oklahoma, Southern Illinois University, University of Washington.

6. Program Costs

Higher faculty costs are normally expected with the inception of the doctoral program and for years immediately following the granting of a doctoral program. This will not be true of the doctoral program in Speech.

At present we teach some thirty sections of speech fundamentals and public speaking each semester. We expect the number of sections to gradually increase through the years. Presently, an instructor with any teaching experience costs about \$8,000. This base salary will probably increase year by year. Teaching assistants at UNM now are being paid \$2800 a year to teach two sections or at the rate of \$4600 for four sections. With a doctoral program, additional sections of speech fundamentals and public speaking could be taught by teaching assistants at a saving of more than \$2,000 per year per regular instructor.

At present, most of the faculty in general speech are teaching 12 hours. Usually six hours of the 12-hour load consist of two sections of 101, Speech Fundamentals, or two sections of 255, Public Speaking. With the inception of the Ph.D. program, the teaching load of key faculty members in the general speech area would be reduced to nine hours. This reduction in teaching load would be made at a very nominal cost since teaching assistants would pick up the extra sections. At the current teaching assistant salary of \$2800 per year for two sections, the cost of reducing teaching loads from 12 to nine hours would be only \$1400 per professor.

Speech Pathology and Audiology. To help people with speech, hearing and language disorders requires a great diversity of professional training and knowledge in order to understand and coalesce all of the information emerging from fragmented efforts of many disciplines. Recognition of this fact has led specialists in our region to explore ways to unite the various segments.

At the present, four agencies are exploring the possibility of joining together in one central facility designed to deal with and solve the problems of hearing, speech and language handicapped persons: the University of New Mexico program in Speech Pathology and Audiology, the New Mexico School for the Deaf preschool program, the Albuquerque Hearing and Speech Center, and the Institute for Biocommunication Studies, sponsored jointly by the University of New Mexico and the Neurological and Sensory Disease Program of the U.S. Public Health Service. This kind of facility would provide a fertile setting for an exemplary doctoral program in speech pathology and audiology.

One of the major areas of expense that will be encountered in developing a doctoral program in Speech Pathology and Audiology will be the acquisition of clinical and research equipment. Establishing laboratories suitable for doctoral training will require a fairly sizable initial investment with some guarantee of equipment expenditures on a year-to-year basis. The University, through capital outlay, should provide a portion of the initial investment and also assume some of the on-going equipment costs. As the program develops, instrumentation for specific research projects undoubtedly will be acquired through research grants. There are numerous sources of grant support, both federal and private, for clinical and for basic science oriented research in speech and hearing.

THE UNIVERSITY OF NEW MEXICO

DATE: May 13, 1969

TO: Professor Wayne C. Eubank

FROM: Chester C. Travelstead *CT*

SUBJECT: Request for a target date for the Ph.D. program in Speech

I appreciate the careful documentation which your memo of May 7 gives to the need, resources, curriculum, and costs of a proposed Ph.D. program in Speech. The BEF moratorium on new graduate programs, however, precludes the possibility of the program receiving final approval for at least a year and perhaps eighteen months.

Meanwhile, if you feel that you would like to have a fully developed proposal ready to submit at the end of the moratorium, you can plan toward that end; but you should be under no misapprehensions about when approval can be granted and implementation begun.

cc--President Ferrel Heady
VP/R and Dean George Springer
Dean Hoyt Trowbridge

SCHOOL OF BUSINESS AND ADMINISTRATIVE SCIENCES

ANNUAL REPORT FOR FISCAL YEAR ENDING JUNE 1969

William H. Huber, Acting Dean

INTRODUCTION

Subsequent to the resignation of Dean Howard V. Finston and his return to full-time teaching in the College, a search committee for a new permanent dean was appointed and the writer was asked to serve as acting dean until a new dean was selected. Thus the 1968-69 fiscal year was an interim period for the school. This period, however, was a most active one on the part of faculty, students and administration. The major activities and developments will be discussed below, though not necessarily in the order of importance. Prior to such a narration enrollment summaries will first be reported.

I. Enrollment Statistics

Table I.

Students Enrolled in the
School of Business and Graduate School

	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69*
Business School	186	208	268	313	314	370	382	402
Graduate School	74	79	81	110	122	137	122	114

*Fall Enrollments

Table II.

Student Enrollment and
Credit Hours in BA Courses

	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69*
Student Enrollment	1487	1740	2063	2238	2317	1958
Credit Hours	4434	5205	6183	7068	7247	6208

*Fall Enrollments

The undergraduate enrollment in the School of Business again increased. It is to be noted however that since 1966 the increases have been very small, i.e., 20 students over Fall 1967. (It should be remembered that freshmen intending to pursue the undergraduate degree in the Business School, as is the case with all freshmen, are enrolled in the University College and the above total does not include freshmen and some sophomores who have as yet not transferred to the college.) From data available through the University College 8.1 per cent of the beginning freshmen in 1968 designated B A as their objective and this would constitute approximately 197 students. Considering the attrition rate at the lower division level these figures are not particularly significant with regard to projections of future enrollment in the School of Business. Their only significance would be in enrollment in lower division courses required of all Business students.

Table II. reflects student enrollment in all of the courses offered by the School without regard to the college in which the student is enrolled. There was a significant drop in both student enrollment and credit hours produced this year. One explanation for this decrease is that Business Education courses are no longer counted in that this department of the University was transferred from the School of Business to the College of Education. The most likely additional explanation would be the general short fall in enrollment for the University as a whole.

A word on graduate enrollment is also indicated. In 1968, the graduate enrollment fell for the second consecutive year and it is now just above the enrollment for the fall of 1964. The most likely explanation here is the major modifications that were made in the graduate

program and the intentionally restrictive regulations adopted with regard to admitting part-time students. However, in view of the faculty's emphasis on graduate education and a decreasing emphasis on undergraduate programs, the trend should be carefully investigated prior to major changes in the structure of programs in the School.

The above statistical data does not include enrollments at either the Gallup Branch or the Holloman Center. There were 31 students enrolled for one course in Gallup with 93 credit hours produced, and there were 44 students enrolled in the Holloman Graduate Center with 170 credit hours produced.

The School awarded 140 BBA degrees and 11 MBA degrees during this fiscal year. For the first time Master of Business Administration degrees were awarded to students through the Holloman Graduate Center. Of the 11 MBA's 6 were Holloman students.

Academic suspensions from the School continued at a very low level (10) and there were 80 students on the Honor Roll and 6 students on the Roll of Distinction.

On balance it would appear that there was no significant change in undergraduate enrollment or performance when compared with the last several years but with regard to graduate enrollment there has been a measurable decrease in the past two years.

II. Notable Developments

The new building was occupied during the month of July. The new facilities proved most welcome to both faculty and students after the many years of inadequate housing for the college. The quarters resulted in greater interaction among faculty and students.

Early in the year the faculty recommended that the name of the College of Business Administration be changed to the School of Business and Administrative Sciences. After forwarding the recommendation to the administration and the general faculty this change in name was approved. It was felt by the faculty that this change in name would more appropriately describe the kinds of programs that had been offered in administration and would project the image of the thrust of these programs away from the more traditional undergraduate Business Administration curricula toward an integrated type educational experience in administrative sciences in general and also the growing emphasis that the faculty wished to place on graduate study.

During the first semester work was done toward getting the branch library into operation and with the full cooperation of the central administration and Dr. David Otis Kelley, head librarian, we were most fortunate in opening the William J. Parish Memorial Library in the new physical facilities of the School at the beginning of Semester II. It was most gratifying to see the large number of students who made use of this facility upon its becoming operational. Much needs still to be done to have an appropriate selection of books and materials in order that full benefits can be derived by both faculty and students. A committee of the faculty was created to pursue both policy matters as well as procedures for methodical acquisition of basic materials and much progress was made in the late spring and early summer.

No major changes were made in the curriculum at either the graduate or undergraduate levels. This was intentional pending the selection and

and arrival of a new permanent dean, though the thrust of the school was discussed formally and informally at various times during the year and with the same general division of opinion among the faculty as has been alluded to in previous annual reports by the previous dean.

The organizational structure of the college for this interim period was to have the faculty act as a Committee of the Whole rather than to departmentalize or divisionalize in that the faculty was relatively small and again because of the interim nature of the fiscal year 1968-69.

An effort was made to recruit much needed faculty with only minor success. This was probably the most disappointing of the activities of the faculty and the administration. However, groundwork was laid for an intensive recruitment program for the 1969-70 fiscal year and many valuable contacts were made which, it is hoped, will permit a successful recruitment program in the year to come. The school did recruit one new full-time assistant professor and one temporary assistant professor who are most valuable additions to the staff.

The faculty adopted rather comprehensive policies on promotion, tenure, faculty evaluation, etc., and created several committees to implement these types of policies. Operations should be much more consistent as a result of these actions and they should provide assurance to the individual faculty member as well as to the school of a more orderly approach to major decision making.

Students were added to the various committees of the faculty and an undergraduate student association was formed by the students with the support of the faculty. These efforts were attempts to involve students in some of the decision making processes of the School and hopefully to

stimulate greater interaction and understanding between faculty and students.

Various management development programs were continued such as the Southwest Management Development Program which has been sponsored jointly by the School and the Bureau of Business Research for the past 11 years. A major training program for field auditors of the State Bureau of Revenue was also instituted in the spring to run through the summer of 1969.

III. Observations and Recommendations

With regard to the future direction that the school's program will take, as briefly referred to above, the writer feels that the faculty should develop a well thought out and planned philosophy followed by a timetable for achieving the agreed upon goal. There are several major positions which have been taken by various groups of the faculty in the past several years. There appears to be a majority sentiment for instituting a Ph.D. program in the near future. In fact the faculty has approved such a program, as has the administration of the University and the general faculty. Concurrently with this desire there has been much discussion regarding the desirability of retaining or phasing out the undergraduate degree leaving the School of Business and Administrative Sciences as a professional graduate school with no undergraduate degree program. It is at this point that a divergence of opinion within the faculty has been most noticeable for the past five years or more. This divergence of opinion has continued through the 1968-69 fiscal year. The implications of an abolition of the undergraduate degree for the school, this university, the community and this population center are

considerable and complex. The writer has always favored a position of non-majors and non-departmentalization at the undergraduate level with the exception of a quality program in professional accountancy. To move to an exclusively graduate program would certainly require an expanded high caliber faculty capable of offering a quality program at the masters and doctoral levels. This in turn requires considerable in the way of financial resources. Recruiting this past year and for several years previous thereto has been in the direction of this kind of faculty, but due to financial constraints and the market, success in this effort has been modest. The same can be said with regard to library holdings which would permit quality masters work to say nothing of a doctoral program. At the earliest possible time an analysis of all of these considerations is required followed by a determination of the direction the faculty of the School and the University feels should and can be taken. Until this decision is made, it is difficult to write specifications for prospective faculty recruits as well as to allocate financial resources for various kinds of library materials, equipment of both the hardware and software variety, etc. If a consensus can be reached within the faculty after thorough consideration of the kinds of factors mentioned above, an appropriate plan can be evolved for moving toward the goal emerging from such consensus.

The writer's own commitment to emphasis of graduate education has never extended to the point of complete abolition in the foreseeable future of all undergraduate work and undergraduate degrees, which conviction is based upon peculiar problems faced by the University of New

Mexico in regard to the physical location of the University, population of the State, demands both by students and by prospective employers, the nature of the economy of the State, the tax base of the State and similar considerations. Regardless of these feelings however, this writer would echo the comments of the previous dean from the last annual report, ". . . it is apparent that this College is at the crossroads. A sharp and significant difference of opinion does exist among the faculty with respect to the normative characteristics of this College. Unless these differences of view are confronted honestly and quickly, it is highly unlikely that the program thrust of the last few years can be sustained." It is the personal opinion of the writer that a resolution of this problem in the School of Business and Administrative Sciences is also largely dependent on the thrust of the University of New Mexico as a totality with regard to emphases on undergraduate versus graduate education, and research and service functions.

IV. Appointments to and Separations from the Administration and Staff

Dr. Robert R. Rehder was appointed Dean of the School of Business and Administrative Sciences effective July 1, 1969 and Professor of Business and Administrative Sciences. Dr. Richard A. Reid was appointed Assistant Professor of Business and Administrative Sciences effective September 1, 1969 and Professor Eugene Welch was appointed temporary Assistant Professor of Business and Administrative Sciences effective September 1, 1969. Professor Ralph Edgel rejoined the School of Business and Administrative Sciences as a full-time faculty member effective July 1, 1969 relinquishing his formal staff relations with the Bureau of Business Research.

Professor James E. Brown resigned in order to accept an appointment at another institution and Professor John Yeakel was granted a leave of absence to complete his doctoral degree during the 1969-70 school year.

V. Promotions

Karl Christman was promoted from Assistant Professor to Associate Professor in the School of Business and Administrative Sciences effective with the 1969-70 fiscal year.

VI. Composite of Biographical Supplements

A. Advanced Study

Telly, Charles S.: Received retroactively Juris Doctor Degree (J.D.) from the University of Buffalo School of Law.

Yeakel, John: Continued research toward Ph.D. dissertation.

B. Sabbaticals, leaves of absence, etc.

Brown, James E.: Participant, Seminar on Public Utility Economics, University of Chicago Graduate School of Business, June 16-21, 1968.

Caplan, Edwin H.: Visiting professor of Accounting, University of California, Berkeley, Summer, 1968.

Telly, Charles S.: Summer teaching at the University of Washington School of Business Administration.

C. New Scholastic Honors, Fellowships, etc.

Lenberg, Robert A.: March 14, 1969 received an Award "Presented to Dr. Robert A. Lenberg in Recognition of Meritorious Service to GAMIS (Graphic Arts Marketing Information Service) of the Printing Industries of America 1966-69" and also a Letter of Resolution.

Slate, Daniel M.: Appointed to Management Division Sciences, Arthur D. Little, Inc., Cambridge, Mass., Summer 1969.

Telly, Charles S.: Awarded Outstanding Professor by Business Administration Students Association (BASA) May 1969.

Yeakel, John A.: Awarded doctoral dissertation grant from the American Institute of CPA's for 1969-70. Professor of the Month (of December-January), (Las Campanas at UNM). Outstanding Professor in Business School (Delta Sigma Pi, UNM Chapter).

D. Publications

Brown, James E.: Workbook and study guide to accompany text (Charles E. Merrill Publ. Co.). "The Great Failure of Secondary Education" New Mexico Journal for the Social Sciences. Spring, 1969.

Edgel, Ralph L.: Contributor to: Economy of New Mexico in 1968; Estimates of Population of New Mexico 1968; Projections of the Population of New Mexico to 2070 (for the State Planning Office).

Finston, Howard V.: "Sensitivity Training Within an R & D Environment" Personnel Journal, pp. 108-114, February, 1969.

Peters, William S.: Urban Maricopa County Land Use Data Files: A Pilot Study with Dale W. Merriam, Center for the Study of Urban Systems, Arizona State University, Tempe, Arizona (August 15, 1968), 60 pp. "Population Estimates and Projections for Maricopa County" with Robert L. Anderson. Arizona Business Bulletin; XV No. 9. (November, 1968), pp. 245-251. "A Bayesian Approach to the Construction of Marketing Control System" with Richard Kuhn, Marketing and the New Science of Planning, 1968 Fall Conference Proceedings, American Marketing Association, pp. 79-84.

Slate, Daniel M.: Systems: Research and Applications for Marketing with Robert Ferber. Urbana, Illinois: University of Illinois Press, Special Bulletin Vol. 65, No. 144, July 26, 1968. Future and Cross-Cultural Dimensions of Management, Albuquerque, The University of New Mexico, Bureau of Business Research, August 1968. "The Future of Education for Business Administration", Future and Cross-Cultural Dimensions of Management, The University of New Mexico, Bureau of Business Research (August 1968). "Brand Competition" (Ch. 5), Grocery Manufacturing in the United States (Praeger Special Studies in U.S. Economic and Social Development), Frederick A. Praeger, N.Y., Washington, London, 1968. Book Review--Brand Strategy in United States Food Marketing, William Applebaum and Ray A. Goldberg. Boston: Division of Research, Harvard University, 1967. 88 pp.

Telly, Charles S.: 1968 Chapter on Law in Business in Business: An Introductory Analysis, 2nd Edition by Bayard Wheeler. Harper and Row.

E. Other Research Projects or Creative Work

Brown, James E.: Price Theory. Book in progress, under contract with Charles E. Merrill Publishing Co.

Caplan, Edwin H.: Book in process, Management Accounting: A Behavioral View. Addison-Wesley (Scheduled for publication in 1970). Development

of professional education course in Management Accounting and Behavioral Science for National Association of Accountants (in process).

Christman, Karl: Taught 3 courses for Community College in the Management Career Series co-sponsored by the S.B.A. and did a follow-up study on the content. Reorganized content, prepared syllabus and texts for BA 106c (Accounting II) by correspondence and prepared tests. Organized, used, and investigated effectiveness of an accounting data simulation model for decision practice in B.A. 225. Continued research in Federal Income Tax and in use of computers in Auditing course.

Edgel, Ralph L.: Banking structure and competition in New Mexico.

Finston, Howard V.: "Career Frustration-American Style", an article on motivation, submitted for publication. Completed manuscript, "Whither Colleges of Business Administration", to be submitted for publication. Editorial consultant to Prentice-Hall, Inc.

Huber, William H.: "A Longitudinal Study of the Beginning Freshman Class of 1963" with Dr. E. Bruce Potter and Dr. Sven F. Winther.

Lenberg, Robert A.: Completing revision of manuscript for book to be entitled The Powered Pleasure Boat Industry 1947-1970. Chicago: Boating Industry Association. Ca. 400 pp. This will be the first book published about the business aspects of this industry. Have begun work on a book to be entitled either Brand Names & Trademarks: Theory and Practice or Branding Theory and Practices. I have initiated this project and several publishers are interested. Dr. Richard W. Hansen, Associate Professor of Marketing, University of Arizona, has agreed to collaborate.

Peters, William S.: "Bayesian Regression Methods", an invited Chapter in Handbook of Marketing Research, edited by Robert Ferber, to be published by McGraw-Hill. Planning and preliminary manuscript for text in Elementary Business Statistics with Professor George W. Summers of the University of Arizona. Readings in Applied Statistics. Scheduled for publication by Prentice-Hall, Inc. in August 1969.

Slate, Daniel M.: Completed book, Barriers to Entry and the Nature of Competition in the Ready-to-Eat Breakfast Cereal. Marcy 1969. (Not published as yet.)

Tally, Charles S.: Article for Administrative Science Quarterly-- "Inequity and Its Relationship to Turnover Among Hourly Workers in the Major Production Shops of a Large Aerospace Firm". (Hope will be published later 1968.) Book in process--Ethics and the Businessman in the Society. Hope will be published by Prentice-Hall, Inc., 1969-70. Summer 1969--Research study--Creativity of Scientist in Fed. Labs. U.S. C.S.C., pub. 1969-70. U.S. C.S.C. book in process, The Corporation in Modern Society. Hope will be published by West Publishing Co., 1969-70.

F. Activities in Learned and Professional Societies

Brown, James E.: Southern Economic Association annual meeting, Washington, D.C., November, 1968.

Caplan, Edwin H.: Review of: Proposed accounting text for Macmillan Co., August 1968; proposed accounting series for Scott, Foresman & Co., August 1968; Horngren's Accounting for Management Control: An Introduction, for author and Prentice Hall, August 1968; proposed accounting texts for Prentice-Hall, December 1968 and May 1969; proposed accounting texts for Wadsworth Publishing Co., April 1969; proposed accounting texts for McGraw-Hill, April 1969. Member of: Project Consulting Committee for American Accounting Association Research Project by A. L. Thomas, The Allocation Problem in Financial Accounting Theory, 1968; Project Consulting Committee for American Accounting Association Research Project by J. L. Livingstone, Toward a Theory of Management Information Systems, 1968; Screening Committee for Notable Contributions to Accounting Literature Award, American Accounting Association, 1968-69; "Toward a New Introduction to Accounting" Research Committee sponsored by Price Waterhouse Foundation, 1968; Education and Scholarships Committee, New Mexico Society of Certified Public Accountants, 1968; American Accounting Association Behavioral Science Advisory Committee to develop education program for accounting professors. Chairman, American Accounting Association Committee on the Behavioral Science Content of the Accounting Curriculum. Member: University of New Mexico Accounting Advisory Committee. Conferences attended: professional papers read at: Tulane University, November 1968; University of Minnesota, April 1969; Kent State University, April 1969. Attended: Annual meeting of American Accounting Association, San Diego, August 1968; Seminar in Accounting and Motivation, The Ohio State University, October 1968 (invited participant); Seminar on Controllorship, National Association of Accountants, Chicago, November 1968 (discussion Leader); Annual Meeting of American Economic Association, Chicago, December 1968; Seminar on Accounting Theory, University of Kansas, April 1969 (invited participant).

Christman, Karl: Active in: N.M. Society of CPA; UNM-School Annual Accounting Seminar planning committee; Faculty-Practitioners-Public Accounting Advisory Committee.

Finston, Howard V.: "Integration of Management Science and Business Administration", a keynote address before the Annual Meeting of the Mountain-Plains Management Association, Durango, October 1968. "Whither Colleges and Departments of Business Administration", keynote address before the Midwest Association of Colleges and departments of Business, Laramie, October 1968. Participant, Georgia-Reliance Symposium on Automation and Society, February 1969.

Mori, Perry T.: New Mexico State Society of CPA; American Institute of CPA; Accounting Association, UNM; American Bar Association; President Phi Kappa Phi; Seminar-Income Tax, Internal Revenue Service, Washington, D.C.

Lenberg, Robert A.: Attended March 27-29, 1969 meetings of Western Division of Academy of Management in Long Beach, California.

Peters, William S.: Annual meeting of the American Statistical Association, Pittsburgh, Pennsylvania (August); Session Chairman: Statistics Instruction and Standardized Testing. Annual Meeting of the American Marketing Association, Denver, Colorado (August); Delivered paper: A Bayesian Approach to the Construction of Marketing Control System. Mountain Plains Management Conference, Durango, Colorado (October). Western Regional Science Association, Annual Meeting, Newport Beach, California (February); Session Chairman: The Location of Health and Welfare Facilities. Elected a counselor of the Western Regional Science Association for the 1969-70 period.

Slate, Daniel M.: Southwest Management Development Program, Santa Fe, participant. Professional paper given at Southwest Social Sciences meeting at Houston, Texas, April 3-5, 1969. Case Study paper for Public Administration, "Efficiency Standards in Science Administration: Disposal of ACF." Attended 28th Academy of Management Meetings, Chicago, Illinois, December 26-30, 1968.

Telly, Charles S.: December 1969, National Meetings, Allied Social Sciences and National Academy of Management, Chicago, Illinois; March 1969, Western Academy of Management, Long Beach, California (paper given). August 1969, National Meeting, Academy of Management, Cincinnati, Ohio (paper given).

Yeakel, John A.: Attended American Accounting Association annual meetings at San Diego; active and regular attendance and participation in: New Mexico Accounting Careers Council, Annual New Mexico Accounting Seminar planning committee; Albuquerque Chapter of N.M. CPA Society; National Association of Accountants in Albuquerque; Advisory Committee to the UNM Accounting Faculty.

G. Other Professional Activities

Brown, James E.: Luncheon address, Albuquerque Lions Club; Guest Lecturer National Science Foundation Economic Workshop, El Paso, Texas; testimony before the New Mexico State Corporation Commission on the cost of capital, representing General Telephone Co. of the Southwest.

Caplan, Edwin H.: Educational consultant to New Mexico State Bureau of Revenue Systems; consultant to New Mexico State Department of Hospitals and Institutions; Instructor in Southwest Management Development Program, March, April, 1969.

Christman, Karl: Completed several consulting engagements in accounting systems; continued modest Income Tax practice. Speaker at College Awards Banquet. Speaker for seniors demit ceremony of Alpha Kappa Psi, professional fraternity. Served as faculty chapter adviser for Alpha Kappa Psi. Continued teaching 105c and 106c (Accounting I & II by correspondence). Participated in School student accounting association and Teaching Evaluation Day activities.

Edgel, Ralph: Consultancies with Kirschner Associates and a group proposing to organize a bank.

Finston, Howard V.: Prepared proposals to establish executive development programs for (1) officials of the State of New Mexico, (2) Managers of the City of Albuquerque, and (3) Managers of Los Alamos Scientific Laboratory, all under ISRAD sponsorship. Conference program coordinator, Regional Conference for Nursing Home Administrators. Conference leader and consultant, UNM development program for supervisors in Physical Plant Department. Assisted in planning Southwest Management Development Program; also conference leader. Planned and conducted Sensitivity Training program for church and educational leaders.

Mori, Perry T.: Consulting: Accounting, Income Taxes, Estate Taxes, Trust and Law.

Lenberg, Robert A.: Affiliated as Management Consultant with Fry Consultants, Inc., Los Angeles office. (Fry is a management consulting firm with nationwide and international offices and operations.)

Telly, Charles S.: Speech for Lions Club of Albuquerque, November 1968; speech for Optimists Club, Albuquerque, April 1968; speech for Optimists Club, Albuquerque, November 1968; Southwest Executive Development Program, Santa Fe, February 1969 and May 1969.

Yeakel, John A.: Talks before various high school classes in Albuquerque.

H. Non-teaching University Service.

Brown, James E.: Coordinator of Graduate Studies, School of Business and Administrative Sciences.

Caplan, Edwin H.: University Curricula Committee; ISRAD Advisory Committee; Committee on Procurement of Public Administration Program; School Policy Committee; Coordinator of recruiting in areas of Finance, Accounting, and Quantitative Methods.

Christman, Karl: Served on University Policy Committee (in place of Brown both semesters); University Continuing Education Committee. Served on College Library Committee for organization of Parish Library and Scholastic Achievement Committee. Chaired budget review sub-committee of Policy Committee. Served as University College adviser.

Edgel, Ralph L.: Academic Freedom and Tenure Committee; Search Committee for Dean of School of Business and Administrative Sciences; SBAS policy Committee; SBAS Promotion and Tenure Committee; Faculty Adviser for University College students; Theses: Inman (chairman), Lin, Storrs and Butler.

Finston, Howard V.: University Committees: Public Administration; Selection Committee for Director of ISRAD; International Affairs;

Minorities. School of Business and Administrative Sciences: Chairman, Library Committee.

Huber, William H.: Acting Dean, School of Business and Administrative Sciences, 1968-69; Branch College Committee; Computing Science Committee; Deans Committee; Management Committee; Committee on Scholarships, Prizes, etc.; N.C.A. Committee Steering Committee; New Careers; Program for Advanced Study in Public Science Policy and Administration.

Mori, Perry T.: Adviser, School of Business and University College, and Accounting Association. University Committee; Administrative Committee and Insurance and Retirement Committee; School Committee-Graduate Committee, Promotion and Tenure and Scholastic Committees. Board of Directors, Coronado Credit Union.

Lenberg, Robert A.: Member of School's Parish Library Committee; served in ad hoc advisory capacity to School's Policy Committee in developing the Merit Evaluation Policy. Master's Theses Committees: Charles D. Storrs (chairman); Andres J. Phillips (member); James Huang (member).

Peters, William S.: Policy Committee of the School; Scholarship Committee; Library Committee; University Science Curriculum Committee; Adviser to ISRAD on Model Cities Sample Surveys; Faculty, Southwest Management Development Program, Santa Fe.

Slate, Daniel M.: Chairman, Dean's Selection Committee; Promotion and Tenure Committee; Representative from University for Policy Board for Division of Public Administration; Chairman, Committee to Study Implications of New Mexico-New Mexico State University Joint Education Study; Graduate School Committee; Recruiting for School of Business and Administrative Sciences; Adviser to undergraduate and M.B.A. students; chairman of several M.B.A. committees.

Telly, Charles S.: Faculty Adviser, Delta Sigma Pi (Professional Business Fraternity).

Yeskel, John A.: Faculty Adviser to the UNM Accounting Association; Chairman of Coronado Credit Union's Supervisory Committee; Chairman of Business School's Scholarship Committee; Active adviser to students in University College and Business School; Member, Business School Dean's Selection Committee.

I. Public Service

Brown, James E.: Member of the Board of Directors, New Mexico Rehabilitation Center.

Caplan, Edwin H.: Board member, Temple Albert Men's Club.

Christman, Karl: Church membership.

Finston, Howard V.: Vice-chairman, City Personnel Board; member, Board of Directors, Blue Cross-Blue Shield; member Board of Trustees, Manzano Day School; President, Board of Directors, First Unitarian Church of Albuquerque.

Mori, Perry T.: Board of Directors, The Rehabilitation Center, Inc.

Lenberg, Robert A.: February 1969 appointed Executive Secretary to Stake President who presides over Albuquerque E. Stake (3000 members) of Church of Jesus Christ of LDS. Function as Adviser to Stake President and liaison between him and 16 men who preside over the heads of 8 Church units (Wards and Branches) and related Cub Scout, Boy Scout and Explorer Scout groups and Church (High School) Seminaries in Albuquerque, Los Alamos, Santa Fe, Espanola, Las Vegas, and Regina. Spend each Thursday evening in consultation and parts of some Sundays and occasional Tuesday evenings.

The Report of the College of Education

July 1, 1968 - June 30, 1969

Richard E. Lawrence, Dean

I. Summary

The year 1968-69 was a period of transition for the College of Education. Former Dean Travelstead became Academic Vice-President of the University on July 1, 1968. He was succeeded temporarily by Acting Dean Armond Seidler, who also continued to serve as Chairman of the Department of Health, Physical Education and Recreation. Dr. Alvin Howard, Assistant Professor of Secondary Education, was appointed Assistant to the Dean on a part-time basis, effective September 1, 1968. Dr. Richard Lawrence became Dean of the College on January 1, 1969. These changes in the administration of the College, together with the continuing efforts of the faculty of the College to define long-range goals and priorities for action, contributed to a situation of flux in the College. It is anticipated that the attention which has been given to redefining the purposes and functions of the

College and to reorganizing the College so that it can better achieve its goals will have positive results during the coming year.

At the same time, the year 1968-69 was a period of substantial productivity and development, and of wide-ranging activity for the College. Some of the highlights of these achievements are presented in the following pages. Additional information is detailed in the departmental reports which are appended.

A great deal of faculty time and effort was expended during the year in preparation for the visit in February of the evaluation team representing the National Council for Accreditation of Teacher Education. Dr. Wilson Ivins served as Chairman of the Faculty Committee responsible for carrying out the preliminary self-study required by NCATE and for making arrangements for the visiting team's activities. Dr. Alvin Howard served as major compiler and editor of the Self-Study Report. A series of recommendations were presented to the faculty by the team following its three-day visit. Following the review of the team's report by the NCATE, the College of Education was

fully reaccredited for an additional ten year period. The College was one of eight institutions which were selected for experimental application of the new set of standards which was developed for the NCATE by the American Association of Colleges for Teacher Education.

Additional recommendations for change in the College of Education's programs and procedures were received from students and alumni as a result of the faculty's participation in the All-University Dialogue on Teaching and Learning held in April.

Enrollments in the College continued to grow during 1968-69. Details regarding this growth are presented in the following section of this report. Unfortunately, financial and faculty resources did not increase commensurately with enrollment growth. The College is thus faced with serious questions regarding the allocation of its limited resources. It is likely that consideration will need to be given to the possibility of limiting enrollments and restricting program development. This and other

matters related to the future of the College will be discussed at an All-College Conference scheduled for early September, 1969, at the D. H. Lawrence Ranch. Recommendations from this conference will be acted on officially by the College of Education faculty during the coming year.

II. Enrollments, Teaching Loads and Degrees Awarded

1. Undergraduate and graduate enrollments continued to grow slowly during the period of this report. The details of this growth are presented in Table 1. (See page 4a)

2. Further evidence of growth in the College is found in the increased number of student credit hours taught in the College. Table 2 presents data on this aspect of growth. (See page 4b)

3. Table 3 shows the number of degrees awarded through the College of Education during the last five years. The implications of the rapid growth of graduate programs for the allocation of resources within the College are clearly evident. How these implications are to be met within the stringent budget limitations imposed on the College is a question which will receive careful consideration by the College faculty during the next year. (Table 3 on page 4c)

Table 1

College Student Enrollment
Graduate, Undergraduate, and Totals

	<u>Summer Session</u>			<u>Semester I</u>			<u>Semester II</u>		
	<u>Grad</u>	<u>Undergrad</u>	<u>Total</u>	<u>Grad</u>	<u>Undergrad</u>	<u>Total</u>	<u>Grad</u>	<u>Undergrad</u>	<u>Total</u>
1964-65	312	551	863	414	674	1088	417	748	1165
1965-66	596	403	999	436	740	1176	433	889	1322
1966-67	644	442	1086	617	945	1562	543	1060	1603
1967-68	668	540	1208	603	1152	1755	634	1247	1881
1968-69	638	(515)*	(1140)*	644	1175	1819	638	1241	1879

* Tentative

Table 2

College Course Enrollments
Graduate & Undergraduate

	<u>Summer</u>	<u>Semester I</u>	<u>Semester II</u>
1964-65	2834	6,755	6,855
1965-66	3107	8,418	8,354
1966-67	2776	9,614	9,582
1967-68	3367	10,581	10,499
1968-69	3172	10,816	11,155

College Student Credit Hours
Graduate & Undergraduate

1964-65	7,099	13,846	14,663
1965-66	7,727	16,932	17,757
1966-67	7,220	19,833	20,958
1967-68	8,589	22,524	23,339
1968-69	8,332	23,739	25,793

Table 3

DEGREES CONFERRED

	<u>Bachelor's Degrees</u>			<u>Master's Degrees</u>			<u>Doctor's Degrees</u>		
	<u>Univ.</u>	<u>COE</u>	<u>%</u>	<u>Univ.</u>	<u>COE</u>	<u>%</u>	<u>Univ.</u>	<u>COE</u>	<u>%</u>
1965	955	252	26	347	134	38.6	48	12	25
1966	976	252	25.7	375	145	36	48	12	25
1967	1055	286	27.1	436	168	38.5	65	14	21.5
1968	1285	397	30.9	485	200	41.2	84	19	22.6
1969	1422	421	29.2	529	209	39.5	108	35	32.4

4. Based on degrees awarded by the University of New Mexico in June, 1969, it can be noted that approximately one-third of the 2200 degrees awarded were earned in College of Education programs. More specifically, approximately 30% of Bachelor's degrees, 45% of Master's degrees, and 32% of Doctor's degrees were awarded through the College of Education.

III. Instructional Programs

1. During the year the following new undergraduate courses were approved by the College faculty:

Bus. Ed. 201, Introduction to Data Processing
for Business Education
C & I 480, Second Language Pedagogy
El. Ed. 341, Techniques of Literary Presentations
Home Ec. 444, Family Finance
P.E. 488, Motor Learning and Performance
Rec. 321, Recreation Leadership
Rec. 454, Development of Recreation Programs
Rec. 485, Outdoor Recreation
Sp.Ed. 479, Methods and Materials in Special Education
Sp. Ed. 381, Nature and Needs of Mentally Retarded

2. During the year the following new graduate courses were approved by the College faculty:

C & I 561, Practicum-Supervision of Instruction
Ed.Fnds. 504, Computer Applications in Education
Ed. Fnds. 510, Seminar in Classroom Learning
Ed. Fnds. 574, Theory and Construction of Educational Measures
Ed. Fnds. 610, Internship I
Ed. Fnds. 611, Internship II

Guid. 515, Differential Diagnosis II
 P.E. 527, Physiological Aspects of Exercise
 & Sport
 P.E. 540, Sport in American Culture
 P.E. 560, Analysis of Teaching Physical Education
 Sec. Ed. 546, Economic Education
 Sec. Ed. 601, Curriculum Appraisal and Improvement
 of School Programs

3. A Bachelor of Science degree program in Health Education was approved and initiated.
4. A joint Master's degree program for educational administrators was developed by the Department of Educational Administration and the Departments of Elementary Education and Secondary Education.
5. Efforts to integrate undergraduate requirements in Educational Foundations with "block programming" developments in Elementary Education and Secondary Education were continued.
6. Additional steps were taken toward the development of an area of concentration in Teacher Education at the doctoral level.
7. An inter-college program in linguistics and language pedagogy was established under the leadership of Dr. Bernard Spolsky.
8. A Materials Center for Special Education was developed in cooperation with the State Department of

Education and the public schools.

9. The Home Economics Department continued its work on the development of a new core curriculum for majors in the field.

10. The Secondary Education Department successfully continued its Job Corps Student Teaching Project, the APSCOE English Project, and several in-service projects in cooperation with the Albuquerque Public Schools.

11. Plans for "blocking" undergraduate requirements in Secondary Education were developed and subsequently approved by the College faculty.

12. Efforts to coordinate College plans in the vocational education fields with those of the State Department of Education were undertaken under the leadership of Dr. William Runge.

13. Federal support for a graduate program in vocational rehabilitation is anticipated if Federal appropriations permit. Dr. Bernardoni serves as the College's representative to a committee which is seeking to coordinate vocational rehabilitation programs in the University.

14. An Institute for the preparation of specialists in bilingual education was planned and initiated by Dr. Miles Zintz. Federal support for the program is being provided under the Education Professions Development Act.

15. A number of special in-service programs for teachers of bilingual and Indian children were carried out by the Elementary Education Department in cooperation with the public schools.

16. The College cooperated in the establishment of an experimental summer session program at the College of Santa Fe.

17. As a first step toward an overall review of course offerings in the College, a three-year analysis of the number of times each course in the present catalog was offered and of the enrollment for each offering was made by Dr. Alvin Howard. Further study of the College curricula will be undertaken by the College curriculum committees during the coming year

18. In response to the NCATE's expressed concern regarding the lack of coordinated information on graduate students and graduate programs, Curriculum Committee B (Graduate) recommended the appointment of a Coordinator of Graduate Programs in the College. Pending final action on this matter, Dr. Alvin Howard was

tentatively named by the Dean to serve in this capacity.

19. For additional details on changes and developments in instructional programs, see the Departmental Reports which are appended.

IV. Research and Development Activities

1. The College Research Center, a part-time, one-man without budget operation designed to provide research assistance and advice to graduate students and faculty members, continued to operate through the services of Dr. James Cooper. Special attention was given to helping graduate students acquire research support through the USOE's small-grant program.

2. Dr. Cooper and Dr. Horacio Ulibarri planned and carried out a research dissemination project in bilingual education with USOE Bureau of Research support. A dissemination conference was sponsored by the project during the spring of 1969. A follow-up conference will be held this fall.

3. Professors Loughlin and Chisholm secured USOE support for research on the use of TV tapes in modifying the affective behavior of young children.

4. Professor Spolsky received support from the Bureau of Indian Affairs for a pilot research study of the potential and effect of teaching Navajo children to read in their own language first.

5. Professor Condie continued to work on the Navajo culture-based social studies curriculum project which is funded by the Bureau of Indian Affairs.

6. The Bureau of Educational Planning and Development completed a number of field studies around the state. (See Appendix I for details.) The Bureau continued to be hampered in its operations by the lack of budgeted support from the University.

7. The Human Performance Laboratory of the Department of Health, Physical Education and Recreation continued to function successfully in spite of the lack of budgetary support from the University. Professors Bynum and McGill devote a substantial amount of their time to the work of the Laboratory. Professor Bynum, who resigned effective August 8, 1969, will be replaced by Dr. Hemming Atterbom who comes to the faculty from the Lovelace Clinic.

8. A study of the use and effectiveness of playground equipment for children with special learning

disabilities was initiated under the direction of Dr. Elmer Scholer.

V. Service Activities

Educational service to the state and region continued to place heavy demands on the resources of the College. Because of the heavy assigned loads which are carried by the members of the faculty, much of this service work was done on an overload or individual consultative basis. (See biographical reports for individual involvements.)

1. On February 1, 1969, the Minority Group Cultural Awareness Center was initiated with Dr. John Aragon as Director. The Center is the first "desegregation center" funded under the Civil Rights Act which is designed to give special attention to the educational problems of Spanish-Americans and Indians. (For details see Appendix J)

2. The Bureau of Educational Planning and Development under the leadership of Dr. Richard Tonigan initiated, planned and supervised a number of service projects. The Office of School Plant Planning which operates under the Bureau also carried out a number

of service-type projects. (See Appendix I for details.)

3. The College continued its involvement with the New Mexico Council on Research and Development by providing a quarter of Dr. Herbert Hughes' assigned load for work as Executive Director of the Council. Plans for a revitalization of the Council's program were developed during the year.

4. A variety of special in-service programs for local school systems were carried out during the year. Included were programs at Los Lunas, Albuquerque, Grants and Gallup. (Details are available in Departmental Reports.) In addition, the Department of Elementary Education provided credit courses at the Zuni and Laguna Pueblos.

5. The following special in-service programs were offered on campus by the departments indicated:

- a. Workshop on Early Education of the Indian Child (Elem. Ed.)
- b. Workshop for Supervisors of Student Teachers in Special Education (G. & Sp. Ed.)
- c. Workshop on Vocational Rehabilitation of the Mentally Retarded (G. & Sp. Ed.)

- d. Vocational Guidance Institute (G. & Sp. Ed.)
- e. Workshop on the Visually Handicapped Child in the Regular Classroom (G. & Sp. Ed.)
- f. Petroleum Workshop for Teachers (Sec.Ed.)

6. The Department of Health, Physical Education and Recreation continued to provide a wide variety of services to the University and the community through such programs as the following:

- Therapeutic P.E. Program for University students
- Regular P.E. activity courses for University students
- Intra-mural programs
- Exercise Therapy Clinic
- Summer Sports Fitness School

7. The recreation and park field service of the Department of Health, Physical Education & Recreation under the direction of Dr. Elmer Scholer provided many significant services to Indian groups through the cooperation of ISRAD. The Center for Leisure and Recreation sponsored by the Department will become a regular part of the ISRAD program during 1969-70.

8. Manzanita Center, under the direction of Dr. George Keppers, provided a variety of clinical and counseling services to children with special learning disabilities and to their parents from the Albuquerque area and from other parts of the state. The Departments of Elementary Education and Home Economics

cooperated in conducting at the Center a nursery school and kindergarten for children of Albuquerque families, including children from a Head Start program. A remedial reading clinic for local children is operated in cooperation with the Department of Elementary Education.

9. The College's Learning Materials Center continued to serve as a source of assistance to the Albuquerque Public School teachers as well as to students in the College.

10. A Special Education Instructional Materials Center was established in cooperation with the Albuquerque Public Schools and the State Department of Education.

11. The Department of Educational Foundations assumed responsibility for administering the educational functions of the Maxwell Museum of Anthropology.

VI. International Activities

During the 1968-69 year the College continued its substantial involvement in international education activities. (See Appendix L for details.) Under the leadership of Dr. Frank Angel the College provided personnel and back-up support for field teams working

in Colombia and Ecuador under AID supported projects. In addition, the University, through the College, again served as a sponsor and host to the International Seminar on Higher Education in the Americas.

Special programs for groups of school administrators, counselors, and extension education personnel from Zambia and Colombia were planned and carried out by COE personnel.

VII. Faculty

1. The College of Education was allocated $4\frac{1}{2}$ additional faculty personnel for 1968-69. These new positions were allotted within the College as follows:

Dept. of Art Education	$\frac{1}{2}$
Dept. of H., P.E. & R.	1
Dept. of Educ. Admin.	1
Dept. of Educ. Foundations	1
Dept. of Sec. Ed.	1
(Indus. Ed.	$\frac{1}{2}$
(Pt/time Instr.	$\frac{1}{2}$

2. During the period of this report the following regular faculty members were separated from the College staff:

Ronald Piotrowski - Instructor, Art Education
 James Srubek - Instructor, Art Education
 Harry Carlson, Assoc. Prof., Elementary Education

Vivienne Brady - Instructor, Elementary Education
 Mary K. Huff, Instructor, Home Economics
 Mary S. Lehmer, Instructor, Home Economics
 John Montgomery - Asst. Prof., Health, P.E.
 & Recreation
 June Young - Instructor, Health, P.E. & Recreation
 Patrick Lynch - Assoc. Prof., Educ. Admin.
 Elinor McCloskey - Asst. Prof., Secondary
 Education (Library Science)
 Carl Zweig - Asst. Prof., Secondary Education
 James Park - Asst. Prof., Secondary Education
 (Business Ed.)

3. The following faculty members were appointed:

Richard Hough - Instructor, Art Education
 Frank Steiner - Instructor, Art Education
 (½ new position)
 Bernard Spolsky - Assoc. Prof., Elementary
 Education/Linguistics
 Hazel Craker - Instructor, Elementary Education
 Louella Williams, Assoc. Prof., Home Economics
 Carolyn Hill - Instructor, Home Economics
 Lawrence Locke - Assoc. Prof., Health, P.E.
 and Recreation
 Elmer Scholer - Prof., Health, P.E. & Recrea-
 tion (new position)
 Donald Warder - Asst. Prof., Health, P.E. and
 Recreation
 Marvin Heffington, Asst. Prof., Health, P.E.
 and Recreation
 Helen L. Shearer, Asst. Prof., Health, P.E.
 and Recreation
 Sandra Suttie - Asst. Prof., Health, P.E. and
 Recreation
 Paul Petty - Professor, Educational Admin.
 Herbert Hughes, Assoc. Prof., Educ. Admin.
 Martin Burlingame - Asst. Prof., Educational
 Administration (new position)
 Joyce Heemstra - Asst. Prof., Sec. Ed. (Bus. Ed.)
 Thomas Baldwin - Instr. Sec. Ed. (I.A.) (½ new position)
 David Bachelor - Asst. Prof., Ed. Fnds.
 Mary Harris - Asst. Prof., Ed. Fnds (new position)

4. The following faculty members were awarded promotions:

Promoted to Professor:

Woodrow Clements	Health, PE & Rec.
Robert Doxtator	Secondary
Peter Prouse	Secondary
Tom Wiley	Educ. Admin.

Promoted to Associate Professor:

Keith Auger	Elementary
Edwin Belzer	Health, PE & Rec.
Louis Bransford	Guidance & Spec. Ed.
John Dettre	Secondary
Ruth Harris	Home Economics
Fred Hinger	Health, PE & Rec.
Richard Holemon	Educ. Admin.
Alvin Howard	Secondary
Catherine Loughlin	Elementary
Wayne Moellenberg	Educ. Foundations
James Moore	Educ. Foundations
Frank Papcsy	Health, PE & Rec.
Richard Warner	Secondary
Helen Whiteside	Guidance & Spec. Ed.

Promoted to Assistant Professor:

Betty Benison	Health, P.E. & Rec.
Walter Rutkowski	Art Education

5. The impact of restrictive budgets on faculty retention and recruitment within the College appears to be growing. Faculty turnover between the 1968-69 and 1969-70 years will be considerably greater than has been true during the past several years. Special attention will be given to the analysis of this and related problems during the coming year.

VIII College Organization and Operation

1. The faculty of the College took official action during the year to provide for the involvement of undergraduate and graduate students as voting members of major College committees.

2. A revised set of policies and procedures for making recommendations to the University administration regarding faculty promotions and salary increases was developed and approved by the College faculty during the year. The new policies and procedures will be implemented on an experimental basis during the coming year.

3. During the year the Administrative and Policy Committee of the College spent a considerable amount of time considering plans and proposals for reorganizing the College. Current operations and activities were reviewed and unmet needs were identified as the basis for considering structural changes in the College. It is anticipated that a new or modified organizational plan will be presented to the University administration for its approval following formal action by the College of Education faculty during the coming year.

4. New Department Chairmen

a. Donald McIntosh was hired effective Sept. 1, 1969, to replace Dr. Alex Masley, who retired, as Chairman of the Department of Art Education.

b. Dr. L. C. Bernardoni was appointed to succeed Dr. George Keppers as Chairman of the Department of Guidance and Special Education effective Sept. 1, 1969. On that date Dr. Keppers will assume full-time responsibility as Assistant Dean for Student Affairs in the College.

5. Dr. Alvin Howard, Associate Professor of Secondary Education, was named Assistant to the Dean on a part-time basis starting September 1, 1968.

6. In order to facilitate the development of an All-University Instructional Technology and Improvement Center, the College of Education agreed to share the services and cost of a person who is experienced and well-qualified in the field of educational technology with the Academic Vice President's Office. Dr. Robert Kline was appointed to this position effective August 1, 1969. Dr. Kline will serve half-time in the College of Education where he will be

responsible for the Audio-Visual Program in the Department of Secondary Education. In addition, he will serve as Director of the Learning Materials Center.

IX. Physical Facilities

1. Ceremonies were held on March 16, 1969, to mark the dedication of the College conference room to the late Dean Simon P. Nanninga and of the Learning Materials Center to the late Professor of Elementary Education, Loyd S. Tireman.

2. On May 18, 1969 the lounge in the Home Economics Building was dedicated to Elizabeth P. Simpson, Professor Emeritus of Home Economics and former chairman of the Department of Home Economics.

3. A shortage of office space for faculty and staff continued to plague the College during the past year. A total of eighteen (18) faculty members had to be housed in offices outside the College Complex or the Physical Education buildings. Some reduction in this problem is anticipated when the Data Processing Office moves out of the Faculty Office Wing of the College in the fall of 1970. At the same time, however,

staff additions and new projects and activities are expected to continue to put space at a premium.

Plans are being developed to add a number of offices in the basement of the College Administration Building and in the east corridor of the second floor of the Faculty Office Building.

4. Modifications in Johnson Gymnasium which provided the Department of Health, Physical Education and Recreation with some additional office and specialized activity space were completed during the year.

5. The demand for additional space in the College of Education Complex resulted in the displacement of the offices of two statewide educational groups which had been housed in the Administration Building. The New Mexico Parent Teachers Association moved to rented quarters in an office building in the city. The New Mexico School Boards Association moved to an office at 1805 Roma.

6. The New Mexico High School Activities Association continues to be housed in office space in Johnson Gym. It is hopefully anticipated that this space will

become available to the Department of Health, Physical Education and Recreation in the near future.

X. Special Activities

1. During the year the College served as host and sponsor for a variety of professional conferences and meetings. Among these were the following:

- a. Conference on Teaching the Bilingual Child (Elem. Ed.) November, 1968.
- b. Conference for Legislators on Special Education (Guidance & Sp. Ed.) December, 1968
- c. Annual Meeting - New Mexico Council for the Social Studies (Sec. Ed.) April, 1969

2. A good deal of faculty time was invested during the year in building stronger relationships with a variety of agencies and institutions in Albuquerque and the state. Included in this group were the Albuquerque Public Schools, the Model Cities program, the Southwest Cooperative Educational Laboratory, and the State Department of Education. Plans to extend and coordinate these efforts are being made for the coming year.

3. Arrangements were completed for a representative

of the College of Education, Dr. Kenneth Sutton, and six teachers from the Albuquerque Public Schools to spend the 1969-70 academic year in residence at the University of Pittsburgh and Carnegie Mellon University as participants in the Pittsburgh TTT (Teachers of Trainers of Teachers) Program. The team will return in June 1969, as well as several times during the academic year, to direct in-service programs for Albuquerque Public School teachers and College of Education faculty members. Dr. George Hirshfield serves as local coordinator of the Albuquerque component of the program. The program is supported under an EPDA, USOE grant.

4. Members of the College of Education faculty worked with students from ethnic minority groups on campus to develop and initiate projects designed to meet the special educational problems and interests of these groups.

XI. Plans and Recommendations

During the coming year the faculty of the College of Education will seek to arrive at decisions with respect to its priorities for program and faculty development. Every effort will be made to define the College's long-range goals in terms which are consonant with the goals and directions of the University as a

whole. In considering the future allocation of its limited resources, the College faculty will undoubtedly give attention to the possibility of limiting enrollments and to the probable necessity of restricting, or even cutting back on, program development. It is recognized that this will be a difficult task in light of the increasing social demands to which the College feels a responsibility to respond. Such demands include the desire of an increasing number of students, as well as persons who normally have not been considered students, to prepare for socially significant work, the requirement of schools for more and better-qualified teachers, and the desperate need of society for the full and constructive involvement of its educated citizenry (which includes college faculty members) in efforts to resolve its fundamental problems.

At the very least, it seems likely that the College as an institution and its faculty members as individuals will be drawn, even more than has been true in the past, into community, state and regional efforts to deal with the crucial educational problems of our time. Under the circumstances it is unlikely that we will be able to arrive at decisions which will lighten the load which the College chooses to bear.

XII Appendices

- A - Art Education
- B - Educational Administration
- C - Educational Foundations
- D - Elementary Education
- E - Guidance & Special Education
- F - Health, Physical Education & Recreation
- G - Home Economics
- H - Secondary Education
- I - Bureau of Educational Planning and Development
- J - Cultural Awareness Center
- K - Learning Materials Center
- L - International Programs

THE REPORT OF THE DEPARTMENT OF ART EDUCATION

July 1, 1968 - June 30, 1969

Alexander Masley, Chairman

I. General Department Information

A. Significant achievement during the academic year 1968 - 1969.

This academic year was a difficult one for the Department due to the fact that four-fifths of the faculty in the Department were completely new to the department or, as in the case of Mr. Rutkowski, were returning to teaching duty after a year of absence working on a doctoral program out-of-state. During that year, several changes in the department had taken place and Mr. Rutkowski was, in effect, a "new" member of the departmental staff.

The problems were compounded also because this was to be terminal year for the retiring Chairman and what had appeared to be effective methods of teaching in the past were frequently disregarded and the "former authority" as departmental chairman was most disrespectfully treated in concerted effort to "overthrow" the "establishment" even as general student behavior on the campus as a whole demonstrated.

The absence of a permanent Dean in the College of Education further weakened the effectiveness of any real authority. What had been an integrated and effectively functioning Department for many years had now become one of dissention simply because one member of the

faculty had decided either to ascend to the chairmanship in the department or to create havoc if this did not appear to be possible. Departmental chairmanship of this and any other campus department requires the guidance and consideration of an experienced person. Such experience cannot be obtained after only three years of non-professorial status of teaching.

Fortunately, for the Department and for the College, an experienced candidate for the chairmanship was found after considerable search and the departmental "situation" should, again become normal and constructively contributory to the best kind of teaching possible under the circumstances.

One of the most far reaching changes that took place in the College of Education and affecting the Department of Art Education was the growing cooperative effort toward a common goal between the Department of Art and the College of Fine Arts on one side and the College of Education and the Department of Art Education on the other side. For too many years, due to lack of understanding as to the educational function of the Department of Art Education, there had been considerable friction between the two colleges and their respective "art departments." Through the efforts of the Dean of the College of Fine Arts and the Chairman of the Department of Art Education, any lack of understanding as to the purposes and differences between these two units on the campus was dispelled and a wholesome, cooperative relationship was established. It is hoped that with the new administration in the Department of Art

Education, beginning with the Fall Semester, 1969, even closer cooperation should be established until all "differences" are completely erased and the University administration and the students in the respective colleges will understand that both the fine arts program in the College of Fine Arts and the education program in the College of Education are together contributing to the elevation of art in New Mexico in all of its various forms.

B. Significant plans and recommendations for the future

Due to the fact that a new department head will soon be in position to guide the department this fall, any real suggestions as to changes to take place were held in abeyance until the new administration takes over. It goes without saying, there is great need for considerable "revamping" and updating of policies and practices within the department and in its relationship to other departments in the College and on the campus as a whole.

C. Appointment to staff

Mr. Richard Hough was appointed to staff to replace Mr. Srubek who returned to Penn State University to work on a doctoral study program.

Mr. Frank Steiner was given a one year appointment when late in August of last year Mr. Piotrowski, faculty member in the department, informed the chairman that he was not returning to the department because he had signed a contract for a better position at Pratt Institute. This after having already signed a contract with the University of New Mexico.

In order to save a situation, Mr. Steiner was elevated from Graduate Assistant to Instructor for one year.

Mr. Paul Kravagna, formerly faculty member at the Institute of American Indian Art in Santa Fe, was awarded the Graduate Assistantship in the Department.

II. Composite information requested on individual biographical supplements

- A. Advanced study: Mr Rutkowski advanced but did not complete his doctoral studies.
- B. Sabbatical, etc.: None.
- C. New Scholastic honors, fellowships, etc.: None.
- D. Publications: Masley, La Ensenanza del Arte en La Escuela Primaria. Spanish textbook in art education.
- E. Other research projects or creative work in progress:
 Hough: Exhibitions. Rutkowski Thesis in progress.
 Masley: Advanced experiments with sand as a "painting" medium, and new forms of tempera paint for classroom use.
- F. Activities in learned and professional societies:
 Hough: None. Rutkowski: None. Masley: Attended the annual convention of the New Mexico Art Education Association. Also, the National Art Education Association Convention in New York City.
- G. Other professional activities: Hough: Elementary art education workshops. Rutkowski: Exhibitions locally and in Pennsylvania.
 Masley: Exhibitions locally.

- H. Non-teaching University services: Hough: L.M.C. Committee.
Rutkowski: Art Education Search Committee: Committee A;
Student Publications Committee. Masley: Administrative Committee;
Search Committee; Study of College of Education Committee; Member
of Advisory Board of the Bureau of Educational Planning.
- I. Public Service: Hough: None. Rutkowski: None. Masley:
Children's Art Classes and Judging of Children's Art.
- J. Personal information: None.

The Report of the Department of Educational Administration
July 1, 1968 - June 30, 1969
Richard L. Holemon, Chairman

I. General departmental information

A. Significant achievements during the academic year, 1968-69

1. The department continued its shift toward advanced graduate instruction during this academic year. The number of Master's Degrees awarded was again reduced, while the number of doctorates and 6th Year Specialist Certificates were increased. There were 14 graduates who received their doctorates in Educational Administration and Supervision since Commencement, 1968.

2. Because of state-wide demands to provide the Master's level educator with temporary administrative credentials, as well as a permanent teacher license, a joint Master's program with the Departments of Elementary Education and Secondary Education has been developed during this academic year. This program will not require a new degree, but will, rather, be a reformulation of the Master's Degree offered by the two cooperating departments. Plans are to have announcements about this program available by mid-summer.

3. The department has considered with great interest the possibility of the development of a Graduate School of Administration on the University of New Mexico campus. It has been quite supportive of all plans to study this development.

B. Significant plans and recommendations for the near future.

Because of anticipated changes in personnel at the end of the next academic year, considerable time will be invested next year in the recruitment of new staff. Members will be selected so that their skills will compliment the skills and interests of present staff, and continue the direction toward heavier utilization of social science concepts in Educational Administration.

C. Appointments to staff.

Dr. C.W. Richard, July 1, 1969--Visiting Associate Professor

D. Separations from staff.

None

Professor Paul Petty was reassigned to the College of Education Project in Bogata, Colombia, effective second semester, 1968-69. He continues to hold rank in the Department of Educational Administration, however.

II. Composite of information requested on individual biographical supplements.

1. Advanced study

Martin Burlingame-Ph. D., University of Chicago, June, 1969.
"The NAACP and Equal Educational Opportunities for Negroes, 1909-1954."

2. Sabbaticals, leaves of absence, etc.

Dr. Martin Burlingame conducted a Bureau of Indian Affairs Summer workshop-Principals at Flagstaff, Arizona in June, 1968.

Dr. Richard Tonigan traveled to Central Chile; Bogata, Colombia; Quito, Ecuador; Lima, Peru as an educational consultant.

Dr. Horacio Ulibarri conducted a Bilingual Institute at the University of Texas, Summer, 1969.

3. New scholastic honors, fellowships, etc.

None

4. Publications during the period

Burlingame, Martin. "A Fool and His Money," New Mexico School Review, 48 (Jan. 1969) 16-7

____ & Wiley, "An Analysis of the 1969 Legislature," New Mexico School Review, 48 (April, 1969) 12-14

Holemon, Richard L. The Change Agent in a Multi-cultural County: A Study in Management of Organizational Tensions. (With Ulibarri and Hanson), April, 1969.

____, Administration of Bilingual Education. (With Ulibarri), March, 1969.

Hughes, Herbert H. "The Constitutional Convention," New Mexico Review and Legislative Journal, January, 1969

Ulibarri, Horacio, "Acculturation Problems of the Mexican-American." Proceedings: Conference on Adult Basic Education, Southwestern Cooperative Education Laboratory, Albuquerque, N.M., 1968.

____, Final Report-Interpretative Studies on Bilingual Education

____, Administration of Bilingual Education (with Richard Holemon) March, 1969.

Wiley, Tom. Politics and Purse Strings, University of N.M. Press, August, 1968.

____, School Review, (Article in each of 6 issues) Published by NMEA, Santa Fe.

____, Education Today, (Article on Education conditions in New Mexico) December, 1968, NEA, Washington D.C.

5. Other research projects or creative work in progress or Completed during period.

Dr. John Aragon was Director of UNM Minority Group Cultural Awareness Center.

Dr. Richard L. Holemon was Co-director of "Evaluation of Concerted Services in Technical Education for USOE and North Carolina State University-extended from 8-30-68 through 1-31-69.

Dr. Herbert Hughes conducted a public opinion poll on education and politics in Albuquerque and Portales--polling methodology was investigated, along with opinion patterns.

Dr. Richard Tonigan was Director of Branch Community College Feasibility Study for the University of New Mexico. He was also Director of Educational Specifications for Espanola branch of Northern New Mexico State School.

Dr. Horacio Ulibarri directed Changes in Attitudinal Characteristics of Migrant and Ex-migrant Adult Education Students--Office of Education, 1968-69. He also was Director of Interpretative Study in Bilingual Education--Office of Education, 1968-69. (This grant was extended to January, 1970.)

Dr. Tom Wiley is working on a proposed book--Anatomy of the Elective Official.

6. Activities in learned and professional societies.

Dr. Martin Burlingame attended Meetings of AERA, AASA, UCEA Plenary Session, Chairman of UCEA Politics and Education, Section #4.

Dr. Richard L. Holemon attended meetings at UCEA in Phoenix, Arizona; AERA, Los Angeles, California. He also read a paper on "The Adaptive Functions of a Guidance Program" for Fellows in a Guidance-Administration Program, Indiana State University.

Dr. Herbert Hughes read a paper and chaired one session at National Educational Research Association meeting in March, 1969.

Dr. Richard Tonigan was U.S. Delegate to CONESCAL/UNESCO/OAS sponsored Latin America Middle Level Technical Education Conference in Chile in November, 1968.

Dr. Horacio Ulibarri attended meeting of Adult Education Association.

Dr. Tom Wiley presented a professional paper to American Educational Research Association "Politics and State Educational Policy" in February, 1969 at Los Angeles, California.

7. Other professional activities.

Dr. John Aragon served as consultant to San Jose State College for the evaluation of its Secondary Education Project in Santo Domingo, Dominican Republic. He was also consultant to Texas Education Desegregation and Technical Assistance Center, University of Texas, Austin. He served as a member of

the Board of Directors of Hispanic American Community Development Corporation, Washington, D.C.

Dr. Martin Burlingame served as Assistant Director, UNM Bilingual Education Conference, May, 1969. He was also a participant in School Board Candidates Workshop, January, 1969.

Dr. Richard L. Holemon served as a consultant to several New Mexico schools; to the UNM-Los Lunas Teacher and Administrator Training Project; to Tri-community Branch College Feasibility Project and the Bilingual project. He also conducted a 5 week Seminar for Colombian Students.

Dr. Herbert Hughes served as State Chairman of Governor's nonpartisan Citizen's Committee for a Constitutional Convention, with several radio and television appearances.

Dr. Richard Tonigan served as Program Chairman for International Meeting of Council of Educational Facility Planners, Washington, D.C., 10/68.

Dr. Horacio Ulibarri served as consultant for the following: Southwestern Cooperative Educational Laboratory, Albuquerque; Teachers Corps, University of Southern California, Los Angeles; Headstart Program, OEO, State Planning Office, New Mexico; Denver Public Schools; Colorado State Department of Education; Colorado Springs Public Schools; Our Lady of the Lake College, San Antonio, Texas; Office of Education, Washington, D.C.

Dr. Tom Wiley served as mediator to solve impasse between Albuquerque Public School Board of Education and Albuquerque Classroom Teachers' Association.

8. Non-teaching University service.

Dr. John Aragon is a member of Continuing Education and Curriculum Committee.

Dr. Martin Burlingame is a member of the Scholarship Committee.

Dr. Richard Holemon was Chairman of COE Organization Committee, is a member of the Policy Board of the Division of Public Administration, member of the Administrative and Policy Committee, serves on the COE Space Committee and is a member of the Educational Doctorate Committee.

Dr. Herbert Hughes is a member of a temporary departmental committee to explore change in department core program.

Dr. Richard Tonigan is a member of UNM Ad Hoc V.P. for Research Committee and of the UNM Contract Research and Patents Committee.

Dr. Tom Wiley serves on the University Policy Committee and is Chairman of the Continuing Education Committee.

9. Public service.

Dr. John Aragon is a member of the Board of Directors of the Albuquerque Association for Retarded Children.

The Report of the Department of Educational Foundations
July 1, 1968 - June 30, 1969
Albert W. Vogel, Chairman

I. General departmental information

A. Significant achievements during the academic year, 1968-69

1. The Department of Educational Foundations began administering the educational functions of the Maxwell Museum of Anthropology, University of New Mexico.
2. The Department joined with the Department of Secondary Education in an experimental program for training teachers in the Albuquerque Job Corps Center for Women. The Director and the Assistant Director of the project were graduate students in this Department.
3. The Department joined with the New Careers Program, UNM, in a tutoring program for Trainees in New Careers. A special section of Educational Foundations 290 was assigned the tutoring task.
4. A special "sheltered" section of Educational Foundations 290 was created for another group of students from the New Careers Program. The effort of this course was to determine whether New Career Trainees could survive in a regular college level course.

B. Significant plans and recommendations for the near future.

1. Next year, the Department will begin several new approaches to teaching its undergraduate courses. All large sections of Educational Foundations 290 will be broken into smaller sections

not to exceed 25 in number. Faculty and teaching assistants will be assigned to these classes. All instructors below faculty rank will be expected to take Educational Foundations 610 and 611, Internship I, II, with the Department Chairman while teaching sections of 290. In addition, all students in 290 sections will be required to tutor Elementary, Junior and Senior students in the Albuquerque Public School system. This program is being coordinated with the APS tutoring council.

2. Steps are being taken to coordinate Educational Foundations 300 and 310 with the Elementary Junior Block and with the developing program in Secondary Education. This is an effort to tie the courses more closely to the training programs in those departments, and to avoid overlapping of content material.
3. The Department recognized its responsibility for International Education with the transfer into the Department of Dr. Frank Angel, who will function as professor of International Education.

C. Appointments to Staff.

Dr. Mary Harris joined the Department in September to fill a vacancy. Mr. Douglas Muller joined the Department to replace Dr. Lewis Dahman, who was reassigned as a continuing department member to Latin America.

D. Separations from Staff.

Douglas Muller left at the end of the academic year to accept a position at New Mexico State University.

II. Composite of information requested on individual biographical supplements.

1. Advanced Study.

Mary B. Harris received her Ph. D. in June, 1968

Frank Angel was named Assistant Dean, Special Projects.

2. Sabbaticals, leaves, etc.

James G. Cooper, two weeks in Colorado and Wyoming (fishing and camping.)

Wayne P. Moellenberg traveled from Mexico to Canada during Summer, 1968.

John T. Zepper taught the 1968 summer session at Eastern Illinois State University, Charleston, Illinois. Sabbatical leave Semester II, 1968-1969.

Frank Angel, summer teaching in Dominican Republic, July, 1969.

3. New Scholastic honors, etc.

None

4. Publications

D.L. Bachelor - "Men-Women Ratios, Teacher Wastage, and British Staffing Policy," International Review of Education, Fall, 1970.
"Teachers in Germany: Current Research," Sociology of Education, Spring, 1970.
Urban Communities, Canada. Toronto: Bellhaven Press, Fall, 1970.

James G. Cooper - Statistical Programs for Behavioral Scientists. (with Dr. M. Luft) College of Education, UNM, 1/69.

Mary B. Harris - "A Self-directed Program for Weight Control," Journal of Abnormal Psychology, April, 1969.

Wayne P. Moellenberg - "National Assessment: Are we Ready?" The Clearing House, April, 1969, pp. 451-454.
"Investigation of Methods to Assess the Effects of Cultural Deprivation" (Monograph accepted by Educational Research Information Center.)

James G. Moore - "The Application of Transmitter-Receiver Units in Test Administration Programs," Journal of Educational Measurement, 1968.

"Cueing for Selective Note-taking," Journal of Experimental Education, 1968, pp. 64-73.

John T. Zepper - "Time for a Period of Stability," Insights, 6: 3-4, January, 1969.

Book review of Sylvia Ashton-Warner's Myself to appear in the April, 1969 issue of the Journal of Thought.

Frank Angel - "The Mexican-American in Higher Education," paper for Project at Long Beach College, California.

"A Model Program for Teacher Education for the Mexican-American," paper for USOE.

"La Enseñanza del Arte in La Escuela Primaria." Professional book on the teaching of art in the elementary school, contributor and editor.

"Instrucción: Base de la Educación," a manual for student teachers in L.A. Normal Schools.

Albert W. Vogel - Monograph, John Hersey on the Educational Malaise, New Mexico Research and Study Council, May, 1968.

Book Review, "Politics and Purse Strings," accepted for publication by the History of Education Quarterly.

5. Other research projects or creative work, etc.

D.L. Bachelor: Assisted Professor Spolsky in writing a proposal for the linguistic analysis of the New Mexico population. Will be co-director of the project. Developed proposal for training school counseling aides for Northern New Mexico, submitted by the Educational Service Center. Will serve as consultant. Wrote, with Roger Banks, a proposal to set up an adult education center. Proposal includes a study of minority group students at UNM.

James G. Cooper: Studied effects upon achievement in elementary statistics of computer based instruction, summer, 1968.

Completed final report for Bilingual Education project (with Dr. H. Ulibarri,) March, 1969. Assisted in obtaining extension grant for research dissemination w/Dr. H. Ulibarri, approved

HEW, USOE, April, 1969.

Mary B. Harris: Research on behavior modification with preschool retardates..

Wayne P. Moellenberg: "Evaluation of Candidates for Teacher Education Programs," (Research project being conducted with Dr. John Dettre.)

James C. Moore: USOE #5,197, The Effect of Letter Training on the Acquisition of Word Reading Skills, 1969-70 (Faculty Sponsor). Several other on-going research projects.

John T. Zepper: Translation of Krupskaya's Public Education and Democracy from Russian into English. Word analysis of Soviet readers, I-IV.

Frank Angel: Negotiation of Columbia Project in Secondary Education. Negotiation of Extension of Ecuador Project in Textbook Writing and Teacher Education. Consultant, Los Lunas Title IV Project.

Albert W. Vogel: With Tom Gustafson, "A Procedure to Discriminate Between Successful and Unsuccessful Pressure Groups Which Have an Interest in Education." Photographs supplied for the Public Broadcast Laboratory (Ed. T.V.) Special of Mexican-Americans. Photographs are scheduled to be published in Nancie Gonzales' book on Spanish-Americans (UNM Press), and Stan Steiner's book on Mexican-Americans (Harper and Row).

6. Activities in learned and professional societies.

James G. Cooper: American Educational Research Association, annual meeting, Los Angeles, February, 1969; presented a paper on the research described in point 5.

Richard M. Gorman: Attended American Psychological Association Convention, San Francisco, September, 1968.

Mary B. Harris: "Some Determinants of Sharing in Children," paper read at Rocky Mountain Psychological Association. Also chaired a session.

Wayne P. Moellenberg: Chaired session at Rocky Mountain Conference on Foundations of Education. Attended AERA Convention at Los Angeles.

James C. Moore: "Unique Applications of Student Data," Executive Seminar, American College Testing Program, Iowa City, Iowa, 1/69. "Equal Opportunity in Employment and Promotion Testing," EEO Seminar, Albuquerque, 11/68. "Testing Practices," Human Resources Council Employment Testing and Affirmative Action Seminar, Albuquerque, 2/69.

John T. Zepper: 12/6/69 read paper on V.T. Thayer at the Rocky Mountain Conference on the Foundations of Education, Pueblo, Colo. 2-10 and 2-11, 1969, attended Conference of Teachers Aids, Western Skies, Albuquerque, New Mexico.

Frank Angel: Paper presented at Regional Conference of Society for Comparative Education and International Education. 5/69,

University of California, Berkeley. Named member of AACTE Committee on Social Forces and Teacher Education.

Albert W. Vogel: Attended AACTE meetings in Chicago during February, 1969, and meetings of the Comparative and International Education Society at Berkeley during May of 1969.

7. Other Professional Activities.

D.L. Bachelor: Lecture at Unitarian Church; Consultant on Feasibility Study for Community College Project; Advisor to Center for Community Action Services in training of school aides. Lectured and wrote instructional materials, developed plans for survey of attitude change. Assisted social workers at Department of Public Welfare in setting up program to channel UNM students into aide work with Department. Advisor to the Model Cities survey of the South Broadway area. Will help with the detailed analysis of the data. Supervised the Model Cities survey of the senior class at Albuquerque High School, analyzed the results and wrote the report. Abstract articles for the Educational Administration Abstracts.

Mary B. Harris: Consultant, Palo Alto V.A. hospital, Summer, 1968. Consultant on evaluation and group processes, Bilingual Education Project, May, 1969.

Wayne P. Moellenberg: Consultant at Conference on Bilingual Education.

John T. Zepper: Talk to Albuquerque Lions on Marxism, 9/17/68.
 NCAA of Santa Fe, New Mexico Dec. 11-13, 1968. Attended work-
 shop for SS teachers at Faith Luthern Church conducted by
 R. Hanny (UNM) March 1, 8, 15-1969.

Albert W. Vogel: Consultant to the Job Corps Center.

8. Non-teaching University Service.

James G. Cooper: Chairman, UNM Computer Use Committee. Chairman,
 Curriculum Committee A, College of Education. COE Research
 Consultant, $\frac{1}{2}$ time.

Richard M. Gorman: Secretary, Education Doctorate Committee.
 Secretary, COE Space and Facilities Committee. Faculty Advisor.

Mary B. Harris: Advisory Committee, Bureau of Educational
 Planning and Development.

Wayne P. Moellenberg: $\frac{3}{4}$ time Assistant Graduate Dean; Entrance
 and Credits Committee; Chairman of E & C Subcommittee; Human
 Research Review Committee. Chairman of two sessions of "Evaluation
 of Instruction Day,"

James C. Moore: Chairman, two doctoral committees; member,
 thirteen doctoral committees; Director, Testing Division;
 several committees.

John T. Zepper: General Honors Committee; 25 University College
 advisees; Chairman of 5 doctoral candidates; member of 20 doctoral
 committees.

Frank Angel: Member ISRAD; member UNM's Committee on International Education.

Albert W. Vogel: Associate Director of the Job Corps Teacher Training Project with Secondary Education. Director of the Educational Program in the Maxwell Museum of Anthropology, UNM.

9. Public Service.

James G. Cooper: Active in conservation activities of the Sierra Club.

Richard M. Gorman: Active in Democratic Party during presidential campaign.

Wayne P. Moellenberg: Seminar leader, First Congregational Church.

10. Personal information.

Richard M. Gorman: Married April 5, 1969. 4 children.

Mary B. Harris: Jennifer Mary Harris, born October 10, 1968.

THE REPORT OF THE DEPARTMENT OF ELEMENTARY EDUCATION

July 1, 1968 - June 30, 1969

David Darling, Chairman

I. General Departmental Information

A. Significant achievements during the academic year, 1968-69

A major event in the College of Education this past year was the visit of the review committee of NCATE. The Department fared quite well in the evaluation and was cited several times in the NCATE report for the soundness of our undergraduate teacher education program. Areas commended were the theory-to-practice approach in our methods courses, the cooperative relations with the Albuquerque Public Schools (APS), the positive comments of students and cooperating teachers interviewed, the carefully-planned nature of the program, the well-managed student teaching program, and the efforts of the staff to study and modify the program on the basis of new or additional information.

1. The Undergraduate Program

Plans were made during a department retreat in October and in follow-up meetings to make some adjustments in the placement of courses in the junior and senior modules. These will be reported in the "Plans for the Future" section of the report.

The Department of Elementary Education and the Department of Educational Foundations have been cooperating to find better ways of integrating, and coordinating the instructional activities in the methods courses, the foundation areas, and the field experiences. This past year our students in the junior module were taking three methods courses, two foundations courses, and doing student teaching. The Foundations Department set up two special

afternoon sections of 300 and 310 to accommodate this coordination. The Elementary Education Department is very pleased with the cooperative and accommodating spirit of the Foundations Department and is looking forward to even closer and more complex cooperative activities so that the professional education of teachers can be a truly integrated and relevant experience.

During the past year a greater percentage of our student teachers were placed in student teaching centers. We have not yet reached our goal, placing 90% in center schools, but we are progressing toward that goal. We have had six full-time clinical supervisors from APS during the past year. This represents an increase of two over the previous year. We placed twenty-four interns in APS classrooms last year. All of the interns performed very successfully. These clinical supervisors permit us to keep well within the supervisory load suggested by the Association for Student Teaching, and have freed the professorial staff to work in in-service education activities in our student teaching centers.

A follow-up of the Gay study (1964) was completed by Sara Dawn and Bill Smith, under the direction of Dr. Keith Auger. This study provided relevant data which is being used to revise our undergraduate program once again. The study indicated that concerns of students reported in the Gay study have changed and that the new program is by and large overcoming the problems indicated in the previous study.

A bilingual education minor for elementary education majors was approved by the Department. This addition is designed to prepare teachers for the newly-forming bilingual schools. The prior consists of a language competency and courses from English, Speech, Anthropology, Sociology, Psychology and Education.

2. The Graduate Program

The central elements needed for an area of concentration in Teacher Education at the doctoral level have been established during the past year. We now have a practicum in the supervision of student teaching and an internship in teacher education available for students interested in pursuing teacher education as a career. It is possible for a graduate student to earn twelve semester hours in each of the above areas. Three more moves are necessary to complete the program; (1) a seminar in teacher education needs to be developed; (2) our methods seminars need to be made more flexible so that a student can earn up to nine or twelve hours of seminar credits in a given area; and (3) an overall conceptual framework for a teacher education program needs to be developed to give guidance to activities in the various elements of the program.

A program in linguistics and language pedagogy has been brought into being through the coordinating efforts of Dr. Bernard Spolsky. The program, in its present form, represents the drawing together of a number of existing courses from various departments (Anthropology, English, Speech, Modern Languages, and Education) and the development of a limited number of new courses to provide a foundation for the supporting work in the various specialized disciplines. The program, although it has just been instituted, has already received notice on the national level. If the program continues to develop, UNM could attract a core of very capable graduate students to study and research in this area.

The Department was involved in what appears to have been an abortive attempt to establish a graduate credit summer program in Santa Fe in cooperation with the College of Santa Fe. The chairman was involved in a number of meetings, in Albuquerque and in Santa Fe, in an attempt to determine the need for such an arrangement and to develop operating agreements for the execution of the plan. The summer program was established on an experimental basis

(for two summers). The enrollments are quite low, and I would advise that the second year of the experiment be reconsidered carefully, preferably dropped.

3. Service and Research Activities

The Department was (and is) involved in a number of service and research activities, many of which deal with the specific educational concerns of populations in our region.

Dr. LeRoy Condie's Navajo Culture-based Social Studies program has received a continuation in funding. Many exciting teaching units have been developed and field tested in selected classrooms on the Navajo reservation. This project has received considerable praise and attention from BIA authorities and other educators and scholars concerned with Indian education. The project is in a rather complex phase now where (1) new units are still being developed, (2) units are being field tested, (3) units are being revised as a result of the completed field tests, (4) production work is under way to produce the tested and revised units in quantity, and (5) teacher training in utilization of the units is in progress. These tasks are being executed simultaneously. It is the opinion of the chairman of the Department that the "Condie materials" will have a significant and lasting effect on the education of Navajos and others. The materials will demonstrate in an effective way how cultural values and traditions can be incorporated into the educational program in a progressive and forward-looking manner.

The proposal submitted by Dr. Miles V. Zintz under the Education Professions Development Act to train a task force of bilingual education specialists was funded with a grant of some \$257,000. The project is a year-long institute with twenty-eight participants. The first eight weeks

of the institute are to be spent in study at the Universidad Autonoma de Guadalajara in Guadalajara, Mexico. The participants will study the Hispanic History of the Southwest, Educational Anthropology, and Bilingual Education. They will also practice the teaching of English to non-English speakers and study the local and regional culture in a somewhat open but concentrated manner. The participants will return to the UNM campus for two semesters of course work and field work in bilingual-bicultural education. This is another project that has high impact potential if some follow-up guidance is planned for and provided for during the first year or two after the institute. We are intending to apply for a continuation of the project for another year.

The B. I. A. has funded a research project proposed by Dr. Bernard Spolsky to study the learning of beginning reading in Navajo by first grade Navajos. The first phase of the study will include the planning of a data collection system, the development of specifications for needed materials, and the analysis of similar programs in other parts of the world. As the program becomes adequately funded, a major research project will be undertaken. This is an extremely crucial study in that there is a strong trend to have bilingual educational programs for all persons who come to school with a first language other than English. This approach presents significantly different problems for our Indian groups, since some groups have no written form of their language, and those who do (Navajos, for example) do not have a body of printed material sufficient for a bilingual educational program similar to a Spanish-English program. Provision of sufficient printed materials in Navajo, or the development of a written form for other Indian tongues, are very expensive and time-consuming ventures, and should be undertaken only if basic research has been completed and some knowledge of the effectiveness of instruction of reading in Navajo is available to justify a venture of such magnitude. Hopefully, basic research would also study various alternatives to the solution of the problem.

The Ecuadorian Normal School Improvement project has fallen somewhat behind schedule. Many factors have contributed to this situation, including the change of ministers in the Ministry of Education (the sixth MOE change since UNM's arrival), and the change of administrations in our country. We have a new chief-of-party who has had to learn the many subtleties of the project (working with AID officials, MOE officials, Normal School personnel, and our own UNM Ecuadorian staff. These subtleties keep changing as there are governmental changes in Ecuador and the U. S.

The UNM back-up support provided in the 1968-69 budget was not utilized. The effect of this decision (which was made without consultation with the Chairman of the Department of Elementary Education) on staff morale and UNM coordinating efforts has not been determined. The logistics of the UNM business office appears to have had a negative effect on morale. The involvement of the Department in professional services and judgments diminished over the past year. This appears to have affected the Department's commitment to the project, although general concern for and interest in the educational concerns of Latin America have not diminished.

The textbooks scheduled for publication in October, 1968 are now scheduled for publication in October, 1969. Three major factors have caused this delay. First, the project has had great difficulty in getting the Ministry to provide adequate illustrations for the texts. This has slowed the writing process considerably and taken the time of the director of the textbook program to try to obtain adequate illustrators. Second, decisions on printing, format, layout, and other technical aspects of production have been rather drawn out. This is again a product of the milieu more than anything else. Only the strong efforts of former chief-of-party Dr. John Aragon, the continuing efforts of the current chief-of-party, Ambrosio Ortega,

the excellent technical assistance of Orlando Stephens and Dr. Dolores Gonzales have precipitated what expediency has been shown in this regard. Third, probably the October, 1968 deadline was an unrealistic goal. The many factors in textbook production beyond the direct control of project personnel were not all known at the time the tentative 1968 deadline was set.

The textbook program remains the most successful program of our project in Ecuador. Dr. Dolores Gonzales has done an outstanding job in training the writers and directing their work. Groups from several South American countries have visited the project. Dr. Gonzales has served as a consultant to several other countries. Venezuela has tried quite insistently to secure the services of Dr. Gonzales as a full-time employee of the Venezuelan Ministry of Education. It is my feeling that we should scope down the activities of this project to only the writing, publication, distribution and utilization of the textbooks being produced by the project. I realize this decision would have political consequences, but so does the decision to over-expand our obligation beyond what will be funded by AID or accepted by Ecuador.

Our field work with the Normales and Annexas improved considerably during the year. Mr. George Gonzales developed a good working relationship with the personnel of the Annexas and the Normales. He executed several workshops during the year that were apparently quite successful and well-received. There was closer coordination between the textbook program and the field work than had been possible the previous year. Materials being developed by the textbook writers were introduced in the workshop. The activities of the workshop were designed to provide the teachers with some useful new techniques as well as to prepare them for the methodology and concepts presented in the new textbooks. The field work has tapered off during the last few months since Mr. Gonzales was chosen to replace Dr. Gonzales

as director of the textbook program. He has been working with Dr. Gonzales to prepare for this new function. Dr. Gonzales will be returning to Albuquerque in July.

The Kindergarten of Manzanita Center is being used to study the effects of the utilization of media (especially T.V. tapes) in the process of developing the social dimension of affective behavior of young children. This was funded by the University research fund and continuation of the project will be sought through the small contract program of USOE. Drs. Catherine Loughlin and Margaret Chisholm are directing this study.

The department engaged in an in-service teacher training program for the Grants Public Schools, funded under Title I, ESEA. The program was a year-long effort to improve teaching in the reading-language arts area, with emphasis on teaching English as a second language, and to sensitize teachers to help them be more accommodating of the various cultural and ethnic groups in Grants. This effort has been extended another year, but the emphasis is being shifted to a teacher training program in bilingual teaching methodology for teachers of the first and second grade. The Grants project was under the direction of Dr. Miles Zintz during the 1968-69 school year and will be directed by Dr. Dolores Gonzales for the 1969-70 year. Mari-Luci Ulibarri was a major participant in this effort.

The department, through the Gallup Branch College, has been providing on-site instruction for teachers and teacher aides in Indian Headstart programs. Credit courses were provided on the Navajo Reservation at Zuni Pueblo, and at the Laguna Pueblo. These were funded by Education Projects, Incorporated, a direct contractor for OEO funds, through Eastern New Mexico University.

The Department, in cooperation with the State Department of Education, sponsored a highly successful Conference on Teaching the Bilingual Child in November. Over five hundred educators from New Mexico and neighboring states attended the meeting. It is safe to say that this conference has helped to coalesce a strong movement among educators in promoting improved educational opportunities for our group of citizens.

Several members of the Department worked on the Citizens Advisory Board for Bilingual Education in the Albuquerque Public Schools a year ago. This work resulted in a proposal for a planning grant to institute a bilingual school in Albuquerque. The proposal was accepted and funded under Title VIII, ESEA, the Bilingual Education Act. The operational proposal has also been funded and a bilingual school will be started in the Coronado Elementary School. Work in Dr. Zintz' project will be coordinated with the work being done in the Coronado School.

The Department, jointly with the State Department of Education, is sponsoring a two-week summer workshop on the early education of the Indian child for teachers from public schools with significant enrollments of Indian students. Dr. Spolsky and Mari-Luci Ulibarri will be major contributors to the workshop. Dr. Robert Wilson of U. C. L. A. and Mr. Ralph Robinett of the University of Michigan will present their programs.

The Department, jointly with Educational Administration, is sponsoring a six-week summer institute for thirteen school administrators from Zambia. Seven of these students have been on campus for the past academic year, and the six additional Zambians attended Webster College before coming to UNM.

B. Plans for the near future

The Department held a retreat at the D. H. Lawrence Ranch in October of 1968. The retreat served the purpose of reviewing our current activities and planning for the future. Several of the suggestions contained in this section of the report reflect the deliberations at the Lawrence Ranch.

We intend to expand our "honors" intern and clinical supervisor exchange program with APS so we will have seven clinical supervisors. We feel that we have almost reached the limit of expansion of this program given our current staff size and student body.

We plan to reorganize our junior and senior modules on the basis of our experience over the past two years. Major changes anticipated are the shifting of the math methods course to the junior module and the social studies methods course to the senior module. Also, we intend to incorporate an instructional media segment in the senior module (this has implications for staffing needs), and to shift children's literature to the semester between the junior and senior modules.

We will explore the possibility of teaching our undergraduate methods courses in selected elementary school buildings to provide ready access to observation experiences, demonstration teaching, and micro-teaching activities.

We wish to continue expanding the number of student teaching centers until 90% of our student teaching placements are in these centers.

We will have to re-examine the implications of an "approved program" approach to teacher certification with specific re-evaluation of our minor requirements and the general education requirements.

We need to provide opportunities for in-depth work at the upper graduate course level for graduate students by offering our 500 level courses for variable credit (3-12 hours).

Efforts need to be expended to increase the number of doctoral students in reading and to provide the necessary clinical services through Manzanita Center, University College, and in cooperation with the public schools.

We intend to continue the special projects now under way (Dr. Condie's Navajo social studies Project, Dr. Spolsky's Navajo reading research project, and Dr. Zintz' bilingual teacher specialist project) and to expand in ways that are appropriate.

We have initiated planning to sponsor a six-week bilingual education institute for school principals and supervisors during the summer of 1970.

We are in the discussion stages to revise our advisement and registration procedures, particularly for University College students.

We plan to institute a bilingual program in the kindergarten of Manzanita Center next year. The student selection committee for the kindergarten program made the selection of students with this in mind. The kindergarten teacher is developing a program for bilingual education at the kindergarten level.

There is a strong need to add another science education staff person to the faculty. The recent turnover of our science education position has been very costly, both in terms of dollars and in terms of program development and continuity. One factor contributing to the turnover was the heavy load carried by the former science education professor.

There is a need to reevaluate our activities in foreign projects, such as Ecuador and Colombia, to determine the nature and extent of faculty interest and explore the relative status of such proposed projects as compared to our ongoing undergraduate and graduate programs and local service and research projects.

C. Appointment to Staff

Mr. Richard Van Dongen was appointed Instructor in Elementary Education, with the rank to become Assistant Professor upon completion of his doctorate. Mr. Van Dongen's appointment is to fill the vice-Guszk position in reading and will begin in September, 1969. Mr. Van Dongen has been an NDEA fellow at UNM.

Mrs. Mari-Luci Ulibarri was appointed Instructor in Elementary Education and taken off the "temporary instructor" status. Mrs. Ulibarri's appointment begins in September, 1969. She is currently on loan to the Minority Group Cultural Awareness Center.

D. Separations from Staff

Dr. Margaret Chisholm, an associate professor and director of the Learning Materials Center, appointed September 1, 1967, resigned in June, 1969 to accept a position at the University of Maryland. Her husband, Superintendent of APS, Dr. Robert Chisholm, resigned earlier to accept a position as Superintendent of Schools in Arlington, Virginia.

II. Composite of information requested in individual biographical supplement

A. Advanced Study

Miss Hazel Craker, Instructor in Elementary Education, completed the course work on her Ph. D. (at UNM).

Mrs. Mary Ann Howell, Instructor of the kindergarten in Manzanita Center, continued work on her M. A. degree at Pacific Oaks College in Pasadena, California.

Mrs. Mary-Luci Ulibarri, Instructor in Elementary Education, completed eighteen hours of graduate work toward her Ph. D. at UNM.

B. Sabbaticals, Leaves of Absence, Etc.

Dr. Keith Auger served as a consultant to our project in Ecuador in December of 1968.

Dr. Margaret Chisholm taught in an NDEA Institute, Washington State University, July, 1969. She also travelled in Japan, Taiwan, Hong Kong, Macao, Phillipines, Malaysia, Cambodia, Thailand, and Singapore in the summer of 1969.

Dr. David Darling made a field visit to Guadalajara, Mexico to make arrangements for the summer institute to be held at UNM's field school at the Universidad Autonoma de Guadalajara.

Dr. Harold Drummond travelled to Mexico City and the Yucatan Peninsula in January and to Florida and the Everglades National Park in April.

Mrs. Mary Ann Howell served as a demonstration teacher at Pacific Oaks College in the summer of 1968.

Dr. Catherine Loughlin taught workshops in language arts and social studies for primary teachers in Nepal on an NEA/USAID Teacher Corps project in the summer of 1968. She also taught in India, travelled in Russia and other countries.

Dr. Bernard Spolsky was a visiting lecturer for the English Teachers' Summer Institute in Israel in 1968.

Mrs. Mari-Luci Ulibarri taught in an institute in the Dominican Republic for USAID and travelled in Haiti and Jamaica.

Dr. Miles V. Zintz made a field visit to Guadalajara in preparation for the EPDA summer institute to be held at the Universidad Autonoma de Guadalajara.

C. New Scholastic Honors

No change

D. Publications

Dr. Auger (with Dr. Frederick A. Rogers) published an article, "The Relationship of Interview Personnel to Attitude Consistency Among Pre-Service Undergraduates" in the Illinois School Research Journal in November, 1968.

Dr. Chisholm published "And Miguel Now" in Elementary English, November, 1968 and "Change or Progress?: Guidelines for Developing Auxiliary Media Centers," in School Libraries, Winter, 1969.

Dr. Condie published the seventh edition of his Navajo Calendar.

Dr. Darling had an article, "Affective Evaluation in Reading," reprinted in Elementary Reading Instruction: Selected Materials, Allyn and Bacon, and the International Reading Association, 1969.

Dr. Drummond published A Journey Through Many Lands and Journeys Through the Americas, both with teachers' manuals and workbooks, by Allyn & Bacon, 1969. The Western Hemisphere, Allyn & Bacon, with the teachers' manual and workbook, are to be published in early 1970.

Dr. Loughlin published Organizing the Primary Classroom for Small Group Instruction (non), Helping Children Understand: Learning Experiences in Social Studies (non); and Displaying Charts and Teaching Aids (non), all by the Ministry of Education, Kathmauidu, Nepal, 1968.

Dr. Spolsky had an article, "A Psycholinguistic Critique of Programmed Foreign Language Instruction," reprinted in Programmed Learning and the Language Laboratory, Longmac, London, 1968. He was a contributor to Special Issue No. 3 of Language Learning, contributed an article to the TESOL Quarterly, and also reviewed recent research in TESOL for the Quarterly.

Dr. Walters (with Dr. Drummond) authored a workbook for The Western Hemisphere, Allyn & Bacon, to be published early in 1970.

Dr. Zintz completed a manuscript on his new book, The Reading Process: The Teacher and the Learner, Wm. Brown (in press). He revised his book, Education Across Cultures in the Southwest. Zintz had an article in the Florida Foreign Language Reporter and authored a monograph on "What the Classroom Teacher Should Know About Bilingual Children."

E. Other Research Projects and Creative Works in Progress

Dr. Chisholm contributed to the bilingual research project to develop an annotated bibliography of research in bilingual education. She (with Dr. Loughlin) is conducting a study on the role of media in developing affective behavior in young children.

Dr. Condie continues to direct the Navajo Social Studies Project funded by the BIA under 89-10 Legislation.

Dr. Darling assisted the APS in writing their operational proposal (the teacher education module) for the bilingual school. The proposal was funded under Title VII, ESEA. He also assisted the Grants Public Schools with their bilingual schools proposal which was also funded. He coordinated supplementary training for Indian Headstart personnel at three off-campus sites. He also assisted Dr. Zintz in implementing the first phase of the Bilingual Specialist Project.

Dr. Drummond has a textbook in progress, The Western Hemisphere, which will be published early in 1970 by Allyn & Bacon, along with the accompanying teacher's manual and workbook.

Dr. Loughlin (with Dr. Chisholm) has a study in progress which is aimed at assessing the use of media in developing affective behavior in young children.

Mrs. Sara Dawn Smith (with William D. Smith) did a follow-up of the Ilse Gay study of the elementary teacher education program. The study served as a basis for further changing the program and indicated that the changes made as a result of the Gay study have been effective.

Dr. Spolsky prepared a proposal to study beginning reading instruction in Navajo. The proposal will be submitted to the BIA for possible support. He also served as an independent evaluator of the new Dr. Robert Wilson English language materials being used in selected Navajo schools.

Mrs. Ulibarri participated in the UNM Grants Public Schools communication skills in-service project, and in the cultural awareness in-service project in Los Lunas.

Dr. Zintz' proposal to provide a year-long institute to train a task force of bilingual education specialists was funded (\$257,680.00) for twenty-eight participants.

F. Activities in Learned and Professional Societies

National meetings were attended by Zintz (Reading & TESOL); Auger (AST and AACTE); Loughlin (NAEYC); Drummond (ASCD and DESP); Ulibarri (TESOL); Chisholm (ALA and DAVI); and Spolsky (MLA, Linguistics Society of America, Am. Council on TFL, and TESOL). Most of these persons served in a leadership capacity, were discussion leaders, or presented papers at the various meetings. Many are officers in the listed organizations. For the details, please see the individual reports of these persons.

The Department members have been very active in professional associations, organizations, conferences, and consultancies at all levels. All professors reporting indicate significant activities in those areas. The reader is referred to the individual reports because the activities are so varied and quite numerous and the task of summarizing is patently difficult and would likely be an unfair summary.

G. Non-teaching University Service

Dr. Auger was on the COE Administrative and Policy Committee, the NCATE Committee, and the UNM Committee for the Improvement of Instruction.

Dr. Chisholm served on the UNM Committee for Planning Campus-wide Media Service.

Dr. Condie is sponsor of the Kiva Club.

Dr. Darling is on the COE Administrative and Policy Committee, the Manzanita Center kindergarten selection committee, and served on several ad hoc committees, including chairman of the salary and promotion policy study committee.

Dr. Drummond serves on the Graduate Committee and the Academic Freedom and Tenure Committee. He was appointed by the Policy Committee to the committee to study the ROTC at UNM. He is on the Advisory Committee to the Bureau of Research and Planning, COE. He also has served as a member and chairman of various ad hoc committees within the college and university.

Dr. Loughlin is on the Manzanita Center Committee and is director of the University of Massachusetts exchange program.

Dr. Spolsky is a member of the Advisory Committee on Bilingual Education and the Center for the Improvement of Communication Skills. He is on the academic policy group for the Upward Bound College Enrichment Program and Chairman of the Program in Linguistics and Language Pedagogy.

Mrs. Ulibarri served as an unofficial counselor for eight Colombian and seven Zambian students.

H. Public Service

Dr. Auger served as a draft counselor and as a precinct delegate to county and state Democratic conventions.

Dr. Darling served on the planning committee for pre-school and elementary school "Goals for Albuquerque" community project. He is also on the board of directors for Cub Scout Pack 76 and Boy Scout Troop 76.

Dr. Drummond has presented slide lectures at several elementary schools and attended the annual meeting of the Salvation Army.

Dr. Loughlin is on the policy board for the child development center of the EOB and the County Career Development Committee for Headstart and Day Care.

Dr. Spolsky is Vice President and Member of the Board, Albuquerque Gan Nursery School and Kindergarten

Dr. Zintz serves as a board member of the Albuquerque Association, Committee on Learning Disabilities.

The Report of the Department of Guidance & Special Education

July 1, 1968 - June 30, 1969

George L. Keppers, Chairman

I. General Departmental Information:

A. Significant achievements during the 'academic year, 1968-69:

1. New courses added: Guidance - Differential Diagnosis II, Special Education - Nature & Needs of the Mentally Retarded, Methods & Materials in Special Education.
2. Workshops: Vocational Guidance Institute (Plans for Progress), Supervision of Student Teachers (for supervisors), Vocational Rehabilitation of the Retarded.
3. Conferences: Legislators on Special Education, Visually Handicapped.
4. Development of Materials Center for Special Education in cooperation with the State Department, Public Schools and Department of Guidance & Special Education.
5. Conducted special class for the Neurologically & Other Health Impaired Children in Manzanita Center(1968-69).
6. Sponsored a Physical Education Class for Mentally Retarded Children (Saturdays, Johnson Gym).
7. Awarded a Planning Grant in Vocational Rehabilitation Counseling, wrote a proposal and submitted same to

Washington. Anticipate funding for Fall, 1969.

8. Planning Grant from Department of Health, Education & Welfare in Neurologically & Other Health Impaired.
 9. Received funds for Traineeships (Junior and Senior) and Fellowships from Department of Health, Education and Welfare and the State Department in area of Special Education (Mentally Retarded and Emotionally Disturbed).
 10. Received N.D.E.A. and U.N.M. Fellows in Guidance and Special Education for 1969-70.
 11. Funds received from State Department of Education for special classes in Mental Retardation, Emotionally Disturbed and Neurologically Impaired during summer, 1968.
- B. Significant Plans and Recommendations for the Near Future:
1. Anticipate starting a program in the area of Vocational Rehabilitation Counseling to be funded by Vocational Rehabilitation Division, Washington. Funds would be for staff and related activities and traineeships beginning September, 1969.
- C. Appointments to the Staff:
1. Dr. Charles Bernardoni will be Department Chairman, September, 1969.
 2. Dr. George L. Keppers will continue to be a Professor of Guidance but will be Assistant Dean for Student Affairs full time effective September, 1969.

D. Separations from the Staff:

1. Dr. Ted Christiansen, September, 1969.
2. Dr. Edward J. Kelly, September, 1969.
3. Dr. Don M. Rice, June, 1969.

II. Composite of information requested on individual biographical supplements:

1. Advanced Study: None

2. Sabbaticals, etc:

Louis A. Bransford

Scheduled to teach summer school in Mexico City, July and August, 1969.

3. New Scholastic Honors:

Louis A. Bransford

Promoted to Associate Professor; Recipient of Rosemary Dybwad International Award in Mental Retardation; elected Regional President of American Association for Mental Deficiency.

Ted L. Christiansen

Listed in Who's Who in The West

George L. Keppers

Listed in Who's Who in America

Assistant Dean for Student Affairs

4. Publications:

Louis A. Bransford

"The Persistent Problems Approach - A Manual", University of New Mexico, co-authored with Mrs. Judith Dettre.
"El Retardo Mental en las Escuelas Publicas", published by the Sociedad Mexicana para las Estudios Cientificos.
"Poverty and Mental Retardation", in press.

Ted L. Christiansen

"Ten Commandments of Classroom Discipline", New Mexico School Review.

"Visual Imagery as a Factor in Teaching Language to Mentally Retarded Children", Psychonomic Science.

"Sex & Level of Mediator Abstractness as Variables in Mediate Association", Psychonomic Science.

"Role of Special Class and Ethnicity on WISC Factor Scores", paper for Rocky Mt. Psychological Association.

Edward J. Kelly

"Toward a Comprehensive Paradigm of Special Educational Functions", J. Spec. Educ.

"The Legislative School Study Bill", N. M. Rev. & Legislative J.

"Legislative Responsibilities for Staffing Patterns in Special Education", N. M. Rev. & Legislative J.

George L. Keppers

"No Matter How You Slice It", New Mexico School Review.

"National Certification of Counselors", in Professional Problems of School Counseling Practice, International Text Book Company.

5. Other Research Projects or Creative Work in Progress:

L. C. Bernardoni

Currently writing a book on Individual Mental Testing; assisting Rough Rock School, Navajo Reservation, in evaluating the effects of bilingual education program; setting up a program for the training of Vocational Rehabilitation Counselors; submitted a training grant.

Louis A. Bransford

Title VI Projects: Language Development, Pre-School Programs for the Mentally Retarded and Demonstration Classes for the Mentally Retarded; pending NIMH Project, "Counseling Parents of the Mentally Retarded".

Ted L. Christiansen

Imagery and Cue Arousal as Factors in Learning - a research project completed with the Albuquerque Public Schools; A Comparison of Anglo-American, Spanish-American and Indian Lower Class Children on the Wechsler Intelligence Scale.

Edward J. Kelly-

House Bill 173 - An Act Revising New Mexico's Statutes Pertaining to Special Education (29th Legislative Session).

George L. Keppers

Assisted Dr. L. C. Bernardoni in developing Vocational Rehabilitation Counseling Grant and served on committee.

Gordon A. Zick

Several untitled projects related to "Changing Attitudes Through Group Process" - includes two campus B/W groups.

6. Activities in Learned & Professional Societies:

L. C. Bernardoni

National Convention, American Personnel & Guidance Association, Regional Meeting of Vocational Rehabilitation Counselors.

L. A. Bransford

Council for Exceptional Children - presented a paper at Denver Convention, served on Board of Governors; American Association for Mental Deficiency regional conference; Legislative conference; NMARC State Conference.

Ted L. Christiansen

President, New Mexico Council for Exceptional Children, editor

of newsletter; Delegate to Council for Exceptional Children convention.

Edward J. Kelly

President and Legislative Officer, Albuquerque chapter of Council for Exceptional Children; Legislative Chairman, Albuquerque Council on Learning Disorders; President, University of New Mexico Education Association.

George L. Keppers

Council for Exceptional Children Convention on State Legislation; A.P.G.A. Convention; Panel Member, Admission & Financial Aid for Minority Groups.

Don M. Rice

State Membership Chairman, Council for Exceptional Children; Attended International Council for Exceptional Children.

Gordon A. Zick

Attended Annual Group Symposium and American Personnel & Guidance Convention.

7. Other Professional Activities:

L. C. Bernardoni

Vocational Consultant, Social Security Administration; Consultant for Rough Rock Demonstration School; conducted sensitivity training for Los Lunas Schools; various talks to Special Education and Counselor groups.

L. A. Bransford

Workshops on campus: The Visually Handicapped Child in the

Regular Class and Legislative Workshop on Special Education; Consultant to universities and school systems in Mexico; two formal presentations in Mexico; off-campus presentations and consultancies.

Ted L. Christiansen

Speaker for PTA, private and public groups concerning Mental Retardation, Emotional Disturbance and the Learning Disadvantaged Child.

Edward J. Kelly

Consultant to public school Emotional Disturbance programs for Los Alamos, Clovis and Albuquerque and the New Mexico Girl's Welfare Home.

George L. Keppers

Consultant, Volt Enterprises Headstart; Advisory Committee for State Department of Guidance; member, committee to revise certification requirements for counselors; Elk's Cerebral Palsy Clinic; participated in counselors meetings; member, North Central Visiting Committee.

Don M. Rice

Presentations to New Mexico Nursing Association, New Mexico Social Welfare Agency and other public groups.

Gordon A. Zick

Registration Committee and College of Education Curriculum Committee.

8. Non-Teaching University Service:

L. C. Bernardoni

Administrative & Policy Committee; University Rehabilitation Committee; Acting Department Chairman; Los Lunas Advisory Committee; Adviser for 100 Masters candidates, Chairman of six doctoral committees and member of six doctoral committees.

L. A. Bransford

Faculty Adviser; member, five College of Education committees; Director, Learning Materials Center; Supervisor of Student Teaching; proposal writing.

Ted L. Christiansen

Faculty Adviser; Member, Honors Committee, Manzanita Center Committee, Administrative & Policy Committee, Space & Office Committee, Ad Hoc Committee for Reorganization of College of Education.

Edward J. Kelly

Member, Education Doctorate Committee and Committee on Rank, Promotion & Salary.

George L. Keppers

Chairman, Department of Guidance & Special Education; Director, Manzanita Center and Chairman, Manzanita Center Committee; Assistant Dean for Student Affairs; Entrance & Credits Committee, Administrative & Policy Committee; Minority Groups on Campus; Comprehensive Learning Center (public schools and university); Adviser for 70 Masters and ten Doctoral students; counseling undergraduate students; College Day in High Schools; Misc. Ad Hoc Committees.

Don M. Rice

Member, Committee B and Education Doctorate Committee.

Gordon A. Zick

Registration Committee and College of Education Curriculum Committee.

9. Public Services

L. C. Bernardoni

Member, Episcopal Church

L. A. Bransford

State and Local Associations for Retarded Children, YMCA,
Brothers of the Good Shepherd, Casa Angelica.

Ted L. Christiansen

Albuquerque Community Council and Chamber of Commerce.

George L. Keppers

Member, Official Board of Central Methodist Church and Usher.

Don M. Rice

Sunday School Superintendent, Heights Baptist Church.

Gordon A. Zick

School Board Member, Sunday School Teacher, Immanuel Lutheran Church.

10. Personal Information:

L. A. Bransford

Reclassified Draft Status - 1-A

ANNUAL REPORT

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION AND RECREATION

July 1, 1968 - June 30, 1969

Armond H. Seidler, Chairman

I. General Departmental Information

A. Significant achievements during the academic year 1968-69:

1. The department awarded 57 Bachelor of Science Degrees in Health and Physical Education, 18 Bachelor of Arts Degrees in Recreation, 23 Master of Science Degrees in Health and Physical Education, 4 Master of Arts Degrees in Recreation, 9 Doctor of Education and 2 Doctor of Philosophy Degrees.
2. The Bachelor of Science degree program in Health Education was initiated in September, 1968, and a total of 24 students are now enrolled in that program.
3. The therapeutic Physical Education Program for UNM students was begun with the cooperation of the University Health Service. The number of students enrolled in this program has grown considerably and indications are that it will continue to do so.
4. Room 139 in Johnson Gymnasium was converted to a weight lifting facility. This has permitted an expansion of services to students and faculty interested in weight resistance programs of exercise.
5. Rooms 4 and 4A in Johnson Gymnasium have been converted from a weight lifting facility to

an exercise therapy clinic which is now the home for the therapeutic programs offered by the department. These programs have increased in scope and variety and are now serving many more handicapped persons.

6. Partitions were installed in Room 202, Johnson Gymnasium which enabled us to develop four private offices in what was previously open space. This has helped in some small measure to alleviate our acute office shortage.
7. The Summer Sports Fitness School continued its growth and enjoyed strong university and community support.
8. The Adult Fitness programs conducted by the department served an increasing number of faculty and citizens of the community and is strongly supported by these participants.
9. The Human Performance Laboratory of the department provided facilities and equipment for the conduct of several doctoral dissertations and masters theses and a large number of graduate research studies. Additionally, the laboratory provided services to the Summer Sports Fitness Program, Research Classes taught by the Department, and also was the location of a number of seminars conducted by the departmental faculty and the faculties of other agencies.
10. Intramural and student/faculty recreation programs continued to expand and large numbers of the university community were served by these programs.

11. The children's experimental playground was completed and is now being used for research in clinical work with handicapped children.
12. The recreation and park field service was quite active with the aid of ISRAD and provided many significant services to Indian groups within the State of New Mexico.

B. Significant plans and recommendations:

1. The University of New Mexico has dragged out the swimming pool project so that now more than a year after this project was approved by the Board of Regents, the future of this facility is still up in the air. The need for this facility has increased and the arguments which persuaded the institution to undertake this project four years ago are considerably more pressing than they were at that time.
2. The construction of additional tennis courts is a continuing need, if the university community is to be served as it should.
3. It is recommended that serious planning be undertaken to make Johnson Gymnasium a more functional facility. This building is by far the most heavily used building on the campus and was designed to serve a student population of only 10,000. A proposal to build an additional floor in the main arena would provide 26,000 square feet of floor space at a cost of \$250,000. This would greatly enhance the facility.
4. It is imperative that ISRAD establish the Center for Leisure and Recreation as an

integral part of the ISRAD organization.

5. The department is hopeful that the NMHSAA will soon vacate suite 201 of Johnson Gymnasium so that the recreation faculty of this department may occupy this space and work as an organized sub group of the department.
6. The department hopes that the new athletic department facility is under construction soon, because the need for the spaces in Johnson Gymnasium now occupied by the athletic department is now most serious.

C. Appointments to staff:

Hemming A. Atterbom, Assistant Professor of Physical Education, September 1, 1969

Jacquelyn Anne Boaz, Assistant Professor of Recreation, September 1, 1969

Beverly Bond, Assistant Professor of Physical Education, September 1, 1969

Phyllis Douglass, Associate Professor of Health Education, September 1, 1969

Linda Kay Estes, Instructor of Physical Education, September 1, 1969

David Hunt, Assistant Professor of Physical Education, September 1, 1969

John Mechem, Instructor of Physical Education, September 1, 1969

D. Separations from staff:

Robert K. Barney, Instructor of Physical Education, August 8, 1969

Edwin C. Belzer, Associate Professor of Health Education, June 30, 1969

William A. Bynum, Jr., Associate Professor of Physical Education, August 8, 1969

Marvin D. Heffington, Assistant Professor of Recreation and Director of Intramurals and Student/Faculty Recreation, June 30, 1969

Helen Lorraine Shearer, Assistant Professor of Physical Education, February 1, 1969

Sandra Suttie, Assistant Professor of Physical Education, June 30, 1969

II. Composite of Information Requested on Individual Biographical Supplements

1. ADVANCED STUDY

Frank E. Papcsy, Doctor of Philosophy Degree; completed 1968; conferred February, 1969, by New York University. Dissertation entitled "The Effect of Understanding a Specific Mechanical Principle upon Learning A Physical Education Skill."

Donald S. Warder, American Camping Association certifications; Registered Instructor, Campcraft Instructor, Visitor Instructor

2. SABBATICALS, LEAVES OF ABSENCE, SUMMER TEACHING ELSEWHERE, TRAVEL, ETC., DURING THE PERIOD:

Lloyd R. Burley: sabbatical June 5, 1968, to January 31, 1969. Travel: New Mexico, Colorado, Kansas, Missouri, Illinois, Indiana, Michigan, Ontario, Quebec, New Brunswick, Minnesota, South Dakota, Nebraska, Wyoming, Orient, Japan, Taiwan, Philippines, Cambodia, Thailand, Malaysia, Singapore, Hong Kong.

William A. Bynum, Jr.: Travel in Mexico and much of the United States.

Woodrow W. Clements: Traveled by car through the New England States and northeastern Canada--on the way visiting Washington, D.C. for five days and one day each in Ottawa, Montreal and Quebec, Canada, as well as to the West Coast of the United States.

Frank E. Papcsy: Traveled to London, England, December, 1968.

George T. Petrol: Traveled in Mexico.

Charlotte L. Piper: Traveled through northern Minnesota (canoe trip); visited Mankato State, Minnesota, Recreation Department.

Donald S. Warder: National Committee Work -- American Camping Association -- Indiana National Symposium on Outdoor Recreation and Education by invitation -- Washington, D.C.

3. NEW SCHOLASTIC HONORS, FELLOWSHIPS, ETC.:

Woodrow W. Clements: promoted to Professor

Fred J. Hinger: promoted to Associate Professor

Frances McGill: proposed for trustee, American College Sports Medicine

Frank E. Papcsy: Fellow: American College of Sports Medicine, Awarded: Founders Day Award, New York University, Admitted to: Phi Kappa Phi

E. A. Scholer: Award of Merit, Iowa Park and Recreation Society, 1968

Ella May Small: Elected to the Royal Society of Health (Great Britain)

4. PUBLICATIONS:

W. A. Bynum, Jr.: "Effects of Periodic Exposure to Hypobaric and Exercise on Physical Work Capacity," Journal of Sports Medicine and Physical Fitness, Torino, Italy, 1969

Lawrence F. Locke: Research in Physical Education: A Critical View, Teachers College Press, 1969;

"Movement Education: A Description and Critique," in New Perspectives of Man in Action, R.C. Brown and B.J. Cratty (Eds.), Prentice-Hall, Inc., 1969.

"The AAHPER Tests: Add a Bit of Common Sense," New Mexico AAHPER Newsletter, Vol. 10, No. 1, (April, 1969), pp. 3-7.

Frances McGill: Procedures for Intercollegiate Athletic Events, AAHPER, 1968 Athletic Administration for Girls and Women's Programs (in process).

E. A. Scholer: "Camping for Older Adults," Camping Magazine, March, 1969, Vol. 41, No. 3, pp. 15,16;
"Tennis Court Construction The ABC's from Experience," Park Maintenance, Oct., 1968, Vol. 21, No. 10, pp. 84-89; "The Port Wackato Camp: A Case Study,"

Journal of Outdoor Education, Fall, 1968, Vol. 3, No. 1, pp. 3-6; "An Interpretive Manual for Park Personnel in Iowa," Des Moines, Iowa. Iowa State Conservation Commission, April, 1969, 35 pages.

Armond H. Seidler: "Recreation and Open Space," Goals for Albuquerque Policy and Direction, The Applied Urban Problem Series, University of Albuquerque, 1969.

Donald S. Warder: National Survey of Camping, Office of Economic Opportunity, January, 1969.

5. OTHER RESEARCH PROJECTS OR CREATIVE WORK IN PROGRESS OR COMPLETED DURING THE PERIOD:

Lloyd R. Burley: "An Analysis of Several Evaluative Studies at UNM," 1952-1968

W. A. Bynum, Jr.: sponsored a number of Ph.D. Dissertations, Master's Theses and Graduate Research Projects.

Mercedes Gugisberg: searching for Black games and dances from African States and from day of slavery for P.E. 319.

Lawrence F. Locke: designed, proposed and supported by testimony before various committees, three new graduate courses, "Motor Learning and Performance," "Sport in American Culture," and "The Analysis of Teaching Physical Education." Designed, proposed and supported the major revision of one existing graduate course "Psychological Aspects of Sport." All proposals were accepted for inclusion in the offerings of the Department for 1969-70.

Frances McGill: evaluation of T Wave Changes in the Post Exercise Electro Cardiograph; \$5,000 Lovelace Foundation, 2 years; Chairman of National Gymnastics Rating Committee which produced film for rating officials.

Frank E. Papcsy: Education (Motor) for the Mentally Retarded, Title III.

Charlotte L. Piper: Study on "Dilemmas of the College Student on UNM Campus," 345 samples.

Ella May Small: two surveys: Health Agencies in

New Mexico and the need for Health Education; Public and Private Schools in New Mexico and the need of Health Education.

6. ACTIVITIES IN LEARNED AND PROFESSIONAL SOCIETIES:

Lloyd R. Burley: Constitution Committee, AAHPER; Board of Directors, SW District AAHPER, Convention, Sacramento, President-Elect, NM Association HPER.

W.A. Bynum, Jr.: Chairman, College Division of NMHPER; Chairman, Research Section of NMHPER; National Convention, American College of Sports Medicine.

Woodrow W. Clements: Vice-President for Health in New Mexico Association for HPER; Member of state-wide committee to write proposals in Curriculum for Quality Health Education.

Mercedes Gugisberg: New Mexico Association for HPER: Archives, Chairman; Executive Council, Winter Conference: Speech giving brief historical development and then honoring Fred Hinger for his contributions in its development.

Fred J. Hinger: Member of Southwest District AAHPER Elementary Physical Education Committee; Member of New Mexico Elementary Demonstration Team.

Ronald E. Jacobsen: Wrestling Symposium, Waterloo, Iowa, April 11, 1969.

Sharel A. King: Attended Winter Conference for Women in Physical Education, Los Alamos; BYU Folk Dance Camp, Dance Chairman-Elect for NMAHPER.

Lawrence F. Locke: Delivered paper "Teachers and Researchers at the OK Corral" at National Convention NCPEAM; delivered paper "The Research and Teaching Paradigm" at University of Wisconsin Graduate Faculty Seminar (Department of Physical Education); attended National AAHPER Convention in Boston; attended National Convention of North American Society of Sports Psychology.

Frances McGill: Governing Council, U.S. Gymnastic Federation; Chairman, National Commission on Inter-collegiate Athletics for Women; attended 1968 Olympics in Mexico City as official observer Winter

Conference for N.M. Women Physical Educators;
Commission on Intercollegiate Athletics Meeting;
AAHPER Convention, Boston; New Mexico Recreation
and Athletic Meeting.

Russell D. Mitchell: AAHPER, Washington, New
Mexico, California; National Association of College
Gymnastic Coaches, November, Chicago; Foreign Rela-
tions Committee, USGF-AAU Commission; Games
Committee, World Cup, Los Angeles, 1969.

Frank E. Papcsy: Papers delivered at the American
Association for Physical Education, Boston; Rocky
Mountain Psychological Association, Albuquerque;
attended Southwest District AAHPER.

George T. Petrol: NMEA; AAHPER.

Charlotte L. Piper: Western Society for College
Women in Physical Education, Panel, Topic "Dilemma
of the College Student;" Intermountain Conference
for Women in Physical Education; President NMAHPER
Executive Committee; Chairman, Recreation Section;
Co-Chairman for Winter Conference for New Mexico
Women in Physical Education with the University of
Albuquerque; DGWS Rules Committee meeting at Arizona
State University, Tempe; Conference on Intercollegiate
Competition, Estes Park, Colorado; visiting professor
at Graduate Seminar at University of Utah.

E. A. Scholer: National Recreation and Park Congress,
Seattle, Society for Park and Recreation Educators
member; Constitution and By-Laws Revision Committee,
Area representative of SPRE for NRPA; member Public
Relations Committee American Association of HPER;
Convention, Boston, member; Council on Outdoor
Education and Camping; Commission on Research and
Evaluation, Phi Delta Kappa, member 1969 Phi Epsilon
Kappa; life member New Mexico Park and Recreation
Association State Conference 1969; Speaker, Education
Curriculum and Internship Program member; Registration
committee; student affairs committee; New Mexico
Association for Health, Physical Education and
Recreation, Fall meeting 1968, presented paper:
"Research, Conservation and Outdoor Education."

Armond H. Seidler: Attended: NCPEAM, Durham, North
Carolina, speech; AAHPER, Boston, Mass., Board of
Directors; SW District AAHPER, Sacramento, Calif.,

speech; Graduate conference, UCLA, Los Angeles, Calif.

Ella May Small: Unable to accept invitations to speak at SW District, Sacramento; American College Health, Oklahoma City; reason: inadequate finances.

Donald S. Warder: National Symposium on Outdoor Recreation, sponsored by National Recreation and Park Association and AAHPER; reappointed to National Standards Committee, A.C.A.; Coordinator, National Standards Re-write Committee, A.C.A.

7. OTHER PROFESSIONAL ACTIVITIES:

W. A. Bynum, Jr.: Presented a number of speeches on exercise physiology to various groups in Albuquerque.

Woodrow W. Clements: Attended National Meeting of AAHPER; attended state and local meetings of Health and Physical Education.

Fred J. Hinger: Gave demonstration for New Mexico Elementary Principals' annual meeting; Commencement speaker for Magdalena High School.

Sharel A. King: International Folk Dancers.

Lawrence F. Locke: Attended "Taskforce on Teaching" Planning Seminar at Rutgers University; attended International Congress of Sports Psychologists in Washington, D.C. Presently serving as President of Teacher Education Section of NCPEAM; nominated and confirmed for a four-year term as Editor of Quest; in January finished five-year term as Editor of kinesiology column in JOHPER.

Frances McGill: "Physiological Aspects of Olympics," talk at Lovelace Clinic; "Record Performances in Olympics," talk at annual meeting of NM AAU.

Russell D. Mitchell: Consultant, American Athletic Equipment Co.; 1968 Assistant Olympic Coach 3-1/2 weeks July; National Summer Clinic, Michigan State University; Kansas, Colorado, California, Washington, New Mexico, State High School Gymnastic Clinics; several T.V. and radio appearances, Albuquerque and elsewhere; Quaker Oats Fitness Clinic; New England Clinic Conv., Boston; 5 highschoools, 10 junior assembly programs (Albuquerque).

E. A. Scholer: Member, Advisory Board, Navajo Park and Recreation Commission; Advisory Board Regional Office Bureau of Land Management; Consultant Service: Indian tribes, communities, State agencies for Park and Recreation; Lecturer General Development Seminar for Selected Indian Tribes area - Tourism and Recreation; Development of summer recreation program, Canoncito Navajo reservation - drafting three grant proposals for Navajo.

Armond H. Seidler: Numerous speeches; consultant Wayland Baptist College; Consultant, Goals for Albuquerque Program.

Ella May Small: Mid-Rio Grande Comprehensive Health Planning In-service education Semester I, Los Alamos; Semester II, Santa Fe Task Force Comprehensive Health Education Board; Consultant Health Education in Albuquerque Public Schools.

Donald S. Warder: Chairman, District Workshop, A.C.A.; Keynote Speaker, District Workshop, A.C.A.; Interviewed by KUNM Radio on Outward Bound philosophy; Consultant to Highlands University's course in Camping Administration.

8. NON-TEACHING UNIVERSITY SERVICE:

Lloyd R. Burley: Advisor for eight Ph.D. or Ed.D. candidates; one Master's Thesis.

W. A. Bynum, Jr.: Director: Adult Fitness Program, Summer Sports Fitness Program; Director, Human Performance Laboratory.

Woodrow W. Clements: Assistant Chairman for the Basic Service Program; Advisor to 40 students in Health and Physical Education; Evaluation of transfers, transcripts; served on numerous Master's oral examinations.

Mercedes Gugisberg: In charge of Carlisle Gymnasium library; Chairman, Committee to improve courses and experiences in curriculum for women PE majors.

Fred J. Hinger: Member Committee A, College of Education.

Sharel A. King: Physical Education Curriculum Committee, Sophomore Major Advisor (35); PE Curriculum Committee regarding women's physical education.

Lawrence F. Locke: NCATE Committee for accreditation of the College of Education; Departmental Curriculum Committee.

Frances McGill: Associate Director, Human Performance Laboratory; Graduate Committee, Department of HPER; Senior major adviser.

Russell D. Mitchell: Faculty advisor, twenty students.

Frank E. Papcsy: Director, Therapeutic Physical Education Programs; Advisor to 40 undergraduate students and graduate students; Chairman, two doctorate candidates.

George T. Petrol: Advisor, Search Committee; Served on ten master's oral committees.

Charlotte L. Piper: Swim Team Coach; Women's Major Curriculum Committee; Counselor, University College; Coordinating Women's Programs in HPER.

E. A. Scholer: Assistant Chairman for Recreation, Department of HPER; faculty adviser, graduate and undergraduate students.

Armond H. Seidler: Acting Dean, College of Education, July 1, 1968 - January 1, 1969; Department Chairman, HPER; Several Committees, Intramural Board, A & P Committee.

Ella May Small: Education Doctorate Committee; Graduate Committee HPER; Advisor graduate students; Supervisory Committee Coronado Credit Union; Cooperative Health Planning with Medical School; UNM representative to NM Coordinating Committee on School Health; North Central Evaluation -- Highland High School.

Donald S. Warder: Coordinator, Outdoor Resources courses, HPER; Advisor, University College.

9. PUBLIC SERVICE:

Lloyd R. Burley: First Aid Instructor, American Red Cross; First Aid Merit Badge Counselor, B.S.A.

Woodrow W. Clements: Member Trinity Methodist Church; Served as Building Collector for United Fund.

Mercedes Gugisberg: Newman Center--Assist in the library.

Sharel A. King: Stake Dance Director, LDS Church.

Russell D. Mitchell: Boy Scouts, Demonstration Lecture.

E. A. Scholer: Assisted United Presbyterian in establishing youth recreation program; assisted EOB in evaluating summer recreation program and youth activity center.

Ella May Small: Speaker: Albuquerque Christian Women's Club.

Donald S. Warder: Nazareth Hospital; Multiple Sclerosis Drive.

10. PERSONAL INFORMATION:

Ronald E. Jacobsen: Boy adopted April 10, 1969.

Lawrence F. Locke: Son born November 15, 1968 (Jason Daniel Locke).

Frank E. Papcsy: Divorced, June, 1968.

The Report of the Department of Home Economics
July 1, 1968 - June 30, 1969
Ednell M. Snell

I. General Department Information

A. Significant achievement during the academic year, 1968-1969.

The entire faculty worked diligently on a new core curriculum for all majors in Home Economics. The core will consist of six courses: Human & Family Development, Food for Man, Design - Matrix for Living, Clothing & Human Behavior, Freshman Seminar and Decision Making. In developing the courses time was spent identifying concepts and generalizations related to the behavioral objectives. Hopefully, the plan will be ready for the 1970-71 catalog.

The Department continued to work to involve students in field experiences. In addition to the Office of Economic Opportunity Nursery School observations started last year, students observed in Office of Economic Opportunity Community Centers, Health and Social Welfare, Maternity Clinics and Job Corps. Faculty time for this program was extremely limited which resulted in primarily observation experience.

The Allied Health Profession Basic Improvement Grant for the Dietetic Program amounted to \$13,712.00. Four students completed the Dietetic Program and all received internships. There is a steady increase in the number of students interested in this Program.

Full day student teaching in Home Economics was done by 26 students. All were placed in Albuquerque with 18 cooperating teachers. The program, started in 1967-68, was continued and evaluation by both student teachers and cooperating teachers indicates it continues to be highly successful.

Six students received the degree Master of Arts in Teaching Home Economics. More graduate courses were offered during the year. A new course, Home Economics 444 - Family Finance, was approved for graduate credit and was offered Spring Semester. Two graduate level workshop courses were offered for Albuquerque teachers at the request of the Home Economics Consultant.

Ruth Harris experimented with a new arrangement of class time in the Food Science course. An hour of laboratory time was devoted to a small group discussion. The success of this method was such that all sections next year will be scheduled in this manner.

Five part-time instructors were employed, teaching a total of 21 hours. Mrs. Joyce Burgess and Lawrence Brown have previously taught part-time. New part-time instructors were Frances Seaman, supervising student teachers, Kathryn Brown teaching Family Relationships, Home Economics 418, and Patricia Weeks teaching Clothing, Home Economics 150.

B. Significant plans and recommendations for the near future.

Changes will be made in the Nursery School to make for greater involvement of parents and to provide for greater range of social-economic groups. We will operate three groups rather than the two groups presently in operation. There will be a Tuesday, Thursday (3 year olds) group, a Monday, Wednesday, Friday (3-4 year olds) group and a Monday, Tuesday, Wednesday, Thursday (4 year old) group. Twelve positions in each group will come from our waiting list which is predominantly middle-class. Any space vacant (a maximum of 4 for each group) can be filled by the Nursery School Policy Committee from applications received from the following agencies: International Services, Welfare Office, Economic Opportunity Board, Student Aid, Council of Churches, Family Consultation Service, Inter-Religious Council.

For the academic year 1969-70, the Policy Committee will attempt to place persons of deviant economic levels and no prior school experience (except Sunday School in the two day groups, Tuesday and Thursday). A selection based on racial background, which is reflective of the Albuquerque Community, will be attempted in the four day group (Monday, Tuesday, Wednesday and Thursday). The procedure and policy was arrived at after giving thought to the idea of non-discriminately adding children to the various groups.

The Friday morning session will involve parent participation and parent discussion groups. Hopefully, other areas within the Department will be involved in the parent groups.

As of July, 1969, the University of New Mexico will be listed by the State Board for Vocational Education as a reimbursed Home Economics Teacher Education Program at both undergraduate and graduate levels. With thirty four applications for student teaching in 1969-70, the additional money will be used to supervise student teachers and for supervision of community experiences for teacher education.

Initial steps have been taken to offer a degree in Foods and Nutrition leading to an Internship in Dietetics in the College of Education.

C. Appointments to the staff.

Miss Carolyn Hill, Instructor in Home Economics, was appointed in July, 1968, to teach Nursery School.

Mrs. Joanne Miller was appointed in July, 1968, as an Instructor for one year in the Dietetic Program. She will continue as a part-time appointment during 1969-70.

Miss Luella Williams, Associate Professor of Home Economics, was appointed July, 1968 for one year to teach Home Management.

Mrs. Mary Margaret Smith, Assistant Professor of Home Economics, was appointed May, 1968, to teach Home Management.

Mrs. Ann Herry will be a Graduate Assistant for summer, 1969, and Mrs. Dannie Keeper will be a Graduate Assistant for 1969-70 school year.

Mrs. Jeanie Lucero, Secretary, appointed September, 1968.

Mrs. Agnes Garcia, Laboratory Attendant, appointed September, 1968.

D. Separation

Miss Luella Williams is leaving at the end of her one year appointment to retire.

II. Composite Information on Individual Biographical Supplements.

1. Advanced study: none.

2. Sabbaticals, summer teaching, travel, etc.:

Carolyn M. Hill traveled to South America, observed schools in Brazil and Argentina.

Florence Schroeder traveled to Guatemala, visited state, private elementary, pre-schools, day care centers and high schools.

3. New scholastic honors, fellowships, etc: none.

4. Publications: none.

5. Other research projects: none.

6. Activities in learned and professional societies:

Ruth B. Harris attended Annual Meeting of American Dietetic Association and Pre-Convention Meeting of College and University faculties and Directors of Dietetic Internships; Southwest College Teachers of Foods and Nutrition; Four Corners State Dietetic Association; New Mexico Home Economics; local meetings of Dietetic Association and Home Economics Association.

Carolyn M. Hill demonstration laboratory for New Mexico Association for Education of Young Children; attended New Mexico Home Economics State Convention; attended New Mexico Association for Education of Young Children; attended local meetings of Albuquerque Home Economists.

Imogean McMurray attended Western Region Meeting of Clothing and Textiles.

Joanne C. Miller solicitor for American Home Economics Association Anniversary Fund; attended Albuquerque Home Economists meetings.

Florence Schroeder attended and participated in two New Mexico Association Education of Young Children meetings; attended New Mexico Home Economics meetings; attended conferences on Teaching Infant Development in College and Universities at Merrill-Palmer; attended National Conference on Head Start.

Ednell M. Snell spoke to New Mexico Dietetic Association; attended and participated in the program of the New Mexico Home Economics Association State Meeting; participated in National Workshop-Consumer Home Economics Education; participated in Regional Clinic regarding 1968 Vocational Education Act; attended Albuquerque Home Economics Club monthly meeting; attended Teacher Education meeting American Vocational Association.

Luella Williams attended the Western Regional Conference on Family Economics and Home Management; attended Family Finance Workshop at Southwest Missouri State University.

7. Other professional activities:

Ruth B. Harris: Committee on Nutrition Education for Planning Annual Symposium, talk on teen-age nutrition to junior high teachers; talk on nutrition to LeLeche League (women in the Community).

Imogene McMurray: Chairman of Scholarship Committee, Albuquerque Home Economist^s and Committee on Handbook for The University of New Mexico.

Florence Schroeder: Consultant, Martineztown Nursery School and Kindergarten Program; Council Child Development Committee; Consultant, Albuquerque Special Education Center; Interagency Career Development Committee; Albuquerque Public School Title I summer Program Consultant; Professional Representative on Child Development Economic Opportunity Board and Consultant (volunteer); Albuquerque Public Schools Workshop for Teachers of Navajo Children at University of Albuquerque summer 1968. All but Albuquerque Public Schools volunteer work.

Ednell M. Snell: Assisted in developing proposal for New Mexico Home Economics Association and Albuquerque Dietetic Association to submit to Model City. Consulted with State Department of Vocational Education regarding State Plan; Interagency Career Development Committee.

8. Non-teaching University Service:

Ruth B. Harris: Advisor to 40 students plus Faculty sponsor to Kappa Omicron Phi - honorary society; College of Education Curriculum Committee A; Chairman of the Flower Fund;

Advisory Committee - Bureau of Educational Planning

Department; development of brochure for Department.

Carolyn M. Hill: Home Economics Recruitment Day Chairman; University College Advisor; Department Curriculum revision work; Home Economics Club Advisor; Committee for Reorganizing Nursery School Proceedings; Trainer for New Career Program.

Imogene McMurray: Member of Committee on Curriculum Revision, Home Economics Department; Advisor to majors and University College.

Joanne C. Miller: University College Advisor; Learning Materials Committee Member; Home Economics Brochure - Department Committee.

Florence Schroeder: Manzanita Center Committee; Ad Hoc Committee on Salaries and Promotions; Curriculum Development Committee, Home Economics Department.

Ednell M. Snell: Faculty Club Board; Administrative and Policy Committee; Committee B, College of Education Doctoral Program; Chairman of Department of Home Economics; Petition Committee; Advisor graduate and undergraduate students.

9. Public service:

Ruth B. Harris: Parish Synod Committee at Newman Center; Transportation for Senior Girl Scouts.

Imogene McMurray: Two volunteer for Neighborhood Drives, New Mexico Mental Health Association.

Joanne C. Miller: Albuquerque Indian School Presbyterian Coordinating Committee; PTA; TAP Nutrition Committee.

Florence Schroeder: Community Service Project, Phi Mu.

Ednell M. Snell: Altrusa Member - Chairman Vocational
Committee.

10. Personal information: none.

THE REPORT OF THE DEPARTMENT OF SECONDARY EDUCATION

July 1, 1968 - June 30, 1969

Robert Doxtator, Chairman

I. General Departmental Information

A. Significant achievements during the academic year 1968-69

The department initiated and completed successfully the Job Corps Project and the West Mesa High School Project. Also attempted was a project involving Washington and Harrison Junior High Schools. The APSCOE English Project continued successfully. All projects were an extension in various ways of the Valley High School Block Project, carried out fall and spring, 1966-67.

The Job Corps Project was a twenty-four semester hour professional program extending over two semesters, involving communication with and coordination of more than fifty individuals. Personnel in Secondary Education and Educational Foundations were involved as well as personnel from two additional departments in the College of Education. Personnel from three secondary schools were involved (Menaul Presbyterian School, Albuquerque Indian School, and Albuquerque "inner city" High School) as well as personnel from the Job Corps Center for Women in Albuquerque. The project was an ambitious extension of practice several years ago when student teachers in Secondary Education were placed in the Job Corps Center locally for a six- semester-credit-hour experience in student teaching. The West

Mesa High School Project continued the practice begun at Valley High School, fall, 1966, of offering seminar and field work combined (9 credits) rather than a class on campus and student teaching in the field (3 credits and 6 credits). The Washington and Harrison Junior High School Project attempted to change a second course usually offered on campus to a second seminar-type offering on the site of internship experience for a 12 credit total experience.

The department took a decisive step recently as a result of the foregoing experiences summed as "block projects". Two separate courses* were eliminated which have been offered on campus for some years for all students in academic areas** and in Business Education***. In place of the two courses, a six-credit-hour-offering has been devised for students

* Secondary Education 301 (3), Foundations of Secondary Education, and Secondary Education 310 (3), Materials and Methods of Teaching in the Secondary School.

** Mathematics, any science, any language art, any foreign language, and any social science.

*** The Department of Secondary Education is one of eight departments in the College of Education. Secondary Education as a department houses students in Business Education, Industrial Education, and all academic areas. Prior to the establishment about five years ago of the three Educational Foundations courses (9 credits) required of all students in the Departments of Elementary and Secondary Education (plus the departments of Art Education, Physical Education, Home Economics, and Music), students at the secondary level (all subject areas) enrolled for Sec. Ed. 301 and Sec. Ed. 310. With the requirements of three "core courses" instituted, the Department of Secondary Education's enrollments were truncated and coordination of programs was lost. Students in Business Education and Home Economics have continued to take Sec. Ed. 301 and 310, and presumably will shift to the new Sec. Ed. 361 block.

in all academic areas, Business Education, Home Economics and the new Dental Hygiene program to prepare teachers in that area. Secondary Education 361 (6 credits), to begin fall, 1969, will involve half-time on campus or perhaps in seminar-type rooms in various educational settings (schools, Job Corps, etc) and half-time in the field in a pre-student teaching experience in Secondary Education. Some intents of the new program are: better counselling of teachers-to-be, advisement of them, and screening of them for further preparation for teaching; better preparation of teachers-to-be prior to a student teaching experience later; seeking closer relationships between theory and practice; plus exercise of influence in school practice in the field with in-service education of personnel in the field a stated objective. Additionally, both the Industrial Education program in the Department of Secondary Education (four personnel and a graduate assistant) and the Business Education program in the Department of Secondary Education (four personnel and a graduate assistant) have developed 15-credit-hour block projects with 10 to 15 to-be-selected students in each for pilot purposes for fall, 1969. Depending upon one's perception, Sec. Ed. 361 will be represented as 6 credit hours of the 15 credit hours in the two pilots, with special methods in the subject field and student teaching represented also (3 credits and 6 credits). The whole of each pilot is intended to be a 15-hour professional semester, with seminars replacing classes and with theory and practice related increasingly more effectively in the semester. APSCOE does the foregoing and more, but on APS monies, in the subject field of English.

In addition to projects mentioned foregoing, the department maintained its regular heavy programs (see previous staff load reports) with undergraduate and graduate students. Involved in those activities were: advisement, counselling, teaching, directing theses, dissertations, and problems. Additionally departmental personnel engaged in a wide variety of services of all kinds (committee service, consultant activity, speaking) plus writing and engaging in research (see individual faculty biographical sketches, 1968-69).

Significantly, the department did all of the foregoing with short-handedness (one vacancy first semester and two vacancies second semester). Supplemental part-time help was employed in order to cope with the total load (Koch, Keppers, O'Flyng, Esterly, Smolich, Stout, for example, and use of all five graduate assistants for teaching and/or supervision). Problems were thereby introduced into departmental operations.

Additionally, staff members gave consideration to demands by undergraduate and graduate students to plan, develop, and change programs plus giving consideration to invitations to submit additional proposals beyond what they have already submitted for continued and additional outside funding.

During the academic year 1968-69, Secondary Education 301 (to be phased out fall 1969) was a pilot program in simulation and decision-making. The pilot was developed by Dr. Dettre. Aspects of the pilot program (not simulation) will be involved in reality in Secondary Education 361 in field situations. Furthermore, as a regular feature throughout the year,

large lecture sections (301) were eliminated with small group sections established as the standard operating procedure and main structure. Small sections will be a major characteristic of Sec. Ed. 361, although not exclusively so.

Departmental personnel developed a Petroleum Workshop for teachers and an Electronics Workshop to be offered summer session 1969 (Koch, Baldwin).

During Summer Session 1968, and Fall and Spring Semesters, 1968-69, approximately 567 undergraduate students applied for entry into teacher education through the Department of Secondary Education. More than 50 were ineligible to apply. Approximately 104 were denied admission. Approximately 439 were admitted. The figures are for all programs in the Department of Secondary Education. The admissions represent continued growth in enrollment. Generally, however, tightened control of admissions was maintained in the undergraduate program as can be seen from ineligibility figures (college-level action) and "do not admit" figures (departmental-level action).

At the graduate level approximately 40 students were admitted. Approximately 33 were admitted to master's level programs, none to sixth-year level programs (Education Specialist), and 7 to doctoral or seventh-year level programs.

No new programs were developed, graduate or undergraduate. One graduate course was developed, Evaluation and Appraisal of School Programs, in view of a need existing and developing strongly in the field. A data

processing course for undergraduates was developed by personnel in Business Education and will meet a need not being met by any existing courses on campus.

Visitations by NCATE and NCA teams have resulted in outsiders appraising the program of Secondary Education at UNM and making comment for thought by departmental members.

The department initiated in a more technical manner discussions and study of behavioral outcomes it expects in undergraduate students who complete its programs.

Throughout the year considerable time and energy was spent in discussions and exchanges of letters between State Department personnel and Secondary Education personnel where the matter of vocational education and UNM's role-to-be- were involved. Personnel were involved additionally from the college and university level. Effective working relationships were established to some degree and some clarity was effected as to which personnel and programs at UNM would contribute with state support to the vocational education effort.

The department shifted to the credit or no report rather than letter grades for student teachers.

B. Significant plans and recommendations for the near future

Plans which emerge for the near future are:

1. The department will continue study of behavioral outcomes desired in its students and recommends to the departments throughout the university that they attempt the same.

2. The department will turn attention to the suggestions by the teams from NCATE and NCA. Inspiration will be sought from those suggestions to improve both undergraduate and graduate programs. Likely, new programs will be forthcoming at the graduate level (MAT in Social Studies or Social Science, for example), even though final and formal action on those might have to be delayed in view of the communication from the Academic Vice President concerning holding in abeyance any hope of approval of new graduate programs at the state level.
3. Considerable energy and time will be required to effect success in the new block program to be attempted at the undergraduate level. Here, in the opinion of the chairman, should be the major emphasis of departmental members for the year 1968-69, especially in view of AACTE-NCATE evaluation comments, and in view of a paraphrase of President Heady's comment that the pursuit of excellence in teaching at the undergraduate level is a worthy endeavor.
4. Personnel and programs will give increasing attention to individual differences and needs in teacher preparation.
5. Job Corps setting, Indian School setting, church-school setting, TVI, Kirtland and/or Sandia Base Educational Centers, private academies, junior and senior high schools outside the city of Albuquerque will continue to be sites for experiences for teachers-to-be.

6. Continuation of grant programs can be expected and participation in grant programs can be expected (Triple T, Indian History Project, AACTE-OEO-Job Corps, Title I, EPDA, etc.)
7. Attention can be expected to be given to graduate students and programs, admissions, counselling, expectancies both from students and faculty, and an examination of experiences provided for graduate students, valuable and lacking in value.
8. More flexible use of manpower and personnel can be expected (Sec. Ed. 361).

C and D. Appoints to and separations from staff

Turnover in personnel was a significant feature in departmental affairs, 1968-69. The department, having failed to replace Alvin Howard during fall, 1968-69*, was successful in hiring Dr. George Stoumbis, University of Utah, for the school year 1969-70. Dr. Stoumbis is active in Indian Education and has been fortunate and successful in securing grant money for projects in that area. He will give attention to the area of social studies education additionally. The resignation of Dr. Zweig in mid-year (science education), created additional staffing problems. The appointment held by Dr. Zweig was a joint one, elementary and secondary education. The two departments were successful in hiring Dr. Paul Tweeten for the school year 1969-70. Dr. Tweeten is State Director of Science Education, Des Moines, Iowa. The resignation of Dr. Hanny, effective fall,

* Dr. Howard was promoted to the position of Assistant to the Dean late summer, 1968.

1969, led to the employment of Dr. George Prigmore on a one-year contract. Dr. Prigmore was formerly with the State Department of Education, New Mexico, as a specialist in language arts and the humanities. Dr. Hanny was an instructional strategist in departmental programs. The resignation of Dr. Dettre, effective fall, 1969, led to the appointment of Dr. Bill Engman, University of Wyoming, with specialties in science education and in curriculum, instruction, and evaluation of school programs. Dr. Dettre specialized in simulation and decision-making. The resignation of Tom Baldwin, electronics specialist in Industrial Education, effective June, 1969, led to the one-year appointment of Gerald Cunico, former teaching assistant at UNM in electronics in Industrial Education and currently planning entry into a doctoral program at Arizona State. The department lost certain kinds of strengths, in short, in the opinion of some staff members. However, some staff members believe that the department has gained certain kinds of strengths in replacements for 1969-70.

E. Comment on promotions

Beginning fall 1968, the department included four professors, four associate professors, eight assistant professors, and two instructors. Additionally, one vacancy carried the title Assistant Professor. The chairman of the department made a comment in writing 1968-69 that such a distribution in no way symbolized the experience, capability, and maturity of an effective staff. Entering the school year 1969-70, the department carries on its roster six full professors, six associate professors, five assistant professors, and two instructors. Such a distribution symbolizes more nearly the experience, capability, and maturity

of what is hoped and expected to be an effective staff, 1969-70, in the opinion of the chairman.

F. Comment on additional staff

As for the school year 1968-69, so in 1969-70 the department will give general supervision to the work of one teaching assistant in Audio Visual Education and to one to three or four individuals in Library Science Education. That faculty is carried on the department's budget as teaching assistant and part-time instructors. Additionally, part-time personnel are employed for teaching single courses and for supervision of student teachers, all listed ultimately as instructors.

II. Composite of information requested on individual biographical supplements

1. Advanced study

Miss Heemstra, assistant professor in Business Education, has taken additional work toward her doctorate at Michigan State University and two courses at UNM.

Mr. Warner completed and received his Ed. D. degree from Texas A&M in January, 1969.

2. Sabbaticals, leaves of absence, etc.

Mr. Runge was on sabbatical fall, 1968. This included three months' travel in eastern United States and to Europe for five weeks. He visited many schools in both places with particular reference to teacher education.

Mr. Crawford was on sabbatical spring and summer, 1969. He was

on the faculty of the University of Okinawa for two months and continued his tour of the Far East and Europe.

Mr. Doxtator and family toured California during the summer of 1968.

3. New scholastic honors, fellowships, etc.

Mr. Baldwin was accepted in the doctoral program in Industrial Arts at Texas A&M University.

Mr. Doxtator was given a large inscribed Nambe silver plaque for his service to NMCCS

4. Publications

Mr. Dettre's book Contemporary Teaching in the Secondary School: Forces and Sources was published in 1968 by Associated Education Services Corporation as a book of readings and was also published in 1969 as a text. In the planning stage is Decision-making in the Secondary School Classrooms: Toward Preparing the Diagnostic Teacher. He also had three articles accepted for publication in New Mexico School Review, The Clearing House, and Phi Delta Kappan.

Mr. Howard had the following publications during the period covered by this report: "A Junior High Award System that Works", School Activities Magazine, January, 1969, 40:18-20; "Problems in Junior High School Activities", guest editorial, same issue, p. 2; and "The Affair at South Overshoe", Clearing House, September, 1968. His book, Teaching in Middle Schools, International Textbook Company, was published June, 1968. He has also sub-

mitted two other articles with with no word as yet of acceptance.

He is also working on the final revision of a manuscript under contract to International Textbook entitled The Junior High School: Issues and Practices.

Mr. Prouse, co-authoring with Mr. White of Secondary Education, is in the process of completing two textbooks for 7th and 8th grades dealing with basic linguistic concepts and learning which are under contract with the American Book Company.

Mr. Runge completed the ninth edition of the Handbook for Student Teaching, published by UNM, 58 pages. He also prepared several Title I project proposals for USOE funds through APS, block program, Spanish project, reading, etc.

Mr. Warner had an article entitled "The Road to Progress" published in the spring issue of the New Mexico Industrial Arts Journal, pp. 2-3.

Mr. White is co-authoring New Dimensions in Language, grades 7 and 8, with Mr. Prouse. This is in progress.

5. Other research projects or creative work

Mr. Brown continued research on his proposed book entitled Slide Rule for Industry and on curriculum revision for Industrial Education.

Mr. Hanny presented a paper on "Instructional Theory: Nature of a Discipline" at UNM-COE invited lecture series in April 1969. He was also co-researcher on a study of teacher self-evaluation.

Mr. Hirshfield drew up specifications for the communication and human relations area for the Vocational School at Espanola (El Rito Project). He also headed two Title I student teaching projects.

Mr. Ivins had a manuscript entitled "Inner City Teacher's Dilemma" accepted for publication in the April, 1969, issue of the New Mexico School Review and he is also working on a manuscript tentatively titled "What Do We Mean - Relevant?"

Mr. Runge worked on a special mid-school project funded from APS Title I funds at Washington-Harrison Junior High Schools.

Mr. White was involved in a workshop in applications of linguistics to the teaching of English during the 1968 summer session. He is at present working on a new program for the master of arts in secondary education in reading and also teaching English as a second language. He is also concerned with the APSCOE Title I TESOL teacher preparation project.

Mr. Doxtator was director of the Job Corps Project.

6. Activities in learned and professional societies

Mr. Baldwin attended the New Mexico Industrial Arts Convention and also the New Mexico Vocational Education convention.

Mr. Hanny attended the annual meeting of American Educational Research Association in Los Angeles, California.

Mr. Hirshfield attended the national conference of NCTE.

Mr. Howard attended the National Association of Secondary School

Principals conference and also the annual conferences of the Association for Supervision and Curriculum Development and North Central Association.

Mr. Doxtator was president of the New Mexico Council for the Social Studies, 1968-69, and state delegate to National Council for the Social Studies in November 1968.

Mr. Ivins presided and moderated at the evening session of the annual NASSP meeting in San Francisco. He was also junior sponsor of Phi Delta Kappa.

Mr. Nesbitt was a member of the legislative information committee of the American Industrial Arts Association and also state membership chairman of the American Industrial Arts Association.

Mr. Rider was the New Mexico delegate to the Executive Board of the Mountain-Plains Business Education Association at Wichita, Kansas.

Mr. Runge attended several vocational education conferences, including National Teacher Education Conference on Vocational Teacher Education at Blackburg, Virginia, in August, 1968.

Mrs. Sampley was a member of the National Business Education Association and the New Mexico chapter.

Mr. Warner served as a moderator for a panel at the Mountain States Industrial Educators' and Supervisors' Conference in Salt Lake City. He was president of New Mexico Industrial Arts Association.

Mr. White is president-elect of the Albuquerque English Council.

He was a participant in the New Mexico Council of Teachers of English conference. He was also involved in a demonstration at the Albuquerque Reading Association spring conference.

7. Other professional activities

Mr. Baldwin organized and helped set up an electronics workshop for teaching improvement of the state electronics instructors.

Mr. Howard was guest speaker at several schools within the state.

Mr. Nesbitt presented a demonstration at the American Industrial Arts Association annual convention on "The Effects of Heat and Pressure on the Operation of the Internal Combustion Engine".

Mrs. Reva prepared national tests in secretarial work and office management for National Medical Assistants' association.

Mr. Rider was speaker at the American Business Women's Association convention. He was a member of the NCA visitation committee at Highland High School and consultant on school plant planning, El Rito Vocational and Technical Institute.

Mr. Runge also helped with North Central visitations and served on the feasibility study for establishment of branch UNM colleges.

Mrs. Sampley conducted a typewriting workshop for the secretaries of the Indian Community Action Project in April.

Mr. White was a participant in the New Mexico Bilingual Association conference and a panelist on the Albuquerque English Council program.

Mr. Doxtator helped in the NCA evaluation of Roswell High School.

8. Non-teaching University service

Mr. Hanny was on the Graduate Committee.

Mr. Hirshfield was on KUNM Radio Board; Administrative and Policy Committee of the College of Education; and secretary of the UNM-AAUP chapter.

Mr. Howard was chairman of the COE committee for doctoral programs and also chairman for the COE committee for space facilities and needs; a member of the COE reorganization committee and also the UNM steering committee for NCA.

Mr. Ivins was a member of the Academic Freedom and Tenure Committee.

Mr. Nesbitt was a member of the University Safety Committee, COE Scholarship Committee.

Mr. Rider was a member of the scholarship committee, COE, and state adviser for the Future Business Leaders of America. He was co-advisor of Phi Beta Lambda.

Mr. White was a member of the Student Affairs Committee; inter-departmental coordinator for the MAT in English; on the Reading and Comm. Center Committee.

Mr. Doxtator was secretary and member of the University Library Committee.

THE REPORT
OF THE
BUREAU OF EDUCATIONAL PLANNING AND DEVELOPMENT
JULY 1, 1968 - JUNE 30, 1969
Richard F. Tonigan, Director

NOTE: Since this is the first Annual Report of the Bureau of Educational Planning and Development which was formally organized on July 1, 1968, a more complete report is being submitted than requested in the University Secretary's annual report instructions. In subsequent years the report will contain only the requested content.

BUREAU OF EDUCATIONAL PLANNING AND DEVELOPMENT

Its Mission

The Bureau of Educational Planning and Development helps to plan and improve education. It contracts with public and private organizations to analyze educational problems and to design and develop feasible solutions. Activities of the Bureau include working with school systems, colleges and universities; local, state and national educational agencies; industry, private planning and consulting firms; and overseas missions and governments.

In addition to being of service to the nation's educational endeavors, the Bureau of Educational Planning and Development seeks to provide selected field service and research experiences beneficial to the development of graduate students and to the interests of faculty members of The University of New Mexico.

The Bureau encourages the development of both proven and innovative planning concepts in areas such as organizational planning, curriculum and facility planning, administrative planning, teacher training, financial planning, and so forth.

The activities of the Bureau of Educational Planning and Development are supported by contracts and grants.

The Bureau has two permanent sub organizations, i.e., (1) the School Plant Planning Service, and (2) the New Mexico Research and Study Council.

The School Plant Planning Service is now largely a "paper organization, but for several years it was "the" organization. It was, effect, replaced by the Bureau of Educational Planning and Development but is maintained, at least in name, because its identity is worthy of continuance for client referral purposes.

The New Mexico Research and Study Council is an eleven-year-old organization composed of approximately thirty New Mexico public school districts, each of which is represented by its respective superintendent. The College of Education's Department of Educational Administration granted one-quarter time of an associate professor (Dr. Herbert H. Hughes, whose resignation was accepted, effective June 30, 1969) to the Bureau in 1968-69 so that the Bureau could continue the COE's practice of having one of its faculty members serve as Executive Director of the Council. Dues collected by the Council in 1968-69 ranged from \$200 to \$500 per district. The \$10,600 collected in 1968-69 was used to employ two half-time COE graduate assistants, to pay 5/12's of a secretary's salary, and to finance miscellaneous expenses of the Executive Director, the staff, and the Board. The major activity of the Council in 1968-69 was the continuance of the annual school supply bidding program. In addition, considerable time was devoted by the Executive Director and one graduate assistant in seeking grants, and the Executive Director participated in the New Mexico legislative session. He issued frequent newsletters to member district superintendents. Primarily, these newsletters presented the Executive Director's

views on legislative actions likely to affect public school finance in New Mexico. One new booklet, "Factors Influencing The Role of Supervisors of English" (authored by George Prigmore), was issued by the Council during the 1968-69 year.

Two other short-term organizations functioned within the Bureau during 1968-69; one operated a contract to train teachers in the Los Lunas Public Schools, the other conducted a UNM branch community college feasibility study. Both organizations were disbanded by June 30, 1969.

Its Resources

Personnel. A small staff performed the annual day-to-day activities of the Bureau.* Additional personnel were added as projects required more assistance and as special funding was secured to offset the additional cost. In 1968-69, the size of the Bureau staff varied from a low of two full-time and three part-time persons, to a high of nine full-time and two part-time persons.

A consulting staff typically assisted the employed staff on most Bureau projects. In 1968-69, the number of consulting staff members commissioned on each project ranged from a low of two, to a high of 30. Most consultants were faculty members, although some were graduate students, TVI and APS employees, and others. All consultants were paid for their services. During the year, over fifty faculty members and five graduate students worked on Bureau projects as consultants.

A third staff component of the Bureau was a core of graduate students who enrolled in courses which enabled them to engage in selected

* A one-half time Director, and a full-time secretary. (A graduate assistant's position remained vacant throughout the year.)

portions of the Bureau's field service activities. Three projects had student input in 1968-69. Several additional students wrote Bureau project-related term papers to fulfill other course requirements.

Facilities. During 1968-69, all of the Bureau activities were housed in the Room 123 suite located in the College of Education office building. These facilities, and related utilities and equipment, were provided by the University.

Finances. Although the University did not appropriate a budget to offset any of the 1968-69 operations of the Bureau, it did in fact assist in a number of meaningful ways. In addition to providing facilities, equipment and utilities, it permitted the College of Education's Department of Educational Administration to give one-quarter time of a professor and other grants and services worth several thousands of dollars, and at the close of the year it absorbed the accumulated deficit. Finally, by permitting the Bureau to charge expenses and to credit income to the School Plant Planning Service account a means was established for the Bureau to operate as an entity with reasonable freedom of movement.

As the year closed, the deficit in the four-year old combined School Plant Planning Service/Bureau of Educational Planning and Development account had risen about equal to that of the average of the first three years. This again indicated a need for the University (the state) to further support funding of the Bureau's operation--at least until it can find some other suitable solution to solvency.

Its Activities

The Bureau's activities can be categorized as projects which were started prior to the establishment of the Bureau in the District Plant Planning Service and the projects which started afterwards. The first group contained only curriculum planning and educational specifications projects; the second group in addition included a wider variety of educational planning and implementation projects. The Bureau's projects can also be categorized as completed and in process. They can be more clearly summarized in this latter context:

Completed Projects

No.	Project	Estimated Building Value	Approximate Value of Bureau Contract
1.	Preparation of grant proposal for Canoncito Indian Reservation	-----	\$ 175
2.	Curriculum planning and educational specifications for a Vaughn, New Mexico public high school	\$250,000	885
3.	Designing and conducting a multiculture inservice teacher and community sensitivity training program for the Los Lunas, New Mexico public school district (USOE funded)	-----	40,000
4.	Conducting the UNM branch community college study	-----	15,000
5.	Title I Workshop	-----	1,000
6.	Educational Specifications for Deming	800,000	1,000

In-process Projects

No.	Project	Estimated Building Value	Estimated Value of Bureau Contract	Estimated Percentage of Bureau Work Completed
1.	Curriculum planning and educational specifications for a senior high school for the <u>Los Lunas</u> public school district	\$800,000	\$4,000	98
2.	Curriculum planning and educational specifications for an elementary school in the <u>Pojoaque</u> public school district	250,000	1,300	98
3.	Curriculum planning and educational specifications for a middle school for the <u>East Las Vegas</u> public school system	900,000	3,500	90
4.	Curriculum planning and educational specifications for the <u>Espanola</u> vocational-technical branch of Northern New Mexico State School	900,000	4,500	80

Its Future

Continuous effort is being asserted to broaden the scope and to increase the size range of projects. Concurrently, continuous effort is being asserted to broaden the involvement of students and faculty in the projects of the Bureau. Illustrating these efforts are recent attempts of the Bureau to secure project contracts for such activities as a Regional Vocational-Technical Survey of the Albuquerque region, and a comprehensive additional Study of the Dayton, Ohio, Metropolitan School District. Many efforts are currently being asserted to secure projects which meet the needed interests of all of the departments of the College of Education.

To perform its assigned mission successfully, it will be necessary for the Bureau to grow. Additional personnel, more stable financing, and a University-wide interest in the successful operation of the Bureau are imperative.

Graduate students and faculty members throughout the University, as well as additional agencies throughout the state of New Mexico, appear to be increasingly aware of both the existence and the service potential of the Bureau. There is every reason to believe that the Bureau will increasingly service the field service needs of both graduate students and faculty members.

The Report of The Cultural Awareness Center

July 1, 1968 - June 30, 1969

John Aragon, Director

The Cultural Awareness Center was funded as of February 15, 1969. The activities of the first month were almost exclusively limited to the recruitment of staff and the acquisition of office space and related logistics. The staff was recruited on the basis of anticipated requests for technical assistance. It is currently composed of H. D. Sanchez, a former school superintendent, who is available as a consultant in cultural awareness as it relates to school administrators; Joe Ulibarri, a former staff member of the Educational Service Center - who consults in the area of guidance and helps in the group dynamics processes used in the seminars; Mari-Luci Ulibarri who is a specialist in bilingual education; and Bryan McOlash who serves as a research assistant.

By April 1, 1969 the staff appointments had been completed and staff planning was begun on activities and strategies. The Center perceived its primary responsibilities to be:

a) The sponsoring of seminars at which we present data to the participants (school board members, school administrators, and classroom teachers) which hopefully will make them aware of the cultural diversity represented in New Mexico's schools;

b) Direct technical assistance to individual school districts; and

c) The Center aiding the school districts in drafting a proposal to acquire their own funding to pursue a problem which they have identified and would like to solve.

The first seminar was planned as a "shake-down" for the data which we thought would be meaningful rather than to sensitize the participants, or generate requests for technical assistance. The seminar was held in Taos on April 18-20 and included 32 participants representing five school districts. The evaluation by the participants indicates that the seminar was highly successful both as to data and awareness. Three unexpected requests were made for follow-up technical assistance.

The second seminar was held in Albuquerque June 10-12. It included 38 participants representing 15 different school systems. As a result of this

seminar, requests for technical assistance were made from Clovis, Deming, West Las Vegas, Gallup, Carlsbad, Gadsden and Albuquerque. Most requests have been filled; the others have been scheduled for dates this fall.

In addition to the above activities, the CAC staff has participated in programs already underway in the schools which have cross-cultural dimensions. A total of 116 man days have been given to programs in Los Lunas, Grants, Bernalillo, Espanola, Santa Fe, Belen, N.M.E. A.; State Department of Education and SWCEL.

Since the creation of the Cultural Awareness Center, local projects and funding have been approved for East Las Vegas, Silver City and Bernalillo. A fourth project at Los Lunas was an on-going one prior to the creation of the CAC.

Starting on September 26th and running through November 16th, seven week-end seminars are planned at La Posada in Santa Fe. Each seminar will include 42 participants representing 7 school systems who have been invited to send a cadre of six participants to the seminar - a school board member, the superintendent, a principal, and three classroom teachers. It is hoped that teams of this sort will have a greater impact on the local level than the more limited representation we have had in the past.

THE UNIVERSITY OF NEW MEXICO
College of Education

June 3, 1969

TO: Dean Richard Lawrence

FROM: Learning Materials Center Committee, Margaret Chisholm, Chairman

SUBJECT: Semester Report of the Learning Materials Center

The Learning Materials Center Committee met on May 27th at 3:30 P. M. at which time the semester report was presented.

1. An in-service meeting was held for a group of approximately 35 principles of Albuquerque Elementary schools. They requested a presentation on the services of the Learning Materials Center and toured the facilities.
2. A similar presentation was given for Mr. Stimson's tutoring class.
3. Students from C and I 431 and 432 had an orientation session on March 5th.
4. The staff of Mark Twain Elementary School requested an orientation session and tour on May 13th.
5. Eighty pre-school children from Manzanita Center visited the LMC on March 3rd.
6. A display of interest centers for Mathematics prepared by student teachers was held for a week during this semester.
7. An extensive picture file has been established. The pictures are mounted and filed under established subject headings.
8. Copies of theses and term projects have been cataloged and organized in a file to make them readily accessible.
9. Non-book material such as charts, maps, and pamphlets has been labeled and cataloged with cards placed in the card catalog.
10. Average daily circulation of materials checked out by students was 88 items, checked out by faculty was 67 items.
11. Total circulation of materials for the semester was 6131 items checked out by students and 469 items checked out by faculty.
12. Orientation sessions on the utilization of audio visual equipment was held for 40 elementary students and 220 secondary students, making a total of 260 students completing orientation.
13. Production services have been provided for the Dental Hygiene Department, Bilingual Research Project, Ecuador Project, and Compensatory Education.

14. Projection equipment was scheduled for use as follows:

8 mm. projectors - 6 times
 Single concept filmloop viewers - 39 times
 Super micromatic projector - 8 times
 Filmstrip & slide projectors - 51 times
 Sawyer Carousel projectors - 45 times
 Individual viewlex projectors - 50 times
 Language master - 1 time
 Tracing box - 1 time
 Opaque projector - 29 times
 Overhead projectors - 178 times
 Record players - 35 times
 Screens - 139 times
 16 mm. projectors - 123 times
 Tape recorders - 128 times
 Ampex video tape recorder - 13 extended projects
 Concord video tape recorder - 30 extended projects

This does not include the number of times equipment was requested and was already scheduled so the request could not be fulfilled.

15. In addition to deliveries, Scott Chamberlin was scheduled to show films, filmstrips or video tapes approximately 100 times.

16. Production services were used extensively. The following is a list of utilization according to departments:

DEPARTMENT	NUMBER OF PROJECTS	COST
Elementary Education	191	\$152.90
Secondary Education	160	151.79
Educational Administration	36	61.09
Educational Foundations	26	18.79
Home Economics	47	57.92
Guidance and Special Education	25	16.08
Industrial Arts	79	97.58
Physical Education	6	23.88
Art Education	27	25.05
Manzanita Center	6	23.88
Dental Hygiene	2	3.80
Students	446	311.93
TOTAL	1051	930.06

Special Projects

Bilingual Research Project	11	6.44
Compensatory Education	1	2.00
Ecuador Project	10	9.55
Total	22	12.99

17. Plans for summer staffing are as follows:

Caroline Davis - full-time librarian
 Joyce Brimhall - full-time library assistant
 Tom Owens - Full-time audio-visual assistant
 Doris Roady - Full-time secretary and director of production lab
 and audio-visual department.
 Work-study students as assigned by student aids office

THE UNIVERSITY OF NEW MEXICO
College of Education

February 24, 1969

TO: Dean Richard Lawrence and Department Chairmen - College of Education

FROM: Learning Materials Center Committee and Margaret Chisholm

SUBJECT: Semester Report of the Learning Materials Center

1. A title VI proposal for materials and equipment for the improvement of undergraduate instruction was written by the Learning Materials Center Director during second semester of 1968. A grant of \$6,000 was received and the following items of equipment and materials were purchased for use in the College of Education.

EQUIPMENT

- 2 super 8 mm. filmloop projectors
- 2 filmstrip projectors
- 4 viewlex previewers
- 2 phonographs
- 1 language master projector
- 1 super micromatic sound filmstrip projector
- 2 projection screens
- 2 tape recorders
- 1 opaque projector
- 1 overhead projector
- 2 - 16 mm. projectors
- 1 pantograph
- 1 dry mount press
- 2 tracing boxes

MATERIALS

- 1,188 filmstrips
- 6 multi-media kits
- 94 recordings
- 8 sets of study prints
- 7 sets of transparencies
- 109 super 8 mm. loops

2. LMC brochures were distributed to all faculty members of the Albuquerque Public Schools to inform them of services and materials available to them through the Learning Materials Center.
3. Collet Park Elementary School faculty requested a special guided tour of the center.
4. Several sections of the Junior Block, about 75 students each, participated in orientation sessions on the utilization of materials and production techniques.

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5. Arrangements have been made to make the photo lab available for photographic production, the AV equipment will be stored in the preview room, and the audio-visual lab will be used for preview purposes.
6. Arrangements have been made for several staff changes to take place at the beginning of the second semester. Scott Chamberlin will work full-time with the responsibility for delivery and operating all audio-visual equipment. Mrs. Caroline Davis will serve as librarian and will work full-time.
7. The entire collection of filmstrips, film loops, records, and media kits has been processed, classified, and cataloged.
8. Average daily circulation of books and materials in the library was 73 for students and 10 for faculty.
9. Orientation sessions were held for 44 elementary students and 180 secondary students making a total of 224 students.
10. An arrangement has been made for supplying production services to the Dental Hygiene Department for cost of materials plus 20% production costs. The department completed nine projects at a cost of \$26.07.

Production services were also provided for the West Mesa project. This amounted to 92 projects at a cost of \$71.05.

11. During the fall semester, the projection equipment was used for various lengths of time as follows:

- 8 mm. projector - 3 times
- Slide and filmstrip projectors - 39 times
- Language master - 4 times
- Opaque projector - 20 times
- Overhead projectors - 172 times
- Record players - 13 times
- Screens - 82 times
- 16 mm. projector in preview room - 141 times
- 16 mm. projectors - 53 times
- Tape recorders - 85 times
- Sawyer Carousel projector - 11 times
- Viewlex projector - 4 times
- Loop projectors - 14 times

This does not include requests for equipment which was not available because of previous scheduling.

12. The production services were used extensively. The following is a list of utilization according to departments.

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DEPARTMENT	NUMBER OF PROJECTS	COST
Elementary Education	154	\$ 148.58
Secondary Education	154	125.64
Educational Administration	42	33.53
Educational Foundations	19	17.91
Home Economics	23	14.34
Guidance and Special Education	43	32.82
Industrial Arts	48	43.43
Physical Education	1	.25
Art Education	20	19.98
Manzanita Center	22	20.54
Dental Hygiene	9	26.07
Students	516	291.99
TOTAL	1041	\$ 774.08

The Report on International Programs

July 1, 1968 - June 30, 1969

Frank Angel, Asst. Dean for

Special Programs & Projects

The projects in International Education in the College of Education during the past year have continued to expand. The Ecuador Project was continued. Dr. John Aragon who had served as Chief of the UNM Field Team in Ecuador completed his two-year tour and returned to the campus to head the COE Cultural Awareness Center. He was replaced by Mr. Ambrosio Ortega who was employed as Assistant Principal of Albuquerque's Technical-Vocational Institute. Dr. Dolores Gonzales, who was the UNM specialist in textbook writing and utilization, completed her two-year tour in July and returned to the campus where she is taking up duties as Professor of Elementary Education. During her tour the textbooks in Science, Mathematics and Reading were completed and illustrated. Additionally, teacher guidebooks to accompany the texts were completed. These have gone to press as of this writing. George Gonzales who had been functioning as a Teacher Education Advisor

succeeded Dr. Dolores Gonzales as Textbook Specialist.

The Colombia project which was initiated last year was finally staffed with the naming of Dr. Paul Petty of the Department of Educational Administration as Chief of the Field Party. An extension of the contract was negotiated by Dean Lawrence and Frank Angel which will extend the contract through 1971 and added three additional field staff: two in high school supervision and administration and one in University Extension. The extension also included two participant groups to be trained on campus: one of university extension personnel and another of high school principals and guidance-counselors. The Extension Training Program was completed under the Division of Continuing Education. The second group is to arrive on campus on September 13 for a 20-week training period, most of which is of an internship nature. This part of the program is under the Department Educational Administration.

A rather imposing list of professional books have been prepared in the International Education Office of the College of Education. These professional books are to be used in the Normal Schools of Ecuador in the

preparation programs for elementary school teachers. A number of them are being prepared for use by the field staff in Colombia.

There is an increasing demand for the professional books prepared in the International Division Office. As these become known and used, it is anticipated that they will need to be published commercially.

Another activity which has become institutionalized in the College of Education is the co-sponsorship, with the University of Kansas, of a yearly seminar on Higher Education in the Americas. Under the auspices of the National Conference Board, administrators of Latin American Universities are invited to participate in the seminar. The seminar begins with a two-week session in Costa Rica where an evaluation of the College of Arts and Sciences is undertaken as a means of providing the seminarists with training in university evaluation. From there the seminar comes for two weeks to the University of New Mexico where the program is designed to acquaint the Latin American visitors with a North American university as preparation for a later evaluation of the University of Kansas.

The seminar then goes to the University of Kansas for two weeks and finally ends in Washington, D. C. where a seminar evaluation session is held.

Last year it was possible, through the Fulbright Program to provide Dr. Raul Ruiperez, an Argentine sociologist, with funds to make a comparative study of North American and Latin American universities. The study will form part of the basis for the Tenth Seminar which will be held on the UNM campus in October. Through funding of special programs, Dr. Ruiperez will collaborate with the International Programs Division of the College, in developing programs at both the undergraduate and graduate levels in international education.

Dr. Angel, Mari-Luci Ulibarri, and some APS personnel spent several weeks last summer in the Dominican Republic assisting an AID project for the improvement and modernization of the secondary educational system in that country. Tom Arciniega, now a doctoral student in the Department of Educational Administration, was in charge of the AID program there. (Tom Arciniega has accepted a position with UNM in Colombia as Director of the University Extension Services.)

The International Division has continued to stimulate the bringing to UNM of Latin American students who wish to major in Education. This year a number of them have come under AID, IIE, and Fulbright Scholarships. Two of them (one in Honduras and the other in Nicaragua) have gone back to important positions in their respective ministries.

THE REPORT OF THE COLLEGE OF ENGINEERING

July 1, 1968 - June 30, 1969

R. C. Dove, Dean

I. Summary

The total enrollment in the College of Engineering, measured either on the basis of student head count or student credit hours, remained essentially unchanged for this year as compared to the previous year.

Freshman enrollment, which had undergone significant decreases during each of the preceding two years, remained essentially unchanged for this year, as compared to the previous year. This is an encouraging sign since the college has been making every effort to reverse this downward trend in beginning student enrollment.

Graduate student enrollment was also essentially unchanged. This was surprising inasmuch as the changes in the draft laws were expected to result in a sharp decrease in male graduate student enrollment.

The number of undergraduate degrees awarded also remained essentially unchanged as compared to the previous year, and the number of graduate degrees awarded showed a 12% increase. Tabulation of figures which support and amplify the above comments are given in Section II of this report.

The major changes made in the teaching program involved course changes in the freshman year. Our purpose in making these changes, which are discussed in Section III of this report, is to give the student more flexibility during his freshman year and to provide increased motivation to continue in his study of engineering. Plans for the introduction of an undergraduate Co-op program are also discussed in Section III.

With the closing out of the Sandia Corporation Technical Development Program (TDP) as of June 31, 1969, our graduate program will enter a new phase. The effects of the expected increase in the ratio of Ph.D. to M.S. students and in the number of engineering graduates working in the computer area are discussed in Section V.

Surely the most visible change in the College during the past year resulted from the completion of the new Farris Engineering Center. This new facility, which was occupied early in December, 1968, will have a pronounced effect on the development of the College for many years to come. This new facility is discussed in Section IX of this report.

II. Enrollment and Degrees

Table I presents enrollment figures and Table II presents data on the teaching load of the College of Engineering.

TABLE I
ENGINEERING ENROLLMENTS - SEMESTER I

Classification	1965-66	1966-67	1967-68	1968-69
Freshmen ¹	435	408	343	349
Sophomores	290	319	359	329
Juniors	176	188	174	174
Seniors	148	145	161	143
Graduate ²	348	325	340	353
Total	1397	1385	1377	1311

¹ In University College

² Includes Los Alamos and Holloman

TABLE II
ANNUAL TEACHING LOAD, COLLEGE OF ENGINEERING

Academic Year	Undergraduate Student Credit Hours ¹	Graduate Student Credit Hours ²
1965-66	13,766	2546
1966-67	14,476	2239
1967-68	13,993	2515
1968-69	13,837	2270

¹ Courses numbered 499 and below

² Courses numbered 500 and above

Table I points up two significant facts.

First: For the first time in several years the freshman enrollment did not show a decline from the previous year. On the national basis freshman enrollment in Engineering declined by 0.7 of one percent between 1967-68 and 1968-69.

Second: Graduate enrollment remained very nearly constant. This was surprising since on the national basis graduate enrollment in Engineering decreased by 16.3 percent between 1967-68 and 1968-69.

Probably the most significant point made by the data in Table II is the fact that total teaching load and balance between undergraduate and graduate effort have remained very nearly constant during the past four years.

Table III presents information concerning engineering degrees conferred during the past four years.

TABLE III
ENGINEERING DEGREES

Degree	1965-66	1966-67	1967-68	1968-69
B. S.	124	132	140	137
M. S.	88	78	64	83
Ph. D.	16	10	18	9
Total Advanced Degrees	104	88	82	92

III. Undergraduate Program

During the second semester of 1968-69 the freshman course, CE-104L, Introduction to Engineering, was offered for the first time. The purpose of this course is to motivate the beginning student by exposing him to some real engineering design projects to which he can relate science, mathematics, and engineering courses which he is taking or will be required to take in the future. Three sections were offered, one taught by Prof. Huzarski from Civil Engineering, one taught by Prof. Bradshaw from Electrical Engineering, and one taught by Prof. Feldman from Mechanical Engineering. Both faculty and students considered this experiment a success and, as a result, all entering freshmen will be taking this course in the fall of 1969. As before, the sections will be taught by faculty drawn from all of the engineering departments.

As a result of recommendations made by the college Freshman Curriculum Committee, the faculty voted to eliminate English 102 and Chemistry 102L as required courses during the freshman year. Many of the students will continue to take these courses; for example, all Chemical Engineers will take Chem 102L (or Chem 122L) during their second semester. However, elimination of these courses as absolute requirements will enable advisors to give their

advisees considerably more latitude in course selection during their first year.

During Semester I the Assistant Dean, Prof. C. T. Grace, undertook an extensive study of two and four year programs in Engineering Technology. Our purposes in undertaking this study were to determine if and/or how the College of Engineering might participate in this very important area of engineering education. The information on costs per student in this program has convinced us that it would be unwise for the College of Engineering to undertake to set up an Engineering Technology program at this time. However, in connection with this study, we have had several conversations with the Albuquerque Technical-Vocational Institute (TVI), and, as a result of these conversations, we are now engaged with the TVI in working out possible ways in which we might work jointly with the TVI in providing this type of education.

During the past year the Dean's office has also undertaken a study of the pros and cons of a cooperative education program for our undergraduate students. As a result of the study of existing engineering co-op programs and of conversations with engineering employers, high school counsellors, and former co-op students we are persuaded that a cooperative educational program would be a decided asset

to our undergraduate program. At the present time the several departments are working out appropriate calendars for a co-op program and the Dean's office is contacting prospective co-op employers. We hope to be able to place some students in cooperative jobs during the second semester of next year and to publicize the program next spring for high school recruitment purposes.

During the past year both the Mechanical and Chemical Engineering Departments submitted proposals to the U. S. Navy to participate in the Navy Enlisted Scientific Education Program (NESEP) which, in the past, has been essentially an electrical engineering program. Both proposals were accepted and, as a result, we expect 40 Navy men to be sent here as full time undergraduate students. These men will be studying in three fields: Electrical, Mechanical, and Chemical.

IV. Undergraduate Student Prizes and Awards

The following awards were made by the College of Engineering Student Affairs and Awards Committee, C. T. Grace, Assistant Dean, Chairman. This list does not include those prizes and awards listed in the departmental reports.

1. Hamilton Watch Award - Michael W. Edenburn, ME
2. Harry L. Dougherty Memorial Prize - Michael W. Edenburn
3. Phi Kappa Phi Award - Michael W. Edenburn, ME
4. George E. Breece Prize - Gerald R. Chiaramonte, ChE
5. Albuquerque Chapter of N.M.S.P.E. Senior Award -
Michael W. Edenburn, ME
6. Distinguished AFROTC Graduates - James C. Green, ME
Thomas J. Scanlan Jr., ME
7. Navy League of America Award - Paul Bayard Jr., ME
8. Reserve Officers Assoc. Gold Medal - Paul Bayard Jr., ME
9. Outstanding NESEP Student Award - George W. Ashmore
10. Reserve Officers Gold Medal for Administration and
Organizational Ability - Manuel Durazo
11. Reserve Officers Silver Medal for Administration and
Organizational Ability - Albert L. Wellman III
12. American Legion Award for Military Excellence -
Don M. Johnson
13. Rufus H. Carter, Jr. Scholarships - Albert W. Smith Jr., ChE
Marshall L. Cross Jr., EE
14. Harry and Mabel F. Leonard Scholarships -
William S. Chaney, ME
Robert H. Davis, ME
Roberto Fantechi, EE
John S. King, CE
Rudy A. Krall, Jr., ChE
Tuck Wai Lee, EE
Fred W. Rummell, CE
Ali Selahvarzi, ChE
John Gardner Stanke, EE
Michael L. Whelan, CE
Fred Williams, ME
Stanley J. Zygmunt, ChE
15. Eric H. Wang Memorial Fund Awards -
Badru Kiggundu, CE
William D. Prather, EE

16. American Society for Testing Materials Awards -
 - William Chaney, ME
 - Travis Crouch, ChE
 - Gerald Dodd, ME
 - William D. Prather, EE
 - Raymond A. Snyder, EE
17. Western Electric Fund Scholarship - John A. Lopez, Ch.E
18. Western Electric Fund Supplemental Scholarships -
 - Angela Sue Jeung, ME
 - Wallace G. Stephenson, CE
19. N. M. Society of Professional Engineers Wives' Scholarship - Charles A. Cothran, EE
20. George A. Rutherford Scholarship - Ray G. Arnold, CE
21. Phi Kappa Phi Initiates, May 20, 1969 -
 - Joe Colvin II, EE
 - Robert Fredricksen, EE
 - David Martinez, CE
 - Bruce Schneider, CE
21. Mortar Board - Angela Sue Jeung

V. Graduate Program

The Sandia Corporation Technical Development Program terminated on June 30, 1969. Under the present Sandia Corporation Graduate Education Program (GEP) new employees with a B.S. degree may be eligible for a "One Year on Campus (OYOC)" plan to study for the M.S. Although UNM is on the list of approved schools for employees in the OYOC program, neither Sandia Corporation nor the College of Engineering expects any significant numbers of M.S. candidates at UNM. This change will tend to decrease the number of students in what are primarily M.S. level courses and the number of M.S. degrees awarded. (Of the 83 M.S. degrees awarded this year, 28 were awarded to TDP students.) However, the initiation of the Sandia Corporation University Part Time (UPT) program for certain employees wishing to pursue a Computer Science Curricula with an Engineering Option will have the opposite effect. During the past year, of the several Sandia Corporation employees enrolled in the Computer Science Curricula, two were pursuing an option leading to an M.S. in E.E. and one was pursuing an option leading to an M.S. in M.E. We have been advised by Mr. Howard Shelton, Sandia Corporation University Relation Division, that during 1969-70 three men in the Computer Science UPT program will be in

an engineering option program leading to an M.S. degree. What the net effect of these various changes on our M.S. program will be remains to be seen.

During the past year three Ph.D. students enrolled in the College of Engineering on a full time basis under the Sandia Corporation Doctoral Study Program. We are informed that next year five Ph.D. students will be enrolled in the college under this program. In addition, Mr. Shelton has informed us that the number of part-time Ph.D. students taking engineering under the Sandia EAP program will show a considerable increase next year.

It seems certain, therefore, that in the College of Engineering the ratio of Ph.D. students to M.S. students will rise. This will have a real impact on the cost of our graduate program - largely because each Ph.D. must be supported with faculty time and research facilities for his dissertation, whereas most M.S. students take a no-thesis option. We believe that the University must find a way to provide differential support based on the differing costs of various types of instruction.

VI. Placement of Undergraduates

The national demand for graduating engineers continues at a very high level. Table IV shows the average salary offers and the average salaries for positions accepted by our 1968-69 graduates.

TABLE IV
STARTING MONTHLY SALARIES¹

Department	Class of 1968 Average Offer		Class of 1969		
	UNM	NATIONAL	UNM Av. Offer	NATIONAL Av. Accept.	NATIONAL Av. Offer
Chemical	800	790	861	868	849
Civil	755	750	781	823	797
Electrical	775	774	848	867	826
Mechanical	777	768	813	820	820

¹Data supplied by UNM Placement Bureau.

This data indicates that average offers in 1969 for all types of engineers increased by an average of 6.8% over 1968.

VII. Research

The most recent complete data available on sponsored research is for the 1967-68 year. During 1967-68 the Engineering College did sponsored research, for which the University was reimbursed a total of \$592,576. This represents an increase of 1.1% over the previous year. This total reimbursement included \$125,692 for reimbursement of indirect cost.

During the past year, 1968-69, the College of Engineering has had a total funding for sponsored research of \$904,461. The exact amount spent and hence reimbursed to the University is not known at this time, but our estimate is that there will be a slight decrease from the 1967-68 total given above. Certainly we have not experienced the substantial decrease in sponsored research that almost all engineering colleges feared and which many experienced. The rate of new contract approval and contract renewals during the spring of 1969 indicates that we will be able to maintain approximately the same level of research support during 1969-70.

The most disturbing aspect of the research activities within the college is the almost complete lack of support for unsponsored research. A college, such as engineering, which is fortunate enough to attract sponsorship

for research within its area of interest may have somewhat less need for appropriated funds to support research than other divisions; however, there remains a very basic need for a certain level of state appropriations for research. The best illustration of this involves research on problems of interest to the state government and/or the business community of New Mexico, but in which the federal funding agencies cannot be interested. This is a particularly serious problem in the College of Engineering because, unlike other colleges in the University, no faculty time is allowed for unsponsored research.

During the past year the College of Engineering, together with the School of Medicine, submitted a joint proposal to the National Highway Safety Bureau for the establishment of a Medical-Engineering Accident Research Project. This has been funded for \$98,000 for 1969-70. We view this as an important first step in increasing interdisciplinary research activities.

VIII. Faculty

During the past year the following men joined the full time professorial staff of the College of Engineering:

Glenn F. Cochrane, Ph.D., Ass't Prof. in Mechanical
Engineering
Shyam Gurbaxani, Ph.D., Ass't Prof. in Electrical
Engineering
George H. Quentin, Ph.D., Ass't Prof. in Chemical
Engineering

The following full time faculty resigned at the end of the 1968-69 year:

Ronald R. Mohler, Assoc. Prof. in Electrical Engineering
Edward J. Nowak, Ass't Prof. in Chemical Engineering

The following received promotions in rank effective July 1, 1969:

Kenneth E. Cox to Assoc. Prof. in Chemical Engineering
Roy L. Johnson Jr. to Assoc. Prof. in Civil Engineering
Ralph D. O'Dell to Assoc. Prof. in Nuclear Engineering
Calvin Patterson to Assoc. Prof. in Civil Engineering
Charles G. Richards to Assoc. Prof. in Chemical Engineering
Shlomo Karni to Professor in Electrical Engineering
Ruben D. Kelly to Professor in Electrical Engineering
Harold D. Southward to Professor in Electrical Engineering
James T. P. Yao to Professor in Civil Engineering

Assoc. Professor Maurice W. Wildin, who served as Acting Chairman of Mechanical Engineering, will become Chairman of that department, effective July 1, 1969.

Because of the termination of the Sandia Technical Development Program, Prof. C. T. Grace, who has been serving as TDP Director (1/2 time), will return to teaching duties

(1/2 time) in the Mechanical Engineering Department. Prof. Grace will continue with his assignment as Asst. Dean.

As of June 30, 1969, Richard H. Williams resigned as the Director of the Los Alamos Graduate Center. Dr. Williams will return to the Electrical Engineering faculty on a full time basis.

Ralph D. O'Dell, Assoc. Prof. of Nuclear Engineering, will assume the directorship of the Los Alamos Graduate Center as of July 1, 1969. As a result, next year he will be on a half time teaching basis in the Nuclear Engineering Department.

During the past year the College of Engineering utilized two faculty members on joint appointment status:

- Dr. Lawrence D. Posey - Joint Appointment Assoc. Prof. in Nuclear Engineering (Sandia Corporation - UNM)
- Dr. Sam D. Stearns - Joint Appointment Assoc. Prof. in Electrical Engineering (Dikewood - UNM)

The College of Engineering finds these joint appointments to be most advantageous and it is our hope that budgetary arrangements can be made so that each of the five departments in the college can utilize at least one such appointment.

During the past year Dr. Martin Bradshaw, Assoc. Prof. of Electrical Engineering, received the Western Electric - ASEE Outstanding Teaching Award in the Gulf-Southwest region of ASEE. Three faculty members from this

college have been so honored in the last five years.... a rather remarkable accomplishment in view of the fact that there are more than a dozen engineering colleges represented in this region.

As my predecessor has pointed out, the practice of 9-month contracts for department chairmen is grossly unjust. Because of the volume of graduate student research and sponsored research that is carried on in the departments during the summer someone must remain in responsible charge. In our three larger departments the chairmen spend at least one half time without pay during the summer months on what is appropriate and absolutely essential departmental business. In the two smaller departments the uncompensated time spent by the chairmen is significant, even if slightly less. If the College of Engineering is to establish a cooperative education program our summer school activities will be further expanded. Therefore, I recommend that arrangements be made to compensate selected departmental chairmen for summer duties.

IX. Physical Plant and Laboratory Equipment

The \$2,600,000 Farris Engineering Center was occupied early in December, 1968. The center encompasses a main building of four floors and a separate building housing the laboratories of the Nuclear Engineering Department. The center is named for Dean Emeritus Marshall E. Farris who served as Dean of the College from 1931-1960 and as Director of the Sandia Technical Development Program from 1960-1963, when he retired from the University.

The Nuclear Engineering Building contains two large laboratories, two small laboratories, two hot cells, and one office. Up until now the laboratories have been housed in temporary quarters in the Mechanical Engineering Metals Shop Building.

The main building was built into a small hill to take advantage of shielding by undisturbed earth and to allow easy access by trucks to the heavy equipment laboratories. In addition to this ground floor there are three stories facing the central portion of the campus. The offices of the College of Engineering and the Bureau of Engineering Research are located on the first floor and those of the Department of Nuclear Engineering are located on the second floor.

The building was designed to house faculty and

research laboratories. There are forty-two attractive faculty offices and forty stations in gang offices to house graduate assistants. The laboratories fall into four classifications: small, medium, and large research laboratories and interdepartmental teaching laboratories, totalling thirty-one in number.

The design rooms for the freshman graphics courses and the faculty offices of the graphics staff are located on the third floor. These facilities include two sixty-desk rooms, a grader's room, and a key punch room. In addition, there are two forty-desk design rooms for use by all departments of the College.

Three conference/seminar rooms and a large lounge and study hall for student use are located at the corners of the first floor.

We feel that this building has solved three very pressing problems. First, by making the space available to teach our freshman courses in the engineering complex, this building enables us to get the beginning student in closer contact with other upper division students and faculty. We feel that this can provide important motivation and improve student-faculty interaction. Second, this building provides the research space that was essential to maintain our expanding graduate program. Third, this building provides for graduate student office space near both their labor-

atories and faculty offices. This will enhance the efficiency of both the graduate students and the faculty working with them.

During the past year the Nuclear Engineering Department was awarded a \$40,000 matching grant (50% AEC, 50% UNM). These funds are being used to purchase instrumentation for upgrading our reactor and to increase our facilities for radiation measurement and analysis. Also, during the past year the Electrical Engineering Department was awarded a \$22,000 matching fund grant (50% NSF, 50% UNM). These funds will be used to improve the analog computer facilities used in undergraduate instruction.

X. College Activities

This year, for the first time, the College of Engineering held a Graduation Convocation and Reception for our graduates, their guests, and faculty members. Student reaction was very favorable.

The annual Engineering Open House was held on February 21 and 22, 1969. Over five hundred junior and senior high school groups with their sponsors toured the exhibits in the five departments of engineering. Besides a large number of Albuquerque students making the tour, groups from Belen, Encino, Los Alamos, Los Lunas, and Santa Fe were bussed in for the event. Assistance in paying for the busses used was provided by the Council of Technical and Scientific Societies of Albuquerque. It is estimated that at least a thousand other persons attended the Open House. Eight judges from the Albuquerque Public Schools, the University of New Mexico, and local engineering societies selected winners in the competition.

The College of Engineering co-sponsored the following major conferences held on campus during the past year:

Ninth Annual Symposium of the New Mexico Section of ASME and University of New Mexico, College of Engineering, "Responsible Technology, A Mandate for Engineering.", November 15-16, 1968.

Sixth Annual Paving Conference, December 12-13, 1968. Co-sponsored with the New Mexico Highway Department, Portland Cement Association, and the Asphalt Institute.

Conference on the "Design of Steel Structure," Nov. 1, 1968. Co-sponsored with the Steel Advisory Committee of New Mexico and the American Institute of Steel Construction.

National Topical Meeting on "Fast Burst Reactors," January 28-30, 1969. Co-sponsored with the Trinity Section and the Reactor Physics Division of the American Nuclear Society.

The 1969 American Nuclear Society "Student Conference for the Western States," April 25-26, 1969.

Fourth Annual ISA - UNM Symposium, "Advances in Recording Techniques," January 17, 1969, co-sponsored with the Albuquerque Section of the Instrument Society of America.

Annual Report of the Sandia Technical
Development and Educational Aids Programs
The Accountability Office for Sandia Equipment

July 1, 1968 - June 30, 1969
Charles T. Grace, Director

I-A. General Information

Sandia T.D.P. and E.A.P.

The University contracts with Sandia Corporation to operate the Technical Development and Educational Aids Programs were renewed for the school year 1968-'69. Sandia is terminating the Technical Development Program as of the June Commencement. What provision, if any, to continue under a formal contract for the Educational Aids Program is not known to the Director at this time. In any case, the Office of the Director of the Sandia Technical Development and Educational Aids will cease to exist as of June 6, 1969.

THE TECHNICAL DEVELOPMENT PROGRAM

The Class of 1969 entering the program in September, 1967, was made up of 19 bachelor of science electrical engineering students and 11 bachelor of science students. Two men withdrew from the program; twenty-seven will receive their M. S. degrees June 6, 1969. One man did not take the comprehensive examinations. In addition, one man from the Class of 1968 passed his comprehensive exam-

inations this May and will receive his M. S. degree with the Class of 1969.

It is with regret, that we see this fine graduate program terminate. To review the nine years that the program was in existence, the following figures are presented. Four hundred and ten bachelor of science students and 37 students with an M. S. degree were recruited into the program; of these, forty-one withdrew from the program; four hundred and six men completed the prescribed program of thirty-six hours, and of these, three hundred and forty received their M. S. degrees.

Of the total of four hundred and forty-seven students entering the program, three hundred and five were still on roll at Sandia or on educational or military leave, as of March 6, 1969, a retention of sixty-eight percent. It is of interest to note that seventeen men have advanced to supervisory positions since completing the program.

THE EDUCATIONAL AIDS PROGRAM

Semester I, 1968-'69

	Ph. D.	M. A. M. S.	Undergraduate
Electrical Engineering	19	10	28
Mechanical Engineering	10	3	8
Civil Engineering	5	0	0
Nuclear Engineering	<u>7</u>	<u>3</u>	<u>0</u>
	41	16	36
Arts and Sciences			
Chemistry	2	6	3
Economics	0	0	1
English	1	1	0
Geology	1	0	0
Journalism	0	0	1
Mathematics	13	3	6
Physics	2	0	2
Psychology	1	0	1
Sociology	<u>0</u>	<u>1</u>	<u>0</u>
	20	11	14
Business Administration	0	10	5
Education	1	0	2
Fine Arts	0	0	6
University College	<u>0</u>	<u>0</u>	<u>9</u>
Total Enrolled For Degree	62	37	72
Total Students in Degree Programs		171	
Graduate Specials - Not for Degree		9	
Non-Degree Students		<u>50</u>	
TOTAL E.A.P. ENROLLMENT - Semester I		230	(Down 1% from '67-'68)

Semester II, 1968-'69

	<u>LEVEL</u>		
	<u>Ph. D.</u>	<u>M. A. M. S.</u>	<u>Undergraduate</u>
Electrical Engineering	10	8	30
Mechanical Engineering	11	5	4
Civil Engineering	6	0	0
Nuclear Engineering	<u>5</u>	<u>4</u>	<u>0</u>
	32	17	34
Arts and Sciences			
Astrophysics	0	0	1
Biology	1	0	0
Chemistry	1	4	2
English	1	0	0
Geology	1	0	0
Journalism	0	0	1
Mathematics	11	5	6
Modern Languages	0	0	1
Physics	1	0	1
Sociology	0	1	1
Speech	1	0	0
Unclassified	<u>0</u>	<u>0</u>	<u>1</u>
	17	10	14
Business Administration	1	9	10
Education	0	0	1
Fine Arts	0	2	2
University College	<u>0</u>	<u>0</u>	<u>9</u>
Total Enrolled for Degrees	50	38	70
Total Students in Degree Programs		158	
Graduate Specials - Not for Degree		7	
Non-Degree Students		<u>41</u>	
TOTAL E.A.P. ENROLLMENT - Semester II		206	(Down 10% from '67-'68)

E. A. P. DEGREES GRANTED June, 1969

Bachelor of Arts - Arts and Science.	2
Bachelor of Science - Arts and Science	2
Bachelor of Science - Electrical Engineering.	3
Bachelor of Science - Industrial Arts Education.	1
Master of Science - Electrical Engineering	3
Master of Science - Mechanical Engineering	1
Master of Business Administration.	2
Doctor of Philosophy - English	2
Doctor of Philosophy - Math.	<u>1</u>

Accountability Office for Sandia Equipment Loans to U.N.M.

This is the fourth year that this office has had the duty of accounting for the items of equipment on loan to the University from the Sandia Corporation. These loans are in two categories: Excess equipment that is used in the various departments for educational purposes. And, second, equipment that is on loan to individual faculty members for use on contract research for the Corporation.

The annual physical inventory was made the week of March 10, 1969, by Mr. Edsel Gunn of Sandia and C. T. Grace of the University. The initial value of equipment on the campus now amounts to \$480,000.

With the closing of this office some other arrangement must be made within the University to provide the services that this office has provided the University and the Corporation in the past. Such arrangement should be made immediately, as the secretary will terminate July 1, 1969, and the Director will return to teaching September 5, 1969, and will be off campus until then.

I-B. -----

I-C. -----

I-D. Separations from Staff

Mrs. Mary Evelyn Coleman, Secretary, July 1, 1969

Professor Charles T. Grace, Director, June 6, 1969

II. Biographical Supplement for the Director, C. T. Grace

1. through 5. - no new items

6. Activities in learned and professional societies:

- a. Attended the annual meeting of the American Society for Engineering Education at the University of California at Los Angeles, June, 1968.
- b. Attended the winter annual meeting of the American Society of Mechanical Engineers, New York City, November, 1968.
- c. Attended the annual meeting of the Gulf-Southwest Section of the American Society for Engineering Education, University of Houston, March, 1969. Member of the Policy and Nominations Committees of the Section.
- d. Active in the New Mexico Section of the American Society of Mechanical Engineers and the Albuquerque Chapter of the New Mexico Society of Professional Engineers.
- e. Attended the 9th annual U.N.M. - A.S.M.E. Symposium on "Responsible Technology - A Mandate for Engineers," November, 1968.

7. Other professional activities:

Served as a design consultant to the Los Alamos Scientific Laboratories for the 17th year.

8. Non-teaching University service:

- a. Continued to serve as a liaison agent between the College of Engineering and the architects on the completion and occupancy of the new Farris Engineering Center, occupied on December 9, 1969.
- b. Served as Engineering College collector for the University United Fund Drive.
- c. Edited and circularized the sixth edition of the Engineering College Newsletter. Over 2,000 copies were sent out to former students.
- d. Continued to work for newspaper and technical magazine coverage of the activities of the faculty and students of the College.
- e. Continued to serve as the faculty advisor for Engineers' Joint Council. Principals and Superintendents of the large high schools of the State were contacted and urged to send their students in to see the annual Engineers' Open House. Over 500 attended in organized groups, and it is estimated that over 1,500 visitors toured the exhibits during the two-day show.
- f. Served on the Entrance and Credits Committee and its sub-committee on Credit-No Credit Course Offerings. Chairman of the Engineering College

Scholarships and Awards Committee; member of the Engineering College Administrative Committee; Chairman of the Engineering College Schedule Committee; Chairman of the Engineering College Student Affairs Committee; Ex-officio member of the Engineering College Public Relations Committee.

9. Public Service:

Member of the Albuquerque Optimist Club (Boys Work.) I administered the National Junior Engineering Aptitude Test for the Albuquerque area.

The Report of the Department of Chemical Engineering
July 1, 1968 - June 30, 1969
T. T. Castonguay, Chairman

I. A. ACHIEVEMENTS

1. Faculty.

The 1968-69 academic year was a complex year for the Chemical Engineering Department. It was a year of change, frustration, and some development for the future.

The faculty staffing situation continues to be critical and a major deterrent in the planned program of growth and development for the department. The resignation of Dr. D. D. Phillips and the unexpected termination of Dr. A. A. Armstrong in August 1968, handicapped the department. That the remaining three members of the staff undertook the increased load of the department is a tribute to their capabilities and interest in Chemical Engineering Education.

During Semester I, 1968-69, four adjunct professors, staff members of Sandia Corporation, were hired to teach courses in the department.

Dr. G. A. Shelton, Jr.	ChE 353	Advanced Chemical Engineering Calculations
Dr. P. D. Wilcox	ChE 361	Material Science
Dr. R. K. Traeger	ChE 401	Thermodynamics
Mr. C. C. Thacker, Jr.	ChE 481	Process Development

The capabilities of the staff members from the Sandia Corporation were not always amenable to the needs of Chemical Engineering education. Consequently, in most cases our use of Adjunct Professors for undergraduate courses left much to be desired.

Dr. K. E. Cox spent the summer months of June 17 to July 19 at the Massachusetts Institute of Technology, attending a summer institute

in Experimental Solid-State Physics. He later attended a summer conference on Fundamentals of Electro-Chemical Engineering August 5-9, 1968, at the University of Michigan. A proposal for research, "The Condensation on Horizontal Elliptical Surface," was presented to the UNM Research Allocations Committee by Dr. Cox and Mr. Suresh Chandra, and was funded for \$800. It is hoped that such a grant will result in further contract research in this area.

Dr. E. J. Nowak continued his research in the field of catalysis during the summer of 1968, under a grant from Associated Western Universities. During the academic year his time was equally divided between teaching and research. He was the principal investigator for the second year on an NSF Grant (\$54,400) to study "The Preparation and Surface Chemistry of Sulfided Nickel Catalysts for Selective Olefin Hydrogenation". He was also the principal investigator on a Sandia Corporation contract (\$19,694) involving "The Role of Surface Defects in the Hydrogen Reduction of Nickel Oxide".

Dr. Adam Schuch, adjunct professor of Chemical Engineering and a staff member of the Los Alamos Scientific Laboratory, taught an inter-disciplinary course in Cryogenic Engineering on the campus during the second semester 1968-69.

Through the use of qualified adjunct professors and Dr. K. E. Cox of the Department, the material science program was continued at the Los Alamos Scientific Laboratory.

During the second semester, 1968-69, Dr. George H. Quentin was added to the staff. He was hired as a replacement for Dr. D. D. Phillips. Dr. Phillips had pioneered the development of the department's Process Dynamics and Control courses. His efforts resulted in an NSF grant of \$14,900 and a corresponding matching grant by the University. Dr. Quentin will continue the work in this important field.

The following adjunct professors, staff members from Sandia Corporation, were used during the second semester:

Dr. R. K. Traeger	ChE 402	Thermodynamics
Dr. G. S. Snow	ChE 362	Material Science
Mr. C. C. Thacker, Jr.	ChE 482	Process Development

Active participation by the members of the faculty in career days, Science Fairs and the American Chemical Society, has brought the faculty in closer contact with the young men and women of the junior and senior high school age who will be University students of tomorrow.

The Department has maintained its close contact with the school counselors and chemistry instructors in the Albuquerque schools through the program of sending them monthly literature on vocations. Through the New Mexico Section of the American Chemical Society, other schools in New Mexico will be added to the list to receive this information. A copy of "Chemical and Engineering News" devoted to career opportunities in Chemical Engineering, Chemistry and Chemical Technology was sent to high school counselors throughout the state. Letters congratulating

students and pointing out the opportunities available at UNM have been sent to members of graduating senior classes in New Mexico. The names of the prospective students were obtained from the list supplied by the UNM Student Aids Division.

2. Students

Seventeen students were awarded the Bachelor of Science degree during the June 1969 commencement. Starting salaries were again excellent for our graduates. The average accepted offer being \$868, compared to \$824 for June, 1968. Approximately half of the graduates accepted production, development and process design jobs with private industrial firms at locations in the southwest.

The Master of Science degree in Chemical Engineering was awarded to Jonathan K. Ma, Plan I - Thesis title, "A Computer Multi-Stage Optimization Method on Ethane Decomposition".

The eight remaining graduate students are continuing their work towards the M.S. and Ph.D. degree in Chemical Engineering at the University of New Mexico on graduate or research assistantships.

Fourteen of the 17 juniors will be working in industry this summer in Chemical Engineering positions which will reinforce their theoretical studies at the University. Six sophomores have also been placed in chemical engineering industry. This arrangement for summer employment has helped materially in overcoming some

of the advantages of the cooperative program in other institutions.

To give the young chemical engineer an overall viewpoint of some of the industries in which he will apply his theoretical knowledge, plant trips are an important part of the curriculum. Thirty-two students accompanied by the Chemical Engineering faculty visited the El Paso-Carlsbad area and had the opportunity to observe the processes involved in the refining of metals, petroleum, potash and the making of sulfuric acid and other commodities of commerce.

Several of the undergraduates have been honored by election to Blue Key and Sigma Tau.

Other important awards are:

Bryan V. Payne	Cabot Corporation Scholarship	\$300
Gerald R. Chiaramonte	Universal Oil Products Stauffer Chemical Co. Scholarship	\$300 \$300
	George Breece Award	
Ronald G. Rosenbaugh	Harry & Mabel Leonard Scholarship Stauffer Chemical Co. Scholarship	\$125 \$400
William D. Gandy.	Stauffer Chemical Co. Scholarship	\$300
Kent R. Hoffman	Kennecott Copper Corp. Scholarship Harry & Mabel Leonard Scholarship Phillip D. Miller Scholarship	\$500 \$125 \$175

Student awards continued:

John A. Lopez	Cabot Corporation Scholarship Western Electric Award	\$300
Ali Selahvarzi	Harry & Mabel Leonard Scholarship	\$125
Albert W. Smith, Jr.	Stauffer Chemical Co. Rufus H. Carter Schol.	\$300 \$100
Robert T. Duffy	Universal Oil Products Stauffer Chemical Co. Scholarship	\$300 \$300
Rudolph Krall	Stauffer Chem. Co. Scholarship Harry & Mabel Leonard Scholarship	\$300 \$125
Rodney W. Loewen	Stauffer Chemical Co. Scholarship	\$300
Stanley J. Zygmunt	Harry & Mabel Leonard Scholarship	\$125

Many of the student functions in the Chemical Engineering department are organized and coordinated by the University of New Mexico student chapter of the American Institute of Chemical Engineers. The officers for the 1969-70 academic year are:

President	Clark Dickson
Vice President	John Lopez
Secretary	Kent Hoffman
Treasurer	Travis Crouch
Engineers Joint Council Repr.	(To be elected first meeting in Sept.)
Alternate to EJC	
Faculty Advisor	Dr. George H. Quentin

The trust fund established in the Chemical Engineering Department is now over \$10,000. The interest from this investment is used to encourage scholarship and performance among undergraduates in the chemical engineering curriculum.

Department interest in its graduates, as well as its undergraduates, has been maintained throughout the years by the issue of a Christmas newsletter. This year's letter, Vol. XIX, was mailed to the department alumni in December 1968. It gave the addresses, activities and achievements of the more than 265 members who have received their training in the department since the first graduating class of 1948.

The Engineering Open House held during Engineers' Week attracted hundreds of people. Many outstanding student exhibits were on display. The Department received the following awards:

- "Flowmapper" - First place to John Lopez, Clark Dickson, Travis Crouch
- "Polyfoam" - Second place to Fredric T. Diemer, Roland Marti, Leon Baca

Undergraduate activities of a more social nature which have been a tradition throughout the years, are:

1. The Annual Spaghetti Dinner given at Christmas time and prepared in the department. Attendance last December - more than 85 people.
 2. The Annual Spring Steak Fry and Picnic, with more than 75 attending, held at Pine Flats Picnic area in May.
 3. The Senior Dinner, given annually by the Department Chairman to the graduating senior class, held this year at the Elks Club.
3. Curriculum

The curriculum of the Chemical Engineering Department is constantly under review. The faculty is aware of the constant stress and strain taking place in chemical engineering education. In light of the student's performance and industry's regard for our graduates, no major changes seemed necessary. A few changes

were made to increase graduate quality and to provide the student with greater flexibility. Cognizant of the important advancements in engineering, the department offered for the first time on the University campus, a course in Cryogenic engineering, open to all qualified engineers and scientists. The course was given by Dr. Adam Schuch, a staff member of the Los Alamos Scientific Laboratory, who has published extensively, and is an authority in this field.

In the chemical engineering program there is a high concentration of laboratory courses in Physics and Chemistry as well as those in our own curriculum. There are 21 hours of laboratory in the senior year. As an experiment, ChE 415L, the terminal laboratory course in the Unit Operation area, will be taught from the total immersion concept of laboratory work; that is, a day-to-day approach in the laboratory that would more nearly approximate the conditions experienced by engineers as they entered industry. On a semester basis the laboratory course meets six hours per week for 16 weeks or a total of 96 contact hours. The course will start Monday, June 9, on an eight-hour basis. Beginning Monday, June 16, it will operate on a six-hour basis and possibly some Saturdays, depending on the experiments. The course would be completed by June 30, 1969. The pros and cons of such an arrangement as far as our curriculum is concerned would be evaluated for future consideration.

Dr. George H. Quentin, continuing the concepts introduced by Dr. D. D. Phillips in the Process Dynamics and Control courses as well as the Process Design course, emphasized the usage of the computer in the solution of chemical engineering problems. The Digital Computer Simulation Program CSMP (for continuous system modeling program) developed by IBM was used in the Process Design Course and Process Dynamics. Considerable work was also done with the TR-20 analog computers in the Mechanical Engineering Department. This also provided an opportunity for students to gain some experience in simulation while at the same time demonstrating course work principles.

Dr. Quentin was responsible for the Chemical Engineering lecture and problem session in CE 104L "Introduction to Engineering".

4. Facilities

The main chemical engineering laboratories have undergone needed repair and remodeling. Through the NSF grant given to Dr. A. A. Armstrong most of the equipment has been installed and is in operation.

The Process Dynamics Laboratory funded by \$29,800 and under the direction of Dr. G. H. Quentin should be taking shape shortly.

The Department obtained offices for three members of its staff and space for graduate students in the new Farris Engineering Center. Space was also obtained for a research laboratory in the basement.

5. Graduate School

Dr. E. J. Nowak handled all of the administrative and research advisement duties for the department's on-campus graduate students. There are presently four candidates for the Ph.D. degree in chemical engineering.

Dr. K. E. Cox was the coordinator for the graduate program in Material Science at the LASL in which nine students continued their progress toward the MS and Ph.D. degrees. Dr. Cox will assume the graduate advisor duties for 1969-70.

One M. S. degree in Chemical Engineering was conferred at the June commencement.

Though severely handicapped by lack of personnel in the graduate field, the department offered three graduate courses. ChE 521, Advanced Transport Phenomena, Semester I, ChE 594 Plastics, Semester II at the LASL. Both courses were given by Dr. K. E. Cox. ChE 501, Cryogenic Engineering, was given by Dr. Adam Schuch. The Department has four graduate assistantships to facilitate the grading and laboratory operations.

6. Research

Supported research has been conducted during the academic year by members of the faculty in their fields of interest. Dr. E. J. Nowak's catalysis investigation continues to bear fruit. The joint venture with the Cabot Corporation involving the heat transfer characteristics of carbon black laden reactor gases has been temporarily shelved until our staff builds up to strength.

Our undergraduate program involves supervised research. Undergraduate students have been actively engaged throughout the year in the following departmental projects:

1. Stabilization of Adobe by Cement and Fibers
2. Se Crystallization Kinetics
3. The Bromination of Phenol Using Carbon-Tetrachloride as the Special Solvent
4. Heat Transfer Characteristics of Carbon Laden Gases
5. Hydrogenation of Sucrose

It is hoped that some of these projects will eventually yield to larger projects financed by outside funds and that the "spin-off" from them will result in an increased economic benefit to the State of New Mexico.

B. PLANS AND RECOMMENDATIONS

In many respects some of the Department's plans and recommendations have been stated in the body of the report; but to bring them more clearly into focus for our own perusal, we may state them as follows:

1. To continue efforts by the faculty to obtain outside contract research funds in fields commensurate with the individual and department interest, in both the graduate and undergraduate areas.

2. To exploit to a greater degree than in the past, New Mexico's resources in such a way as to help in the industrial development of the state. In some ways we may retard the "brain drain" to other states.

3. To exert a greater effort to increase the graduate enrollment in the department with our present staff.

4. To obtain suitable floor space for the Department's new process dynamics and control laboratory.

5. To continue to explore and obtain from alumni and industrial concerns funds for scholarships.

6. To continue to update and review graduate and undergraduate offerings in the Chemical Engineering curriculum.

7. To maintain excellence in teaching, which is the primary purpose of our existence, so that our graduates will receive in the future, as they have in the past, acceptance in any graduate school or industrial concern in the country.

8. To continue and develop the image of the Department, the College and the University to the public and New Mexico's schools.

9. To work closely with the Fission Products Inhalation Laboratories of the Lovelace Foundation in an effort to develop one or more cooperative research ventures.

10. To work closely with the Los Alamos Scientific Laboratory, and the American Chemical Society for a symposium on cryogenics.

11. To establish with interested personnel at the Sandia Corporation and Los Alamos Scientific Laboratory an NSF Summer Institute for 1970 involving vacuum technology.

12. To evaluate the possibilities of cooperative education and summer school in Chemical Engineering.

13. To continue cooperative research studies with the Cabot Corporation.

C. APPOINTMENTS TO STAFF

Dr. George H. Quentin, Assistant Professor, starting date January 13, 1969. Began teaching duties Sem. II, 1969.

D. SEPARATION FROM STAFF

Dr. E. J. Nowak, Assistant Professor, resigned at the end of academic year, June 1969, returning to industry with the Sandia Corporation.

II. COMPOSITE OF INFORMATION REQUESTED ON INDIVIDUAL BIOGRAPHICAL SUPPLEMENTS

1. Advanced Study: (None)

2. Sabbaticals, leaves of absence, etc.

K. E. Cox - Visits to Departments of Chemical Engineering, Summer, 1968, (1) Massachusetts Institute of Technology, (2) University of Toronto, Canada, (3) University of Waterloo, Canada, and (4) University of Michigan.

E. J. Nowak - Research at Sandia Corporation during summer of 1968 under a grant from Associated Western Universities.

3. New Scholastic Honors, Fellowships

K. E. Cox - National Science Foundation, Summer Institute in Experimental Solid-State Physics, Massachusetts Institute of Technology, Participant, June 17-July 19, 1968.

Ford Foundation, Engineering Summer Conference, Fundamentals of Electrochemical Engineering, U. of Michigan, participant, Aug. 5-9, 1968.

4. Publications

E. J. Nowak - "Reaction Probabilities for Methane and Oxygen on (III) Silicon Single-Crystal Surfaces", Journal of Catalysis, 11, (2), 177 (1968). "Prediction of Platinum Losses during Ammonia Oxidation", Chemical Engineering Science, 24, 421 (1969).

5. Other Research Projects or Creative Work...

T. T. Castonguay - Research completed: "A Computer Multi-Stage Optimization Method on Ethane Decomposition", M. S. thesis with Jonathan K. Ma. In progress:
"Measurement of Heat Transfer Characteristics of Carbon Black Laden Reactor Gases"

K. E. Cox - Proposal to the National Science Foundation:
"An Experimental Investigation of Flow in the Laminar Sub-Layer at the Surface of Solid Cylindrical Bodies". \$70,436 - 2 years.

Proposal to the UNM Research Allocations Committee:
"Condensation on Horizontal Elliptical Surfaces". \$800 funded.

E. J. Nowak - "Studies of the Preparation and Surface Chemistry of Sulfided Nickel Catalysts for Selective Olefin Hydrogenation", National Science Foundation Grant No. GK-1979, 1/4 time for principal investigator and 2 full-time research assistantships for 2 years, \$54,400, E. J. Nowak, Principal Investigator.

"The Role of Surface Defects in the Hydrogen Reduction of Nickel Oxide", Sandia Corporation Contract No. 53-8398, 1/4 time for principal investigator and one full-time research assistantship for one year, \$19,694, E. J. Nowak, principal investigator.

"Catalysis of the Reduction of Supported Nickel Oxide", accepted for publication in Journal of Physical Chemistry.

G. H. Quentin - Supervision of grant for construction of undergraduate Process Dynamics Laboratory, jointly sponsored by NSF (\$14,900) and UNM (\$14,900) thru May 31, 1970. The grant was obtained by Dr. Douglas D. Phillips 1967-68, before his termination June 1968.

6. Activities in Learned and Professional Societies

T. T. Castonguay - Member, National Research Committee of American Institute of Chemical Engineers; Chairman, Central New Mexico Section of American Chemical Society. Active in local and national chapters, American Chemical Society, AIChE, ASEE, national and state Society of Professional Engineers.

6. T. T. Castonguay (continued)

- b. 61st Annual Meeting of AIChE, Los Angeles, California, December 2-6, 1969.
- c. 64th National Meeting of AIChE, March 16-20, 1969, New Orleans, La.
- d. 57th Petro-Chemical and Refining Exposition, March 17-20, 1969, New Orleans, La.
- e. AIChE Continuing Education Committee, March 15-16, 1969, New Orleans, La.

K. E. Cox

- a. 61st Annual Meeting of AIChE, Los Angeles, California, December 2-6, 1969.
- b. American Chemical Society, Central N. M. Section, monthly meetings, Albuquerque, Santa Fe, and Los Alamos. Executive, Membership, and Nominations Committees.
- c. American Society for Engineering Education, Albuquerque Chapter

E. J. Nowak

- a. Symposium Chairman, American Institute of Chemical Engineers Annual Meeting, to be held November 16-20, 1969, in Washington, D. C. Now reviewing papers.
- b. Member, Engineering Sciences and Fundamentals - Kinetics and Catalysis program committee, American Institute of Chemical Engineers.
- c. Attended 61st Annual Meeting, AIChE, Los Angeles, California, December 2-6, 1968.

7. Other Professional Activities

T. T. Castonguay

- a. Career Day and Guidance Seminar, Jr. & Sr. high schools
- b. Guest, Standard of Texas at El Paso, December, 1968
- c. Guest, El Paso Natural Gas, May, 1969
- d. Department field trip, El Paso/Carlsbad region, April 16-18, 1969

7. Other Professional Activities (continued)

K. E. Cox

- a. Engineering Consultant to Mr. James Toulouse, attorney-at-law. Also to United States Fidelity & Guaranty Co., Albuquerque and Farmington, N. M.
- b. Departmental field trip to El Paso, Texas, and Carlsbad, N. M., 4-16 to 4-18-69.
- c. Science Fair Judge, Pius High School; State Fair at NMINT, Socorro, N. M.

E. J. Nowak

- a. "Molecular Sieves, Their Structures and Surface Properties", a seminar lecture presented at Sandia Corporation, June, 1968.
- b. Consultant, Sandia Corporation, September 1967 to present.

8. Non-teaching University Service

T. T. Castonguay

- a. Engineering College Committees:
 - Administrative Committee
 - Freshman Advisory Committee
 - All Departmental Advisor (Seniors)
- b. University Committees:
 - Chairman, Summer Session

K. E. Cox

- a. Faculty advisor for International Students in cooperation with UNM Office of International Services.
- b. Departmental advisor - High School Day.
- c. Student Chapter Advisor, AIChE
- d. Student-Faculty Assoc., Fireside Conferences, Sem. II, 1968-69.
- e. Student-Faculty Assoc., Weekend, D. H. Lawrence Ranch Conference, April 25-27, 1969.
- f. Engineering College Committees: Scholarship, scheduling and library.

8. Non-teaching University Service (continued)E. J. Nowak

- a. Freshman Advisory Committee, Engineering College
- b. Freshman Curriculum Committee, Eng. College
- c. Graduate Committee, Eng. College
- d. Bureau of Engineering Research Advisory Committee, Eng. College
- e. Special Committee to Study Humanities and Social Science Courses, College of Eng.
- f. New Student Orientation Committee, University
- g. President, American Society for Engineering Education, Local Branch
- h. Graduate Advisor, Department of Chem. Eng.
- i. Sophomore Advisor, Department of Chem. Eng.

G. H. Quentin

- a. Engineering College Computer Committee
- b. Engineering College Mathematics Committee
- c. Convocation Committee

9. Public ServiceT. T. Castonguay

- a. Aquinas Newman Center, Newman Forum
- b. Friends of University of N. M. Library
- c. Serra Club

E. J. Nowak

- a. New Mexico State Science Fair Judge, April 19, 1969

G. H. Quentin

- a. N.W. Regional Science Fair Judge, State Science Fair, (Socorro) Judge

10. Personal information:G. H. Quentin

- a. Fifth child born December 5, 1968

THE REPORT OF
THE DEPARTMENT OF CIVIL ENGINEERING
July 1, 1968 - June 30, 1969
C. L. Hulsbos, Chairman

I. GENERAL DEPARTMENTAL INFORMATION

A. Significant Achievements During the Academic Year 1968-69

1. Student Enrollment and Degrees Granted

Enrollments

	<u>Semester I</u>	<u>Semester II</u>
Sophomores	28	31
Juniors	36	35
Seniors	23	30
Graduate Students		
M.S.	32	28
Ph.D.	<u>27</u>	<u>26</u>
	146	150

Degrees Granted

B.S.

February 1969	9
June 1969	<u>14</u>
	23

M.S.

August 1968	3
February 1969	3
June 1969	<u>8</u>
	14

Ph.D.

August 1968	1
June 1969	<u>2</u>
	3

The undergraduate enrollment seems to have reached a somewhat constant number. The Semester II enrollment is higher than that of the last few years; this may indicate an increase in next year's enrollment. The magnitude of overall University enrollment in the Fall, considering the unfavorable public relations which have developed, will be a significant indicator for the future.

The total graduate enrollment had essentially no change since last year. The recent developments in the status of first year graduate students with respect to the draft has prevented an increase in the number of U. S. students in our graduate program.

During this year, the Department published an updated Directory of the Alumni of the Department of Civil Engineering and a copy of the directory was mailed to each of the Alumni. As a result, many contributions have been received which have been deposited in an agency account 290-141-000. The funds will be used to publish future editions of the directory and to give a scholarship to an undergraduate student. Mr. Raymond Mondragon has been selected as the first recipient of the scholarship which was established as \$125.00.

2. Curriculum Changes

A new course CE 104L "Introduction to Engineering" was taught for the first time during the Spring Semester and it will appear in the 1969-70 catalog. This course will replace CE 101L and CE 103 and includes a description of engineering, introduction to engineering design along with the development of graphical, analytical, and communicative skills. An attempt is being made to develop a course which

will provide greater motivation for our freshmen students. Faculty for instruction of the course are being provided by the various Departments in the College of Engineering. The course was taught to a relatively small group (3 sections) during the Spring 1969 and it appears to be quite successful in meeting our objective. It will be taught to a larger group in the Fall 1969 (about 11 sections). The actual effectiveness of the course in motivating our students will require some time to evaluate.

In addition to our M.S. program in construction, the Department has initiated an undergraduate construction option. This option, which culminates in a bachelor's degree in Civil Engineering, allows the students to take courses in accounting, economics, construction management, labor relations, and other construction related courses. The students must enter the program at the start of their sophomore year and they will be encouraged to take jobs in the construction industry during the summer months. The Associated General Contractors of New Mexico, Building Branch, have provided two new scholarships for students in this program.

The Department has initiated an Honors Program. In the future, qualified Civil Engineering students may graduate with General Honors, with Departmental Honors, or with both. Two new courses have been added for the Honors Program: CE 493 "Special Topics in Civil Engineering - Honors" and CE 494 "Honors Seminar".

Two new courses were added which will be available for advanced undergraduates and beginning graduate students: CE 403 "Linear Viscoelasticity" and CE 453 "Numerical

Methods in Civil Engineering". One new course for graduate students CE 517 "Discrete and Macro Mechanics" was also added which will provide coverage to keep our mechanics program up-to-date.

The Department of Civil Engineering is continuing to teach the courses in structural engineering for the students majoring in Architecture. These courses are constantly being revised at the request of the Architecture Department in order to keep in line with their new graduate program.

3. Conferences

The Sixth Annual Paving Conference held at the University of New Mexico on December 12-13, 1968 was presented by the Department of Civil Engineering in association with the New Mexico Highway Department, Portland Cement Association, and the Asphalt Institute.

The Department of Civil Engineering in cooperation with the Steel Advisory Committee of New Mexico and the American Institute of Steel Construction presented a program on the Design of Steel Structures on November 1, 1968 to the practicing structural engineers and architects of New Mexico.

The Department of Civil Engineering was invited to obtain a speaker under the UNM-Sandia Colloquium Program. Dr. H. B. Seed, Chairman, Department of Civil Engineering, University of California, Berkeley, accepted our invitation to visit us on April 11, 1969. Dr. Seed is an internationally recognized authority in the area of Soil Mechanics. He spent a portion of the day consulting with our faculty concerning our undergraduate and graduate programs in soil mechanics and foundations. Late in the afternoon he presented a lecture "The Influence of Soil Conditions on Catastrophic Failures

in Recent Earthquakes". The lecture was attended by students and faculty from the University and practicing engineers for the community.

4. Student Activity

The Student Chapter of the American Society of Civil Engineers held monthly meetings with guest speakers. The officers for the year were: Daniel Armstrong, President; Albert Brooks, Vice President; Martin Barker, Secretary; William Benkavitch, Treasurer; and Steven Gabriel, Editor. The Chapter members participated in building a float for the Homecoming Parade. Engineering Open House was held in February with displays constructed by the students.

The Chapter members made arrangements for and participated in the Annual Meeting of the Rio Grande Conference of the Student Chapters of the American Society of Civil Engineers which was held in Albuquerque in February 1969. Mr. Rafael Romero, from our Chapter, presented a paper in the annual student paper contest held at this meeting.

5. Student Achievements

Sigma Tau, national engineering honorary, elected the following Civil Engineering students to membership: Gene Arnold, Martin Barker, Albert Brooks, Badru Kiggundu, Fred Rummel, Mekurea Tafesse, and Michael Whelan.

Chi Epsilon, national Civil Engineering honorary, elected the following to membership: Daniel Armstrong, Gene Arnold, Martin Barker, William Benkavitch, Albert Brooks, Steven Gabriel, and Michael Whelan. The officers for the year were: Rafael Romero, President; Elliott Chalif, Secretary; Badru Kiggundu, Treasurer; and Larry Walker, Marshal.

The following scholarships were awarded to Civil Engineering students during the 1968-69 year: The Rufus H. Carter, Jr., Scholarship in Engineering to Martin Barker; The Harry and Mabel F. Leonard Scholarships to Albert Brooks and Bruce Schneider; The Rust Tractor Scholarship to Ronald Nelson; The George A. Rutherford Scholarship to Gene Arnold; and the Sandia Fund Scholarship to Thomas Paez.

The following Fellowships were awarded to graduate students in Civil Engineering: NSF Trainee -- Charles Jennett; NDEA Title IV -- Charles E. Weld and Larry A. Walker; NASA -- Golden E. Lane, Jr.; UNM -- Jhy-pyng Tang and Hsiang-Yueh Yeh.

Mr. Albert C. Brooks was awarded the "Outstanding Civil Engineering Senior Award" by the New Mexico Section of the American Society of Civil Engineers.

6. Rental Funds

The Department collected \$1,322.16 from the rental of surveying equipment for the period April 30, 1968 to April 30, 1969. The money was deposited in account 290-006 which had a deficit of \$1,160.12 on May 1, 1968. Professor M. C. May is in charge of this account. Expenditures were for remodeling Room 105 in the Civil Engineering Building.

The Department collected \$24 from the rental of drawing equipment which was deposited in account 290-021. There were no disbursements from the account which, on May 21, 1969, had a deficit of \$302.12. Professor W. R. Gafford is in charge of this account.

7. Research and Academic Grants 1968-69

<u>Sponsor</u>	<u>Title</u>	<u>Time</u>	<u>Amount</u>	<u>Director</u>
NSF	Adaptive Systems for Earthquake-Resistant Structures	1968-70	\$50,300	J. T. P. Yao
Sandia Corp.	Behavior of a Bi-Material Cylinder Including the Effects of Fracture	1968-69	12,287	R. L. Johnson, Jr.
AISI	Fatigue Properties of Light Gage Steel Structural Members	9/67-2/69 2/69-2/70	11,000 15,000	C. L. Hulsbos
U.S.Dept. Int. Bu. of Recla- mation	The Effects of Pulsating Loads on Pore Pressures in Soils	3/68-7/69	14,500	J. B. Carney, Jr.
NSF UNM	Research Equipment for an Analog Computation Laboratory	1968-69	30,000	J. T. P. Yao
AFWL	An Evaluation of Plating Wastes Disposal	1 year	CERF	C. C. Patterson
AFWL	Areas of Wave Propagation, Dynamic Properties of Earth Materials, Soil Structure Interaction, Soil Stabilization, and Simulation of Air Induced Ground Shock	Conducted at CERF		G. Triandafilidis
AFWL	Director of Eric H. Wang Civil Engineering Research Facility			E. Zwoyer

8. Proposals submitted by the Department 1968-69 (no reply as of June 1, 1969)

<u>Sponsor</u>	<u>Title</u>	<u>Time</u>	<u>Amount</u>	<u>Director</u>
NSF	Research Equipment for an Analog-Simulation Laboratory	1 year	\$25,000	J. T. P. Yao
Sandia Corp.	Non-Linear Behavior of a Fractured Three-Layered Cylinder	1 year	19,562	R. L. Johnson, Jr.
Sandia Corp.	Finite-Deflection Elasto-Plastic Analysis of Strain Hardening Rectangular Plates	10 months	14,011	G. W. May
NSF	Short Course-Structural Fatigue	1 week	24,620	C. L. Hulsbos

9. Proposals submitted by the Department 1968-69 (Request not granted)

<u>Sponsor</u>	<u>Title</u>	<u>Time</u>	<u>Amount</u>	<u>Director</u>
FWPCA	Training Grant in Water Pollution Control	5 years	\$225,907	C. C. Patterson
Water Resources Research Inst.	An Evaluation of Shallow Groundwater Quality in the Vicinity of Albuquerque	1 year	24,465	C. C. Patterson

B. Plans and Recommendations

1. Faculty and Programs

We have made reasonable progress in reducing the excessive teaching loads in the Department which were prevalent a few years ago. Unfortunately, with research funds becoming more difficult to obtain our sponsored research has declined. With our active graduate program we must develop more sponsored research activity to support our students -- particularly since we are building up a greater percentage of doctoral students. As our sponsored research develops we will use Adjunct Professors to teach appropriate courses until such time as it is feasible to add additional permanent faculty. Qualified Adjunct Professors are readily available for this Department from either CERF or Sandia Corporation.

We have had discussions to determine the desirability of developing a Co-operative Student Trainee Program in Civil Engineering. The New Mexico State Highway Department has indicated an interest in developing a program with us which would be similar to the one which has been in operation at New Mexico State University since 1952. A cooperative work-study program would enable many New Mexico students to obtain a college education who would otherwise not be able to do so. We will continue to study the possibility of a work-study program for the University of New Mexico.

We have discussed the possibility of developing a Cooperative Technical Institute type of program with Albuquerque's Technical-Vocational Institute. There is a

demand for technicians in the surveying and mapping area. We have the necessary equipment for such a program while T-VI does not have such equipment. It may be feasible for us to effectively cooperate with them in such a program. This idea will be pursued further in the future.

There is an increasing demand for engineering courses, both graduate and undergraduate, during the summer session. We must develop a more extensive summer program so that students can make effective use of the summer months. Even without additional summer courses, there is considerable administrative work within the Department which must be handled in the summer. Consequently, the Department Chairman should be employed on a 12-month basis. Also, the summer salary rates for professors should correspond to their regular academic rates. The summer budget should be handled through the Department Chairman and the Dean of the College. Some means must be found to develop an adequate summer program.

Additional travel funds should be available for faculty to attend selected national meetings. This is one means for our faculty to become acquainted with leaders in their field and at the same time their own capabilities would become better known. This participation in technical meetings is a definite asset in the development of an excellent graduate and research program.

One item is a must for next year -- we must be able to make a significant adjustment in our salaries to remain competitive with other Universities.

2. Facilities

The completion of the Farris Engineering Center has given the Department essential additional space. Two laboratory rooms are being used for research in the sanitary engineering area. Previously this work with its equipment was being done in a small and crowded undergraduate laboratory which was nearly an impossible situation. One laboratory room is being used to house the analog computation equipment recently obtained by the Department. A sponsored research project is being carried on in this space. A fourth laboratory room is being used for work in the soil mechanics area. The new building has also provided necessary office space and suitable space in which to teach our freshman engineering courses. Space provided for fluid mechanics will be shared by the Civil and Mechanical Engineering Departments. Much work needs to be done to prepare this laboratory for Fall classes. However, due to a construction error, we have not been permitted to occupy this space until corrective measures have been completed.

In order to keep our laboratories up-to-date and to provide equipment for graduate student research, our funds for equipment must be increased.

C. Appointments to staff

1. Full-time

None

2. Part-time and temporary

Mr. Charles Bacchus, Teaching Assistant, Semesters I and II

Mr. Peter Bussolini, Graduate Assistant, Semester II

Mr. Elliott Chalif, Graduate Assistant, Semesters I and II

Mr. Tai-Yo Chen, Graduate Assistant, Semesters I and II

Mr. Thomas Couture, Graduate Assistant, Semesters I and II

Mr. Elvidio Diniz, Graduate Assistant, Semester II

Mr. Thomas Duffey, Adjunct Professor, Semester I

Mr. Jeng Wen Hwang, Graduate Assistant, Semester I

Mr. Golden Lane, Teaching Assistant, Semester I

Mr. John Murray, Graduate Assistant, Semesters I and II

Dr. Balakrishna Rao, Adjunct Professor, Semester I

Mr. Satwant Rihal, Teaching Assistant, Semesters I and II

Mr. Bruce Schneider, Graduate Assistant, Semester II

Major Donald Silva, Adjunct Professor, Semesters I and II

Mr. Larry Walker, Teaching Assistant, Semester II

Mr. Maharaj Wanchoo, Graduate Assistant, Semesters I and II

D. Separations from full-time staff

None

II. COMPOSITE OF INFORMATION ON INDIVIDUAL BIOGRAPHICAL SUPPLEMENTS

1. Advanced Study

CARNEY, J. B., JR.

Received Ph.D. University of Arizona June 1, 1968.

PATTERSON, C. C.

Workshop on plating waste treatment and Disposal Center for Professional Advancement, Hopatcong, N. J.; EAI short course on analog computing, Dallas, Texas.

TRIANDAFILIDIS, G. E.

Attended two-week course "Vibration of Soils and Foundations", University of Michigan, Ann Arbor, Michigan.

YAO, J. T. P.

- a) ASCE Seminar on Systems Engineering, Pittsburgh, Pa., October 4-5, 1968.
- b) EAI Short Course on Iterative Analog Computation, Pullman, Washington, January 26-31, 1969.

2. Sabbaticals, leaves or absence, summer teaching, travel, etc.

HULSBOS, C. L.

Regional Conference of Civil Engineering Department Chairman, Manhattan, Kansas, April 18-19, 1969.

JOHNSON, R. L., Jr.

Associated Western Universities, Summer Faculty Research Grant, Summer, 1968. Research conducted at the Sandia Corporation.

MAY, G. W.

Summer work: Associated Western Universities grant at Sandia Corporation.

OMID'VARAN, C.

Served as senior structural designer with Seelye, Stenson, Value & Knecht, Consulting Firm, 217 North Avenue, New Rochelle, New York, June to September 1968.

PATTERSON, C. C.

Summer research at the University of Texas, Austin, Texas, on modelling of rivers for dissolved oxygen. Report on project under preparation.

YAO, J. T. P.

- a) Santa Fe, New Mexico, July 24, 1968, see 6-L,
- b) Pittsburgh, Pennsylvania, October 3-5, 1968, see 6-n, 1-a,
- c) Las Cruces, New Mexico, October 12, 1968, see 6-o,
- d) New Hampshire, 20-23 October, 1968, see 6-p,
- e) Pullman, Washington, 26-31 January 1969, see 1-b,
- f) Denver, Colorado, 4 February 1969, see 6-s,
- g) Berkeley, California, 27-28 March 1969, see 6-k,
- h) Philadelphia, Pennsylvania, 31 March-April 1, 1969, see 6-q,
- i) Washington, D.C., 9-11 April 1969, see 6-u,
- j) Louisville, Kentucky, 14-18 April 1969, see 6-h, 6-i,
- k) Provo, Utah, 19 April 1969, see 6-j.

3. New scholastic honors, fellowships, etc.

OMID'VARAN, C.

New member: New York Academy of Science.

ZWOYER, E. M.

Received the 1969 award of Outstanding Engineer presented by New Mexico Society of Professional Engineers.

4. Publications

CLOUGH, R. H.

Completed revision of textbook, "Construction Contracting", John Wiley & Sons (pub. date: August 1969).

CLOUGH, R. H. (Continued)

"OPBID: Competetive Bidding Strategy Model",
accepted for publication by ASCE (pub. date:
July 1969).

MARTINEZ, J. E.

Proceedings, Sixth Paving Conference, University
of New Mexico, December 1968 - Editor.

MAY, G.W.

"The Effect of Holes on the Dynamic Breaking Strength
of Rings" Research Report, Sandia Corporation,
SC-RR-68-784, April 1969 (32pp.) (co-author: D. M.
Ellett).

OMID'VARAN, C.

Analysis of Ribbed Plates", ASCE, Jour. of Struct.
Div. Vol. 45, No. ST3, March 1969. Presented at
ASCE National Conference on Struct. Engr. April 14-18,
1969, Louisville, Ky. Prepared in collaboration with
D. L. Dean.

"Discrete Analysis of Unbraced Rigid Frames"
presented at the Winter Conference, New Mexico
Section, of ASCE, February 1969.

TRIANDAFILIDIS, G. E.

"Simulation of Airblast Induced Ground Motion at
McCormick Ranch Test Site, Project Silt Pile" Vol. I,
AFWL-TR-68-27, Kirtland Air Force Base, New Mexico,
1968, pp. 272.

Parameters, Influencing the Airblast Environment
Induced by High Explosives", Vol. II, AFWL-TR-67-126,
Kirtland Air Force Base, New Mexico, 1968, pp. 450.

"Simulation of Airblast Induced Ground Motion at
McCormick Ranch Test Site, Project Drill Hole",
Vol. II, (Submitted to the AFWL for publication),
pp. 193.

TRIANDAFILIDIS, G. E. (Continued)

Proceedings, International Symposium on Wave Propagation and Dynamic Properties of Earth Materials", Editor, University of New Mexico Press, Albuquerque, 1968, pp. 999.

"Dynamic Oedometer Study of Lateral Yield Effects: accepted for publication in the Proceedings of the Seventh International Conference on Soil Mechanics and Foundation Engineering, Mexico City, August, 1969, pp. 9.

"Simulation of Airblast Induced Ground Motion at McCormick Ranch Test Site, Project Back Fill", Vol. III, (Submitted to the AFWL for publication), pp. 299.

"Transient Surface Waves Generated by High Explosives and Ground Motion Phenomena", Paper summary submitted to the University of Wales for Conference on Dynamic Waves, (No action).

YAO, J. T. P.

- a) "Analysis and Interpretation of Fatigue Data:, Journal of the Structural Division, ASCE, v. 94, N.St 12, December 1968, pp. 2665-2677 (Co-authors K. H. Lenzen, B. T. Yen, G. E. Nordmark, and W. H. Munse).
- b) "Response of Bilinear Structural Systems to Earthquake Loads" ASME Paper No. 69-Vibr-20.

ZWOYER, E. M.

"Shear Behavior and Ultimate Strength of Deep Reinforced Concrete Beams", by Robert Crist and Eugene Zwoyer presented at the International Conference on Shear, Torsion and Bond in Reinforced and Prestressed Concrete, Sponsored by Structural Engineering Research Centre, Roorkee of the CSIR Government of India Institution of Engineers (India) PSG College of Technology, Coimbatore, India, 1968.

5. Other research projects or creative work in progress or completed

ABBOTT, W. T.

Completed development of a new course, CE 452L
Computer Applications in Civil Engineering.
Gave it for the first time in the Spring Semester.

CARNEY, J. B., Jr.

Research Project Sponsored by U. S. Bureau of
Reclamation \$14,500 - 15 mos. A Study of the
Effect of Pulsating Loads on Pore Pressures in
Soils.

HULSBOS, C. L.

Research Project "Fatigue Properties of Light
Gage Steel Structural Members" sponsored by
American Iron and Steel Institute, \$15,000
February 1, 1969 - February 1, 1970.

JOHNSON, R. L., Jr.

Research Project: Sandia Corporation, \$12,287,
"Behavior of a Bi-Material Cylinder Including
the Effects of Fracture", September 1, 1968 to
June 30, 1969.

MAY, M. C.

Worked with Law College on Model Flood Plan.
Ordinance Research Sponsored by U. S. Government.

OMID'VARAN, C.

Research was conducted in the area of "Optimum
Seeking Method Using Difference Technic". The
results are being compiled as a technical note.
Work is in progress in "Dynamic Analysis of Multi-
redundant Frames." The results will be compiled
as a proposal for research.

PATTERSON, C. C.

Water pollution training grant proposal - Federal Water Pollution Control Administration, Ground-water Contamination Research Proposal, State Water Resources Research Inst., Research in Plating Waste Treatment and Disposal, USAF, through CERF, Research in Reverse Osmosis Raffinates - Ph.D. dissertation director.

TRIANDAFILIDIS, G. E.

Research in the areas of: (a) Wave Propagation, (b) Dynamic Properties of Soil and Rock, (c) Simulation of Airblast Induced Ground Motion, (d) Soil Stabilization, (e) Load-rate Effects.

Supervisor of above research at the Eric H. Wang Civil Engineering Research Facility. Research sponsored by Air Force Weapons Laboratory.

YAO, J. T. P.

- a) "Research Equipment for an Analog Computation Laboratory" 1968, \$15,000 (+ UNM Matching Fund) National Science Foundation Grant No. GK-2727 (UNM No. 285-024).
- b) "Adaptive Systems for Earthquake Resistant Structures" 1968-1970, \$50,300, National Science Foundation Grant No. GK-2865 (UNM No. 281-065).
- c) "A Formulation of Structural Reliability", Technical Report No. CE-8, Bureau of Engineering Research, Univ. of New Mexico, Albuquerque, N. M. June 1968 (Co-author H. Y. Yeh).
- d) "Adaptive Structural Systems", Technical Report No. CE9, Bureau of Engineering Research, University of New Mexico, Albuquerque, New Mexico, June 1968.
- e) "Dynamic Behavior of Bilinear Structural Systems", Technical Report No. CE-10, Bureau of Engineering Research, University of New Mexico, Albuquerque, New Mexico, July 1968 (co-author H. Y. Yeh).

YAO, J. T. P. (Continued)

- f) "Low-Cycle Fatigue Failure of Seismic Structures," Technical Report No. CE-11(68)NSF-065, Bureau of Engineering Research, University of New Mexico, Albuquerque, New Mexico, September 1968, (co-author I. Kasiraj).
- g) "Fatigue Damage in Seismic Structures," to appear in Journal of the Structural Division, ASCE (co-author I. Kasiraj).
- h) "Analog Simulation of Earthquake Motions," Technical Report No. CE-12(68)NSF-065, Bureau of Engineering Research, University of New Mexico, Albuquerque, New Mexico, November 1968, (co-author Paul H. Wirsching).

6. Activities in learned and professional societies

CARNEY, J. B., Jr.

Attended State meeting of ASCE.

CLOUGH, R. H.

- a) Attended national meeting of American Society for Engineering Education, Los Angeles, California, June 17-20, 1968.
- b) Member of Committee on Engineering Education of the American Society of Civil Engineers. Attended annual meetings of committee: Troy, New York, December 6-7, 1968, and San Francisco, California, April 25-26, 1969.
- c) State Director, New Mexico Society of Professional Engineers.
- d) Member of Executive Board, Albuquerque Chapter, New Mexico Society of Professional Engineers.
- e) Member of national task-force Committee on Education-Practice Liaison, American Society of Civil Engineers.
- f) Presiding Officer, Sixth Paving Conference, UNM December 12, 1968.

COTTRELL, M. M.

Chairman, Structural Engineering and Mechanics Division, NM Section ASCE. Program Chairman, NM Section ASCE Winter Meeting, Albuquerque, New Mexico, February 1969.

Invited panelist, Math. Assoc. Amer. Committee on Undergraduate Program in Math, Houston, May 10-11, 1969.

Reviewed paper "Vibration of Beams Under a Load Travelling with a Variable Velocity," Taborrok and Hogan.

HULSBOS, C. L.

Annual meeting of the American Society for Engineering Education, June 17-21, 1968, UCLA.

Meetings of the National Cooperative Highway Research Program Advisory Panel C66, Section 12: In Washington, D.C. July 29, 1968, at Lehigh University, Bethlehem, Pa., September 3, 1968.

Meeting of Highway Research Board, Committee DC-5 at O'Hare Field, Chicago, Illinois, August 2, 1968.

Highway Research Board Meeting, Washington, D.C., January 13-17, 1969. Member of Committee D-C3 and D-C5, UNM, Liaison Representative to the Highway Research Board.

Meeting of Task Committee, American Iron and Steel Institute, New York City, March 11, 1969.

Annual Meeting of the American Concrete Institute, Chicago, Illinois, April 1-3, 1969. Member of ACI Committees 115, 215, and 437. Co-author of a paper.

Annual Conference of the American Institute of Steel Construction, Houston, Texas, May 7-9, 1969. Member of a Task Committee on Cold-Formed Members, ASCE, which met on May 7.

A number of meetings of the New Mexico Section and the Albuquerque Branch of the American Society of Civil Engineers.
Chairman of the Albuquerque Branch.

JOHNSON, R. L., Jr.

Attended ASCE Structural conference in Louisville, Kentucky, April 14-18, 1969. Attended AISC structural convention in Houston, Texas, May 8, 9, 1969.

MARTINEZ, J. E.

Attended Western Meeting, Highway Research Board, Denver, Colorado, August 1968.

Attended Arizona Highway Conference, University of Arizona, April 1969.

MAY, G. W.

Attendance: Southwestern Regional Conference on Improvement of University Instruction, Las Cruces. AISC Annual Conference, Houston, Texas. "Review of paper for publication in ASCE Applied Mechanics Journal."

MAY, M. C.

Attended annual meeting American Society Civil Engineers.

OMID'VARAN, C.

Reviewed for ASCE: Haines & Spates, "Behavior of a Single Horizontally Curved Beam."

PATTERSON, C. C.

ASCE - local chapter meetings, moderator ASCE meeting on Environmental Pollution, Santa Fe, May 16, 1969.

TRIANDAFILIDIS, G. E.

Annual Meeting of ASTM, San Francisco, California, June 1968, Member of Soils Dynamics and Plate Bearing Tests Committees.

ASCE Meeting, New Orleans, Louisiana, Member of Soil Dynamics Committee.

YAO, J. T. P.

- a) ASCE Structural Div. - Committee on Structural Fatigue.
- b) ASCE Structural Div., Task Committee on Structural Safety.
- c) ASTM Committee E-9 on Fatigue
- d) ASTM Rocky Mountain District Council Secretary-Treasurer.
- e) ASCE Albuquerque Branch - Director (also Alternate Branch Director to the New Mexico Section).
- f) New Mexico Chapter of the Society of Sigma Xi - Treasurer.
- g) "Response of Bilinear Structural Systems to Earthquake Loads", presented at the ASME Vibrations Conference, Philadelphia, Pa., April 1, 1969. (see 4(b)) (co-author H. Y. Yeh).
- h) "Statistical Methods in Structural Fatigue," presented at the ASCE National Meeting on Structural Engineering, Louisville, Kentucky, 16 April 1969 (co-author Paul H. Wirsching).
- i) "Adaptive Systems for Earthquake-Resistant Structures," presented at the ASCE National Meeting on Structural Engineering, Louisville, Kentucky, 17 April 1969.
- j) "Computer Simulations in Structural Dynamics," presented at the 10th Annual Engineering Symposium, Brigham Young University, Provo, Utah, 19 April 1969.
- k) "Adaptive Systems for Seismic Structures" presented at the NSF-UCEER conference on Earthquake Engineering Research at the University of California, Berkeley, California, 27-28 March 1969.
- l) Attended AISC Highway Bridge Design Seminar, Santa Fe, 24 July 1968.
- m) Attended the 13th Science Seminar of AFOSR, Albuquerque, June 1968.
- n) Attended ASCE National Meeting on Structural Engineering Pittsburgh, Pennsylvania, 30 October 1968.
- o) Attended ASCE New Mexico Section Meeting, Las Cruces, 12 October 1968.
- p) Attended the 1968 Annual Meeting of the Society of Sigma Xi, New Hampshire, 20-23 October 1968.
- q) Attended the ASME Symposium on Responsible Technology, Albuquerque, 15-16 November 1968.
- r) Attended 4th Annual Symposium of the Instrument Society of America, UNM, 17 January 1969.
- s) Attended ASIM Committee Meeting, Denver, Colorado, 4 February 1969.

YAO, J. T. P. (Continued)

- t) Attended ASCE New Mexico Section Winter Meeting, Albuquerque, New Mexico 14-15 February 1969.
- u) Attended the International Conference on Structural Reliability and Safety, Washington, D.C., 9-11 April 1969.

ZWOYER, E. M.

As National Director of the American Society of Civil Engineers, District 15, the following activities have been performed:

- a) September 30 - October 3, 1968: Attended Annual Meeting of ASCE in Pittsburgh, Pa., Board of Directors meetings, Publications Committee meeting, and Membership Qualifications Committee meeting.
- b) October 4-5, 1968: Attended Annual Meeting of the Texas Section of ASCE in San Antonio, Texas.
- c) October 11-12, 1968: Attended Annual Meeting of the New Mexico Section of ASCE in Las Cruces, New Mexico.
- d) November 9, 1968: Represented National President of ASCE at the inauguration of President Ferrel Heady, UNM.
- e) February 1-6, 1969: ASCE Water Resources Meeting in New Orleans, Louisiana; Publications Committee meeting and Membership Qualifications Committee meeting.
- f) February 11, 1969: Presented a talk to UNM ASCE Student Chapter.
- g) February 14-15, 1969: Attended winter meeting of New Mexico Section of ASCE in Albuquerque, New Mexico.
- h) April 10-12, 1969: Attended spring meeting of the Texas Section of ASCE in Tyler, Texas. Presented the Keynote Address: "Opportunities for the Young Civil Engineer".
- i) April 13-17, 1969: Attended ASCE Structural Engineering Conference in Louisville, Kentucky; Board of Directors Meeting, Publications Committee Meeting, and Membership Qualifications Committee.
- j) May 13, 1969: Presented an address to the El Paso Branch of Texas Section of ASCE in El Paso, Texas.

ZWOYER, E. M. (Continued)

k). May 16-17, 1969: Attended Spring Meeting of the New Mexico Section of ASCE in Santa Fe, New Mexico.

l). May 23, 1969: Presented an address to the New Mexico State University Student Chapter of ASCE in Las Cruces, New Mexico.

7. Other professional activities

CLOUGH, R. H.

Expert Witness for Alison & Haney, contractors on Canadian River Project, Texas (U.S. Bureau of Reclamation), October 14-15, 1968.

Consultant to National Park Service (Southwestern Region) on stabilization problem at Pecos National Monument.

Lecture to 4th year architecture students, May 8, 1969.

COTTRELL, M. M.

Member, Albuquerque Building Code Committee.

HULSBOS, C. L.

Co-author of a paper "Ultimate Shear Tests of Large Prestressed Concrete Bridge Beams" presented at the Second International Symposium on Concrete Bridge Design, Chicago, Illinois, April 3, 1969.

HUZARSKI, R. G.

Supervised the production of abstracts for Aerospace Technology Division, the Library of Congress.

MARTINEZ, J. E.

Commencement Speaker, Questa High School, May 1969.

MAY, G. W.

Consulting: EG & G, Albuquerque. Report titled: "Investigation of Fiberglass Rod End Connections." November 1968.

MAY, M. C.

Advisor to University on Land Planning and Zoning.

PATTERSON, C. C.

Consultant Los Alamos Scientific Laboratory.
Paper prepared for publication - Analog Simulation
of D. O. Profiles in Streams.

TRIANDAFILIDIS, G. E.

Lecture at Rice University, Civil Engineering
Department, "The Influence of Lateral Expansion on
Dynamic Consolidation Tests", February 7, 1969.
Consultant for various Foundation Engineering
projects.

YAO, J. T. P.

"An Application of the Binomial Theorem to Traffic
Analysis", presented to the Science Club, Highland
High School, at 3:00 p.m. on 25 February 1969.
More than 70 students attended.

ZWOYER, E. M.

Paper presented in-absentia (with R. A. Crist),
"Shear Behavior and Ultimate Strength of Deep
Reinforced Concrete Beams" at the International
Conference on Shear, Torsion, and Bond in Reinforced
and Prestressed Concrete", Jan. 14-17, 1969, PSG
College of Technology, Coimbatore 4, India; completed
several consulting engineer assignments.

8. Non-teaching university service

ABBOTT, W. T.

Chairman, UNM Registration Committee.

CARNEY, J. B., Jr.

Faculty Adviser Student Chapter of American Society
of Civil Engineers.
Faculty Adviser of Baptist Student Union, Student
Speaker Committee.

CLOUGH, R. H.

Invited participant, UNM - Community Leaders Conference, Lawrence Ranch, October 11-13, 1968.
 Member - UNM Committee on Scholarships, Prizes and Relations with High Schools.
 Member - Advisory Committee, Institute for Social Research and Development (ISRAD)
 Member - University United Fund Committee
 Member - UNM Outstanding Teaching Award Committee
 Member - College of Engineers Public Relations Committee

COTTRELL, M. M.

Faculty Policy Committee
 Academic Freedom and Tenure Committee
 Departmental Graduate Advisor

GAFFORD, W. R.

Special Counselor, University College & Counseling Center.
 Coordinator, Structures Courses for Architecture Majors, Department of Civil Engineering.
 Member, Entrance & Credits Committee
 Member, Faculty Computer Use Committee, The University.
 Member, Engineering College Computer Use Committee.
 Coordinator for selection of computer hardware system for College of Engineering.
 (Assignment by the Dean of Engineering.)
 Chairman, Freshman Advisory Committee, College of Engineering.

HULSBOS, C. L.

Chairman, Department of Civil Engineering; Administrative Committee, College of Engineering; Graduate Committee; Departmental Committees (Ph.D., M.S., etc).

HUZARSKI, Richard G.

Freshman Curriculum Committee; Humanities and Social Science Committee; Freshman Advisory Committee; Advisor to Sigma Tau Fraternity; On Advisory Council of Natural Resources Journal.

JOHNSON, R. L. Jr.

Member, University College Advisory Committee,
College of Engineering Computer Committee, Civil
Engineering Computer Use Committee.

MARTINEZ, J. E.

Athletic Council; College Schedule Committee;
Department Curriculum Committee; Program Chairman,
Paving Conference; Student Adviser.

MAY, G. W.

Member: Ad Hoc Committee on Improvement of Instruc-
tion; National-International Affairs Committee;
Engineering Mechanics Committee; Freshmen Adviser.

MAY, M. C.

Master Plan Committee, Safety Committee, Administrative
Committee.

OMID'VARAN, C.

Alternate member Student Standards Committee.

PATTERSON, C. C.

Continuing Education Committee, Committee on Radiation
Control, Graduate Fellowship Committee, Departmental
Honors and Curriculum Committees.

TRIANDAFILIDIS, G. E.

Member of Committee for the revision of the Albuquerque
City Building Code.

YAO, J. T. P.

- a) Contract Research Committee, Bureau of Engineering.
- b) Research Advisory Committee.
- c) Departmental Committee on Computer Use.

ZWOYER, E. M.

Management Committee.

9. Public service

CARNEY, J. B., Jr.

Adult Director - Hoffmantown Baptist Church.

CLOUGH, R. H.

Member, Advisory Board - Albuquerque Technical-Vocational Institute.

COTTRELL, M. M.

Chairman, Board of Trustees, Wesley Foundation UNM
Democratic Vice-Precinct Chairman, Precinct 40.

GAFFORD, W. R.

Occasional organist, St. Matthew's Episcopal Church.

HULSBOS, C. L.

Sub-Committee on the review of the Albuquerque Building Code; Member of Engineers Council for Professional Development Ad Hoc Visiting Committee; Chairman, Albuquerque Branch, New Mexico Section of the American Society of Civil Engineers.

JOHNSON, R. L., Jr.

Member of sub-committee to review Albuquerque Building Code.

MARTINEZ, J. E.

Secretary-Treasurer, First Assembly of God; member, Foreign Missions Board Advisory Council, Assemblies of God.

MAY, M. C.

Director, Albuquerque Metropolitan Flood Control Authority.

PATTERSON, C. C.

Member Comprehensive Health Planning Committee of
the Community Council of Albuquerque.

TRIANDAFILIDIS, G. E.

Greek Orthodox Church.

YAO, J. T. P.

Review technical papers for professional societies
and review proposals for the National Science
Foundation.

THE REPORT OF THE DEPARTMENT OF ELECTRICAL ENGINEERING
 JULY 1, 1968 - June 1, 1969
 A. H. Koschmann, Chairman

I. GENERAL DEPARTMENTAL INFORMATION

A. Significant Achievements During Academic Year 1968-69.

a. Enrollment Summaries

	<u>Undergraduate</u>			
	Semester I		Semester II	
	67-68	68-69	67-68	68-69
Sophomores	115	117	115	88
Juniors	76	77	68	84
Seniors	69	64	75	87
	260	258	258	259

	<u>Graduate</u>			
	Semester I		Semester II	
	67-68	68-69	67-68	68-69
Masters	96	78	82	77
Ph.D.	32	42	35	30
Off Campus	20	32	21	32
	148	152	138	139

DEGREES AWARDED

	65-66	66-67	67-68	68-69
B.S.	55	60	55	60
M.S.	33	31	29	34
Ph.D.	10	7	10	3

The overall statistics show that there was very little change in enrollments in this department this past year. An expected reduction in graduate enrollment because of the Sandia Technical Development Program, was partly offset by students entering the Sandia Computer Science Development Program.

It is difficult to assess accurately the effect of changes in the draft rules on our graduate enrollments, but from individual cases it is clear that a significant number of younger students did not accept our offers for financial assistance, and, instead, were accepting positions in industry. While this did not seriously reduce our enrollment, I believe that it did prevent an increase in the number of full-time graduate students.

b. Progress in the Undergraduate Curriculum

This year the changes in the senior year went into effect, the most important feature being a significant increase in the number of electives. This increased flexibility poses some problems in scheduling and staffing, but does give the student a much better opportunity to tailor his program to serve his particular goals. In particular, the students have shown a considerable interest in computers and digital systems, and the offerings in this field have been accordingly expanded.

Considerable time and energy is still being devoted to the development of our laboratory courses. As part of this program, all laboratory courses will now be offered for two credits, meeting a one hour and a three hour period. This permits a senior faculty member to meet with all sections during the one hour, giving better coordination between sections.

The location of the IBM 1620 in the EE Building has had a considerable influence in encouraging more students to make use of a digital computer in their work. The presence of the computer has also encouraged more of the faculty to include computer usage

in their courses, even though they may find it more appropriate to use the facilities of the computer center.

This year there was a sharp increase in the number of students pursuing Departmental Honors. This permitted them to work as a group, principally under the direction of Prof. Harold K. Knudsen, on the design of an interface unit to connect the IBM 1620 with analog computers.

c. Progress in the Graduate program.

The major development at the graduate level has been in the area of computer and digital systems. This area is of growing interest to students in general, and these have been augmented by a group of students in the Sandia Corporation Computer Science Development Program. Staffing of courses in this area has been difficult, and the expansion has been accomplished by using more adjunct professors from local industry, and by present faculty members expanding their interest in computers.

The off-campus programs at Holloman and Los Alamos have continued to improve, not necessarily in numbers of students, but there has been a noticeable increase in the number of highly competent, serious students and in the number of qualified local instructors. This year students have completed their M.S. degrees at both off-campus centers.

d. Physical Plant

The completion of the new Engineering Center has resulted in a significant improvement in the research facilities for this department. For the first time in its history, this department now has facilities that are reasonably adequate for experimental research in a particular area, that of solid state.

The transferal of the IBM 1620 digital computer from the computer center to the EE Department in August of 1968 has resulted in a considerable improvement in the teaching of certain

of our courses, and has brought both students and faculty to a greater awareness of the role of the digital computer in engineering. This computer is not particularly useful for large scale computation, but serves the main purpose of giving the students more insight through hands-on operation of the computer. The operation of this facility has been under the direction of Prof. A. Erteza.

e. Student Achievements and Awards

The department was particularly proud of its students this year for the design and construction of an electronically controlled message board for the UNM arena. This was a project of Eta Kappa Nu, the Electrical Engineering honorary, under the supervision of Profs. Kelly and Bradshaw. The project was supported in part by funds from the Associated Students and donation of parts and equipment by several industrial firms.

The following students received individual awards:

Harry & Mabel F. Leonard Scholarships

Roberto Fantechi
David Tuckwai Lee
John G. Stanke

Engineering College Scholarships (Rufus H. Carter, Jr.)

Marshall L. Cross, Jr.

Wang Memorial Fund Grant

William D. Prather

Mrs. Gale Miller Scholarship

Charles A. Cothran

American Legion Award for military excellence

Don M. Johnson

Outstanding ROTC or NESEP Student, highest academic achievement for 7 semesters.

George W. Ashmore

AFROTC, Armed Forces Communications and Electronic Assoc. Award

Edward C. Stanke, II

Departmental Honors Program

George W. Ashmore - - - Summa Cum Laude
Joe F. Colvin II - - - Magna Cum Laude
James Donnelly - - - Magna Cum Laude
Robert A. Fredricksen- Cum Laude
David MacFarlane - - - Magna Cum Laude
David A. Zerbian - - - Cum Laude

UNM FELLOWSHIP

Sang Fi Moon

NSF FELLOWSHIP

Ronald Bohlman

NDEA FELLOWSHIPS

Lawrence F. Tolendino

Donald E. Jones

Richard Barnaskas

Bruce Noel

f. Faculty awards

For the second year in a row the department was honored to have one of its professors receive the Outstanding Teaching Award for the Gulf-Southwest Section of ASEE. Professor Martin Bradshaw received this award this year, as Professor Ruben Kelly did last year. It is worth noting that while these men have been recognized as outstanding teachers, they have also been making significant contributions to the research activities of this department.

B. Significant Plans and Recommendations for the Future.

a. Faculty and Personnel

A number of visitors have commented on the fact that his department has a somewhat surprisingly excellent faculty, but that it could do more to establish its reputation nationally.

Several faculty members this past year have used their sabbatical leave or other leave to help establish the national reputation of this school. Prof. Shlomo Karni spent a semester at the University of Hawaii, Prof. Ronald Mohler spent a year at UCLA in a special program in Systems involving international figures, and Prof. Wm. Byatt spent a semester at Escuela Politecnica Nacional at Quito, Ecuador. During this time Prof. Mohler also delivered two papers in Europe. Recently Prof. Karni has been appointed to the editorial board of the Spectrum, one of the two major publications of the Institute of Electrical and Electronic Engineers.

The department will continue to encourage its faculty members to engage in activities at the national level. A serious problem arises, however, in providing adequate support for such activities, in terms of travel funds and time.

b. Facilities

While the research facilities have been improved significantly, especially during this past year, additional funds are needed to keep these facilities reasonably up to date. The department will continue to devote available funds to the development of one major experimental area, that of solid state.

c. Research

In spite of the recent cuts in federal support of research activities, the contract research in this department has continued at the same or slightly higher level than in the past. Much of this stability is because of the sizable grant for the THEMIS project, which is funded for three years. Credit for this stability must also go to the effort and caliber of research of the professors involved in the various supported projects.

As most graduate students require support for their dissertation or thesis research, it is important that contract research continues at a high level. Comparison with national figures shows that this department is well above the national average in terms of doctorates completed compared to research dollars expended. To what extent this is a measure of efficiency or a measure of excellence, is a question that deserves further study.

Following is a list of supported research projects during the past year. While most of the faculty have support for their research activities, it should be pointed out that research (which is not funded by outside agencies) continues to be carried out by faculty and students.

Research Contracts in Force
July 1968-June 1969

Research Contract	Project Supervisor	Contracting Agency	Title of Project	Amount
281-005	Grannemann	Office of Naval Research	A Radiation Effects Research Program under the Project Themis	\$185,000.00
281-027	Erteza	National Aeronautics and Space	Study of Electromagnetic Scattering from Material Bodies with Particular Application to Radar Astronomy	19,765.00
281-028	Grannemann	National Aeronautics and Space Administration	Surface Recombination Effects with Magneto-resistance as Applied to High Current Low Voltage Switching	17,323.00
281-037	Kelly	AFWeapons Lab, Kirtland AFB	Investigation into Fuzing Problems	26,354.00
281-056	Mohler	National Science Foundation	Optimal Bilinear Control Processes	23,100.00
281-063	Bradshaw	AF Weapons Lab, Kirtland AFB	Re-Entry Vehicle Antenna Studies	67,810.00
281-076	Southward	AF Weapons Lab, Kirtland AFB	Investigation of Micro-electronics Techniques	29,221.00

<u>Research Contract</u>	<u>Project Supervisor</u>	<u>Contracting Agency</u>	<u>Title of Project</u>	<u>Amount</u>
281-092	Kelly	AF Weapons Lab Kirtland AFB	Design of a Laser Radar Receiver for Advanced Reentry Vehicles	\$57,859.00
281-094-3	DeVries	Sandia	Multilevel Logic Circuits Using Limited Input NAND or NOR Gates	11,730.00
281-104	Petersen	Dept. of Commerce	A Study of Objective Analysis Techniques for Meteorological Fields	17,801.00
281-118	Mohler	National Science Foundation	Bilinear Control Processes	36,350.00

C. Appointments to Staff

a) Full time

Shyam Gurbaxani, Assistant Professor, Feb. 1969
 Boggavarapu Rao, Visiting Instructor, Sept. 1968
 Samuel Stearns, Associate Professor (Joint Appointment) Feb. 1969

b) Adjunct Professors

Semester I

James A. Cooper, Sandia Corp.
 Samuel Stearns, Dikewood Corp.

Off-Campus

James S. Biers, Holloman
 Ray Gore, LASL
 Shyam Gurbaxani, Holloman

Semester II

Richard Braasch, Sandia Corp.
 J. A. Cooper, Sandia Corp.
 Floyd English, Sandia Corp.
 James A. Nickel, Dikewood Corp.
 J. D. Williams, Sandia Corp.

Off Campus

F. P. Ehni, Holloman
 Ray Gore, Los Alamos

D. Separations from Staff

Harold T. Cates 1 July 1968
 Phadej Savasdibutr, 15 June 1969

II. COMPOSITE OF INFORMATION ON INDIVIDUAL BIOGRAPHICAL
SUPPLEMENTS

1. Advanced Study

KARNI, SHLOMO

Studied various computer applications during sabbatical leave, U. of Hawaii. Participated in Seminar on bio-engineering, during sabbatical, U. of Hawaii.

SAVASDIBUTR, PHADEJ

Received Ph. D. Degree from University of Missouri at Rolla, Missouri.

2. Sabbaticals, leaves of absence, summer teaching, etc.

BYATT, WILLIAM

Escuela Politecnica Nacional, Quito, Ecuador, taught Electromagnetic field course in Spanish, and Solid State seminar.

GRANNEMANN, W. W.

Washington, D.C. - research procurement

KARNI, SHLOMO

Sabbatical leave, Semester I, University of Hawaii

MOHLER, RONALD R.

Special leave to UCLA (Research on NSF Grant with UNM, Teaching at UCLA). Lectures at several laboratories and universities in Europe. Presented research papers to international symposium: IFAC--Dusseldorf, SIAM-San Remo. Participated in several seminars at UCLA and took a short course on Automata.

SOUTHWARD, HAROLD D.

IEEE Regional Conference and visit to Motorola integrated circuit labs, April 1969

3. New Scholastic Honors, Fellowships, etc.

BRADSHAW, MARTIN D.

Awarded Western Electric Fund Award for Excellence in Engineering Instruction. 1968-69 for Gulf-Southwest Section of ASEE.

DEVRIES, RONALD C.

NASA ASEE Summer Faculty Fellowship at NASA's Electronic Research Center in Cambridge, Mass. Summer 1968.

KARNI, SHLOMO

Continued listing in "Marquis Who's Who".

KELLY, RUBEN D.

One of the subjects of feature article in the Journal of Engineering Education, September., 1968, which gave photograph and background of all Outstanding Teachers-of the-Year award recipients for 1968 (West. Elec. Fund Award.)

KNUDSEN, Harold K.

Nominated for American Men of Science, Who's Who in the West.

BOATWRIGHT, LEWELLYN T.

"A Radiation Effects Research Program Under Project Themis," EE 155, March 1968.

"A Radiation Effects Research Program Under Project Themis," Sept. 1968.

"Applications of Junction Compensation Techniques in Reducing Transient Gamma Radiation Effects in Transistor Circuits," accepted for publication in IEEE Transactions on Electron Devices.

BRADSHAW, MARTIN D.

Notes for EE 361, EE Department, UNM, 1968-69, approximately 450 page textbook.

BYATT, WILLIAM

Two papers ready for publication; will be submitted within a few weeks.

DEVRIES, RONALD C.

Final report for the NASA-ASEE Summer Faculty Fellowship, August 1968.

"Comment on Lawler's Multilevel Boolean Minimization," submitted to JACM.

"Absolutely Minimal Forms and the Logically Passive Function," ready to submit pending Sandia approval.

ERTEZA, AHMED.

"A Cylindrical Coaxial MHD Generator," Applied Scientific Research, July 1968, Eindhoven, Netherlands.

"The Non-Uniqueness of Resolution of Hertz Vector in Presence of a Boundary and the Horizontal Dipole Problem," IEEE Transactions on Antenna and Propagation, May 1969.

GRANNEMANN, W. W.

"Magnetic Control of Carrier Density in Semiconductors," Bureau of Engineering Research Technical Report EE 156, June 1968.

"A Radiation Effects Research Program Under the Project Themis," semiannual report, ONR N00014, Sept. 1968.

"A Radiation Effects Research Program Under the Project Themis," March 1969.

KARNI, SHLOMO

"Synthesis of the A Matrix for a Class of RC Networks," Proceedings of IEEE International Convention on Circuit Theory, Miami Beach, Florida, Dec. 1968.

"An Easy Partial Fraction Expansion with Multiple Poles," Proceedings IEEE, Feb. 1969.

"Basic Network Theory," (Book review), IEEE Newsletter on Circuit Theory, accepted for publication.

KELLY, RUBEN

Prepared a 46-page set of notes on Driving-Point-Impedance Analysis of Electronic Circuits, which is sold to students for use in several electronics courses. Prepared the final report on KAFB contract entitled "Electronic Modifications to the NAIF," a classified report, approximately 150 pages.

KNUDSEN, HAROLD K.

"The Theory of Amorphous Cloud Trajectory Prediction," IEEE Transactions on Information Theory, May 1968

MOHLER, RONALD R.

"Completely Controllable Bilinear Systems," J. SIAM Control, Vol. 6, No. 3, pp. 477-486 (August '69).

"Control With a Multiplicative Mode," J. Basic Engr. June 1969.

"Computation of Optimal Control for Nuclear Reactors", published by Academic Press in a book on Computing Methods in Optimization Problems (Ed. by Balakrishnan and Newstadt) Fall '69.

"Reactivity Rate--constrained Time-Optimal Neutron Kinetics," Nuclear Sci. & Engr., Vol. 36, No. 1, pp 125-128 April 1969.

"Optimum Control of the Nuclear Voltage Standard," Trans ISA, Vol. 8, 1969.

"The Thread of BC Warfare", UCLA Alumni Magazine, Spring 1969.

"Multivariable Bilinear System Control", Proc. of IFAC 1968 Meeting on Multivariable Control Systems, Oct. 1968.

Two books in press and to be released in fall '69:

"Optimal Control of Nuclear Reactors," Academic Press, New York and "Chicom Resurgence," Tinnon-Brown, Inc., Los Angeles.

PETERSEN, DANIEL P.

"On the Concept and Implementation of Sequential Analysis for Linear Random Fields," Tellus 20, Nov. 1968.

Measurements and Data Processing in Random Space-Time Fields," Proceedings of the Second Hawaii International Conference in System Sciences, Western Periodicals Co. 1969.

SOUTHWARD, HAROLD D.

"Radiation Effects Upon Gallium Arsenide Devices," IEEE Transactions on Nuclear Science, Dec. 1968.

Paper presented on the same subject at IEEE meeting at Missoula, Montana, July 1968.

STEARNS, SAM D.

Surface-to-Air Missile Target Effects, Vol. 2, Multiple Target Intercept Model and Digital Simulation, Joint Task Force Two TF/11680034, Nov. 1968 (secret).

Surface-to-Air Missile Multiple Target Effects, Vol. 3, Model Calibration, Joint Task Force Two, TF/11680035, Nov. 1968 (secret).

"Digital Simulation of Frequency-Limited Random Functions," Simulation, Vol. 11, No. 7, Jan. 1969.

Force Equations, Transducer Characteristics and Signal Processing for the Trebel Dynamic Balance, Dikewood Technical Report DC-TR-2088, April 1969.

"Integration of a Digital Computer with a Vertical Balancing System," presented at the 28th annual Conference Society of Aeronautical Weight Engineers May 1969.

5. Other research projects or creative work in progress or completed during period (if outside-sponsored research is involved, give sponsor, amount of grant, title of project, and duration)

BRADSHAW, MARTIN D.

Principal Investigator, Air Force Contract # F29601-68-c-0089, Reentry Vehicle Antenna Studies, Total 67,800 term July 1, 1969. Submitted proposal to NSF Undergraduate Equipment Grant Agency for \$21,000 for three analog computers for EE Department.

BYATT, WILLIAM

Semi-Annual Tech Report on Project Themis.

DEVRIES, RONALD C.

Sandia Contract 53-8386, Task 3. Title: Multilevel Logic Circuits Using Limited-Input NAND or NOR gates. Amount: \$11,730. Duration from July 1, 1968-July 1, 1969.

ERTEZA, AHMED

"A Radar Method for Determining the Roughness Characteristics of an Extended Target Overflown; "A paper on this topic is being submitted for publication. Research is being carried out on the development of a method to collect the contribution due to E-M interaction from a family of stationary phase points on a rough surface.

GRANNEMANN, W. W.

continuation--ONR N00014-68-A00158, "A Radiation Effects Research Program under project Themis," \$444,000 3 years. NASA NGR 32-004-002 "High Intensity Magnetic Field Pulse Waveform Using a Switchable Superconducting Shield," \$97,672.19, 7 years.

KARNI, SHLOMO

Worked on second textbook (on analysis of networks) first 8 chapters completed. Published by Allyn & Bacon, Boston, Mass. Probable date of publication: 1970.

5. (Cont)

KELLY, RUBEN

Research Contract KAFB Weapons Lab Project No. 1.
Research Contract KAFB Weapons Lab Project No. 2.

KNUDSEN, HAROLD K.

Design of Near-Optimal Feedback Controllers in progress.

PETERSEN, DANIEL P.

"A Study of Objective Analysis Techniques for Meteorological Fields", Contract E-14-69(N), U. S. Dept of Commerce, ESSA, Weather Bureau, \$17,801, July 15, 1968 to August 14, 1969. "Finite and Fast Fourier Transformations in an N-Dimensional Domain", submitted to IEEE Trans. on Computers. "A Re-Examination of the Prefiltering Problem in a State-Variable Formulation," submitted to IEEE Trans. on Information Theory. Manuscript in preparation with D. Middleton, "Measurement and Processing of Space Time Fields, probable publisher, MIT Press, target date, June 1970.

SOUTHWARD, HAROLD D.

Sponsoring doctoral research in radiation damage effects in silicon and doctoral research in transistor device models. Also active in laboratory developmental research in microelectronics at Kirtland AFB. Project Themis/Kirtland AFB Integrated Circuit Laboratory.

SPARKS, DALE

Development of Computer Assisted Instruction System Continued.

6. Activities in learned and professional societies, etc.

BRADSHAW, MARTIN D.

Attended ASEE National Meeting, UCLA, June 17-20, 1969.

Attended and submitted ASEE symposium on Application of Technology to Education, Washington, D.C., Sept. 1968; submitted paper "Combining CCTV and Programmed Instruction".

Attended ASEE Section Meeting, Houston, Texas, Mar. 17-20, 1969.

Served as Vice-President-Secretary in local ASEE branch.

DEVRIES, RONALD C.

Initiated into the UNM chapter of Sigma Xi, the research society on May 26, 1969.

GRANNEMANN, W. W.

Attended meeting of Electronics Conference, Stanford University, Palo Alto, California.

Attended meeting of Nuclear and Space Radiation Effects Conference, IEEE, Missoula, Montana.

GURBAXANI, SHYAM H.

Chairman, Membership Committee of Research Society of America, Holloman Branch.

KARNI, SHLOMO

Trip to IEEE Subregional Paper Contest, Salt Lake City, as student advisor.

Invited to serve on panel of advisors, NSF Education Division, March 1969, to evaluate proposals for undergraduate scientific equipment.

Served on the technical program committee for the Second Hawaii International Conference on Systems Sciences, Dec. 1968 - Jan. 1969.

Technical papers reviewer, IEEE International Convention on Circuit Theory, Dec. 1968,

Attended and presented a paper at IEEE International Convention on Circuit Theory, Dec. 1968.

Attended Second Hawaii International Conference on Systems Sciences, Jan. 1969.

Invited to chair the session on System Modeling and Analysis, Hawaii Second International Conference on Systems Sciences, Jan. 1969.

Invited to chair a session of the March 1969 Gulf-Southwest ASEE convention.

Elected Chairman, the Friends of the Technion (Israel Institute of Technology), Albuquerque Chapter.

Elected Secretary, Sigma Xi, UNM.

KELLY, RUBEN

Attended National ASEE at UCLA as Official Institutional Representative, June 1968.

Held the elected office of Institutional Representative and the appointed office of Activities Coordinator for the UNM in the Gulf-Southwest Section of ASEE.

Selected to assist the Instrument Society of America (ISA) when the UNM Engineering College and ISA co-sponsored the Annual ISA Symposium, Jan. 1969.

Provided wireless microphones for the speakers at the meeting.

Attended the Gulf-Southwest Section ASEE Meeting, Houston March 20-22.

Nominated for Treasurer of Albuquerque Branch of IEEE.

KOSCHMANN, ARNOLD

Attended meeting COSINE Committee, Stanford University, October 1968.

RONALD R. MOHLER

1968 IFAC Meeting on Multivariable Control Systems (Dusseldorf). 2nd. International Symposium of Computing Methods in Optimization Problems (San Remo). Meeting on Systems Curricula (UCLA). Various local meetings of IEEE in Los Angeles.

PETERSEN, DANIEL P.

Paper Ob. 1.1, "Algorithms for Sequential and Random Observations," American Meteorological Society Symposium on Meteorological Observations and Instrumentation, Washington, D.C., Feb. 10-14, 1969. Proceedings to be published.

SOUTHWARD, HAROLD D.

IEEE Meeting, July 1968, Missoula, Montana.
Government Microelectronics Application Conference, October 1968, National Bureau of Standards.

7. Other Professional Activities.

BOATWRIGHT, LEWELLYN T.

General Electric Co., Professors-Industry Conference,
June 1968.

BRADSHAW, MARTIN D.

Taught EE 361 and EE 362 over KNME-TV; consultant
to EVCO Inc., Albuq. revision of technical training
manuals for electronic technicians for Philco-Ford
Corporation.

ERTEZA, AHMED

Consultant to the Dikewood Corporation, Kirtland
Air Force Base fusing laboratories.

GRANNEMANN, WAYNE W.

Consultant Motorola Inc.
Consultant Nuclear Defense Corp.
Consultant Sandia Corp.

GURBAXANI, SHYAM H.

Consultant to "Radiation Service Co." in the Athena
Missile Data reduction and test and evaluation
contract of Holloman Air Force Base in Advance
Re-entry systems program under space and Missile
Systems Organization of the Air Force Systems Command.

KARNI, SHLOMO

Consultant to Westinghouse Learning Corp, Albuq.

KELLY, RUBEN D.

Taught in the Electrical Engineering Portion of the
Engineering-in-Training Course offered by the Continuing
Education Department of UNM. Possess a City License
to perform Engineering Consulting in Albuquerque as a
Registered Professional Engineer. Taught two special
classes in "Electronic Circuit Design and Analysis"
(one beginning and one advanced) for KAFB on Special
Services Contract.

7. (Continued)

KNUDSEN, HAROLD K..

Reviewed papers for IEEE Trans. on Automatic Control and the Joint Automatic Control Conference, Talk on Engineering, Albuquerque High School.

PETERSEN, DANIEL P.

"The Fast Fourier Transform--with Variations," EE Department Colloquium, November 21, 1968. Consultant to Air Force Central Inertial Guidance Test Facility, Holloman AFB, NM.

SOUTHWARD, HAROLD D.

Consultant to Braddock, Dunn & McDonald Inc. and Nuclear Defense Research Corporation. Presently writing a senior level text in solid state devices.

KOSCHMANN, ARNOLD H.

Talk on Computers, Farmington Jr. High, April 1969.

8. Non-teaching University service (administrative, etc.)

BOATWRIGHT, LEWELLYN T.

Scheduling Committee, Laboratory Committee, NESEP
Faculty Advisor.

BRADSHAW, MARTIN D.

Faculty Advisor, Eta Kappa Nu, IEEE (first semester)
General Honors Council.
Radio Board, Engineering Freshman Curriculum Committee.
Engineering Computer Committee, many departmental
committees.

DEVRIES, RONALD C.

EE Computer Committee, Engineering Computer Committee,
Computer Science Curriculum Committee, Engineering
Freshman Advisory Committee, Registration Committee,
Advisor to: 1 thesis, 23 University College advisees;
3 students are working in EE 491 under my direction.

ERTEZA, AHMED

Graduate Advisor, EE Department (PhD and MS programs).
Administrator, IBM 1620 Computer.

GRANNEMANN, W. W.

Director, BER University Committee on Human Subjects,
Contract Research and Patent Committee, BER Advisory
Committee.

GURBAXANI, SHYAM H.

PhD Committee of John Stanton Potts.
MS Committee of A. Gene Dornhoff.

KARNI, SHLOMO

Initiated the engineering faculty lunches with HS
teachers; resumed duties of IEEE advisor; elected to
Academic Freedom and Tenure Committee (April 1969).

KELLY, RUBEN

Member of Academic Freedom and Tenure Committee
University College Advisor,
Supervisor of EE Shop Technicians and Manager of all
EE lab equipment,
Assisted Eta Kappa Nu with their power supply for use
in the electronic message board at University Arena.
Faculty advisor to EE students during Open House,
Feb. 1969.

KNUDSEN, HAROLD K.

Curricula Committee, Engineering Publicity Committee.

KOSCHMANN, ARNOLD

Engineering College Administrative Committee,
Chairman, Greater UNM Fund Allocations Committee.
Computing Science Committee.

PETERSEN, DANIEL P.

Member, Continuing Education Committee.
Chairman, Electrical Engineering Colloquia.

SOUTHWARD, HAROLD D.

Freshman and Engineering Student Advisor, Library,
Committee, Solid State Committee Chairman.

SPARKS, DALE

Secretary to the University Computer Use Committee,
Appointed a member of the committee.

WILLIAMS, RICHARD H.

Director, Los Alamos Graduate Center.

BOATWRIGHT, LEWELLYN T.

Precinct committeeman 1968-69.

BRADSHAW, MARTIN D.

Deacon-Del Norte Baptist Church, Superintendent--
Early Sunday School--Del Norte Baptist Church
(Since Feb 1, 1969).

BYATT, WILLIAM

Active in politics until Jan 1969.

DEVRIES, RONALD C.

My wife and I have helped organize a Mariner's Club
at St. Andrew's Presbyterian Church.

GRANNEMANN, W. W.

Committee Member for troop 165 (BSA)
Trustee Christ Methodist Church

KARNI, SHLOMO

Spoke to the political club, Manzano HS on "Israel".
Taught "Hebrew I" -- UNM Community College.
Elected corresponding secretary, Bnai Brith Lodge, Alb.

KELLY, RUBEN D.

Provided wireless microphone tests (trial) for the Aquinas
Newman Center at Sunday morning masses to determine
suitability of their use by the respective priests.
Volunteered as a Consultant to Albuquerque Public
Schools in the area of Physics, Math, Electricity,
etc. and listed on the Master list sent to all
schools.

PETERSEN, DANIEL P.

Member, Albuquerque Symphony Orchestra (Cello).
Member, Albuquerque Mountain Rescue Council.

SOUTHWARD, HAROLD D.

Helped organize Boy Scout Troop, Scout Troop Committee
Chairman. Teaches Sunday School.

KOSCHMANN, ARNOLD H.

Member, Board of Directors, Colorado District, Lutheran Church--Missouri Synod. Board of Directors, Multiple Sclerosis Society.

STEARNS, SAM D.

Sandia Peak Ski Patrol

WILLIAMS, RICHARD H.

Chairman--Commission for College and University Work--Lutheran Church--Missouri Synod. Member of the Scientific Advisory Committee to the New Mexico State Selective Service System.

10. Personal information

DEVRIES, RONALD C.

Our third child, Kevin Kim, was born on May 6, 1969

ERTEZA, AHMED

Wife became a naturalized citizen of the U.S.A.

PETERSEN, DANIEL P.

Mountaineering expedition to Cordillera Blanca, Peru,
June 5 to July 10, 1968

ACTIVITIES OF THE PART-TIME STAFF.

1. Advanced Study

BOGGAVARAPU L. RAO (VIS. INST.)

Completed work for the Ph. D. degree at Cornell; this degree was awarded on 21st Jan. 1969.

4. Publications (Adjunct professors & visiting instructor)

JAMES ARLIN COOPER (Adj. Prof.)

"Antenna Polarization and Terrain-Depolarization Effects on Radar Return from the Ground," WESCON Technical Paper 22/3, August, 1968 (with C.S. Williams and J.R. Huynen).

FLOYD L. ENGLISH (Adj. Prof.)

Inhomogeneities in the Restivity of Single Crystal CdS - II-IV Semiconductor Compounds, 1967 International Conference, Edited by D. G. Thomas, W.A. Benjamin Inc. New York.

5. Other Research Projects

BOGGAVARAPU L. RAO

One short letter on my Ph.D. thesis has been completed; another letter and a full length paper are under preparation.

6. Activities in learned & professional societies.

FLOYD L. ENGLISH (Adj.)

Seminar at the University of Kentucky.
Paper--Ceramic Ferroelectric Field Effect Studies--
IEEE Ferroelectric Conference, Wash. D.C.

JAMES D. WILLIAMS (Adj)

Chairman 1968-69 of the New Mexico Section of the
American Vacuum Society; Vice Chairman 1968-69, Chairman
1969-70 IEEE Professional Group on Electron Devices.
Attended Solid State Device Research Conference (IEEE)
and AVS Symposium.

9. Public Service

JAMES ARLIN COOPER (Adj)
Cubmaster of Pack 393

FLOYD L. ENGLISH (Adj)
Deacon, Monte Vista Christian Church

JAMES A. NICKEL (Adj)
Scoutmaster, Boy Scout Troop 286

JAMES D. WILLIAMS
Active in Pennsylvania St. Church of Christ

10. Personal Information

BOGGAVARAPU L. RAO (Visiting Instructor)
A child (son) was born on 19th Feb 1969
Completed requirements for Immigrant Visa in Mar 1969.
Expect to get this visa in the next few months.

The Report of the Department of Mechanical Engineering
 July 1, 1968 - June 30, 1969
 M. W. Wildin, Acting Chairman

I. General departmental information

A. Significant achievements

1) Student enrollments and degrees granted

Undergraduate enrollment for Semester I decreased somewhat compared to the preceding year, but the Semester II enrollment was nominally the same. The graduate enrollment on campus decreased, but not as much as anticipated. These features are demonstrated by the data in Table 1.

	<u>Classification</u>			
	Sophomore	Junior	Senior	Graduate
Sem. I, 1968-69	69	44	35	76
Sem. II, "	56	51	39	73
Sem. I, 1967-68	70	47	46	78
Sem. II, "	53	43	49	85

Table 1. Enrollment Data

The number of seniors receded from last year's high to a more nearly normal value. The number of juniors for Semester II increased due to the reduction in the number of hours required for junior classification in the College of Engineering. The relatively constant graduate enrollment involves, as usual, a large number of part-time students, which conceals the fact that the number of

graduate student credit hours taught in the department declined strongly, particularly for Semester II. It appears that a large percentage of the part-time graduate students who are enrolled in the Mechanical Engineering Department were taking courses principally from other departments during this year. This is thought to be a temporary phenomenon. However, another major factor in the decline in student credit hours at the graduate level is the cessation of Sandia Laboratories' Technical Development Program, which is not a temporary condition.

A significant decline also occurred in the number of undergraduate student credit hours taught in the department both semesters. This is primarily due to three factors: 1) The delayed effect of our decision last year to reduce the number of credit hours required for the B.S. from 134 (plus 4 P. E.) to 130 (plus 4 P. E.). 2) The reduction in the size of the senior class, mentioned previously. 3) Greater emphasis on courses outside the department in counseling seniors with regard to technical electives.

It is anticipated that approval of the department during this year for participation in the Navy Enlisted Scientific Education Program will have a significant effect on both the size and quality of our undergraduate enrollment. However, the effects of this program on the

department will probably not be perceptible until 1970-71, when the first class of students would normally begin to enter the Engineering College.

Degree production decreased at both the B. S. and Ph. D. level and increased markedly at the M. S. level, as shown in Table II.

	<u>1968-69</u>	<u>1967-68</u>
B. S. (M. E.)	38	45
M. S.	24	13
Ph. D.	2	5

Table II. Degrees Granted in June, 1969

The decrease in B. S. degrees was anticipated; the figure shown is more nearly normal. The decrease in Ph. D. degrees was due to difficulties encountered with either the foreign language requirement or with the research for the dissertation. One additional student will finish his research and dissertation early this summer, and one of the students having difficulty with the language requirement has recently satisfied it.

Of our B. S. degree recipients, six planned to go into military service, 4 planned to go to graduate school, and 17 took industrial or government jobs. The status of the remaining 11 is unknown at this writing. The striking feature of this data is the relatively very small percentage of graduates who plan to enter graduate school within the next four months. An even more striking fact is that

only one of our graduates plans to return to our department for graduate study, whereas in recent years we have had several of our own students return. It is thought that these features represent primarily the cumulative effects of changes in Selective Service regulations. However, other influences may be present which are overshadowed by the Selective Service. It appears that we will be relatively successful in attracting graduate students from other institutions and from industry through the various forms of financial assistance, and we anticipate that a few former military personnel will enroll during the summer, based on the events of last summer.

Two of our M. S. degree recipients are planning to continue here next year on a full program for the Ph. D. Another of our M. S. recipients has accepted a position in industry at an annual salary approximately equal to the average eleven-month earning potential of our assistant professors, all of whom have the doctorate, and none of whom has less than two years of teaching experience.

One of our Ph. D. recipients is continuing in his position at Los Alamos Scientific Laboratory, and the other has accepted a supervisory position with a recently-established local branch of a California research firm. The man who expects to finish his Ph. D. this summer plans to go into university teaching.

2) Curriculum changes and improvements

The department acted during the year to integrate more numerical analysis and computer-oriented techniques into our course offerings as well as into existing courses. At the undergraduate level, a required course, Mechanical Engineering Analysis (ME 300), on numerical techniques and similitude was added for juniors. This course will both introduce new material on numerical techniques into the curriculum and shift the material on similitude to an earlier and more propitious point in the curriculum. Efforts are also being made to expand the use of the computer in our previously existing junior-level courses to better prepare the students for the heavy use which continues to be required in senior courses. A graduate course, Numerical Techniques in Mechanical Engineering (ME 500), was added to consolidate material taught in other graduate courses as well as to encourage more advanced study in this area. Other course changes made were in our graduate mechanics offerings, to consolidate and expand the material that is presented on elasticity and variational methods in mechanics. This was accomplished by adding a course, Variational Mechanics (ME 514), and by revision of the content of Elasticity II.

Improvements were made in some of our lecture and laboratory course offerings, as well as our research laboratories, by assigning the development of laboratories and teaching aids to interested faculty members and by giving modest credit for this effort on the respective individual's total load. This represents a small step towards satisfying some long-felt needs of the department, namely greater development and use of demonstration apparatus and visual aids, and more rapid development of our laboratories. The latter is a particularly serious need at the present time due to the approximate doubling of our laboratory floor space which occurred with the opening of Farris Engineering Center. Other aspects of laboratory development will be discussed in the section on research and that on plans and recommendations.

3) Student accomplishments

The students in this department continued to uphold the tradition of outstanding academic accomplishments, as well as extensive service to the Engineering College, the university and the community. Perhaps the most notable achievement during the year was the awarding by the Albuquerque Chapter of the National Society of Professional Engineers of the outstanding student engineer award for 1969 to Mr. Michael W. Edenburn. Mr. Edenburn, who is graduating this June with a perfect 4.0 grade point average, also received during this year the Hamilton Watch Award for 1968-69,

the Harry L. Dougherty Memorial Prize in Engineering, and the Sylvia W. Farny Scholarship. He also rendered substantial service to the Engineering College by serving as Chairman of the Engineers' Joint Council, a coordinating body for the student branches of the various engineering societies. Other scholarships and awards won by Mechanical Engineering students during the past year are as follows:

- a) The Southern Union Gas Company Scholarship
Mr. William M. Eglinton
- b) The Western Electric Fund Supplementary Scholarship
Miss Angela Sue Jeung
- c) Harry and Mabel F. Leonard Scholarships
Mr. William S. Chaney
Mr. Robert H. Davis
Mr. Frederick Williams
- d) UNM Tuition Scholarship
Mr. Charles Gregory Utton
Mr. Thomas William Tesche
- e) Distinguished Air Force ROTC Graduates
Mr. James Craig Green
Mr. Thomas J. Scanlan, Jr.
- f) Navy League of the United States Award
Mr. Paul Bayard Horn, Jr.
- g) Reserve Officers Association Gold Medal
Mr. Paul Bayard Horn, Jr.

The most significant collective accomplishment by our students was the retirement of the travelling trophy for the best overall departmental display in Engineering Open House, by virtue of winning this competition for the third successive year. This

achievement was the result of efforts of the UNM Student Branch of the American Society of Mechanical Engineers and was coordinated by Mr. Charles Dillard Dyer.

The service rendered by our students to the university has been recognized by the election of Miss Angela Sue Jeung to Mortar Board and Mr. Gerald Allan Dodd and Mr. Ross Bernard Perkal to Blue Key. During the past year Mr. Perkal served as Chairman of the New Mexico Union Board and as a Student Senator. One of our sophomore students, Mr. Regner Charles Rider, has been elected a Student Senator for the coming year.

Our students have also been active in various technical, public service and religious organizations in Albuquerque.

4) Physical facilities

The greatest improvement in physical facilities accompanied the opening of Farris Engineering Center and consisted of office space for nine members of our faculty. With the occupancy of this space, our faculty members all have private offices for the first time in many years. These offices generally present a significant improvement in appearance and comfort, although they have some short- and long-term deficiencies. One of the principal deficiencies is the physical separation between these offices and those of the rest of the Mechanical Engineering faculty. However, this deficiency is heavily overbalanced by the advantages of new, private offices.

The improvement of the physical facilities in the Mechanical Engineering Building was continued through special funds made available by the administration. Two more of our laboratory classrooms were connected to the chilled water cooling system and modernized by the replacement of incandescent lamps with fluorescent fixtures. The resulting change in appearance and utility of these rooms is remarkable.

Through the replacement of large wooden doors on the south and west sides of the building with tight-fitting steel doors, the problem of dust leakage into the laboratories was significantly reduced. The appearance of the main entrance into the building was improved by replacement of a heavy wooden door with a modern aluminum door. It is hoped that these gradual improvements can be continued next year.

Improvement in the capabilities of the Engineering College Shop was made by trading three relatively old and unused machine tools; a turret lathe, a shaper, and a horizontal mill (circa 1908), for a relatively new and highly useful engine lathe. The only cost to the university was the transportation charges, and this cost was shared by the various departments of the Engineering College. Subsequently, a relatively new Universal Milling Machine has been obtained on loan

from Sandia Laboratories, and there are good prospects for obtaining additional modern machine tools which are badly needed to support the activities of the college.

5) Research

Research activity, both sponsored and unsponsored, continued at a high level during this year, although the activity in sponsored research and the funded value thereof declined somewhat. Seven of our eleven full-time faculty members were engaged in sponsored research and all of the full-time faculty as well as the part-time faculty, carried on either sponsored or unsponsored research. The total funded value of the eight sponsored research projects was \$265,485.00. Considerable effort was expended by most of the faculty during the past year to obtain sponsors for funded research. A total of twelve proposals requesting total funding of \$237,288.00 was submitted to various governmental agencies, professional organizations, and industrial firms during the past eleven months. Three of the proposals were submitted by faculty members who had not previously obtained support for research. Five of these proposals have been funded to date, four are pending, and three have been rejected. The total value of the proposals funded or pending is \$154,041.00. In addition, one of our faculty members assisted in the negotiation of a contract for research between UNM and NASA-Ames in the amount of \$135,000.00.

During this year the first dissertation from this department based on unsponsored experimental research was completed. Since this research project required a great deal of sophisticated equipment and instrumentation, this achievement represents the passing of a significant milestone. Funds for equipment, instrumentation, and personnel were drawn from a number of sources, including departmental equipment and salary accounts, cost of education allowances, and special grants from the administration. During the past two years, in which the activity on this project was at its height, the department expended on the average, approximately one-fourth of its supplies and expense budget and three-fourths of the amount budgeted for student help on this one project. In addition our department technician spent approximately half his time supporting this project, principally in the Engineering College Shop.

In brief, the level of effort and funding required by this project placed severe strains on the financial and human resources of the Mechanical Engineering Department. Indeed, these strains were such as to cause serious doubt about the advisability of undertaking another project of the magnitude of this one. However, if this department is to expand its capabilities for experimental research in such a manner as to advance in stature, to serve its present and

potential doctoral candidates, and to take advantage of the physical plant and human resources now available to it, such projects should become more nearly the rule rather than the exception. Since capability usually must be demonstrated to obtain funded research from outside agencies, it seems clear that a significantly higher level of funding will be required from within the university for personnel, instrumentation and equipment in order to initiate the development of the necessary facilities.

B. Significant Plans and Recommendations

The opening of Farris Engineering Center made available to the department some additional large pieces of equipment and a great deal of additional floor space. In view of the availability of these basic items and the great need for additional experimental facilities, particularly at the graduate level, the department plans to expend a great deal of effort and as much of its financial resources as can be spared during at least the next year on the development of such facilities. Plans have been made to use available manpower to begin this development early this summer and to continue at a reduced level during the next academic year. New equipment will be designed and fabricated, and existing equipment will be moved to the newly-available space and tested after any necessary repairs or modifications have been made.

As mentioned previously in the section on research, and as pointed out repeatedly by my predecessor, to carry out the developments just mentioned at a reasonable pace will require a much higher level of university support for personnel and equipment. It is strongly recommended that a means be found to provide additional funds to the department for this purpose. One step in this direction would be the release of the Cost of Education Allowance funds associated with NSF Fellowship awards. Another helpful step would be to credit to the department a greater portion of the COEA funds received by the university, as was once the case.

Although an effort has been made to present in this report a strong case for the need for additional funds to develop facilities, it nevertheless seems mandatory to point out that the faculty salary situation in at least this department has become acute. Therefore if a decision must be made concerning the allocation of financial resources between new programs, facilities, development, or faculty salaries it is strongly recommended that highest priority be given to the latter.

C. Appointments to staff

Dr. Lowell P. Martin, Assistant Professor, September, 1969.

D. Separations from staff

Mr. Leon W. Christensen, Teaching Assistant, June, 1969.

Dr. Leroy E. Wilson, Teaching Assistant, June, 1969.

Both Mr. Christensen and Dr. Wilson have contributed significantly to the development of the department's programs. Mr. Christensen has been particularly active in the development of the first undergraduate laboratory course and its associated facilities. Dr. Wilson's efforts have been indispensable to the development of our present research capability in gas dynamics. His dedication was singular in nature, and his abilities will certainly be missed. However, our sense of loss is overbalanced by pleasure that he has completed the work for his doctorate.

II. Composite of information in biographical supplements

1. Advanced study

Cochrane, G. F., Jr.

Completed requirements for Ph. D. on May 2, 1969.

Feldman, K. T., Jr.

Registered Professional Engineer in New Mexico

January 27, 1968, #4543.

Schreyer, H. L.

Attended an International Research Seminar on

"Continuum Mechanics and Related Numerical Techniques",

June 18 - July 30, 1968, at the University of Calgary,

Calgary, Alberta, Canada.

Wessling, Francis C., Jr.

Took professional engineers' exam April 25, 1969.

2. Sabbaticals, etc.

Hsu, Youn-Chang

Summer teaching: ME 206, Summer 1968 (UNM).

Skoglund, Victor J.

Presented paper at 1968 HTFMI, Seattle, Washington.

Attended Symposium on Use of Case Materials, Stanford

University. Attended Symposium on Numerical Analysis

of Gas Dynamics, Naval Post Graduate School, Monterey.

3. New Scholastic Honors

Hsu, Youn-Chang

Listed in Who's Who in the West (to appear in the twelfth edition).

Wildin, Maurice W.

To be listed in twelfth edition of Who's Who in the West.

4. Publications

ALBRECHT, B.

Technical Report AFWL-TR-68-100

"On Elastic Wave Propagation in Truncated Conical Shells",
Air Force Weapons Lab., December 1968.

BAKER, W. E.

"Transducers for Force Measurement on Rocket Sleds",
Air Force Missile Development Center Technical Report,
with V. Gorman and G. Schulz, 348 pages.

FELDMAN, K. T., Jr.

"Heat Pipe Applications", with Glen H. Whiting,
Mechanical Engineering, November, 1968.

"Investigation of a Thermoacoustic Oscillator as an Under-
water Sound Source"; with Mike E. Berger, Technical Report
ME-38, Bureau of Engineering Research, UNM, Dec., 1968.

HSU, Y. C.

"A Study of the Interactions between Turbulent Shear Flow
and Displacement Flow between Parallel Walls", with
R. A. Burton, ASCE Trans. Vol. II, No. 3, July 1968,
pp. 191-195.

JU, F. D.

Moiré Method for Measuring Large Plane Deformation - co-author L. Martin; accepted for publication by Jour. Appl. Mech., Trans. ASME; to be presented at the Western Conference of Applied Mechanics.

RICHARDS, C. G.

"A Note on Finite-Difference Solutions of Viscous Flow Problems", ME News, Vol. 5, No. 4, November, 1968.

SKOGLUND, V. J.

"Numerical Techniques for Viscous Compressible Flows with Shock Waves", Proceedings of 1968 HFTMI, Stanford Univ. Press, June 1968, p. 10.

"Numerical Analysis of Gas Dynamics", Progress Report PR-85(68)S-082, Bureau of Engineering Research, UNM, June, 1968.

WILDIN, M. W.

"Error Analysis of Integrating Sphere With Center-Mounted Sample", pp. 153-158 in Space Programs Summary 37-49, Vol. III, Jet Propulsion Laboratory, Pasadena, Calif., February 29, 1968.

5. Other research or creative work

Albrecht, B. - Work on Air Force Weapons Laboratory

Contract No. 29601-69-C-0023, "Investigation of Wave Propagation Phenomena in Conical Bodies",

(\$47,098.00).

Baker, W. E. - Director of Research, Air Force Missile

Development Center, Holloman Air Force Base, N. Mex.,

\$24,907. "Development of Measuring Techniques for

Rocket Sleds", 2/1/68 - 6/30/69.

Associate Director of Research, Air Force Weapons
Laboratory Contract No. AF 29601-69-C-0023, \$47,098.

Director of "Summer Research for Undergraduate Students."

FELDMAN, K. T., Jr. - Office of Naval Research,
Washington, D. C., "Investigation of a Thermoacoustic
Oscillator as an Underwater Sound Source", 9/67 - 12/68,
\$18,910.00.

Energy Conversion Systems, Inc., Albuquerque, N. Mex.,
"Heat Pipe Fabrication and Performance Evaluation",
1/69 - 6/69, \$2906.

HOUGHTON, A. V. - Sandia Labs., Thermal Properties
Research, \$18,000 (Extension with \$5,000 additional funding.)
Assisted with UNM-NASA-AMES contract negotiation, funded
for \$135,000.

HSU, Y. C. - Sandia Labs., "Formation of Elastic Boundary
Layer Theorem of the Two-Dimensional Couple-Stress
Theory and Couple-Stress Effect on the Infinite Elastic
Plane With a Circular Insert, Loaded by a Radial Source",
7/68 - 6/69, \$15,257.

JU, F. D. - Complete AFOSR-568-67 "Fracture Criterion due to Low Cycle Dynamic Loading", 5 yr. grant, total \$109,527.00.

AFOSR, "Fracture Criterion in Field of Large Strain Gradient", co-investigator Dr. Y. C. Hsu, 2/69 - - , \$33,000/yr.

RICHARDS, C. G. - Kirtland Air Force Base, "A Numerical Study of a Bistable Fluid Amplifier", \$11,000, until August 1969.

NASA, "A Numerical Study of the Vortex Rate Sensor", \$33,000, until June 1969 (extension requested).

SCHREYER, H. L. - Sandia Corp., "A Study of Conical Shells", \$9,961, for one year, beginning 9/67.

SKOGLUND, V. J. - "Numerical Analysis of Axi-symmetrical Compressible Flows" (with Ken Smith).

"Detailed Thermodynamic Characteristics of Parahydrogen Near the Critical Point in a Heated Tube", (with Mahlon Wilson).

"Spectral Emission and Absorption Coefficients and Non-equilibrium Thickness from Time Resolved Spectral Intensities of Reflected Shock Waves in Air in a Shock Tube" (with Leroy Wilson).

Sandia Labs. , "Numerical Analysis of Interaction of an Oblique Shock Wave and a Separated Laminar Boundary Layer" (with Ben D. Gay). \$15,988.00. 7/68 - 6/69.
 "Numerical Analysis of Non-equilibrium Region Behind Shock Waves" (with Charles Watkins).

WESSLING, Francis C. , Jr. - Submitted research proposal to NSF for design of mass transfer equipment (support not forthcoming). Performing analysis of freezing biological fluid systems. Submitted research proposal to Sandia Corp. for study of high temperature measurements. Design of heat exchanger for blood cooling and heating. Designing teaching apparatus for demonstrating basic principles for undergraduate instruction.

6. Activities in learned and professional societies

Baker, W. E.

Reviewer of 11th Midwestern Mechanics Conference.

Reviewer for "Applied Mechanics Reviews".

Paper titled "A Multicomponent Force Transducer for use on Rocket Sleds", written with L. C. Mixon, presented by Mixon at ASME Vibrations Conference, April 1, 1969.

Feldman, K. T., Jr.

Member of Board of Directors of New Mexico Section, ASME.

University Liaison Director for 1968 UNM-ASME Symposium of "Responsible Technology", November 1968.

Grace, C. T.

Attended: Amer. Soc. for Engr. Educ. Annual Mtg. at UCLA, June 1968; Amer. Soc. for Mech. Engrs. Annual Mtg., Houston Univ., March 1969. Member of the Policy Committee, Gulf Southwest Section of ASEE.

Houghton, A. V.

Chairman of session, Southwest Section of American Society Engineering Education; Section meetings, ASME.

Hsu, Y. C.

Attended International Conference of Applied Mechanics at Stanford Univ. (August 1968). Attended ASME Winter Meeting in New York (December 1968). Reviewer of Journals of Applied Mechanics and Journal of Lub. Technology.

Ju, F. D.

Attended technical meetings: National Applied Mechanics Conf., June 1968, Brown University, Providence, R.I.; ASME Winter Conference, December 1968, New York;

International Appl. Mech. Conf., August 1968, Stanford, Calif.;
Executive meetings at these conferences to report progress
on Western Conference of Applied Mechanics.

Skoglund, V. J.

Member of ASME, AIAA, ASEE.

Attended meetings of ASME and AIAA.

Registered Professional Engineer.

Wildin, M. W.

"Investigation of a Model for Bidirectional Reflectance of
Rough Surfaces", (with C. H. Treat), AIAA Paper No. 69-74,
presented at AIAA 7th Aerospace Sciences Meeting,
New York City, Jan. 20-22, 1969.

7. Other professional activities

Baker, W. E.

Consultant for Los Alamos Scientific Laboratory.

Feldman, K. T., Jr.

Promoted to Full Member, American Society of Mechanical
Engineers.

Talks on "Career Opportunities in Mechanical Engineering"
at Menaul High School, Nov. 1968; Moriarty H.S. Mar. 1969.

Consulting: Northrup Corporate Labs., Hawthorne, Calif.

(Heat pipes - 14 days in 8/68); Jet Propulsion Lab.,
Pasadena, Calif. (Heat transfer - 1/2 day per week from
8/68 - present); Energy Conversion Systems, Inc.,

Albuquerque, N. Mex. (Heat pipes, 1/2 day per week from 8/68 - present).

Patents pending: Flexible heat pipe (assigned to ECS); flat plate heat pipe (assigned to NCL).

Grace, C. T.

Consultant to the Los Alamos Scientific Laboratories for the 17th year. Service with the architects on Farris Engineering Center. Faculty advisor for Engineers' Joint Council.

Houghton, A. V.

Consultant Sandia Corp.; Consultant to numerous insurance companies; Executive Committee Rocky Mountain Science Council; Federation of Rocky Mountain States; National Council of University Research Administrators; Rocky Mountain University Research Administrators meetings.

Ju, F. D.

Consultant, Los Alamos Scientific Laboratories.

Richards, C. G.

Invited guest lecturer at Arizona State University on "Numerical Techniques in Fluid Mechanics", Mar. 21, 1969.

Skoglund, V. J.

Consultant at Los Alamos Scientific Laboratory and
Holloman Air Force Base. Development of Gas Dynamics
and Fluid Dynamics Laboratories of Farris Engineering Center.

Wessling, F. C., Jr.

Consultant, Childers Mfg. Co. (heat exchanger studies).

Wildin, M. W.

Development of Heat Transfer Lab. in Farris Engineering
Center.

8. Non-teaching University service

Albrecht, B.

Contract Research & Patent Committee, Bureau of
Engineering Research.

Advisory Committee, Ad hoc Committee on VP/R,
Special Engineering College Committee to Study Humanities
and Social Sciences Courses.

Baker, W. E.

Member, Research Allocations Committee; Graduate Advisor,
M. E. Dept.; Member, Engineering Graduate Committee;
M. E. Dept. Master's Comprehensive Committee.

Feldman, K. T., Jr.

UNM Campus Planning Committee; Engineering College
Publicity Committee; M. E. Dept. Publicity Committee;
M. E. Dept. Lab. Committee.

Grace, C. T.

Chairman of Engineering College Scholarships and Awards
Committee; Engineering College Administrative Committee;
Chairman of Engineering College Schedule Committee;
UNM Entrance and Credits Committee; Collector for Univ.
United Fund Drive.

Houghton, A. V.

Chairman, UNM Computer Science Committee; Chairman,
Engineering College Computer Committee.

Hsu, Y. C.

Engineering Math Committee; Freshman Advisor; Member
of two M. S. Committees; Advisor of Special Topics (ME 561);
M. E. Dept. Master's Comprehensive Committee.

Ju, F. D.

Freshman Advisor; Thesis and Dissertation Advisor;
Engineering College Committee on Applied Mech.

Richards, C. G.

University College Advisement Committee; UNM Insurance and Retirement Committee; Engineering College Computer Committee; M. E. Curriculum Committee; M. E. Dept. Master's Comprehensive Committee.

Skoglund, V. J.

Engineering College Freshman Curriculum Committee; M. E. Dept. Curriculum Committee.

Wessling, F. C., Jr.

Faculty sponsor, ASME; helped plan Engineering College participation in University Evaluation Day; attended student/faculty conference D. H. Lawrence Ranch 4/26/69; Chairman, M. E. Dept. Laboratory Committee; Member, M. E. Dept. Curriculum Committee; in charge of moving fluid mechanics (etc.) equipment to new building. Attended regional student paper contest for ASME in Laramie, Wyoming; Member, M. E. Dept. Master's Comprehensive Committee; Student Advisor.

Wildin, M. W.

Acting Chairman, Dept. of Mechanical Engineering. Member of following Engineering College Committees:

(1) Administrative (2) Scheduling (3) Convocation.

Advisor to one graduate and one undergraduate in Special Problems courses; Advisor to NSF undergraduate summer research project; Chairman, one thesis committee. Member, two terminating dissertation committees; two terminating thesis committees. Ex officio member, departmental laboratory and curriculum committees.

9. Public Service

Baker, W. E.

Consultant, U.S. Forest Service

Feldman, K. T., Jr.

Church usher; substitute Sunday School teacher, and Church Executive Board Member.

Grace, C. T.

Albuquerque Optimist Club (Boy's Work), Administered the National Junior Engineering Aptitude Test for the Albuquerque area.

Houghton, A. V.

Active in Purdue Alumni Club.

Hsu, Y. C.

United Trinity Methodist Church, Albuquerque.

Ju, F. D.

Committeeman in Cub Scouts.

Wessling, F. C., Jr.

Newman Forum - temporary chairman, goals committee,
and member, liturgy committee.

10. Personal Information

Hsu, Y. C.

One son.

THE REPORT OF THE DEPARTMENT OF NUCLEAR ENGINEERING

JULY 1, 1968 - JUNE 30, 1969

GLENN A. WHAN, CHAIRMAN

1. GENERAL DEPARTMENTAL INFORMATION

A. Significant Achievements During the Academic Year 1968-19691. Enrollment Summary

Enrollment trends for the past four years are shown in the table below. On-campus full-time enrollment again shows a significant increase. Total on-campus enrollment also demonstrated a slight increase.

	<u>Fall 1965</u>	<u>Fall 1966</u>	<u>Fall 1967</u>	<u>Fall 1968</u>	<u>Spring 1969</u>
<u>On Campus</u>					
Full-Time	10	11	18	21	22
Part-Time	16	16	21	20	21
	26	27	39	41	43
<u>Los Alamos</u>	21	18	13	18	16
	47	45	52	59	59

2. Degrees Granted

The table below reviews the degrees granted for the last four years. The department had hoped to award a greater number of Ph.D. degrees this year but two additional students will

complete their degree requirements this summer.

	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
<u>M.S. Degrees</u>				
On Campus	3	4	2	8
Los Alamos	$\frac{5}{8}$	$\frac{2}{6}$	$\frac{1}{3}$	$\frac{1}{9}$
<u>Ph.D. Degrees</u>	2	1	1	1

3. Curriculum

No course changes, deletions, or additions were made in the nuclear engineering curriculum this year.

4. Undergraduate Program

The undergraduate course, NE 230: Applications of Nuclear Energy, was again offered during the second semester to an enthusiastic class of twenty students. Indications are that this service course will become very popular for students in Fine Arts, Education, and Humanities.

5. Graduate Program

This year Dr. Lawrence Posey has joined the faculty as a part-time Associate Professor on

joint appointment with Sandia Laboratory. Dr. Posey's excellent background in radiation interactions and radiation measurements and dosimetry lends additional strength to the graduate teaching and research program in the Department. The loan of this outstanding individual is just another example of the excellent educational cooperation between the Sandia Laboratory and the University of New Mexico.

Dr. R. Douglas O'Dell has been on leave-of-absence this academic year to carry out research in the Reactor Division of the Los Alamos Scientific Laboratory. Dr. O'Dell's work in numerical reactor analysis will provide strength to this department's graduate instruction and research upon his return to the campus next Fall.

6. Facilities

The Department moved into new offices in the Farris Engineering Center during January and equipment was moved and installed in the new Nuclear Engineering Laboratory during the second semester. Through the efforts of Dr. Robert L. Long, major laboratory facilities such as the AGN-201 reactor and the Texas Nuclear neutron

generator were moved, installed, checked out, and returned to service in a very short time. Although some additional work remains to be done, the laboratory should be in full operation for classes and research by September. This new laboratory represents a dramatic improvement in the Department's facilities.

A \$20,000 matching fund equipment grant was received from the U.S. Atomic Energy Commission in March, 1969. This money will be used to purchase radiation measurement and analysis equipment and to purchase new instrumentation and control equipment for the AGN-201 reactor.

This Fall Dr. Robert L. Long submitted a request to the U.S.A.E.C. for license amendment to upgrade the AGN reactor. The proposed modifications will include an increase in maximum power to 5 watts, new control instrumentation, and permission to pulse the reactor with the neutron generator. All of these changes will make the reactor much more useful for both teaching and research.

Through the efforts of Dr. Glen A. Whan, 20,000 curies of surplus cobalt-60 has been committed to the University by the U.S. Army Radiation Laboratory in Natick, Massachusetts. This material represents a dollar value of about \$10,000. The new laboratory contains a well-shielded gamma irradiation cell which will handle this intense radiation source. Although the Nuclear Engineering Department will use this facility extensively for research, it will be available to many other departments on campus for gamma irradiation experiments.

7. Research in Progress, 1968-1969

Project Supervision: W.L. Everett

Sponsor: Sandia Laboratory

Title: Detailed Analysis and Computation
to Extract Transport Properties from
Kinetic Theory of Fully Ionized Gases

Time Period: April, 1968 - June, 1969

Amount: \$24,215

8. Student Activities and Achievements

The UNM student branch of the American Nuclear Society elected the following officers

in May, 1969: John A. Mikulas, President; Charles A. Bischoff, Vice President; Arlee J. Holm, Treasurer; and Marshall L. Pendergrass, Secretary.

The UNM student branch hosted on campus the Western Regional Student Conference of the American Nuclear Society April 25-26, 1969. More than eighty persons attended and thirty-one technical papers were presented by students in three concurrent sessions. Cash awards were presented for the best three papers in each session. The outstanding success of this conference was due to hard work on the part of all the students in the department, particularly the two conference chairmen T.J. Raper and H. Bridges. Three UNM students presented papers:

- D.L. Mangan: "Plasma Expansion into a Vacuum Environment"
- S.R. Skaggs: "Isothermal Irradiator"
- J.E. Gover: "Pressure Wave Generation by Pulse Radiation Heating"

The following students were awarded Special Nuclear Science and Engineering Fellowships from the AEC, in national competition, to support their doctoral study: Charles A. Bischoff, Arlee J. Holm, and John A. Mikulas.

The following additional Fellowships and Traineeships were held by nuclear engineering graduate students (1968-1969):

1. P.H. Buros - - - NDEA Title IV Fellowship
2. C.A. Carossino - OAS Fellowship
3. A. Guthrie - - - AWU Fellowship
4. J.D. Maddox - - NSF Traineeship
5. C.R. Morgan - - NSF Traineeship
6. M.C. Rowher - - NSF Traineeship
7. C.C. Shau - - - UNM Fellowship
8. H. Bridges - - - NDEA Title IV Fellowship
9. N. Demuth - - - AWU Fellowship
10. C.C. Price - - - NASA Traineeship
11. J.E. Spitzer - - UNM Fellowship

James E. Gover, staff member at Sandia Laboratory, was selected to conduct full-time graduate study toward the Ph.D. degree under the sponsorship of the Laboratory's Doctoral Study Program.

9. Conferences

On January 28-30, 1969, the National Topical Meeting on Fast Burst Reactors was held at the University of New Mexico. A total of thirty-five technical papers were presented from industrial

and government laboratories in the United States and from laboratories in England, Russia, Italy, and Germany. Dr. Robert L. Long, Technical Program Co-chairman, was primarily responsible for bringing this prestigious international conference to the UNM campus. The proceedings, to be published by the Atomic Energy Commission, will be to date the only comprehensive treatment of this subject and will serve as a primary reference for years to come.

B. Significant Plans and Recommendations for the Near Future

1. Faculty and Staff

The addition of Dr. James A. Horak to the nuclear engineering faculty as an Associate Professor beginning in September will greatly strengthen the graduate program in nuclear material and radiation effects on materials. Dr. Horak has had considerable experience at the Argonne Laboratory and the Los Alamos Scientific Laboratory and should develop a strong academic research program at the University of New Mexico.

Again it is recommended that a salary budget be provided for Adjunct Professors from the Sandia Laboratory. Allowing this exceptional engineering talent from Sandia to offer courses for the department in their areas of specialization provides a superior program to the graduate student. At this time, however, Adjunct Professors can be used only when the full-time faculty is committed to additional research. This does not provide for the best advance planning of course work for the students.

As pointed out last year, the increased experimental work in the laboratory requires a full-time electronics technician rather than the present one-half time appointment. It is just not possible to maintain the equipment in good working order and thus obtain the maximum usage under the present technician conditions. In addition, another Graduate Assistant is needed to assist in the preparation of experiments and the maintenance of laboratory equipment.

2. Facilities

Although \$10,000 worth of surplus cobalt-60 has been obtained from the Department of Defense, an additional \$10,000 is needed for the fabrication

and installation of storage and handling facilities. This intense gamma irradiation facility will receive extensive use by many research departments on campus, as well as provide a first-class research facility for this department. Well shielded space is available in the new nuclear engineering laboratory. Funds must be located to complete this facility as soon as possible.

A research proposal will be submitted this Fall requesting support for a 2.5 $\frac{1}{2}$ Mev Van de Graaff accelerator. This additional source of radiation on campus will compliment the neutron generator, the AGN-201 reactor, the Febetron flash-x-ray machine, and the cobalt-60 facility and will strengthen our requests for support for radiation interactions and effects research.

3. Undergraduate Program

The Nuclear Engineering Department is still seeking ways to strengthen its contribution to undergraduate engineering education. Nuclear engineering options in the bachelors programs of the other engineering departments has not, to date, provided significant contact with the undergraduate students. A bachelors program in

engineering science, particularly for those planning graduate study, might allow greater freedom for the undergraduate engineering students to take a variety of fundamental courses in many departments.

4. Research

This Fall Dr. James A. Horak will initiate a research program to study uranium base alloys. This should develop into long range research for the Department in the nuclear materials field.

C. Appointments to Staff

1. Full-Time Faculty and Staff

None

2. Part-Time Faculty and Staff

Dr. George W. Arnold, Adjunct Professor,
Semester II

Dr. Richard L. Coats, Adjunct Professor,
Semester I

Dr. Jon A. Reuscher, Adjunct Professor,
Semester I

Mr. Robert M. Jefferson, Instructor,
Semester I; Adjunct Professor, Semester II

Dr. Lawrence D. Posey, Associate Professor,
UNM-Sandia Joint Appointment, Semesters
I & II

• Dr. Norris G. Nereson, Adjunct Professor,
Los Alamos Graduate Center, Semesters
I & II

Mr. Thomas J. Raper, Graduate Assistant,
Semester I

Mr. Ely Yao, Graduate Assistant,
Semesters I & II

Mr. Clare P. Duklet, Graduate Assistant,
Semester II

Mr. Marshall L. Pendergrass, Graduate Assistant,
Semester II

D. Separations from Staff

Miss Bernice Buhrmester, Department Secretary,
May 15, 1969

II. COMPOSITE OF INFORMATION ON INDIVIDUAL BIOGRAPHICAL SUPPLEMENTS

1. Advanced Study

LONG, Robert L.

Attended Programmed Learning Workshop, UNM, Summer, 1968.

2. Sabbaticals, Leaves of Absence, Summer Teaching, etc.

LONG, Robert L.

Associated Western Universities research appointment, Sandia Laboratory, Summer, 1968.

O'DELL, R. Douglas

Leave of Absence: Visiting Staff Member, Los Alamos Scientific Laboratory, June, 1968 to June, 1969.

3. New Scholastic Honors, Fellowships, etc.

O'DELL, R. Douglas

New York Academy of Sciences, December, 1968.

4. Publications

EVERETT, Willis L.

"Development of a Modified Chapman-Enskog Solution of the Lenard-Balescu Equation for Fully Ionized Two-Temperature Plasmas," UNM Bureau of Engineering Research, Technical Report NE-6, June, 1969.

"Theoretical Investigation of Momentum and Energy Transfer Frequencies in Two-Temperature Plasmas," submitted for presentation at the Ninth International Conference on Phenomena in Ionized Gases, Bucharest, Romania, September, 1969.

4. Publications (continued)

EVERETT, Willis L.

"Development of a Modified Chapman-Enskog Solution of the Lenard-Balescu Equation for Fully Ionized Two-Temperature Plasmas," submitted for presentation at the Ninth International Conference on Phenomena in Ionized Gases, Bucharest, Romania, September, 1969.

LONG, Robert L.

"Reactivity Contributions in the Glory Hole of the Sandia Pulsed Reactor-II," Transactions of the American Nuclear Society, 11, 1 (1968). Also published in Nuclear Applications, 6, 1 (1969).

Fast Burst Reactors, Proceedings of the ANS National Topical Meeting on Fast Burst Reactors, University of New Mexico, January 28-30, 1969, AEC Symposium Series, CONF-690102. (To be published, 1969).

"Reflector and Decoupling Experiments with Fast Burst Reactors," AEC Symposium Series, Fast Burst Reactors, CONF-690102. (To be published 1969).

"Survey of Fast Burst Reactor Operating Procedures," AEC Symposium Series, Fast Burst Reactors, CONF-690102. (To be published, 1969). Also published in Nuclear News, 12, (April, 1969).

WHAN, Glenn A.

"Teaching Applications of Fast Burst Reactors in University Programs," AEC Symposium Series, Fast Burst Reactors, CONF-690102, 1969.

5. Other Research Projects or Creative Work in Progress

EVERETT, Willis L.

Contract Research Work

Sponsor: Sandia Corporation

Title of Project: "Detailed Analysis and Computation to Extract Transport Properties from Kinetic Theory of Fully Ionized Gases"

Amount of Grant: \$24,215.00

Termination Date: June, 1969

6. Activities in Learned and Professional Societies

EVERETT, Willis L.

- a. Treasurer, Trinity Section of the American Nuclear Society
- b. Chairman of the Finance Committee, Fast Burst Reactor National Topical Meeting

LONG, Robert L.

- a. 1968 Faculty-Student Conference, August 20-23, 1968, Argonne National Laboratory, Argonne, Illinois
- b. Conference on Fast Reactors and the University, August 28-30, 1968, Rensselaer Polytechnic Institute, Troy, New York
- c. American Nuclear Society (ANS), International Meeting, November 10-15, 1968, Washington, D.C.
- d. Technical Program Co-Chairman for the ANS Topical Meeting on Fast Burst Reactors, January 28-30, 1969, University of New Mexico
- e. Conference on Public Health Aspects of Peaceful Uses of Nuclear Explosives, April 7-8, 1969, Las Vegas, Nevada.
- f. Papers accepted for presentation at Summer, 1969, meetings of the American Nuclear Society and the American Society for Engineering Education,
- g. Membership Committee Chairman, Education Division, American Nuclear Society
- h. Member of Program Committee, Education Division American Nuclear Society
- i. Invited to be chairman of session on "Social Responsibility and Nuclear Education" at ANS Annual Meeting, June, 1969

6. Activities in Learned and Professional Societies (continued)

LONG, Robert L.

- j. Member of Nominating Committee, UNM ASEE Chapter
- k. Member of Membership Committee, ANS Trinity Section

WHAN, Glenn A.

- a. Arrangement Chairman for ANS National Topical Meeting on Fast Burst Reactors, University of New Mexico, January 28-30, 1969
- b. Conference Chairman, Associated Western University Conference on the Use of Fast Burst Reactors in University Programs, University of New Mexico, January 31, 1969
- c. Faculty Advisor for the American Nuclear Society 1969 Student Conference for the Western States, University of New Mexico, April 25-26, 1969
- d. Member, Nuclear Education and Training Committee, Associated Western Universities. Attended Committee meeting, Salt Lake City, Utah, October 18, 1968
- e. Attended Conference on Education for the Peaceful Uses of Nuclear Explosives, University of Arizona, March 31-April 2, 1969

7. Other Professional Activities

LONG, Robert L.

- a. Consultant to Nuclear Effects Directorate, White Sands Missile Range, New Mexico, and Reactor Development Group, Sandia Laboratory
- b. Gave talks on nuclear energy and travel to groups at Governor Bent and Comanche Elementary Schools and at Sandia High School.
- c. Gave presentation and demonstration on nuclear energy to El Paso Science Seminar, El Paso, Texas, and to Rotary Club, Renovo, Pennsylvania
- d. Chief Reactor Supervisor, AGN-201 Reactor

7. Other Professional Activities (continued)

O'DELL, R. Douglas

- a. Member, Reactor Operations Committee,
U.S. Geological Survey, Denver, Colorado

8. Non-teaching University Service

EVERETT, Willis L.

- a. Member, Graduate Committee
- b. Chairman, Engineering Doctoral Committee
- c. Member, Advisory Committee to the Bureau
of Engineering Research
- d. Nuclear Engineering Doctoral Advisor
- e. Member, Ad-Hoc Planning Committee for a
UNM Controlled Fusion and Plasma Program
- f. Member, Nuclear Engineering Curriculum
Committee
- g. Member, Nuclear Engineering Student Support
and Recruitment Committee
- h. Member, Nuclear Engineering Policy and
Planning Committee
- i. Chairman, Three Doctoral Dissertation Com-
mittees

LONG, Robert L.

- a. Member Nuclear Engineering Department com-
mittees on:
 - 1. Reactor Operations
 - 2. Curriculum
 - 3. Policy and Planning
 - 4. Facilities Improvement
- b. Chairman, College of Engineering Public
Relations Committee
- c. Member, College of Engineering Library
Committee
- d. Member, UNM Research Allocations Committee
- e. Member, Committee on Radiological Control
- f. Prepared research and equipment grant pro-
posals.
- g. Supervised moving and installation of equip-
ment into the new Nuclear Engineering Labor-
atory

8. Non-teaching University Service (continued)

WHAN, Glenn A.

- a. Chairman of Nuclear Engineering Department
- b. AGN-201 Reactor Administrator
- c. Member of University Policy Committee
- d. Member of Engineering Administrative Committee
- e. Chairman of Departmental Committees:
 - 1. Policy and Planning
 - 2. Curriculum
 - 3. Facilities Improvement
 - 4. Student Support and Recruitment
- f. Member of Steering Committee for NCA Review Visit
- g. Member of University Committee on International Programs
- h. University Representative for National Atomic Industrial Forum
- i. Faculty Advisor, UNM Student Branch, American Nuclear Society

9. Public Service

LONG, Robert L.

- a. Served as Chairman of Commission on Education (1968-69) and elected Chairman of Council on Ministries (1969-70), Senior High Youth Group counselor, choir member, church school teacher, all at Trinity United Methodist Church.
- b. Gave talks at several local churches
- c. Attended Leadership Training School, Central United Methodist Church, September 21-26, 1968.

Report of the Bureau of Engineering Research

July 1, 1968 - June 30, 1969

Wayne W. Grannemann, Director

The Bureau of Engineering Research has had a total funding of \$904,461.91 from Government contracts. This was distributed as follows: Mechanical Engineering, \$274,102.91; Electrical Engineering, \$492,313; Nuclear Engineering, \$24,215; Chemical Engineering, \$46,894; and Civil Engineering \$66,937. We have tentative verbal commitments for additional research from ONR, approximately \$41,000; from AFWL, approximately \$95,000; and from Sandia Corporation, approximately \$81,000. The authorized contract amount based on one year plus the verbal commitments was \$1,121,462.

We have employed 85 salaried personnel and 60 hourly personnel. The salaried personnel are mainly faculty and graduate students, while the hourly personnel are mainly undergraduate students. The number of research contracts in force during the past year was 31. The number of research proposals submitted to potential Government and industrial sponsors in the past year was 38, of which to date 11 have been successful, 8 have been tentatively approved, and the balance of 22 still pending. Eight research contracts were awarded as a result of proposals submitted during the preceding fiscal year. °

The most pressing need in the Bureau of Engineering Research is for additional administrative assistant's help and for a full-time machinist. The additional 1/2 time of machinist time can be largely charged to contracts; however a guarantee of full time is needed under the Bureau budget. There is also a need for more research equipment, particularly equipment of the type that cannot be obtained by grant or contract funding.

Research Contracts in Force
July 1968-June 1969

Research Contract	Project Supervisor	Contracting Agency	Title of Project	Amount
281-004	Schreyer	Sandia	A Study of Conical Shells	\$9,961.00
281-082	Skoglund	Sandia	Numerical Analysis of Gas Dynamics	16,631.00
281-012	Feldman	Office of Naval Research	Investigation of a Thermoacoustic Oscillator as an Underwater Sound Source	18,910.00
281-005	Grannemann	Office of Naval Research	A Radiation Effects Research Program under the Project Themis	185,000.00
281-013	Hulsbos	American Iron and Steel Institute	Fatigue Properties of Light Gage Steel Structural Members	15,000.00
281-015	Richards	AF Weapons Lab, Kirtland AFB	Numerical Study of the Fluid Flow in Monostable and Bistable Fluidic Devices	11,711.00
281-021	Nowak	National Science Foundation	Studies of the Preparation and Surface Chemistry of Sulfided Nickel Catalysts for Selective Olefin Hydrogenation	27,200.00
281-023	Baker	Holloman AFB	Development of Measuring Techniques for Rocket Sleds	24,997.00
281-027	Erteza	National Aeronautics and Space Administration	Study of Electromagnetic Scattering from Material Bodies with Particular Application to Radar Astronomy	19,765.00

Research Contract	Project Supervisor	Contracting Agency	Title of Project	Amount
281-028	Grannemann	National Aeronautics and Space Administration	Surface Recombination Effects with Magnetoresistance as Applied to High Current Low Voltage Switching	\$17,323.00
281-031	Richards	National Aeronautics and Space Administration	A Numerical Study of the Flow in a Vortex Rate Sensor and in the Tube at the Exit of the Sensor	33,416.00
281-037	Kelly	AF Weapons Lab, Kirtland AFB	Investigation into Fuzing Problems	26,354.00
281-040	Carney	Dept. of Interior	A Study of the Effect of Pulsating Loads on Pore Pressures in Soils	14,500.00
281-056	Mohler	National Science Foundation	Optimal Bilinear Control Processes	23,100.00
281-063	Bradshaw	AF Weapons Lab, Kirtland AFB	Re-Entry Vehicle Antenna Studies	67,810.00
281-064	Everett	Sandia	Transport Characteristics of Partially and Fully Ionized Plasmas	24,215.00
281-065	Yao	National Science Foundation	Earthquake-Resistant Structures	25,150.00
281-068	Skoglund	Sandia	Numerical Analysis of Gas Dynamics	15,988.00
281-071	Albrecht	AF Weapons Lab, Kirtland AFB	The Continuation of the Investigation in the Area of Contact Fuzing Studies	31,015.91
281-074	Ju	Air Force Office of Scientific Research	Fracture of Materials in the Presence of High Strain Gradient	32,300.00
281-076	Southward	AF Weapons Lab, Kirtland AFB	Investigation of Microelectronics Techniques	29,221.00

Research Contract	Project Supervisor	Contracting Agency	Title of Project	Amount
281-092	Kelly	AF Weapons Lab, Kirtland AFB	Design of a Laser Radar Receiver for Advanced Reentry Vehicles	\$57,859.00
281-093-1	Hsu	Sandia	Couple-Stress Effect on the Infinite Elastic Plane with a Circular Insert, Loaded by a Radial Force	15,257.00
281-093-2	Johnson	Sandia	Behavior of a Bi-Material Cylinder Including the Effects of Fracture	12,287.00
281-094-3	DeVries	Sandia	Multilevel Logic Circuits Using Limited Input NAND or NOR Gates	11,730.00
281-102	Houghton	Sandia	Further Studies on Experimental Deter- mination of Thermal Conductivity by Guarded Hot Plate Method and Expansion	13,912.00
281-104	Petersen	Dept. of Commerce	A Study of Objective Analysis Techniques for Meteorological Fields	17,801.00
281-109	Nowak	Sandia	The Role of Surface Defects in the Hydrogen Reduction of NiO	19,694.00
281-114	Albrecht	AF Weapons Lab, Kirtland AFB	Investigation of Conical Bodies and Sensor Materials for Hypervelocity Impact Fuzing	47,098.00
281-118	Mohler	National Science Foundation	Bilinear Control Processes	36,350.00
281-122	Feldman	Energy Conversion Systems	Heat Pipe Fabrication and Performance Evaluation	2,906.00

HOURLY PERSONNEL

Abbott, Paul S.
Brewer, Charleen
Brooks, Albert
Clayton, Robert
Cohen, Jane I.
DuBeau, Edward L.
Dyer, Charles D.
Field, Marta
Halstead, Donald
Hoffman, Robert
Jacobson, Robert F.
Jones, Donald E.
Lander, Eleanor
Lobato, Donald A.
Mathews, Patricia
Mitchell, Dennis E.
Packwood, Del
Payne, James
Prather, William D.
Revel, Daniel
Ritchhart, Roger
Romesberg, Gaye
Sanders, Jack
Schulz, George
Smith, Jackie E.
Takach, Stephen D.
Tarleton, Glen M.
Utton, Greg
Wieland, Mark
Zumwalt, C. T.

Andreoli, Lynette
Bronson, Richard A.
Chapelle, Edsal
Cochran, Ronald
Danenburg, Roy
Dunham, David
Evans, Harriet
Fort, Marguerite
Headrick, Joseph
Hoke, Erle F.
Johnson, Don
Kane, Dennis
Larkin, Adrienne
Martinez, David R.
McDonald, J. David
Moyer, Owen D.
Paez, Thomas L.
Pierce, Donald R.
Reese, Robert
Rihal, Satwant S.
Ritchot, Claire
Rouse, Michael
Schneider, Bruce
Seaman, Ronald
Smith, Raymond E.
Tarbell, William W.
Tesche, Thomas
Wade, John H.
Wilson, Greg
Zumwalt, Jack

SALARIED PERSONNEL

Abbott, P.	Albrecht, B.
Allen, R. C.	Baker, W. E.
Berger, M.	Boatwright, L. T.
Bradshaw, M. D.	Bohlman, R.
Broell, F. G.	Browning, R.
Bussell, C.	Byatt, W. J.
Carossino, C.	Chavez, S.
Colclaser, R.	Day, C.
DeVries, R.	Djuric, J.
Dove, R. C.	Erney, T.
Erteza, A.	Everett, W. L.
Feldman, K. T.	Gay, B.
Grannemann, W. W.	Gustafson, J.
Hight, S. L.	Houghton, A. V.
Hsu, Y. C.	Hulsbos, C. L.
Johnson, R.	Jones, D.
Joung, J.	Ju, F. D.
Kanipe, J.	Karni, S.
Kasiraj, I.	Kelly, R. D.
Kim, T.	Koller, D. C.
Kopp, R. J.	Lander, E. M.
Liu, T. T.	Martinez, J.
Meirelles, O.	Merritt, W.
Mitchell, D.	Mohler, R. R.
Moon, S.	Neamen, D.
Nowak, E.	Park, B. K.
Petersen, D. P.	Phelan, J. R.
Philipp, L.	Pierson, J.
Potts, J.	Pritchard, R. S.
Richards, C. G.	Schulz, G. L.

Skoglund, V. J.
Southward, H. D.
Tan, G.
Truske, T.
Wang, W.
Weld, C. E.
Wirsching, P.
Wolk, M.
Yao, J. T. P.
Yu, H.
Stallbaum, A.
Chavarria, C.
Scales, J.

Smith, W. D.
Stanley, A.
Tang, J.
Valathur, M.
Walters, W.
Williamson, T.
Wing, M.
Wright, D.
Yeh, H.
Ivey, J.
Krampetz, V.
Long, J.

REPORTS PUBLISHED

July 1968 - June 1969

- EE-155 "A Radiation Effects Research Program under the Project Themis," W.W. Grannemann, L.T. Boatwright, W.J. Byatt, H.D. Southward, G.M. Wing, G. Davis, Jr., J.H. Pierson, T.A. Williamson, March 1968.
- EE-156 "Magnetic Control of Carrier Density in Semiconductors," Lee Hight, W.W. Grannemann, NASA NSG 279/62 290-353, June 1968.
- EE-157 "Modern Control Aspects of Nuclear Reactors," J. Phelan, H. K. Knudsen, R.R. Mohler, July 1968.
- EE-158
(68)ONR-005 "A Radiation Effects Research Program under the Project Themis," W.W. Grannemann, R.C. Allen, Jr., L.T. Boatwright, W.J. Byatt, J. Djuric, H.D. Southward, G.M. Wing, G. Davis, Jr., H. Yu, R. Colclaser, C. Gwyn, R. Kopp, D. Neamen, L. Philipp, J. Pierson, T. Williamson, Annual Report, September 1968.
- EE-159
(69)NASA-027 "Reflection and Transmission of Dipole Radiation in Presence of an Extended Boundary, Smooth and Rough," B.K. Park and A. Erteza, March 1969.
- EE-160
(69)ONR-005 "A Radiation Effects Research Program Under the Project Themis," W.W. Grannemann, L.T. Boatwright, W.J. Byatt, H.D. Southward, H. Yu, R. Colclaser, R. Kopp, D. Neamen, L. Philipp, J. Pierson, T. Williamson, O. Mierelles, Semi-Annual Report, March 1969.
- EE-161
(69) ONR-005 "An Experimental Study of Radiation Effects on Metal-Insulator-Semiconductor Materials," Robert J. Kopp and W. W. Grannemann, May 1969
- EE-162
(69)S-094 "Multilevel Logic Circuits Using Limited-Input NAND or NOR GATES," Ronald C. De Vries and S. Lee Hight, July 1969.
- ME-37
(68)AFWL-071 "Elastic Wave Propagation in Thin Conical Shells," B. Albrecht, R. C. Dove, and P. N. Sonnenburg, December 1968.
- ME-38
(69)ONR-122 "Investigation of a Thermoacoustic Oscillator as an Underwater Sound Source," K.T. Feldman, Jr. and M.E. Berger, January 1969.
- ME-39
(69)AFOSR-074 "A Criterion for Dynamic Low-Cycle Shear Fracture," F.D. Ju, J.T.P. Yao, and T.T. Liu, March 1969.
- CE-9 "Adaptive Structural Systems," J.T.P. Yao,

June 1968.

- CE-10 "Dynamic Behavior of Bilinear Structural
(68)NSF-065 Systems," H.Y. Yeh and James T.P. Yao, July 1968.
- CE-11 "Low-Cycle Fatigue Failure of Seismic Structures,"
(68)NSF-065 I. Kasiraj and James T.P. Yao, September 1968.
- CE-12 "Analog Simulation of Earthquake Motions," Paul
(68)NSF-065 H. Wirsching and James T.P. Yao, November 1968.
- NE-6 "Development of a Modified Chapman-Enskog Solution
(69)S-064 of the Lenard-Balescu Equation for Fully Ionized
Two-Temperature Plasmas," Wallace F. Walters and
Willis L. Everett, June 1969.
- PR-85 "Numerical Analysis of Gas Dynamics," Victor J.
(68)S-082 Skoglund and Ben D. Gay, July 1968.
- PR-86 "A Numerical Study of the Vortex Rate Sensor,"
(68)NASA-031 C.G. Richards, October 1968.
- PR-87 "Fatigue Properties of Light Gage Steel Struc-
(69)AIS-013 tural Members," C. L. Hulsbos, February 1969.
- PR-88 "Sulfided Nickel Catalysts for Selective Olefin
(69)NSF-021 Hydrogenation," E. Nowak, February 1969.
- PR-89 "Magnetic Control of Injected Carrier Density in
(69)NASA-028 Semiconductors," W. W. Grannemann, February 1969.
- PR-90 "A Numerical Study of the Vortex Rate Sensor,"
(69)NASA-031 C. G. Richards, April 1969.

THE REPORT OF THE COLLEGE OF FINE ARTS

July 1, 1968 - June 30, 1969

Clinton Adams, Dean

This report is in five sections: I. Enrollment and Statistics, II. Faculty, III. Space, IV. Other Events, and V. Recommendations.

I. ENROLLMENT AND STATISTICS

The University's increase in enrollment in 1968-69 was less than in any recent year. Measured in terms of student credit hours, fall semester enrollments were only 2.9 percent greater than in 1967-68. As has often been the case, enrollments in the College of Fine Arts advanced more rapidly than in the University as a whole.

STUDENT CREDIT HOURS (ANNUAL TOTALS)

	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
Arch.	1,178	1,148	1,494	1,928	2,447	2,550	2,952	3,144
Art	6,239	6,138	7,310	8,964	11,295	12,553	13,024	14,207
Drama	1,407	1,181	1,558	1,751	2,382	2,391	2,574	2,916
Music	4,724	4,650	5,290	5,084	6,493*	6,764	7,008	6,827
CFA	13,548	13,117	15,652	17,727	22,617	24,258	25,558	27,094
UNM	190,599	209,683	231,976	267,796	315,432	342,755	361,038	371,406

PERCENTAGE INCREASE IN SCH OVER PREVIOUS YEAR

	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
Arch.	-13.6	-2.5	30.1	29.0	26.9	4.2 *	15.8	6.5
Art	16.3	-1.6	19.1	22.6	26.0	11.1	3.8	9.1
Drama	13.4	-16.1	31.9	12.4	36.0	.03	7.6	13.3
Music	25.1	- 1.6	13.8	- 3.9	27.7*	4.21*	3.6	-2.6
CFA	15.3	- 3.2	19.3	13.2	29.2	7.2	5.4	6.0
UNM	7.5	10.0	10.6	15.4	17.8	8.7	5.6	2.9

* Corrected figure.

STUDENTS ENROLLED IN THE COLLEGE OF FINE ARTS

	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
Summer	66	88	102	120	143	105	111	134
Fall	248	263	292	323	348	375	429	442
Spring	256	275	302	344	378	376	426	487

The new degree, Bachelor of Fine Arts in Architecture, was granted to the first graduating class in the four-year curriculum in architecture. In the fall of 1969 these students will be the first to enter the new two-year graduate program leading to the degree, Master of Architecture. During 1968-69 the final class under the old five-year curriculum was also graduated, receiving the degree of Bachelor of Architecture. As a result of the overlapping of the old and new programs, the total number of degrees awarded by the College of Fine Arts was sharply, but temporarily, increased.

DEGREES GRANTED BY THE COLLEGE OF FINE ARTS

	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
BA:FA	1	5	10	12	12	9	12	10
BFA:Arch								18
BFA:Art	19	24	30	34	40	36	34	31
BFA:Drama	6	9	7	11	6	7	10	8
*B.Mus/MusEd	6	12	7	16	15	4	22	25
B.Arch	7	3	9	14	12	13	14	24
Total	19	53	63	87	85	69	92	116

As additions to the faculty once again failed to keep pace with rising enrollments, student-faculty ratios continued to rise, reaching a new high in 1968-69. These increases in S/F ratios inevitably had a negative effect upon the quality of instruction. The College's

* The BFA in Music was granted prior to 1966.

largest department, the department of art, depends far too heavily upon graduate assistants in lower division courses, and the size of the faculty has not been increased sufficiently to ensure adequate and proper supervision of teaching in these courses.

STUDENT FACULTY RATIOS (SEMESTER I)*								
	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69
Arch	10.9	8.9	11.2	11.6	13.9	11.7	12.5	12.7
Art	15.2	16.5	16.4	19.6	21.8	23.1	21.0	22.6
Drama	10.9	9.5	11.4	14.0	16.1	15.5	14.7	17.9
Music	7.9	7.2	8.2	8.3	10.5	9.7	10.9	9.7
CFA	11.1	10.5	11.7	13.0	15.6	15.1	15.2	15.8

II. FACULTY

Administrative Changes

DON P. SCHLEGEL, acting chairman of the department of architecture after the resignation of Mr. Vreeland, was appointed chairman of the department.

GARO Z. ANTREASIAN served as acting chairman of the department of art in the spring semester, during Mr. Coke's sabbatical leave of absence.

DON McRAE, assistant dean of the College of Fine Arts, served as acting dean in the fall semester, during Dean Adams' sabbatical leave of absence.

Promotions in Rank

CARL PAAK was promoted from associate professor to professor in the department of art. Mr. Paak, whose primary field is ceramics, holds degrees from the Chicago Art Institute and Ohio State University. He has been a member of the university faculty since 1956.

*Totals may not add due to rounding.

In the department of music both JOHN BATCHELLER and MORTON SCHOENFELD were advanced from associate professor to professor. Mr. Batcheller, who teaches principally in the field of music education, came to the university in 1956 after completing his Ph.D. degree at the University of South Carolina. Mr. Schoenfeld has been active both as a teacher of piano and as concert pianist since coming to the university in 1947. He has also participated in the university's General Honors program.

Additions to the Faculty

Continuing appointments:

FRANK D. BOYDEN, Instructor in Art (painting)

B.A., Colorado College; M.F.A., Yale Univ.

MILTON HOWARD, Assistant Professor of Art (painting, sculpture)

B.A., Univ. of Colorado; M.F.A., Pratt Institute. Study at the Univ. de Madrid. Formerly Assistant Professor of Art, Univ. of Minnesota.

THOMAS H. PHILIPS, Jr., Professor of Music (opera)

A.B., A.M., Harvard Univ. Study at Yale Univ., Longy School of Music, Berkshire Music Center and the Akademie fuer Musik, Vienna. Formerly Director, Opera Department, New England Conservatory.

KENNETH RAY, Assistant Professor of Art (drawing, painting)

B.F.A., Herron Art School; M.F.A., Yale Univ. Formerly Assistant Professor of Art, Univ. of Illinois.

ROBERT B. RILEY, Associate Professor of Architecture

Ph.B., Univ. of Chicago; B.Arch., Massachusetts Institute of Technology. Formerly Chief Planner, Office of the Univ. Architect, Univ. of New Mexico.

DAVID L. RODGERS, Instructor in Art (drawing, sculpture)

B.A., M.F.A., Indiana University.

EMIL F. SCHULTE, III, Instructor in Dramatic Art (technical

director) B.A., Univ. of Mississippi; M.F.A., Pennsylvania State Univ.

CAROLYN A. SIRKEL, Assistant Professor of Dramatic Art

(costume design) B.F.A., Univ. of New Mexico. Formerly teacher of drama and stagecraft, Rio Grande High School.

Visiting appointments:

- JOHN ANDERSON**, Visiting Lecturer in Art (sculpture)
Mr. Anderson, whose sculpture is well-known through major New York exhibitions, was at the university during Semester II.
- ILYA BOLOTOWSKY**, Visiting Professor of Art (painting)
Mr. Bolotowsky, one of the pioneers of abstract art in the United States, was at the university during Semester II.
- FREDERICK HAMMERSLEY**, Visiting Lecturer in Art (Painting)
A noted California painter, Mr. Hammersley was at the university for the full year, 1968-69. He will return in 1969-70.
- CHARLES MATTOX**, Visiting Associate Professor of Art (sculpture)
Mr. Mattox, who came to the university in February, 1968, remained for the fall semester, 1968-69. A distinguished sculptor, Mr. Mattox will again join the faculty for the fall semester, 1969-70.
- SEBASTIAN C. SCHROEDER**, Visiting Lecturer in Architecture.
Mr. Schroeder came to the university for the full year, 1968-69, from his position at the Swiss Federal Institute of Architecture in Zurich.

Part-time, temporary, and adjunct appointments:

- HILDRETH BARKER**, Part-time Lecturer in Architecture.
Mr. Barker is a practicing architect in Albuquerque.
- E. BOYD**, Adjunct Professor of Art (history of art)
Mrs. Boyd, a noted scholar, is Curator of Spanish Colonial Arts at the Museum of New Mexico.
- MAURICIO FUKS**, Assistant Professor of Music (violin)
Diploma, Juilliard School of Music. Formerly Associate Concertmaster with the Dallas Symphony Orchestra.
- THOMAS PERKINSON**, Instructor in Art (drawing), Semester I.
B.A., Oklahoma Baptist Univ.; M.A., univ. of New Mexico.

Separations from the Faculty

- JOSEPH BLANKENSHIP**, Professor of Music and former chairman of the department, resigned to accept an appointment as Dean of the Conservatory of Music at the Univ. of Missouri, Kansas City.
- WALTER GATHMAN**, Part-time Lecturer in Architecture since 1962-63, resigned to devote full time to architectural practice in Albuquerque.

ARTHUR JONES, Assistant Professor Architecture, resigned to return to architectural practice in Philadelphia.

DOUGLAS McEWEN, Associate Professor of Music and director of the University chorus, left New Mexico to accept a faculty position at Arizona State University.

JAMES THORNTON, Associate Professor Music, accepted an appointment at Illinois State University.

GABRIEL WEISBERG, Assistant Professor of Art (history of art), resigned to accept a position at the University of Cincinnati.

III. SPACE

The west addition to the Fine Arts Center, designed to provide additional space for the Fine Arts Library and improved office and storage facilities for the University Art Museum, received final approval during 1968-69. Working drawings are in progress, and construction will begin in the fall of 1969.

An extensive remodelling of Sara Raynolds Hall was completed in the fall of 1968, providing the department of art with greatly improved facilities for the teaching of classes in still and cinematic photography.

The lack of adequate studio space for use by graduate students in painting and sculpture continued to have a negative effect upon the College of Fine Arts' largest graduate program. Without such space, many students are forced to work off-campus. This deprives them of normal and productive associations with their colleagues, while at the same time placing an undue burden upon already overloaded faculty members who must travel from studio to studio to see the work their students are doing. In 1968-69 the department was given temporary

use of space in the old stadium building. With demolition of the stadium, the department will move to the Engineering Annex (the old music building). Although well-located in relation to the department's other buildings, this is again only a temporary solution, for major construction is scheduled on that site in 1971.

Minor modifications were made in the basement of the Architecture Building so that students in architectural design might use a portion of that space. Other internal shifts in assignment of space during 1968-69 brought about a more efficient use of space on the upper floors of the building.

The deplorable physical circumstances in which the department of drama conducts its academic programs were in no way ameliorated during 1968-69, nor is early relief in sight. Recent reductions in federal funds for higher education facilities are likely to further delay construction of the new theater building.

IV. OTHER EVENTS

The All-University Dialogue on Teaching and Learning, held on April 15, 1969, was but one of a series of events which served to focus attention upon student attitudes and feelings about the University: its faculty, its courses, its curricula and its administrative procedures. Aware for some time of student complaints about inflexible and irrelevant course requirements and curricula, the College Faculty began in 1968 to explore the possibility of establishing one or more "open" or unstructured curricula. During 1968-69 the first such curriculum was established, the "Special Curriculum" in

art. Open to a selected group of students who wish to concentrate in painting, drawing, sculpture, lithography, photography or film, the new curriculum will have no course requirements. Each student admitted to the program will pursue an individual program of studies approved by a faculty committee. This new program, which will begin in the fall of 1969, will serve to provide information about student response to such curricula and hence may lead to other changes.

Simultaneously, the Faculty revised the College Faculty Constitution to provide for student membership on faculty committee. Student members were elected to the College Policy Committee in the spring of 1969, and subsequently students were appointed to the College committees. The new committee structure will become operative in the fall of 1969.

Two new graduate programs received final approval by the Board of Educational Finance during 1968-69. The six-year curriculum in architecture was fully implemented with approval of the Master of Architecture degree, and the first class will enter this program in September, 1969. Also approved was the Ph.D. program in the history of art, the first such program to be offered by an institution in the Rocky Mountain region. As approved by the B.E.F., this program will be limited in scope to five areas: (1) Pre-Columbian and American Indian art, (2) Hispanic and Spanish Colonial art and architecture, (3) the art and architecture of the United States, (4) the history of the graphic arts, including photography, and (5) twentieth century art and architecture.

During 1968-69 twelve new courses were approved for inclusion in the catalog; one was deleted. With the net addition of eleven

courses, the total number offered by the four departments of the College has reached 270. It would be highly desirable in a period of rising enrollments and restricted budgets if the faculty could find some means to reduce the number of courses offered without seriously sacrificing breadth of instruction. Student comments with respect to overlapping of course content lead one to suspect that this might be possible.

COURSES OFFERED, ADDED AND DELETED*

	1968-69	Added	Deleted	1969-70
Architecture	28	1	1	28
Art				
General	1	0	0	1
Studio	43	3	0	46
Art History	38	4	0	42
Drama	32	0	0	32
Fine Arts	2	0	0	2
Music				
Music	98	2	0	100
Music Educ.	17	2	0	19
Total	259	12	1	270

The department of architecture was visited in March, 1969, by an evaluation team representing the National Architectural Accrediting Board. Subsequently, the University was advised that accreditation would be continued for a three-year period. Although the evaluation report was generally favorable, concern was expressed on a number of points, most of them related directly or indirectly to insufficient funds.

Despite reductions in legislative support for the Institute

* Cross-listed courses are included only in the department of the primary listing.

for Social Research and Development (ISRAD), action was taken to establish a new Center for Environmental Research and Development within the ISRAD structure. Mr. ROBERT B. RILEY was appointed director of the center. Although its work will be limited by the money available, it is hoped that this center may effectively contribute to the preservation and improvement of New Mexico's physical environment.

The quality of life is not, however, entirely dependent upon the physical environment. The College of Fine Arts through its diverse performances, exhibitions, and other public events plays an important role in the cultural life of New Mexico. During 1968-69 the department of music presented a continuing series of performances by students, faculty, and visiting artists. The number of outstanding performances was so great as to make it impossible to mention them all in this report.*

The department of drama was honored when its production of Jules Romains' Dr. Knock was selected to represent the state of New Mexico in the American College Theater Festival, held this year in Ft. Worth, Texas. Dr. Knock was but one of a series of excellent productions presented during the year.

Both the drama and music departments have expressed concern that audiences at plays and concerts have at times been disappointingly small, partially because of inadequate publicity. There

* A detailed account of the programs and activities of the College's departments and of the members of the faculty is contained in the departmental reports and in the Annual Supplements to Biographical Records.

are two results when this occurs: first, the university fails to gain the benefits of affirmative community response to performances of high quality; and, second, the loss of box-office revenue adversely affects the production budgets of the departments concerned.

In an effort to reach a broader New Mexico audience, music department performance groups presented concerts in Santa Fe, Los Alamos, and Socorro, as well as in the Albuquerque public schools. A series of weekly television programs, Performance UNM, directed by Mr. THOMAS A. PHILIPS, JR., was presented in cooperation with KNME-TV. We believe this extension of the College's programs to the citizens of the state can be of great value in the university's public relations, and we hope that after completion of the new television studios it will be possible to present a well-produced and lively series of programs reflecting every aspect of the College's activities.

The University Art Museum continued its active program of changing exhibitions during 1968-69. As in the past, exhibitions organized by the Museum were circulated to other museums and university galleries throughout the western states. Marin in New Mexico: 1929 & 1930 was shown in Fort Worth and San Antonio; Colonial Art of Mexico, an exhibition organized in cooperation with the Mexican Government, was shown in Colorado Springs, Austin, New Orleans, Los Angeles and Ciudad Juárez. It is ironical that exhibitions such as these, organized by the University of New Mexico, often receive more extended coverage in California, Texas, and Colorado newspapers than they do in New Mexico.

Despite limited funds for purchase of works of art, a total of 167 paintings, sculptures, drawings, prints and photographs, were added to the University's permanent collections during 1968-69. Particularly notable among the year's accessions are those donated to the Museum by its auxiliary organization, The Friends of Art, and those purchased through the Julius Rolshoven Memorial Fund.

V. RECOMMENDATIONS

It is difficult to compose this section of the Annual Report without unduly repeating reports of earlier years.

Last year's report discussed at length problems of understaffing, quoting reports of the Danforth visiting committees in art and music. The art committee observed that "the greatest problem which faces the department... is the altogether too large number of major students as related to the staff." The music committee similarly described that department as "inadequately staffed in the number of major teachers." The data included in the first section of this report attest to the fact that problems of understaffing became worse, not better, in 1968-69. As the budget for 1969-70 provides for only a 1.3% increase in the size of the College faculty, it is likely that even a minimum increase in enrollment will cause the situation further to deteriorate in the coming year.

Closely related to faculty staffing is the use and supervision of graduate assistants. An extended discussion of this problem was included in last year's report (pages 10-13). The incident of

"the poem" may serve to give even greater meaning to observations made then. A faculty that is overloaded and insufficient in numbers cannot give adequate supervision to graduate assistants teaching freshman courses, with the risk that through inexperience and errors in judgement, serious problems may occur. Less dramatic but equally important is a probable loss in quality of instruction. The high rate of student attrition at the University of New Mexico* may have a direct relationship to faculty overloads and to the excessive use of inexperienced teachers-- both junior faculty and graduate assistants-- in freshman classes.

Whether it will be possible to convince the Legislature of the necessity to provide funds to increase the size of faculty is problematic. In these circumstances it is essential that the university move to assure a more equitable internal distribution of such funds as are available. At present, there is evidence to show that the more rapidly a college or department grows, the worse its position becomes relative to other colleges and departments.** Growth is hence penalized by administrative practices.

In a study of this problem by the University Office of Institutional Research the Colleges are ranked first according to the rate of growth in SCH between 1968-69, and then by the

* See The Invisible Student, a report of the University College and Counseling Center, May, 1969.

** See two memoranda from Morris Hendrickson to Chester Travelstead, dated February 25 and March 11, 1969, subject: "Five Year Growth Study at UNM." All of the following data and quotations are from these memoranda.

ratio of enrollment growth to faculty growth. Column 1 (below) includes actual faculty but not graduate assistants; column 2 includes budgeted faculty but not GA's; column 3, actual faculty including GA's; and column 4, budgeted faculty including GA's.

College	RATE OF GROWTH: 1968-69 OVER 1963-64				
	Growth in Enrollment	Growth in Faculty (1)	(2)	(3)	(4)
Nursing	1	6	6	6	6
Law	2	7	7	7	7
Education	3	4	5	2	4
Fine Arts	4	8	8	8	6
Arts & Sciences	5	2	4	5	3
Pharmacy	6	1	3	1	5
Business Adm.	7	5	1	3	1
Engineering	8	3	2	4	2

Dr. Hendrickson has the following comments on the table above:

"The unfavorable position of the Fine Arts College shows up very strikingly here, whether we look at actual or budgeted faculty. But the most striking thing in the whole table is the fact that... when budgeted faculty are considered the rank order is almost perfectly reversed. In all cases there is a strong negative correlation between the rankings on SCH increase and those on any of the ratios shown in the other four columns."

In another table Dr. Hendrickson gives data on student/faculty ratios in the various colleges and departments.

(please see following page)

COMPARATIVE STUDENT FACULTY RATIOS: 1963 AND 1968

College	Excluding GA's		Including GA's	
	1963	1968	1963	1968
Arts & Sciences	27.62	25.98	20.67	19.07
Business Adm.	28.80	29.70	23.04	20.90
Education	16.65	16.78	14.27	12.66
Engineering	11.28	10.89	9.43	8.58
Fine Arts	11.50	15.20	10.66	12.72
Law	12.31	14.48	12.31	14.48
Nursing	5.38	6.14	5.38	6.14
Pharmacy	7.34	6.18	7.34	6.18

He comments as follows on the changes in student/faculty ratios:

"When we look at this ratio with GA's excluded, there was a slight drop in this ratio university wide and a significant rise only in the case of the Fine Arts College. Law also had a fairly substantial rise. If we examine this ratio when GA's are included, then in all the five colleges which use GA's there was a drop except in Fine Arts. The figures certainly support [the] contention that [Fine Arts] has not been receiving its fair share."

The inescapable conclusion of these studies is that the University should first seek to make internal adjustments among its departments and colleges, and then revise its budgetary procedures so that future allocation of faculty positions will be those areas which can demonstrate the greatest need.

The issues considered above, having to do with inadequate teaching staff and rising student/faculty ratios, are the most critical problems facing the College today.

Among other problems and deficiencies that give cause for concern are the following, most of which have been discussed in detail in past annual reports:

(1) Faculty salaries must be improved. The modest increases of the past two years have failed even to keep pace

with inflation in the cost of living, and the University's relative position in the national competition for qualified faculty members has sharply declined.

(2) The University Library must be strengthened. The Visiting Committee of the North Central Association commented in its recent report that "the library is one of the weakest resources of the institution." The Committee's observations with respect to a need both for added funds and for "a more, energetic, creative, and service-minded administration" will find wide support among the faculty and students of the College of Fine Arts.

(3) Attention must be given to the critical needs of the department of drama. The University's continuing inability to proceed with construction of the new building indicates the need for a thorough and comprehensive study of the department's programs so that academic planning may be realistically related to physical possibilities.

(4) Added funds must be found for departmental expenses and equipment, either through an increase in state appropriations or through imposition of special course fees, a matter presently under study.

(5) The University must take a more affirmative and aggressive position in making its strengths and accomplishments known to the citizens of the state. At least a portion of the hostility toward the University which became so painfully evident during 1969 has its origin in a lack of information. Unfortunately, in the arts as in other fields, "bad news is news; good news is not news," and

it is the controversial publication, performance or exhibition that makes the front page headlines. In the arts such controversies are inevitable, particularly away from metropolitan centers and in times of rapid change. In these circumstances, the University should make a major effort, first, to distinguish between the controversy which is necessary and that which should be avoided; second, to inform and educate its public; and, third to publicize the "good news" more effectively and to increase the audience at the many concerts, recitals, plays and exhibitions which will predictably gain wide support and applause.

The Report of the Department of Architecture
July 1, 1968 - June 30, 1969
Don P. Schlegel, Chairman

I. General departmental information

A. Significant achievements during the academic year, 1968-69

1) The Search Committee, after careful consideration and review of three candidates for the chairmanship of the department, recommended to Dean Adams that Professor Don P. Schlegel be appointed chairman of the department. This appointment was confirmed by President Heady and the Board of Regents effective July 1, 1969.

2) On March 11, 12, and 13 the Department of Architecture was visited by an evaluation team selected by the National Architectural Accrediting Board. The team chairman was Ambrose M. Richardson, FAIA, Champaign, Illinois, and other members were W. J. Burke, Arizona State University, generalist; Dean L. Gustafson, AIA, Salt Lake City; Robert S. Harris, University of Oregon; and Alan Y. Tani-guchi, University of Texas at Austin. The department was advised that, effective June 20, 1969, accreditation would be continued for three years. The usual five-year accreditation was withheld pending the implementation of the new two-year graduate program, the appointment of a permanent chairman, and a review of new faculty appointments.

The committee noted the following strengths:

- a) a strong faculty
- b) enthusiastic student body
- c) adequate facilities to house the program
- d) a well-rounded architecture program
- e) interdisciplinary involvement
- f) close association with practicing architects and the University Architect
- g) a knowledgeable college dean
- h) a sympathetic administration

and the following weaknesses:

- a) the design sequences and technology programs need to be broadened to include general educational content
- b) low faculty salaries
- c) insufficient emphasis on use of library facilities
- d) insufficient budget for visiting lecturers, faculty research, and travel

The committee was impressed, however, with the quality of the department and with the progress made since the last visit. The committee listed the following immediate needs:

- a) additional faculty in the areas of design and building technology
- b) increased budget for visiting critics and lecturers
- c) increased budget for faculty travel
- d) broaden scope of introductory courses in architecture
- e) allow more flexibility in the graduate program
- f) complete proposed facilities in the basement

Less immediate, but also important, needs are:

- a) Develop regional planning program at graduate level to provide an arena for interaction among various disciplines with common interests. Such a program can enrich some of the graduate options by utilizing the various resources of the university which seem to be still untapped.
- b) Develop architecture courses which would be of general educational value to other disciplines. This would increase enrollment, thereby increasing the budget.

3) Professor Robert B. Riley of the Department of Architecture was designated as director of the new Center for Environmental Research and Development within the Institute for Social Research and Development effective June 1, 1969. This appointment will allow the architectural faculty to participate in research and service in architecture and planning.

4) Professor John J. Heimerich was certified by the Office of Civil Defense as a qualified analyst and instructor for fallout shelter construction. He received a grant of \$20,248 for the period June 1, 1969 to May 31, 1970. Professor Heimerich will teach two-thirds time, and the remaining one-third will be devoted to the grant.

5) Professor William Weismantel taught courses in the School of Law and Department of Economics, thus strengthening the interdisciplinary relations of the department.

6) Money was available for the first time which allowed the department to employ, on an hourly basis, local professionals with an expertise unavailable on our staff. Claude Lyon delivered twenty lectures on mechanical design; Dean Powell gave ten lectures on illumination; John Conron gave fourteen lectures on interior design; and Robert Mallory gave sixteen lectures on production drawings. Sibylle Schroeder served as an assistant to Professor Eichorn in Arch 202. The department feels this is an excellent method of broadening our teaching base without appointing permanent faculty.

7) Architecture students participated in community problems with the university's Home Improvement Program. They functioned as student architects and planners in poverty areas and received credit for their work in Arch 429, Problems.

8) A department student advisory committee was formed with representatives from each class in the four-year program. Meetings with the chairman were held twice a month to discuss departmental problems and suggest possible solutions.

9) Architecture students participated in joint planning courses in recreation and education offered by the College of Education. An interdisciplinary program for the future is being considered.

10) At the annual student awards banquet the Popejoy medal in honor of the former university president, was presented for the first time. Mr. Popejoy, as guest of honor, presented the medal to a graduating fourth-year student who has shown outstanding ability in architecture.

11) The content of the third-year program was completely reorganized under the direction of Sebastian Schroeder, visiting lecturer from Zurich, Switzerland. The design sequence was coordinated with the students' previous experiences in design, technology, and theory.

12) A professional advisory committee was established by the department, consisting of practicing architects, planners, engineers and contractors. The purpose of this committee is to develop a liaison between the university and the building industry. A long-range attempt is being made to relate the educational process to the future needs of industry.

13) Lecturers sponsored by the department this year were:

October 9, Ralph Brill, "On the Advocacy Plan
in Harlem"
October 25, Rory Fonseca, "The Walled City of
Old Delhi"

November 6, Sebastian Schroeder, "The Last Building of Le Corbusier:
 November 15, Philip Hendren, "Computers in Architecture"
 November 20, Michel Pillet, "Works of Six Young French Architects"
 December 9, Roger Montgomery, "The History of Urban Renewal"
 February 24, Bertram Berenson, "Architecture for the Disadvantaged"
 February 28, David Rinehart, "Habitat--Montreal Fair"
 March 28, Eduardo Langagne, "Mexican Architecture"
 April 28, Jose Yguado, "Landscape Architecture"
 May 8, John Eberhard, "Systems Approach to Urban Problems"

B. Significant plans and recommendations for the near future

1) Additional space will be needed by 1970-71 to house the new graduate program. The existing parking space should be utilized for a two-story structure of 3,000 sq. ft. with building technology lab on the first floor and graduate design studio on the second.

2) A course in computer graphics should be initiated inasmuch as many students in architecture and art are becoming interested in the computer method of design. In order to staff the course with existing personnel, consideration should be given to sending Professor Ronald Eichorn to the University of Texas at Austin during the second semester of 1969-70 to study with Professor Philip Hendren, who is an authority in this area.

3) Continuing efforts should be made to establish a community design center in Albuquerque in conjunction with the city's urban renewal and model cities programs. The center would be staffed by architecture students enrolled in Arch 429, Problems, and would be supervised by local architects.

4) It is important to reduce the graduate program's total credit hour requirements for four semesters from 62 to 48 hours. This would enable our graduate students to approach their course work in depth.

5) The scholarship program should be expanded by continuing efforts to interest more building suppliers and contractors in architectural education.

6) A five-year projection, incorporating the accrediting team's goal suggestions, will be developed.

C. Appointments to staff

1) Hildreth Barker, a graduate of our department and now in private practice in Albuquerque, was appointed part-time lecturer to assist with third-year design class.

2) Robert B. Riley, who was Chief Planner in the University Architect's office, joined the architectural faculty at the rank of associate professor.

3) Sebastian Schroeder, a graduate of the Swiss Federal Institute of Technology, was appointed visiting

lecturer for a one-year term to teach third-year design.

D. Separations from staff

1) Part-time lecturer, Hildreth Barker, resigned to return to full-time architectural practice.

2) Walter A. Gathman, local architect who has taught design and, more recently, the building technology courses, has returned to full-time architectural practice.

3) Arthur W. Jones, who has been on the faculty since 1966, resigned to return to private practice in Philadelphia.

4) Sebastian Schroeder, Visiting lecturer from Zurich, Switzerland, will return to Switzerland to go into film work.

II. Composite of information requested on individual biographical supplements.

1) Advanced study.

Ph.D. in City Planning awarded June 12, 1969
from Harvard University. William Weismantel.

2) Sabbaticals, etc.

Heimerich, John J.
Travel through Northwest United States and
southern Canada

Jones, Arthur W.
Forty percent leave of absence

3) New scholastic honors, etc.

none

4) Publications.

Jones, Arthur W.
Book review, LANDSCAPE magazine, Spring 1969

Weismantel, William
Editor, "The Postindustrial City," issue, New
Mexico Quarterly, Vol XXXVIII, No. 3, Fall 1968;
"A Credit Card System for Model Cities," JOURNAL
OF THE AMERICAN INSTITUTE OF PLANNERS, Vol XXXV,
No. 1 (Jan 1969);
"Collision of Urban Renewal with Zoning: The Boston
Experience 1950-1967," (unpublished Ph.D. Thesis,
Harvard University, 1969). For an extended dis-
cussion of the above thesis, see "Administrative
Discretion in Zoning," Harvard Law Review, Vol 82,
No. 3 (Jan 1969), 668-685.

5) Other research projects, etc.

Ronald R. Eichorn
Preliminary drawings for Dr. Theodore J. Goldbloom
residence;
Preliminary drawings for La Floresta Nursery School

Heimerich, John J.

Director, Professional Advisory Service Center
sponsored by Office of Civil Defense; amount of
grant \$20,248; June 1, 1969 to May 31, 1970

Jones, Arthur W.

All Indian Pueblo Center: schematic plans and
programming for Pueblo Cultural Center, \$400,
spring 1969;
Garden design for Mrs. Sally Whiteley, Taos,
New Mexico

Schlegel, Don P.

Design for doctor's office, \$75,000

6) Activities in learned and professional societies, etc.

Eichorn, Ronald R.

Design Methods Group Conference, M.I.T., Cambridge,
Massachusetts, June 1968;
A.I.A. Architect Researchers' Conference, Wisconsin
Dells, Wisconsin, September 1968

Heimerich, John J.

American Institute of Architects, Albuquerque Chapter
attended 11 board meetings and 10 chapter meetings;
Chapter treasurer

Riley, Robert B.

Attended annual meeting, Society of Architectural
Historians;
Guest lecturer, School of Architecture, University
of Oregon.

Don P. Schlegel

American Institute of Architects, local chapter
A.C.S.A. Regional meeting, Boulder, Colorado,
November 1968

7) Other professional activities, etc.

Heimerich, John J.

Completed work on 74-unit apartment complex;
Several small architectural commissions;
Various analyses for Office of Civil Defense

Riley, Robert B.

Buildings designed and under construction: Keith residence, Corrales, New Mexico; Gonzalez residence, Iowa City, Iowa

Schlegel, Don P.

Series of talks on campus;
Consultant to District Attorney;
Consultant to Albuquerque Goals Committee;
Consultant, University Architect

Weismantel, William

Made radio tape of talk for UNM;
Participated in "Urban Futures, USA" Conference as guest of Rice University, Houston, March 1969;
Participated in "American City Seminar" in Memphis as visiting scholar for Brookings Institute

8) Non-teaching university service.

Eichorn, Ronald R.

Faculty search committee

Heimerich, John J.

Adviser for 91 architecture students;
In charge of transfer work for students entering architecture;
Schedule committee for architecture

Jones, Arthur W.

Fine Arts Policy Committee;
Chairman, Search committee;
Department graduate committee

Riley, Robert B.

Consultant to Director of ISRAD;
Department library committee;
College library committee;
Faculty adviser

Schlegel, Don P.

Student Union board;
Academic Freedom-Tenure committee;
Fine Arts policy committee;
Student adviser

Weismantel, William
 ISRAD advisory board;
 Campus planning committee;
 Fine Arts graduate committee;
 Department graduate committee

9) Public Service.

Heimerich, John J.
 Member, Monte Vista Christian Church Board and
 various committees

Riley, Robert B.
 Member, City Advisory Committee on Old Town

Schlegel, Don P.
 Urban renewal committee;
 Historical Preservation committee;
 Design Standards committee

Weismantel, William
 Served as expert to help a residential neighbor-
 hood fight total clearance urban renewal;
 Advised Albuquerque Model Cities Director;
 Recruited five members for Albuquerque Goals
 committee;
 Consultant to new town of Columbia, Maryland

10) Personal information.

Jones, Arthur W.
 Resigned to return to private practice of architec-
 ture in Philadelphia

Schlegel, Don P.
 Marital--separated

The Report of the Department of Art
July 1, 1968 - June 30, 1969
Garo Z. Antreasian, Acting Chairman

A. Significant achievements during the academic year, 1968-69.

The enrollment in the Department of Art in the past year has again shown a marked increase despite observations in the last annual report that it appeared to be leveling off. The following overall enrollments are recorded for comparison:

	<u>1967-68</u>	<u>1968-69</u>
Semester I	2,075	2,147
Semester II	2,077	2,327

Factors which appear to contribute to this increase are:

1. A steady demand for courses by art majors.
2. An increase of non-art majors. Many of these students elect subsequently to transfer into art as a major subject after their introductory experience.
3. An increased retention of Lower Division students produced by improved teaching and more efficient integration of course content.
4. A continually increasing demand from highly qualified new students desiring to undertake graduate programs.

Especially sharp increases in enrollment have occurred at the undergraduate level in Visual Fundamentals, Fundamentals of Drawing, Contemporary Art, Beginning and Intermediate Drawing and Beginning and Intermediate Sculpture.

The department accepted forty new students into the graduate program. Ten of these had previously received undergraduate degrees from UNM. Additionally, students from the following twenty-nine schools were represented: Ball State University, Bennington College, Art Institute of Chicago, Cooper Union, Elmira College, Hofstra University, Hunter College, Indiana University, University of Iowa, Lawrence University, Kansas City Art Institute, Eastern Michigan University, Mills College, University of Minnesota, Morris, University of Missouri, Mt. Holyoke College, New Mexico State University, State University of New York, Geneseo, Ohio State University, University of Omaha, Pius XII Institute, Florence, Sacramento State College, St. Cloud State College, St. Louis University, San Francisco State College, University of Tennessee, Wesleyan University and University of Wisconsin. In sum, fifty-eight colleges and universities are represented by all students currently enrolled in our graduate program.

In keeping with swelling enrollment, the department awarded a record number of graduate and undergraduate degrees this year. The following figures are shown for purposes of comparison:

<u>Degree</u>	<u>1967-68</u>	<u>1968-69</u>
Master of Fine Arts	2	2
Master of Arts in Studio	12	20

<u>Degree</u>	<u>1967-68</u>	<u>1968-69</u>
Master of Arts in Art History	2	2
Bachelor of Fine Arts	34	33
Bachelor of Arts in Fine Arts	4	7

It is worth noting that the spread of disciplines represented virtually every division within the department with painting and sculpture showing the greatest number of recipients.

This record of scholastic achievement could not have been possible without the selfless efforts of the entire teaching staff. Given the limitations of teaching staff, work space and overcrowded classrooms, the undergraduate faculty have outdone themselves as evidenced by the increased retention of lower division students. Even more commendable have been the efforts of the faculty in the graduate program whose work loads this year reached proportions that cannot be ethically sustained. In addition to standard classroom teaching responsibilities many of these staff members endured very heavy overloads by serving on an unusually large number of thesis and dissertation committees and departmental and university committees as well as having to commute to widely separated off-campus locations to confer with studio majors for whom on-campus work space could not be provided.

The photography program moved into newly re-modeled space in Sara Reynolds Hall. This acquisition has greatly accelerated activity in the subject. Nevertheless the rapidity of enrollment growth has already absorbed all available space in this facility and it appears that future enrollment must again be curtailed in order to maintain efficiency in this program. It is hoped that plans for a University-Wide Media Center will be realized in the near future in order to offer supplemental resources and to enable the exploration of other creative endeavors in our photography program.

New course offerings in Cinematic Photography, the History of the Cinema and the History of Photography have proven to be extremely popular among the current generation of students. Despite the limitation of facilities it is anticipated that these courses will continue to exhibit heavy student demand in coming years.

The graduate painting program (traditionally one of the most vital in the department) has been severely hampered this year by lack of studio space. Because many students have been forced to work off-campus, the usual close supervision of their progress has not been possible. By consequence, the overall quality of graduate level painting (excluding thesis work) has suffered somewhat. Plans to overcome this problem are described in Part B.

A renewed vitality has occurred in the sculpture program through the stimulation provided by reconstituted courses in Visual Fundamentals and by advanced level course offerings by two distinguished visiting professors; Charles Mattox in Semester I and John Anderson in Semester II. Thus, input at the lower division is providing a greater number of potential sculptors and output in the upper division is producing extremely promising artists. Plans for sustaining momentum in this area are described in Part B.

Student achievement in all areas has been particularly gratifying this year. In addition to the record number of degrees conferred, works of art executed by students were shown in the following professional exhibitions throughout the country: Young Americans (sponsored by the American Craftsman's Council), University of New Mexico; Lithography 1969, Florida State University; National Print and Drawing Annual, St. Benedict College; National Print Exhibition, San Diego Museum; International Invitational Exhibition, International Peace Garden; George Eastman House; 5th Annual Leverett House Experimental Film Festival; Focus Gallery, San Francisco; and Refocus Exhibition of Photography, University of Iowa. Additionally drawings and lithographs by twenty-three students were exhibited at the Roswell

Museum as a major group showing.

A considerable part of the spring semester was spent evaluating departmental policies and procedures. Upon request of the Acting Chairman, the departmental Advisory Committee recommended changes of procedure for the graduate studio thesis process which should provide more effective utilization of thesis committee time and enable a somewhat more flexible requirement for written papers in fulfillment of the M.A. degree.

A very revealing and much broader analysis of departmental programs was the outcome of lively student and faculty discussions during April 15--Self-Evaluation Day, instigated by the Ad Hoc Committee on the Improvement of Instruction.

Several meetings of the Department of Art were held to discuss course structure and content, curriculum, student evaluation of teaching, relevance of certain required courses, and communications within the department. Problems relating to the role of the Art Museum, lower division art history courses, the relevance and requirements of the graduate program, language requirements, and Fine Arts Library hours were raised and some solutions offered. Among recommendations made were to provide additional exhibition space for faculty and students, that survey art history courses be re-evaluated,

to clarify certain aspects of the graduate bulletin, that certain graduate requirements should be altered, to abolish required physical education courses, and to provide future meetings between faculty and students to discuss current programs. There was a feeling that student evaluation of the teaching staff should be initiated by the individual instructors within the classroom and that students should make recommendations about the selection of new instructors. It was also suggested that communication among students should be improved, perhaps with centralized bulletin boards for notices and more meetings with undergraduate students. There was general agreement that the self-evaluation should not end with the April 15 dialogue, but that there should be similar meetings in the future if the faculty demonstrated interest in solving the problems raised.

Two additional meetings were held subsequent to the April 15 meetings. One meeting examined problems restricted only to undergraduate programs and the other was confined to issues relevant to art history majors. Plans for meeting the issues discussed throughout all of these meetings are discussed in Part C.

B. Significant plans and recommendations for the near future.

Having received final approval, the Ph.D. program in Art History will begin next fall as a major new program of studies. Already, inquiries about this program from across the country verify earlier estimates of its value.

The College of Fine Arts has established a new "special curriculum" in certain of the studio areas of the Department of Art. Unlike other curricula offered by the College, it is essentially unstructured. There are no "group requirements" nor any specified course requirements within the major field. This program has been initiated on an experimental basis to provide especially qualified students maximum flexibility in the planning of a curriculum for creative work. Students within this program will enroll in existing studio courses, however, their overall progress will be individually scrutinized throughout their entire career of studies.

A new course, Art 537--Methods and Theories of Visual Fundamentals and Drawing, will be initiated next year. All graduate assistants in studio subjects will be required to enroll in this course during their first semester in residence. Course content will be designed to introduce the student to theoretical and

practical problems encountered in studio instruction. Inasmuch as a major percentage of beginning level studio instruction is staffed by graduate assistants, it is anticipated that this class will improve teaching effectiveness as well as enable a closer coordination of content between differing courses and between different sections of one course.

A new course, Art 277--Graphic Design, will be initiated next year to expose students to the problems of graphic design and visual communication. The course is offered primarily for students in Journalism who desire fundamental technical exposure and for art majors who desire to learn practical elementary skills for part-time work in advertising art. Interest for this course offering has also been generated by local advertising agencies.

In an effort to overcome space problems in advanced and graduate level painting the department will acquire substantial additional space in the Engineering Annex building next fall. Conversion of this space into graduate painting cubicles should in large measure enable the majority of graduate painters to work on-campus. A large classroom in the building will be used for advanced painting classes exclusively, thus relieving pressures on the studio classroom presently used which

is currently shared by three different levels of painters. The proximity of the Engineering Annex to other Department of Art buildings is ideal; it assures a uniform complex from the Art Building northward to Parsons Hall. Nevertheless it should be mentioned that occupancy is assured only through 1971, at which time new construction is scheduled on this site. Thus another move will be necessary along with a disruption of operating efficiency.

Given the limitations of space for the foreseeable future, it is clear that the Department of Art must take steps to curb graduate student enrollment. Accordingly, for next year thirty new student applications have been accepted from a total of one hundred and ninety-two applications. Although more than 50% of all applicants were qualified, only those with the highest creative and scholastic record could actually be accepted. It is estimated that graduate studio enrollment (including returning students) will total approximately fifty students.

In keeping with the accelerated activity in the sculpture program, an additional appointment (see Part C) has been made for next year to preserve continuity in this field. Plans for next year call for an extensive review of this program with recommendations

for modification of course content in order to provide for a more homegenous evolution of creative experience for the student. Modifications of shop layout and the addition of new equipment will also be necessary in order to supplement existing resources for sculpture. It should be mentioned that much of the present equipment was repossessed (when the College of Education acquired new equipment) and consequently has long ago outlived normal use-expectancy.

As a result of self-evaluation meetings previously mentioned, the department plans the following:

1. provide a basis for on-going discussions between students and faculty.
2. encourage the formation of a student organization within the department.
3. attempt a closer rapport between students and staff.
4. produce a departmental guidebook for graduate students.
5. produce a departmental guidebook for undergraduate students.
6. explore the provision of continual exhibition space for students works.
7. explore the possibility of extending Fine Arts Library hours.
8. re-examine course content and requirements for various degree programs.

C. Appointments to staff.

To replace members of the staff who are leaving and to further the development of existing programs, three

new faculty members have been appointed for next year.

Bernard Cohen, distinguished British painter and teacher has been appointed as a Visiting Professor for one year effective September 1. Mr. Cohen replaces Professor Bolotowsky. He will teach advanced painting and advanced drawing as well as offer special lectures for undergraduate and graduate students. Mr. Cohen is noted for his paintings and lithographs which have been exhibited in major exhibitions throughout the world. He was among the relatively few artists chosen to represent Great Britain at the Venice Biennale Exhibition in 1968.

Frederick Hammersley, who was a Visiting Associate Professor during 1968-69, has again accepted an appointment as Visiting Associate Professor during 1969-70. He will teach lower and upper division painting courses.

Charles Mattox, who was a Visiting Associate Professor during Semester II, 1967-68 and again during Semester I, 1968-69 has again accepted an appointment during Semester I, 1969-70. He will replace Professor Anderson and will teach advanced and graduate level courses in sculpture.

Gerald Johnson, who received his M.F.A. at the University of Colorado, has been appointed Assistant Professor, effective September 1, to expand our Sculpture program. Mr. Johnson is particularly

interested in environmental sculpture and the newer technologies in art. He previously taught at the Denver Center of the University of Colorado; he has exhibited extensively and has executed several public sculpture commissions.

James Kraft, who received his M.F.A. degree at UNM this June, has been teaching at Humboldt State College. He has been appointed Assistant Professor, effective September 1, to teach intermediate and advanced level photography and to offer a new course in graphic design. Mr. Kraft has considerable professional experience as a graphic designer and has exhibited in numerous photography exhibitions throughout the country.

Howard Rodee has been appointed Assistant Professor to replace Professor Weisberg in art history, effective September 1. Mr. Rodee is expected to complete his Ph.D. in August. His primary field is Social Realism in English Painting, 1850-90. In addition to teaching undergraduate courses in art history, Mr. Rodee will assist in the doctoral program by offering graduate level seminars.

D. Separation from staff.

Gabriel Weisberg, Assistant Professor, who has been an active member in our art history program has

accepted a position at the University of Cincinnati, effective July 1, 1969.

Ilya Bolotowsky, Visiting Professor, is returning to his position as Chairman of the Art Department at Southampton College in New York, effective July 1, 1969.

John Anderson, Visiting Lecturer, is returning to New Jersey to resume his active career as a sculptor and teacher at the New School for Social Research in New York City, effective July 1, 1969.

Tom Perkinson, Instructor, resigned his position at the end of Semester I, 1968-69, for personal reasons.

Composite of information requested on individual biographical supplements.

1. Advanced Study

George, Douglas R. - Final draft of dissertation completed.

Lazorik, Wayne R. - Progress toward M.F.A. degree.

2. Sabbaticals, leaves of absence, summer teaching elsewhere, travel, etc., during period

Adams, Clinton - Sabbatical leave of absence, Semester I. Creative work in painting and lithography; completion of ms. for a book on lithography (in collaboration with Professor Garo Antreasian) scheduled for publication by Abrams in 1970.

Bunting, Bainbridge - Taught summer school at Harvard University. Sabbatical leave of absence, Semester I. Worked with Cambridge (Mass.) Historical Commission. Wrote draft of volume on Old Cambridge.

Coke, Van Deren - During summer traveled to Mexico - 2 weeks. Sabbatical leave of absence, Semester II. Traveled to England - 2 months; Portugal - 2 weeks; France - 1 week.

Ellis, Robert M. - Two trips to Mexico City in preparation of the "Colonial Art in Mexico" exhibition.

George, Douglas R. - In preparation of exhibition traveled to Amon Carter Museum of Western Art, Fort Worth, to arrange for loans.

Kacere, John - Sabbatical leave of absence, Semester II. Traveled in Europe.

Ray, Kenneth - Taught summer school at the University of Illinois.

Rudisill, Richard - Summer research travel in British Columbia, Washington, Oregon and California. In the fall 1968 research trip to George Eastman House, Rochester, New York.

Smith, Sam - Summer 1968 spent in Telluride, Colorado painting.

Weisberg, Gabriel P. - Taught summer school at New York University.

3. New scholastic honors, fellowships, etc.

Adams, Clinton - Tamarind Artist Fellowship, December 1968 - January 1969, for creative work in lithography at the Tamarind Workshop, Los Angeles.

Antreasian, Garo Z. - Distinguished award: Tamarind Master Printer for contributions to art lithography.

Paak, Carl E. - Marquis, Who's Who in the Southwest, 1969.

4. Publications

Adams, Clinton - "Art Among the Letter Writers," New Mexico Quarterly, Vol. XXXVII, No. 4, Winter 1968, pages 377-385.

Coke, Van Deren - "Snapshots as works of Art," Creative Camera, No. 6, June 1969, pp. 222-223. "I endeavoured to render photography as an auxiliary to the artist"--Brady, Creative Camera, No. 7, July 1969, pp. 242-243.

George, Douglas R. - Articles on seven contemporary sculptors completed for World Book Encyclopedia now in press.

Weisberg, Gabriel P. - "Felix Bracquemond and Japonisme," Art Quarterly, Spring 1969. "Felix Bracquemond and a Japanese influence in Ceramic Decoration," The Art Bulletin, in press (September 1969). "Samuel Bing: Patron of Art Nouveau," (three articles) The Connoisseur in press.

5. Other research projects or creative work in progress or completed during period

Adams, Clinton - Completed a suite of ten color lithographs, "Venus in Cibola," seven other lithographs, and seven paintings during the period October 1968 - January 1969.

Antreasian, Garo Z. - Technical Advisor to the Board of Directors, Tamarind Lithography Workshop, Los Angeles (Ford Foundation Project). Completion of manuscript "Tamarind Lithography Research Book," to be published by Abrams for release in 1970.

Bunting, Bainbridge - Research with others of Las Trampas Foundation on dates and architectural characteristics of 1761 church at Las Trampas, New Mexico.

Coke, Van Deren - UNM Research Grant.

George, Douglas R. - Preparation for exhibition, Images of the West in American Art, University Art Museum, late fall/winter, 1969-70. Completed arrangements for a summer European Art Tour with KLM Airlines for UNM Summer Session credit. Negotiations postponed until next Summer Session (1970).

Hammersley, Frederick - Computer drawings, University of New Mexico Computing Center.

Howard, Milton B. - Summer Research Grant, Greater UNM Fund. UNM Research Grant.

Lewis, Ralph W. - Continuing research in new materials and processes for painting and jewelry.

Ray, Kenneth - UNM Research Grant.

Rudisill, Richard - Continuing research toward major daguerreotype exhibition (1970) for UNM Art Museum and Amos Carter Museum of Western Art. Mounted exhibition "Photographic Processes--A Historical Survey" (February-March 1969) for UNM Art Museum.

Weisberg, Gabriel P. - "Philippe Burty: An Important Critic of the 19th Century," Apollo, in press.
 "Francois Bonvin and the Influence of Painters of the 17th and 18th Centuries," Gazette des Beaux-Arts, in press.
 "Philippe Burty: Japoniste, 1830-1890," L'Arte, in press.

6. Activities in learned and professional societies

Antreasian, Garo Z. - Attended the College Art Association meeting, Boston, January.

Bunting, Bainbridge - Attended the annual meeting and two board meetings of the Society of Architectural Historians. Lead a tour of Cambridge historical houses for members attending annual meeting. Attended yearly meeting of the R. M. Soc. Sci. Association. Read paper on the church at Las Trampas.

Coke, Van Deren - Attended: Midwest College Art Conference, Minneapolis, October; College Art Association, Boston, January; Society of Photographic Education, Oakland, California, March (Member of National Board of Directors).

Ellis, Robert M. - Attended: Western Association of Art Museum meetings, Phoenix, Arizona, October; American Museum Association meetings, San Francisco, May.

Lazorik, Wayne R. - Attended the Society of Photographic Education meeting, Oakland, California, March.

Paak, Carl E. - Member of the American Craftsman Council. Attended the World Craft Congress meeting, Lima, Peru, summer 1968.

Ray, Kenneth - Member: National Sculptors Association; College Art Association. Attended meeting of the Institute of Industrial Designers, Kansas City, Missouri.

Rudisill, Richard - Attended: 1968 Organizational meeting Society of Photographic Collectors of North America, Athens, Ohio, October; The Society of Photographic Education meeting, Oakland, California, March.

Smith, Mary Elizabeth - Attended: Conference on Chavin Civilization, Dumbarton Oaks, Washington, D.C., October; College Art Association, Boston, January.

Smith, Sam - Member of Committee Z, American Association of University Professors.

Weisberg, Gabriel P. - Attended the Midwest College Art Conference, Minneapolis, October. Read paper on "Samuel Bing Patron of Art Nouveau."

7. Other professional activities

Adams, Clinton - Exhibited paintings and lithographs in juried and invitational exhibitions at the Brooklyn Museum (16th National Print Exhibition - Invitational), the Museum of Modern Art (Tamarind: Homage to Lithography), Museum of New Mexico, University Art Museum and elsewhere, including traveling exhibitions in Texas and California.

Antreasian, Garo Z. - Exhibits: Homage to Lithography, Museum of Modern Art; San Francisco Museum of Art; Los Angeles County Museum; San Diego Museum; University of Kentucky; University of Florida; Humboldt State College; Wichita Art Association; Faculty Exhibition, UNM Art Museum. One Man Exhibition, Martha Jackson Gallery, New York.

Coke, Van Deren - Lectures: February 1969, in observance of Founder's Day at the Marion Koogler McNay Art Institute, "John Marin in New Mexico." February 1969, Pratt Institute, "Concepts of Contemporary Photography." During April, May and June gave a series of lectures at St. Martin's School of Art, London, on Photography and its influence on painting. Also lectures on "The Use of Muybridge's Photographs by 19th and 20th Century Photographers," at the Institute of Contemporary Art, London, May; "Why the Photograph is a Major Source for Many Painters Today," Ealing Technical College, London and "Photographs--help or hinderance for painters," Derby University, England. Exhibitions: 5 prints in 13 Photographers, February, Pratt Institute, Brooklyn, New York; 35 prints, Focus Gallery, San Francisco, March; Faculty Exhibition, UNM Art Museum. The San Francisco Museum of Art acquired five photographs and the Oakland Museum acquired two.

Ellis, Robert M. - One Man Juror, 10th Annual Exhibition, Phoenix Museum, May. Designed catalog: Marin in New Mexico. In cooperation with Programa National Fronterizo, helped organize the exhibition "Colonial Art of Mexico" and designed the catalog. Supervised a series of eight spring lectures for Friends of Art - participated in two lecture programs. Faculty Exhibition, UNM Art Museum.

George, Douglas R. - Review of Albuquerque Museum exhibition, Walt Kuhn, in Albuquerque Tribune. Chosen to jury national art fellowship given by Alpha Delta Kappa (Honorary sorority for women educators) Kansas City, Missouri.

Hammersley, Frederick - One Man show, paintings, Faculty Exhibition, UNM Art Museum. Invitational shows: three computer drawings, University of Judaism, Los Angeles; twelve computer drawings, University of Illinois; twelve computer drawings, Institute of Contemporary Arts, London, England.

Howard, Milton B. - Exhibitions: "Three Cultures --Three Dimensions," The Museum of New Mexico, Santa Fe; The Gallery of Modern Art, Taos; Faculty Exhibition, UNM Art Museum.

Lazorik, Wayne R. - "9 Minnesota Photographers," The University of Minnesota, Minneapolis; Faculty Exhibition, UNM Art Museum.

Lewis, Ralph W. - Designed and executed tabernacle for an Albuquerque church. One man show of paintings, Unitarian Church. Invited participant of "New Mexico Painters," Museum of New Mexico, Santa Fe. Invited participant, University of Montana "Survey '69" painting exhibit, awarded one of five awards for latter. Invited to exhibition, Southern Utah College. Faculty Exhibition, UNM Art Museum.

Paak, Carl E. - National Invitational Ceramics Exhibit, Wichita, Kansas; National Invitational Craft Exhibit, University of New Mexico; Craft Exhibit, Museum of International Folk Art, Santa Fe; Albuquerque Designer Craftsmen State Craft Exhibit, Museum of Albuquerque; Faculty Exhibition, UNM Art Museum. One Man ceramic exhibit, Craft House, Taos. Judge for Five State Craft Show, Salt Lake City, Utah.

Ray, Kenneth - Color consultant, Gulf Products, Plastic Division. Pittsburgh Installation Design Light Display, Lake Geneva, Wisconsin. Exhibited: Mid-America, Art Museum, St. Louis, Missouri; Nelson Adkins Gallery, Kansas City, Missouri; Art USA, Oneonta, New York; Faculty Exhibition, UNM Art Museum. Two man show, Student Union Gallery, State University of New York, Stony Brook, New York.

Rudisill, Richard - Exhibitions: Photographs included in Faculty Exhibition, UNM Art Museum; "9 Minnesota Photographers," University of Minnesota, Minneapolis. Lectures: "Photography and Sentimentality," New Mexico Genealogical Society; "American Daguerreotype Portraiture," Sigma Alpha Iota Honorary Sorority, Albuquerque.

Smith, Sam - Lecture and demonstration to Telluride Art League, Telluride, Colorado, summer 1968. Purchase Prize, "Albuquerque I," Museum of Albuquerque; Invitational show, Museum of New Mexico, Santa Fe; Faculty Exhibition, UNM Art Museum. One painting now hanging in Santa Fe Capitol Building. Represented in Eight State Rocky Mountain traveling exhibition sponsored by the Federal Arts Commission, representing one of four New Mexico artists. Four paintings, Baker Galleries, Lubbock, Texas; two paintings, Artist Equity Exhibition, State Fair Grounds, Albuquerque; Second prize in sculpture, New Mexico State Fair Art Exhibition; Second prize, watercolor, Telluride, Colorado Coloride Exhibition; 2 paintings, Little Theatre, Albuquerque (invitation); Between twenty and thirty paintings on exhibition in the UNM complex. Juror: Albuquerque Youth Council Arts & Crafts Fair, Winrock Center; 14th Annual Show, Belen Art League. Large oil painting purchased by Alpha Chi Omega sorority.

Weisberg, Gabriel P. - Lecture at University of Texas, Austin on "Felix Bracquemond and Japonisme," November.

8. Non-teaching University service

Adams, Clinton - Dean, College of Fine Arts.

Antreasian, Garo Z. - Acting Chairman, Department of Art, Semester II. Committees: University Policy; Committee on Committees; R.O.T.C.; College of Fine Arts Policy; Museum Advisory. Graduate student advisor.

Coke, Van Deren - Chairman, Department of Art. Graduate student advisor.

Ellis, Robert M. - Committees: Department of Art Advisory; College of Fine Arts Advisory; Chairman of special committee on thesis procedures for Department of Art Advisory committee; UNM Faculty Publications Committee. Faculty advisor.

George, Douglas R. - Continuing Education Committee. Faculty advisor.

Hammersley, Frederick - Member of seven thesis committees, chairman of one.

Howard, Milton B. - Department of Art Advisory Committee. Faculty advisor.

Lazork, Wayne R. - Faculty advisor.

Lewis, Ralph W. - Member of Student Standards Committee; Department of Art Advisory Committee and the Department of Art committee on selection of graduates students and assistants. Monitored meeting, Self-Evaluation Day. Faculty advisor.

Paak, Carl E. - Member of the Board of the Harwood Foundation and Research Allocations Committee. Faculty advisor for art education students.

Ray, Kenneth - Member of the Department of Art committee on selection of graduate students and assistants. Faculty advisor.

Rudisill, Richard - Member of the Committee for American Studies; Department of Art Advisory Committee. Instrumental in arranging UNM purchase of the Labhard Collection of historical photographs. Faculty advisor.

Smith, Mary Elizabeth - Member of Committee on International Programs. Faculty advisor.

Smith, Sam - Chairman of Scholarship, Prizes, Loans and High School Relations Committee. Faculty advisor.

Weisberg, Gabriel P. - Member of the Library Committee; College of Fine Arts Library Committee and book purchaser for the Art library. Chairman of three thesis committees. Faculty advisor.

9. Public Service

Adams, Clinton - Member, Board of Directors, Opera Association of New Mexico.

Bunting, Bainbridge - Member of the Board: Albuquerque Museum; Verde Valley School, Sedona, Arizona; Society of Architectural Historians; and Architectural Review Board for Old Town, Albuquerque.

Coke, Van Deren - Vice President, Board of Trustees, International Folk Art Foundation. Exhibition of 50 photographs, Unitarian Church, Albuquerque.

George, Douglas R. - President, Albuquerque Pre-School Cooperative.

Paak, Carl E. - Vice President, Rocky Mountain Desert Art, Unitarian Church. Supervisor, Boy Scout Merit Badge in Ceramics.

10. Personal information

THE REPORT OF THE DEPARTMENT OF DRAMATIC ART

July 1, 1968 - June 30, 1969

Edwin Snapp, Chairman

I. GENERAL DEPARTMENTAL INFORMATION

A. SIGNIFICANT ACHIEVEMENTS DURING THE ACADEMIC YEAR
1968 - 1969

The Department of Drama's production of Jules Romain's 'DR. KNOCK' was selected by regional judges to represent the state of New Mexico in the American College Theatre Festival. The entire production, including scenery, costumes, cast, crews, and participating faculty members were transported to Fort Worth, Texas for a five-day festival with other representatives of theatre departments from Texas, Oklahoma, Louisiana and Arkansas. In addition to presenting their own production of DR. KNOCK, our Drama students were able to view the other college theatre productions, to take part in critiques and to discuss their work with other collegiate players. It was probably one of the finest teaching-learning situations that a Department of Drama could offer its students. Funds which made it possible for the Department to participate in the American College Theatre Festival were provided by the College of Fine Arts and the Office of Development of The University of New Mexico.

There were no new Departmental organizations, offerings or emphases during the academic year.

B. SIGNIFICANT PLANS AND RECOMMENDATIONS FOR THE NEAR FUTURE

It was requested last year that the University Architects, University Safety Inspector, and the Department Manager of the University Physical Plant conduct a thorough inspection of the University Theatre building to determine its current stability and safety for occupancy as a classroom and theatre. Although a lighting batten was installed in the theatre auditorium by the Physical Plant during the current year, there is no indication that any safety inspection has ever been made of the theatre's rigging equipment or structural defects. It is urgently requested that such an inspection be conducted without delay and that necessary repairs and equipment replacements be made prior to the fall session.

It is also urgently requested that paint and plaster repairs to the building be made so as to keep it as attractive and presentable as possible for our student and community audiences.

C. APPOINTMENTS TO STAFF

None

D. SEPARATIONS FROM STAFF

None

II. COMPOSITE OF INFORMATION REQUESTED ON INDIVIDUAL BIOGRAPHICAL SUPPLEMENTS

1. Advanced Study

None

2. Sabbaticals, Leaves of Absence, Summer Teaching Elsewhere, Travel, etc., During the Period

YELL, Joseph E., Jr.

Producer-Owner of Garrett County Playhouse (Oakland, Maryland, July, August). Produced eight plays in an eight week season. Employed seven UNM Drama Majors.

3. New Scholastic Honors, Fellowships, etc.

None

4. Publications

None

5. Other Research Projects for Creative Work in Progress or Completed During the Period

None

6. Activities in Learned or Professional Societies

SNAPP, Robert E.

Member - New Mexico Theatre Guild. Corporate Member of American National Theatre and Academy. Member of the American Educational Theatre Association and National Theatre Conference.

YELL, Joseph E., Jr.

Member - American Association of University Professors. Member - Local UNM Chapter of AAUP. Member - American Educational Theatre Association. Member - Children's Theatre Conference.

SIRKEL, Carolyn A.

Member - American Association of University Professors. Member - Local UNM Chapter of AAUP. Member -

American Educational Theatre Association. Member - Children's Theatre Conference.

7. Other Professional Activities

The Department of Drama again offered theatre-goers of both the student body and community a varied and stimulating theatre program.

DR. KNOCK, by Jules Romains, directed by Gene Yell; BECKET, by Jean Anouilh, directed by Edwin Snapp; VOLPONE by Ben Jonson (adapted by Stefan Zweig), directed by Edwin Snapp; WONDERFUL TOWN (a musical, Bernstein, Comden, Green), in conjunction with the University of New Mexico Department of Music, directed by Gene Yell of the Drama Department, and Thomas Philips, Department of Music.

Scene design and technical direction of the plays were handled by Emil Schulte; Costumes by Carolyn Sirkel; Lighting and Make-up were provided by Nadene Blackburn. Each of the productions ran for six performances in the University Theatre, with the exception of the musical, WONDERFUL TOWN, which ran for three performances in the Popejoy Concert Hall.

An important part of the Department of Drama's service to the community at large is its Children's Theatre production. This past year the presentation was FLIBBERTYGIBBET. The play was directed by Gene Yell; Scene design, mounting, construction, and shifting were the responsibility of Emil Schulte; Nadene Blackburn was in charge of lighting and make-up; Costumes were by Carolyn Sirkel.

The Student Workshop Theatre, under the supervision of Edwin Snapp, presented the following productions: Anton Checkov's THE FORCED TRAGEDIAN, directed by Susan Gregg; Eugene Ionesco's MAID TO MARRY, directed by Milburn Mehlhop; 4 AND 90 BLACKBIRDS, an original play written and directed by Milburn Mehlhop; Tennessee Williams' 27 WAGONS FULL OF COTTON, directed by Susan Gregg; Anton Checkov's THE BOOR, directed by Susan Gregg; John Hawkes' THE WAX MUSEUM, directed by Milburn Mehlhop; DR. BURKE AND THE PHAROAH OF EGYPT, an original play by James Florian (UNM student) directed by Susan Gregg; AFTERNOON, written and directed by Milburn Mehlhop; Alice Gerstenberg's OVERTONES, directed by Myrna Smyer; 101 WAYS TO PLAY SOLITAIRE AND OTHER GAMES OF CHANCE, written and directed by Milburn Mehlhop; and THERE STANDS IGNAQIO, an original by Lee Schaefer, directed by Susan Gregg.

The lighting for the plays was supervised by Nadene Blackburn. Each of the productions ran for three performances and were open to the public. Four of the Student Workshop Theatre productions, THE FORCED TRAGEDIAN, 4 AND 90 BLACKBIRDS, MAID TO MARRY, and 27 WAGONS FULL OF COTTON were later presented on tour at Valley High School in Albuquerque for one performance and at the Institute of Mining and Technology in Socorro for two performances.

8. Non-Teaching University Service

SNAPP, Robert E.

College of Fine Arts Policy Committee, Fine Arts
Advancement Committee, Fine Arts Library Committee, Executive

Director of the University Theatre.

YELL, Joseph E., Jr.

University College Advisor, Concert Hall Board
Committee, Cultural Committee, AAUP Faculty Club, High School
Senior Day.

BLACKBURN, Nadene S.

Advisor to Drama Department students, Chairman of
Department hospitality, State Thespian Festival Planning
Committee.

SIRKEL, Carolyn A.

Fine Arts College Advisor.

SCHULTE, Emil F.

Design of setting for fund raising film for United
Community Fund of Albuquerque.

9. Public Service

YELL, Joseph E., Jr.

Judge - Miss Star Contest, Judge - Stunt Night.

10. Personal Information

None

The Report of the Department of Music
July 1, 1968 - June 30, 1969
Walter B. Keller, Chairman

I. General departmental information

A. Significant achievements during the academic year,
1968-69

1. The most conspicuous phase of the department's activities during the year has been the outstanding series of performances by student groups, individual students, faculty members, and visiting artists. There can be little doubt as to the inspirational value of hearing fine performances by professionals in the field. There is no question in the collective thinking of the department as to the great importance of student performance as a learning process in music. The fact that these performances also impress the audiences from the community, which all too often have been smaller than hoped for, is not to be discredited. It can only add prestige to the department as a teaching institution and to the image of the university as a whole in the community. But in the long run it is the benefit which accrues to the student that justifies the time and energy expended on preparing for public performances of which the department can be proud.

The large music organizations presented an excellent series of concerts on campus in Popejoy Hall. The University

Orchestra, directed by Professor Kurt Frederick, gave three concerts, two of which featured department faculty members Mauricio Fuks and Joanna de Keyser, respectively, as soloists. The third concert presented the outstanding violist Martha Strongin-Katz as guest soloist. Her appearance, which was sponsored by the Cultural Committee and the Associated Students, was an educational experience for the students in the orchestra as well as an exciting musical reward for those in the audience.

The University Chorus presented a varied Christmas program under the direction of Dr. Douglas McEwen and also a concert of large scale choral works assisted by the University Orchestra and directed by Dr. McEwen, as the final musical event of the school year.

Professor William Rhoads presented the UNM Concert Band in three concerts during the winter and spring season. This year's band represents one of the best groups the department has ever had, and Mr. Rhoads has had the foresight to have a commercial recording produced to preserve its outstanding performances.

Student groups performing in the Recital Hall have included two programs by Dr. McEwen's a cappella choir and two programs by the Chamber Orchestra, under the baton of Dr. Frederick and both featuring faculty and student soloists. The UNM Stage Band, directed by student Ernest Kazmier, gave a concert which starred former UNM student, Bobby Shew. The Stage Band also served during the basketball season as a pep band.

Finally, two performances of a more theatrical nature produced by student groups included a three-night run of Elizabeth Waters' dance workshop and four performances of Menotti's "Old Maid and the Thief" in a highly imaginative production staged by the University Opera Studio under the direction of Professor Thomas Philips.

In the category of solo performances by students, there were thirty-one junior, senior, and graduate recitals during the year. Faculty members presented a total of eight scholarship benefit recitals during the season with the proceeds deposited in the department's scholarship fund to aid new students.

Concerts performed in the recital hall but presenting outside talent included three programs sponsored jointly by the department and the New Mexico Arts Commission. Unfortunately, these represented something of a financial loss to the department but were of extremely high musical calibre. The problem of obtaining adequate publicity is felt to be partly responsible for the poor turn out. The series included the Concentus Musicus of Vienna, the Czech Nonet, and the violin-harpsichord team of Sonya Monasoff and James Weaver. Two organ recitals were sponsored by the department, one by local organist Lois McLeod, the other by Anton Heiller of Vienna. Mr. Heiller also presented a most valuable workshop for organ students.

Other visiting lecturers and artist-teachers sponsored

by the department were Gardner Read, professor of music at Boston University, who gave an illustrated lecture on "The Dilemma of Modern Notation," and John Barrows, of the University of Wisconsin, who gave a master class in horn.

2. An innovation in the music department's series of performances instituted this year has been the television series "Performance UNM," directed by Professor Thomas Philips and broadcast by KNME-TV. Assisting in the programs were several faculty members and students. These thirty-minute programs, presented weekly with two reruns of each, were meant to disseminate to a wider audience the activities in the performance area of the music department. Some evidence has been received that the programs were quite successful in their purpose.

Other off-campus music performances have been appearances by the A Cappella Choir in Los Alamos and at several schools and churches in Albuquerque, by the Chamber Orchestra in Los Alamos and Santa Fe (twice), by the University Orchestra in Santa Fe and Socorro, and by a student woodwind quintet, coached by Mr. James Thornton, at the regional convention of the Music Educators National Conference in St. Louis.

Although it may be questioned whether the off-campus performances by student groups can be considered instructional as distinct from being of publicity value, it is the belief of

the department that such performances do indeed contribute to the student's broad indoctrination into the role of music in society. In the case of participation at conventions of professional music organizations, there is the additional benefit of exposure to the work of comparable groups and to the discussions generally associated with such meetings.

3. The music department has continued to serve the cause of public education in several ways. Along with the Albuquerque public schools it has co-sponsored the Albuquerque Youth Symphony. It served again as host to the All-State Music Festival in January. In October it sponsored a two-day string clinic in coordination with the first concert of the UNM Orchestra. In the late summer of 1968 it held a clinic for choral conductors from high schools around the state. In mid-spring it offered a workshop for elementary school teachers with Barbara Grenoble, of Denver, presenting the teaching ideas of Carl Orff and Zoltan Kodally. In early June, 1969, it presented a one-week string teachers workshop endorsed by the American String Teachers Association and coordinated by Professor Paul Rolland of the University of Illinois, assisted by Josef Gingold of Indiana University, Agnes Vadas of the University of Texas, Wiley Weaver of the Dallas Symphony, and members of the department string faculty.

4. Aside from the pronounced emphasis on performance in the department described above, certain innovations in teaching have been introduced for the first time this year. One of these is the remedial course in music theory which is designed to develop a strong foundation in the rudiments of music for those students with weak backgrounds. It is anticipated that this will be of great help in reducing the attrition rate in the normal first year theory course.

Another experimental course has been the workshop in comprehensive musicianship, a loosely structured course for teachers already active in the public schools. Through a variety of methods such as demonstrations, lectures, and open discussions, the various aspects of musicianship were studied. Supported by Ford Foundation funds, the program was supervised by Professors Stephenson and McRae. Practically all the members of the department faculty contributed to making this project a meaningful experience for those enrolled.

5. In line with a general trend across the campus, a departmental student organization has begun to take shape. In the course of a series of open meetings, a committee of three students was elected to serve as a line of communication between students and faculty. It is believed that the nucleus of students seriously concerned with the general policies of the department will be of benefit in the future planning

of the department, and revised committee structures already show more student membership on department committees.

6. The Friends of Music completed its first year of activity and more than met its commitment to the scholarship fund for the year. At the May 2 orchestra concert, Kurt Kubie, president of the Friends of Music, presented to the chairman of the department a check of \$1075 for scholarship aid for thirteen freshmen currently enrolled, and a second check of \$2500 to be reserved for freshman music majors entering the university in the fall of 1969.

B. Significant plans and recommendations for the near future

1. Having achieved great momentum in the areas of performance, the department will now focus on improved advising procedures for all students, and graduate students in particular.

2. As a result of student criticisms and suggestions, the curricula and contents of courses will be reviewed by student-faculty committees assigned for the purpose.

3. A series of student-faculty forums has been recommended to discuss all aspects of policy in the department. It

is not the department's feeling that jurisdiction over these matters ought to be handed to students, but rather that free communication between faculty/administration and students probably can eliminate some sources of unrest and discontent.

4. A significant experiment to be conducted in the coming year consists of the hiring of specially qualified public school teachers and professional musicians as part-time lecturers in music to teach applied music in certain areas, namely trombone, horn, and oboe. At best this is a stop-gap measure and does not completely cover the areas of specialization in performance. The need for a composer to develop the interest present, but latent, in creative writing is no less urgent than a year ago.

5. There's a desperate need for better publicity of the music department's performances. Newspaper coverage has been inadequate and other media have done little to announce or review these activities. All avenues which might improve this situation will be thoroughly explored.

6. There is still a great need to win friends and attract students from around the state. Sending performing groups to other schools and communities can help. The new faculty appointments already made for next year will enable the department

to have two exceptionally fine faculty chamber music groups which can be utilized as a showcase for advertising the school.

7. In the same vein, both the university orchestra and the university band have been invited to represent the southwest region at the national meeting of the Music Educators National Conference in Chicago in the spring of 1970. Whether funds can be found to send one or the other of the groups is still to be seen.

8. A serious problem which the department will have to face in the coming year will be the selection of a chairman to succeed the present chairman, whose term of office as originally agreed upon will expire June 30, 1970. It is the hope of the present chairman that operating procedures can be organized to a smoother routine during the next year so that fewer ad hoc decisions will be needed to keep the department functioning.

C. Appointments to the staff

The following persons were appointed to the teaching staff beginning their teaching duties in September, 1968.

- a. Thomas Philips, professor of voice and opera
- b. Mauricio Fuks, assistant professor of violin

D. Separations from the staff

1. The following persons have resigned from the teaching staff as of the end of the 1968-69 academic year:

- a. Professor Joseph Blankenship, who has accepted the post of Dean of the Conservatory of Music of the University of Missouri at Kansas City.
- b. Associate Professor Douglas McEwen, who has accepted a post as Choral Director at Arizona State University.
- c. Associate Professor James Thornton, who has accepted a position at Illinois State University.

2. Assistant Professor Mauricio Fuks will terminate his employment in the department as of June 30, 1969, having served one year on the faculty.

3. Ralph Mirabal will terminate his employment as recording technician (part time) on June 30.

II. Composite of information requested on individual biographical supplements

1. Advanced study

Hector Garcia: advanced master classes with Maestro Emilio Pujol, musicologist, in Lerida, Spain.

2. Sabbaticals, leaves of absence, summer teaching elsewhere, etc.

John Batcheller: travel in Canada and Mexico; taught extension seminar in Belen, N.M.; taught course in pre-school music at Aspen, Colorado.

Joanna de Keyser: taught chamber music at University of Southern California in summer 1968. Travel in Europe concertizing (see item 7).

Hector Garcia: travel in Spain

Thomas Philips: travel to East Coast in December and June.

George Robert: travel to Aspen for Music Festival.

Jane Snow: travel to Aspen, Boston, North Carolina.

Elizabeth Waters: travel to Aspen for Music Festival; to Ashland, Oregon, for Shakespeare Festival; Canada.

James Whitlow: taught at Hobbs Music Camp.

3. New scholastic honors, etc.

William Rhoads was accepted into membership of the American Society of Composers, Authors, and Publishers.

Wesley Selby and William Seymour were elected into membership of Alpha Chi Chapter of Pi Kappa Lambda.

4. Publications

William Rhoads: "Gentle Ballad," for band. Pittsburgh: Volkwein Bros. "Mazatlan," for band. San Antonio: Southern Music. "Lament and March," for band. San Antonio: Southern Music.

James Thornton: "Make a Choir out of Woodwinds," in Music Educators Journal, Vol. 55, No. 6 (Feb. 1969).

5. Other research projects

Joseph Blankenship: Research project in progress: "The Administrative Structure of College Music."

Hector Garcia is in the process of writing a book "Introduction to the Classical Guitar," is transcribing music of the 15th and 16th centuries written for guitar and vihuela, and has composed several works for solo guitar and for guitar and orchestra.

Douglas McEwen is preparing for publication "With a Voice of Praise and Thanksgiving," introduction and chorus by Handel-McEwen.

Donald McRae and Jack Stephenson have served as directors of the Contemporary Music Project for Creativity in Music Education (second year of a Ford Foundation Grant).

Hugh Miller has written "Keynotes Introduction to Music" to be published by Barnes and Noble, Inc., in their Keynotes Series.

Thomas Philips is in the process of re-orchestrating Donizetti's "Le Convenienze ed Inconvenienze teatrali."

William Rhoads has prepared for publication by Le-Blanc two pieces for woodwind choir: "Caprice" and "Tarantella."

James Thornton has prepared for publication by G. Schirmer a band arrangement of "Poem," for flute and orchestra by Charles Griffes.

6. Activities in learned and professional societies

Joseph Blankenship has served as national vice-president of Pi Kappa Lambda, and as a member of the Board of Regents and the Publications Committee. Attended national conventions of NASM in Washington, D.C. and MTNA in Cincinnati.

Walter Keller attended annual meeting of National Association of Music Executives in State Universities, Colorado Springs.

Thomas Philips attended the meeting of The National Opera Association, Los Angeles.

Wesley Selby served the American Guild of Organists as State Chairman, Board Member of the Albuquerque Chapter, and as nominee to the National Council.

William Seymour participated in the southwest division of MENC convention in St. Louis and served as moderator for the Reading Program of the NMMTA convention in Las Vegas, N.M.

James Thornton presented the UNM woodwind quintet in a demonstration-recital at the SW Division convention of MENC in St. Louis.

7. Other professional activities (a. music performances,

b. lectures, c. adjudication, d. miscellaneous professional activities)

a. Music performances

Frank Bowen: solo flutist with UNM Chamber Orchestra and Albuquerque Symphony. Two programs on KNME-TV series. Two faculty recitals. Principal flutist with ASO for 1968-69 season. Concert in Arroyo Seco.

Joanna de Keyser: recorded for BBC in London, Radio VARA in Holland. Recital in Oslo. Soloist with orchestras in Arizona, Colorado, California, Georgia, Illinois, Indiana, Kansas, Louisiana, Michigan, Minnesota, Ohio, South Dakota. In New Mexico: soloist with Albuquerque Symphony, UNM Orchestra (two programs)

- in Albuquerque, Santa Fe, Socorro. Solo recitals in Albuquerque and Alamogordo. Faculty Trio Recital. School concert in Cuba, New Mexico.
- Kurt Frederick: conducted three concerts of UNM Orchestra on campus and two out of town (Santa Fe, Socorro); four concerts with UNM Chamber Orchestra in Albuquerque and also concerts in Los Alamos and Pojoaque. Four programs with UNM Chamber Orchestra on KNME-TV series. Three concerts with Albuquerque Chamber Orchestra. Guest conductor: All-City High School Orchestra in Denver and Lincoln Nebraska; All-State Orchestra of Wyoming.
- Hector Garcia: numerous concerts and lectures on the guitar for schools. Solo recital at UNM. Soloist with Albuquerque Chamber Orchestra.
- Walter Keller: harpsichord soloist with UNM Chamber Orchestra. Two programs on KNME-TV series. Harpsichordist in two joint recitals with Andrew Bolutowsky, flutist. Faculty recital with Frank Bowen. Directed Albuquerque Early Music Ensemble in program for national convention of Music Library Association.
- Douglas McEwen: Conducted two concerts of the A Cappella Choir on UNM campus, two concerts with same group in the city, one in Los Alamos. Two concerts of University Chorus in Popejoy Hall. Directed Chamber Singers on KNME-TV series. Guest conductor: twenty engagements as conductor of choral festivals in California, Colorado, Illinois, Iowa, Minnesota, Nebraska, New Mexico, North Dakota, Oklahoma, Texas, Wisconsin, and Wyoming.
- Donald McRae: music director and baritone soloist, Temple Albert (Albuquerque). Three concerts and five special services beyond weekly services.
- Thomas Philips: directed UNM opera studio production of Menotti's "The Old Maid and the Thief" (4 performances). Directed sixteen programs for KNME-TV of "Performance - New Mexico." Musical director of Bernstein's "Wonderful Town" (3 performances) in collaboration with the department of drama.
- William Rhoads: conducted three performances of UNM Concert Band on campus. Guest conductor at University of Pacific, Stockton, California, and in Texas. Directed workshops in El Paso, Texas, and Emporia, Kansas
- George Robert: joint recitals with Agnes Vadas, Mauricio Fuks (2) and Joanna de Keyser (4). Duo-piano recital with Morton Schoenfeld. Three concerts with Amadeus Trio (UNM faculty trio); accompanist for four concerts in Farmington and Albuquerque.

Morton Schoenfeld: solo piano recital (faculty series); joint recital with Frank Bowen; duo-piano recital with George Robert; three other chamber music recitals in Albuquerque and Arroyo Seco.

Wesley Selby: solo organ recital at UNM; soloist with UNM Orchestra; keyboard player for Albuquerque Symphony Orchestra. Organ soloist with Albuquerque Chamber Orchestra.

William Seymour: three piano recitals in St. Louis, Missouri, and Springfield, Illinois.

Jane Snow: joint recitals (with Jeanne Grealish, mezzo-soprano) in New Mexico (under Title I project), in Boston, Raleigh, North Carolina, Chicago (SAI National Convention), Albuquerque (National Federation of Music Clubs convention). Two programs on campus (faculty series). KNME-TV series (one program).

James Thornton: faculty recital; two programs for KNME-TV series.

Elizabeth Waters: directed annual dance workshop program on campus. Choreography for Albuquerque Symphony Children's series. Program for KNME-TV series.

James Whitlow: faculty recital. Guest soloist at High Schools in Albuquerque, Clovis. Guest clinician in Colorado, Texas, New Mexico. Youth Concerts in New Mexico.

b. Lectures

John Batcheller: panel member at State Teachers Convention, lecture for ASO women's association. Key-note speaker and lecture-demonstrations at Kansas Music Educators convention.

Walter Keller: lecture for Albuquerque Chapter of American Guild of Organists.

Thomas Philips: lectures for ASO women's association, Santa Fe Opera Guild, National Federation of Women's clubs.

Morton Schoenfeld: lecture recital for Friends of Music.

Jane Snow: lecture recital at Meredith College, Department of Music.

Elizabeth Waters: lecture demonstrations (two) for Albuquerque Public Schools

c. Adjudication

Frank Bowen: Texas Solo and Ensemble Festival, El Paso. District 7 Music Festival, Albuquerque.

Douglas McEwen: Arizona State Choral Festival, Tempe.
 Albuquerque Baptist Choral Festival.
 Kurt Frederick: Young Artists Competition, National
 Federation of Music Clubs.
 Donald McRae: New Mexico Music Educators Association.
 Thomas Philips: Young Artists Competition, National
 Federation of Music Clubs.
 Jane Snow: New Mexico Music Educators, Gallup. Young Ar-
 tist Competition, National Federation of Music Clubs.

d. Miscellaneous professional activities

Jack Stephenson: served as general chairman and coor-
 dinator of New Mexico All-State Festival. Chairman
 of New Mexico String Clinic. Director and coordinator
 of American String Teachers Association workshop.

8. Non-teaching university service

John Batcheller: member of Popejoy Hall board; secre-
 tary of music department faculty; curriculum committee.
 Frank Bowen: student recital committee; theory barrier
 committee (ad hoc).
 Joanna de Keyser: applied music committee
 Kurt Frederick: Cultural Committee
 Walter Keller: Chairman, Department of Music; Fine
 Arts College Policy Committee; General Honors
 Council.
 Douglas McEwen: Department of Music administrative
 committee; Fine Arts College Policy Committee.
 Donald McRae: Assistant Dean, College of Fine Arts.
 Acting Dean, Semester I. Music department adminis-
 trative committee; Fine Arts College Policy
 Committee, scholarship committee.
 Hugh Miller: graduate committee; Fine Arts College
 and music department graduate committees.
 George Robert: music department administrative
 committee, theory coordinator.
 Morton Schoenfeld: Music Performance Awards Committee
 chairman; Friends of Music Liaison Committee, chair-
 man; Clayton-Barber selection committee.
 Wesley Selby: applied music committee.
 William Seymour: applied music committee; music de-
 partment student-faculty committee.
 Jane Snow: Department of Music Scholarship Committee;
 applied music committee; faculty advisor for Sigma
 Alpha Iota;

Jack Stephenson: Committee on the University; music department administrative committee; committee on recruitment; College of Education liaison.

James Thornton: music department administrative committee; ad hoc committee under Scholarships, Prizes, and High School Relations.

James Whitlow: faculty advisor to Phi Mu Alpha Sinfonia.

9. Public Service

John Batcheller: board member, Santa Fe Opera Guild, Albuquerque Community Concert Association.

Kurt Frederick: board member, Albuquerque Community Concert Association.

Walter Keller: board member, Friends of Music, Albuquerque Youth Symphony, Albuquerque Symphony Orchestra.

Donald McRae: Community Chest coordinator, College of Fine Arts

Morton Schoenfeld: board member, Friends of Music.

REPORT OF THE UNIVERSITY ART MUSEUM

July 1, 1968 - June 30, 1969

Robert M. Ellis, Director

Robert M. Ellis served as Director during 1968-69. Mrs. Louise M. Lewis continued as Curator. Mrs. Madelyn Kempf succeeded Mrs. Louise G. Carter as Museum Secretary, Ronald V. Potee served as Preparator and Sterling Coke and Robert Diercks were Graduate Assistants.

There were fourteen exhibitions during 1968-69 in the Museum. Attendance was 33,053, a decrease from the previous year of 13,972. However, during the previous year the sixth grade classes of all the Albuquerque public schools included a visit to the Museum as a part of their art curriculum. Attendance for 1966-67 was 32,641.

The Museum was open 223 days during 1968-69 and there was a total of 90 tours.

Exhibitions

Ward Lockwood--summer exhibition. This was a retrospective exhibition of the paintings, prints and drawings of Ward Lockwood, a Taos artist who died in 1963, organized by the University of Texas. One hundred and fourteen works were shown.

Architectural Photography--September 15 - October 6. This exhibition included 75 representative photographs by twelve internationally famous

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architectural photographers illustrating current trends in building by prominent contemporary architects throughout the country.

Nineteenth Century French Lithographs--Upper Gallery, October 13 - November 3. An exhibition of nearly 100 prints, this was the first major showing of the Museum's study collection emphasizing this important field of print making. Included were works by Delacroix, Daumier, Redon, Picasso, Bonnard, Toulouse-Lautrec and Cezanne. The exhibition traced the development of the medium in France during the nineteenth century. The University Art Museum Bulletin Number 3 catalogued the exhibition.

Selections from the Permanent Collection--Lower Gallery, September 15 - November 10. Many of the recent acquisitions of the Museum were exhibited. Various works were changed during the exhibition to show more of the collection.

Fifth Annual Purchase Exhibition--Upper Gallery, November 11 - 30. A selection of works of art for purchase by collectors and art lovers. Over 75 drawings, prints and paintings were assembled from galleries in New York, Los Angeles and New Mexico and included such artists as Picasso, Renoir, Bellows, Dürer and Daumier.

Marin in New Mexico--Lower Gallery, November 18 - December 29. A major exhibition of watercolors painted by John Marin in New Mexico during 1929-30. Van Deren Coke organized the exhibition and wrote the essay for the catalog documenting this period of Marin's work. The exhibition travelled to the Marion Koogler McNay Art Institute in San Antonio and to the Amon Carter Museum in Fort Worth after its showing here.

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Colonial Art of Mexico--Upper Gallery, December 8 - January 30. An exhibition of the painting, sculpture and architecture of Mexico from the seventeenth and eighteenth centuries. All works were loaned to the Museum from Mexican Government collections. The exhibition was organized by the Programa Nacional Fronterizo of Mexico in collaboration with the University Art Museum and was shown at four museums in the United States and is to be shown at the Museo de Arte e Historia de Cd. Juarez in Mexico during September and October 1969. A catalog for the exhibition was prepared and published by the University Art Museum.

Sources for Tomorrow--February 2 - March 2. This exhibition, organized by the Smithsonian Institution, was a selection of fifty works by Americans dating between 1946 and 1966 from the Michener Foundation Collection representing two decades important in the development of new directions and leaders in American art. Works of Albers, Bischoff, Dine, Francis, Graves, Hofmann, Indiana, Kline, Louis, Morris, and Rivers, among others, were included. A 48-page catalog with photographs prepared by the Smithsonian Institution accompanied the exhibition.

Photographic Processes: A Historical Survey--February 16 - March 30. An exhibition organized by Richard Rudisill of the Art Department showing examples of various photographic processes from the nineteenth and twentieth centuries.

Annual UNM Faculty Exhibition--Upper Gallery, March 9 - 30. Twenty artist-teachers from the faculty of the UNM Art Department were represented. Those

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whose works were shown were Clinton Adams, Garo Antreasian, Ilya Bolotowsky, Frank Boyden, Frank Van Deren Coke, Robert Ellis, Fred Hammersley, Milton Howard, John Kacere, Wayne Lazorik, Ralph Lewis, Charles Mattox, Kenneth Ray, David Rodgers, Richard Rudisill, Carl Paak, Sam Smith; and Professors Emeriti Ralph Douglass and Raymond Jonson. Their works were of a number of different media. A special exhibition of the work of Fred Hammersley, Visiting Painter, was held in one section of the gallery and a checklist of his work was prepared by the Museum staff.

Bauhaus--April 8 - May 4. This exhibition was organized by the Foreign Office of the German Federal Republic to cover the ideas and work, the spirit and life at the Bauhaus during the years 1919 - 1933. Consisting primarily of photographs, the exhibition was accompanied by a catalog prepared by the German Foreign Office. A checklist for the exhibition was prepared by the Museum staff.

Master's Thesis Exhibition 1969--April 27 - May 4, May 11 - 18, June 22 - 29. The works of twelve students, candidates for the Master of Arts degree at UNM, were shown. Sculpture, painting, drawings and other media were included.

Young Americans 1969--Upper Gallery, May 28 - June 15. Sponsored and organized by the American Craftsmen's Council, this exhibition was a juried selection from national competition covering a wide range of activity in the crafts among young people between twenty and thirty years old. The show opened here to coincide with the sixth national conference of the American

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Craftsmen's Council held in Albuquerque and is subsequently being shown during the summer months at the Museum of Contemporary Crafts in New York City.

Annual Student Exhibition--Lower Gallery, May 30 - June 28. The exhibition of works by students in the UNM Department of Art was juried this year by Mr. Ulfert Wilke, Director of the Art Museum at the University of Iowa. Mr. Wilke is a distinguished painter, calligrapher and collector. He awarded prizes in painting, drawing, print making, sculpture, photography, ceramics and jewelry.

The Young Photographers exhibition organized by Van Deren Coke in 1967 and first shown at the UNM Art Museum continued to travel this year and was shown at the University of South Carolina, Indiana University, the Wisconsin Art Center in Madison, Murray State College in Kentucky, Mills College, Washington University and the University of Florida. The exhibition will have two or three more showings on the west coast before its tour ends.

Publications

The Museum published one Bulletin, two catalogs and two checklists during 1968-69. Copies are attached to this report.

Bulletin Number 3, Fall 1968. This issue of the Bulletin is devoted primarily to the University's collection of nineteenth century French lithographs with a monograph by Louise Lewis, Curator. It was published

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on the occasion of the exhibition Nineteenth Century French Lithographs and includes photographs of 23 works in the exhibition. (24 pp., 23 black and white illustrations.)

Marin in New Mexico/1929 & 1930. Designed by Robert M. Ellis with a text by Van Deren Coke, the catalog lists the paintings in the exhibition held at the Museum and other paintings done in New Mexico by John Marin. The catalog is illustrated with a number of photographs. (32 pp., 24 black and white and 3 color illustrations.)

Colonial Art of Mexico. Introduction by Felipe Lacouture, Architect, Museo de Arte e Historia de Cd. Juarez, text on the paintings in the exhibition by Lic. Gonzalo Obregon, National Institute of Anthropology and History. Text in Spanish and English. Catalog design by Robert M. Ellis. (36 pp., 24 black and white and 2 color illustrations.)

Frederick Hammersley. Checklist, Annual UNM Faculty Exhibition. Text and biographical notes by Louise M. Lewis, Curator. (6 pp., 2 illustrations, black, white and grey.)

Bauhaus. Checklist. A fold-out poster designed by Robert M. Ellis with illustrations and information on the Bauhaus period and influence. Research for the checklist by Museum Docents. The checklist was distributed to Albuquerque public school teachers and accompanied the exhibition shown at the Museum in the spring.

New Acquisitions

One hundred-sixty-seven works were added to the Museum's permanent collection. Notable among them are the following:

Three gifts from the Friends of Art: an oil by Marguerite Zorach, Women in Garden, 1918; George Ault, Jefferson Market Tower, 1927, a watercolor; and a lithograph, River Front, 1924, by George Bellows.

Ansel Adams, Twenty Photographs (taken in New Mexico). Gift of the artist.

O. E. Berninghaus, Cottonwood River Ranch. Oil. Gift of Mr. and Mrs. J. P. Brandenburg of Taos.

Hans Hokanson, Fool's Tool. Sculpture. Gift of Mrs. Margaret Schultz, New York City.

Charles Mattox, Blue Harp. Sculpture. Gift of Mrs. Dorothy Newmark, California.

Pissaro, Baigneuses a l'ombre des berges boisees. Lithograph, 1895. Purchase.

Robert Rauschenberg, The Blue Cloud. Lithograph, 1967. Purchase.

Steinlen, La Rue. Lithograph, 1896. Purchase.

Friends of Art

The Friends of Art showed continued growth. Two fund raising events were held by them: "Buck Bohemia" in November of 1968, and a spring tea with a sale of student art work in May, raising \$1200 and \$150 respectively for their purchase fund.

Three thousand dollars was voted for the Friends of Art Purchase Fund. This represented a considerable increase over 1967's purchase fund of \$600. The funds were used for the purchase of three gifts to the University Art Museum, listed above under New Acquisitions. The Friends of Art also voted

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\$150 to the Museum's Docent Program for costs of preparing the Bauhaus Checklist.

A series of eight lectures, "Confrontation - 1969", was sponsored and organized by the Friends of Art and was held during the spring semester. Speakers were Louise Lewis, Curator, Art Museum; Clinton Adams, Dean, College of Fine Arts; Don Schlegel, Acting Chairman, Department of Architecture; Milton Howard and Carl Paak, Art Department; Donald Robb, Dean Emeritus, College of Fine Arts; Henry Ellis, Department of Psychology; and Robert M. Ellis, Director, Art Museum. The lectures concerned a variety of aspects of contemporary art, including music.

Receptions were held for the openings of five exhibitions at the Museum.

COLLEGE OF NURSING

There is no Annual Report for the College of Nursing
for the years 1967-68 and 1968-69.

The Report of the College of Pharmacy

July 1, 1968 - June 30, 1969

Elmon L. Cataline, Dean

I. General College Information

A. Significant College Information

1. Pursuant to the deferment of the imposition of probationary status in regard to the continuation of the accreditation of the College of Pharmacy by the American Council on Pharmaceutical Education in June, 1968, the College, with the support of the administration, has made real progress during the year.

a. New Courses.

Since a part of the Council's concern was with the limited number of courses offered by the College, a decided effort has been made to improve this phase of the College's program. The following courses were either instituted during the year or approved for the year 1969-70:

Pharmacy 380. Veterinary Medicine. 1 semester hour

This course is taught by a Doctor of Veterinary medicine who is also a graduate of a college of pharmacy.

Pharmacy 450. Hospital Pharmacy. 3 semester hours

Five local chief pharmacists are involved in the teaching of this course. A regular faculty member is the coordinator.

Pharmacy Administration 421. Pharmacy Record Keeping and Financial Analysis. 3 semester hours

This course will round out the offerings in Pharmacy Administration.

Pharmacology 479. Psychopharmacology. 1 semester hour

This course will be elective. It will deal with a most important segment of pharmacology which has been slighted in our program heretofore.

b. The Continuing Education Program.

The appointment to the faculty of a man trained in Pharmacy Administration and with a definite interest in developing a program of continuing education has already paid handsome dividends. The first seminar was held on April 21-22, 1969. The subject was "New Drugs" which were discussed from the chemical standpoint by Dr. Kenneth H. Stahl, Associate Professor of Pharmaceutical Chemistry, and from the pharmacological point of view by Mr. Gary G. Ferguson, Assistant Professor of Pharmacology.

A total of 95 community, hospital, and government pharmacists registered for the Seminar. They were enthusiastically commendatory and, without exception, urged the College to continue and to expand the continuing education program.

Furthermore, on April 25, 1969, the College participated in an interprofessional seminar on drugs at Roswell, New Mexico. Faculty members from the Colleges of Nursing and Pharmacy and the School of Medicine appeared before a group of nurses, physicians, and pharmacists. The program was funded by the

Regional Medical Program.

c. Pharmacy Extension Services.

This unit of the College of Pharmacy, under the direction of Professor Harold L. Bober, will coordinate all activities of the College in the area of inter- and intraprofessional communication. The Continuing Education Program and the interdisciplinary seminar are the first accomplishments of the Service. It is hoped that many other programs will be developed - including the publication of an informational bulletin for pharmacists in New Mexico. In these efforts the Pharmacy Extension Services will cooperate with the University Extension Division, as well as the New Mexico State Board of Pharmacy and the New Mexico Pharmaceutical Association.

2. The College takes pride in the installation of Alpha Mu Chapter of Kappa Epsilon, national pharmacy girl's fraternity, on December 7, 1969. The installing officer was the national president Miss Metta Lou Henderson of Battle Creek, Michigan. The total of ten charter members included three alumnae. The major credit for all the work involved in the establishment of the chapter is due Dr. and Mrs. Kenneth H. Stahl.

B. Significant Plans and Recommendations

1. The addition of a faculty member whose area of competency is hospital and clinical pharmacy will enable the College to proceed with the planning of courses and a program in hospital and clinical pharmacy. This area, which is becoming increasingly important, has been sadly neglected heretofore. A close association of the College of Pharmacy with the local hospitals, and especially the Bernalillo County Medical Center, the School of Medicine, and the College of Nursing will be vital

in the development of hospital and clinical pharmacy.

As the faculty of the College becomes larger, it will be possible to broaden the offerings in other ways and, perhaps, it will even be possible to provide optional programs which will make it possible for students to prepare for some of the specialty areas of the profession.

2. It is strongly urged that planning of the projected joint-occupancy building be intensified forthwith. No long-range planning can be consummated until more space (and it must be appropriate space) is provided. The commitment made to the American Council on Pharmaceutical Education to the effect that the building would undoubtedly be a reality by 1973 must be honored.
 3. The weaknesses pointed out in the report of the 1967 re-examination for accreditation must be eliminated if the College of Pharmacy is to prosper and grow. To date, the College of Pharmacy has enjoyed the unqualified support of the administration. It is vital that this support be continued. In this connection, recent studies have shown that the salaries of the members of the College of Pharmacy faculty are substantially lower than those of their counterparts in other colleges of this university and in other colleges of pharmacy. While the difficulties interposed by limited funds are recognized, it is strongly urged that steps be taken next year to eliminate the existing discrepancies. The alternative is loss of faculty - especially the younger, more mobile people - and a corresponding decrease in the effectiveness of the College of Pharmacy.
- It is equally important that a most competent, energetic, and ambitious dean be appointed to administer the affairs of the College. The next few years will be critical ones for pharmacy and for the College of Pharmacy

since they will see fundamental changes in the role of the pharmacist. These changes must be accompanied by like changes in the educational program and vision and wisdom will be required of those who administer the educational program. Lacking a dean who is possessed of these characteristics, the College of Pharmacy will most certainly fail to realize its full potential to make an important contribution to progress in pharmacy.

C. Appointments to Staff.

Bober, Harold L., Assistant Professor of Pharmacy Administration, effective September 1, 1968.

D. Separations from Staff.

Cataline, Elmon L., Professor of Pharmacy and Dean of the College of Pharmacy, effective June 30, 1969.

II. Composite of Information on Biographical Supplements.

1. Advanced study

FERGUSON, GARY G.

Completed requirements for the Ph.D. degree in Pharmacology at the University of Colorado.

2. Sabbaticals, etc.

none

3. New Scholastic Honors, etc.

FERGUSON, GARY G.

Recipient of H.A.B. Dunning Memorial Fellowship for work on Ph.D., 1967-68. (not previously reported.)

4. Publications

BOBER, HAROLD L.

"It's Academic" - a series of three articles on the pharmacist as an

advisor in the sale of over-the-counter products; in El Boticario, October, November, and December, 1968.

"Drugstore or Pharmacy - What's in a Name?" - Rocky Mountain Druggist, May, 1969.

FERGUSON, GARY G.

"'Memory' Transfer Associated with Transfer of Brain RNA,"

El Boticario, Jan., 1969, pp. 4-5

FIEDLER, WILLIAM C.

"Pharmaceutical Aerosols," El Boticario, Vol. 15, No. 2 (Feb., 1969), p. 16.

STAHL, KENNETH H.

"New Products", El Boticario, Mar. 1969, pp. 10-12.

5. Other Research Projects, etc.

BAKER, GEORGE L.

Chemical analysis of Contra Yerba in progress

BOBER, HAROLD L.

Continuing education survey of New Mexico pharmacists.

FERGUSON, GARY G.

Pharmacological investigation of a series of cinnolone compounds originally synthesized as possible anti-cancer agents

Pharmacological investigation of several Indian and Spanish medicinal herbs.

STAHL, KENNETH H.

Synthesis of hydrazides as possible psychotherapeutic agents

6. Activities in Learned and Professional Societies.

BOBER, HAROLD L.

"Continuing Education in Pharmacy", a talk given at the annual convention of the New Mexico Pharmaceutical Association, May 11-13-1969, Albuquerque

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CATALINE, ELMON L.

Attended annual convention of the New Mexico Pharmaceutical Association

FERGUSON, GARY G.

Attended annual convention of New Mexico Pharmaceutical Association

FIEDLER, WILLIAM C.

Attended annual convention of the American Pharmaceutical Association,

Montreal, May 17-23, 1969

STAHL, KENNETH H.

Represented College of Pharmacy at 27th annual meeting of District No. 8,

A.A.C.P. and N.A.B.P. Gearhart, Oregon, October 13-15, 1968. Elected

Chairman for the Colleges for 1969 meeting in Salt Lake City.

Represented the College of Pharmacy at the annual Western States Drug

Conference, February 15-16, 1969, at Seattle, Washington. Presented a

paper on "Pharmacy Technicians."

7. Other Professional Activities

BOBER, HAROLD L.

Interview on KUMN

Assisted in establishment of a drug abuse education program for the high

school and college level

FERGUSON, GARY G.

Speaker at 2-day narcotics seminar for military and civilian law enforcement

personnel sponsored by Office of Special Investigation, Kirtland Air Force

Base.

Speaker, Continuing Education Seminar for New Mexico Pharmacists, April 21-22,

1969

Spoke on "Narcotics" for youth group at First Congregational Church, Dec. 12, 1969.

Member of University's "Drug Information Group."

Member of Continuing Education Seminar on "Managment of Cardiac Emergencies",
with representatives of School of Medicine and College of Nursing, Roswell,
New Mexico, April 28, 1969.

STAHL, KENNETH H.

Speaker, Continuing Education Seminar for New Mexico Pharmacists, April 21-22,
1969.

8. Non-Teaching University Service

BAKER, GEORGE L.

Academic Advisor

BOBER, HAROLD L.

Development and Adminstration of Continuing Education Program, Pharmacy
Extension Services.

Member, Tripartite Committee (College, State Board, State Association)
to develop an intership program

CATALINE, ELMON L.

Administrative Committee

Committee on Entrance and Credits

Committee on Health Sciences

FERGUSON, GARY G.

Advisor, University College Students

Faculty Advisor, Student Chapter of American Pharmaceutical Association

Member, Committee for the Use of Human Subjects

FIEDLER, WILLIAM C.

Faculty Advisor and Secretary-Treasurer, Rho Chi Honor Society

Student Advisor

STAHL, KENNETH H.

Advisor, University College Students

Special Advisor, University College

Faculty Advisor, Alpha Mu Chapter, Kappa Epsilon

Faculty Advisor, Maia Chapter, Mortar Board

Member of Policy Committee

Member of ad hoc Committee of the Health Sciences

Chairman, Executive Committee of the College of Pharmacy

Chairman, Advisory Committee for selection of a new dean for the College of Pharmacy

Program Director for the HEW-Health Professions Scholarship Program, beginning February 6, 1969

Moderator for one of the unstructured sessions for the evaluation of the teaching-learning process on April 15, 1969

Representative of the College of Pharmacy on the grievance panel for non-academic personnel

Represented the American Association of Colleges of Pharmacy at President Heady's inauguration November 9, 1968

9. Public Service

none

10. Personal Information

FERGUSON, GARY G.

Daughter, Laurie Elizabeth, born June 28, 1967 (not previously reported.)

THE REPORT OF THE DENTAL HYGIENE PROGRAM
July 1, 1968 - June 30, 1969
Monica Novitski, Director

I. General Information

As a result of the proposals made at the Faculty Conference of the Dental Programs at Lawrence Ranch in May 1968, the '68-69 school year saw a reorganization of the faculty with committees formed, members of which have assumed responsibility for curriculum revisions and for policies of the operation of the clinical teaching facility. The most dramatic change is in the clinic where minor physical changes and a number of policy changes have resulted in a more efficient operation, freeing instructors to provide closer supervision and more individual teaching to students. In a step-by-step process each course offering of the program is being reviewed with the goal toward closer integration and correlation in clinical performance.

In a further effort toward a more unified approach to dental hygiene education, a Student Coordinating Committee was organized to meet monthly with the Director. Six students, elected by their classmates, serve to advise the administration of the Dental Programs of student suggestions. Several valid and workable suggestions resulted from the meetings and have been implemented. The formation of the committee has provided several intangibles:

1. A closer, less hostile relationship between students and faculty.
2. Better morale among both students and faculty and the development of a deeper sense of loyalty of both groups toward the program.

A pilot program in teaching more intra-oral procedures to second year hygiene students was inaugurated in the fall. Its success was most encouraging; this was a move in the direction of increased responsibilities for hygienists as desired by dentists-employees. Careful statistics and evaluations were made and will be made as the study continues in the coming academic year. It is the feeling of the faculty that the new program after evaluation and with refinements will be a significant addition to clinical education; student reception of the addition is a healthy approval.

The year ended with approval by the University Faculty of a Bachelor's Degree in Dental Hygiene. The degree has a three-fold aim:

1. To qualify a dental hygienist to serve as a dental health educator (a teaching specialist) in elementary and secondary schools;
2. To qualify a dental hygienist to teach in dental hygiene certificate programs;
3. To qualify a licensed dental hygienist to assume more intra-oral responsibilities in clinical practice.

The degree will be implemented as soon as funds from outside sources are secured. The University budget cannot provide any funds in the next biennium; however, it is felt that grant money will be easier to obtain with the assurance the proposal of a degree has met with faculty and administrative approval.

Personnel Changes

Staff appointments: Barbara McCollum as Clinic Assistant
Effective January 8, 1969

Dorothy B. Buhrmester as Secretary
effective May 15, 1969

Faculty appointments: W. K. Graham (dentist) as Clinical Instructor
Effective September 16, 1968

Clara Miera (dental assistant) as Laboratory
Instructor
Effective September 16, 1968

Judith Swortwood Pederson (dental hygienist)
as Instructor
Effective September 16, 1968

Staff Separations: Maxine Fine (Clinic Assistant)
Effective December 13, 1968

Devona Bonnie Kostelnik (Secretary) -
Effective May 23, 1969

Faculty Separations: Judith Swortwood Pederson (Instructor)
Effective June 8, 1969

II. Composite of Information - Faculty Members

1. Advanced study

KEEFFE, Margot Lue

27 credit hours

2. Sabbaticals, leaves of absence, etc.

duFAULT, M-Louise

travel New England

3. New scholastic honors, fellowships, etc.

None

4. Publications

NOVITSKI, Monica

"UNM Dental Facility and the Dentists of New Mexico, New Mexico Dental Journal, November 1968 pp 24=27 p.38.

5. Other research projects, etc.

duFAULT, M-Louise

In progress: design of instrument to measure perceptual ability

MELLOTT, Velma Ruth

Coordinator for Senior Dental Hygienists for a course at the U. S. Veterans Hospital, Dental Clinic

Development of a dispensing center in the dental clinic and supervisor of the center

6. Activities in learned and professional societies, etc.

duFAULT, M-Louise

Annual Meeting of American Dental Schools session; New Mexico Dental Hygiene Meetings

NOVITSKI, Monica

Regular Meetings: Albuquerque District Dental Society and American Society of Dentistry for Children
Annual Meeting: American Association of Dental Schools
Secretary: NMDA Council on Professional Dental Education

7. Other professional activities, etc.

NOVITSKI, Monica

Consultant: American Dental Association Council on Dental
Education
Division of Dental Health N.M. Dept. of Health
and Social Services
New Mexico Elks, Cerebral Palsy Project

Staff St. Joseph's Hospital
Member:

Coordinator: Certification Examination for American Dental
Assistants Association
New Mexico State Board of Dental Examiners
Annual Dental Seminar

Administrator: National Board Examinations in Dental
Hygiene

Director: UNM Medical School Dental Clinic for Handi-
capped Children

Member: Rehabilitation Center Cleft Palate Team

Speaker: October, 1968 Albuquerque District Dental Society
April, 1969 WAABI
June, 1969 Workshop for Dental Hygiene Directors

8. Non-teaching University service, etc.

duFAULT, M-Louise - Faculty advisor
NMU Dental Programs Policy Committee

KEEFFE, Margot Lue- Chairman, Curriculum Committee
Faculty Advisor

MELLOTT, Velma R. - Chairman, Special Occasions Committee of
the Dental Programs

NOVITSKI, Monica - University College Advisor
Member of all Committees of Dental Programs
Faculty

9. Public Service , etc.

NOVITSKI, Monica

Member: Citizens Committee for Fluoridation

The Report of the Dental Assisting Program
July 1, 1968 - June 30, 1969
Monica Novitski, Director

I. General Information

Since its inception in September, 1960, the Dental Assisting Program has been a combined curriculum of credit and non-credit courses. The credit courses included English 101 and 102, Speech 101 (or Psychology or Sociology 101), Health Education 164, and three dental hygiene courses: Orientation, Dental Anatomy and Oral Anatomy. All of these total 19 credits for one academic year's work. However, all courses specifically designed for dental assisting students and required of them, a total of ten different subject areas, carried no credit value.

When the program was initiated, there were a variety of reasons for having designed it in the way described. For the past several years these reasons have not applied. Effects of the credit-non-credit curriculum were:

1. Dissatisfaction and resulting disinterest on the part of enrolled dental assisting students because they earned so few credits for one year's work;
2. Disinterest on the part of qualified and academically strong prospective students;
3. The tendency for lazy, less-motivated students to be attracted to the program;
4. An attitude on the part of prospective employers that students who completed the course were "second rate."

Obviously, these worked to the University's disadvantage in recruiting students with aptitudes for and interests in dental assisting. Considering that the students in the program spent approximately 26 hours per week in classes and/or laboratories and that they had to earn a 2.0 average in all courses, credit and non-credit, to be granted a certificate, an inequity existed.

In the fall of 1968 the Faculty of the Dental Programs proposed to the administration of the University that the ten dental assisting subject areas be consolidated into four course offerings, each with credit value. The proposal was an outcome of the study of the program initiated at the Dental Programs Conference at Lawrence Ranch in May, 1968. Under the proposed plan the curriculum would be composed of credit courses only and a student completing dental assisting education would have earned 31 credits. The plan was approved by the administration and will be effective beginning with the fall semester, 1969. As altered the curriculum is:

First Semester		Second Semester	
	Cr. Hrs.		Cr. Hrs.
Engl 101 Wrtn g w/Rdgs in Expos	3	Engl 102 Wrtn g w/Rdgs in Lit	3
Psych 101, Soc 101 OR Spch 101	3	DH 110 Oral Anatomy	3
DH 100 Orientation	2	H Ed 164 First Aid	2
DH 111L Dental Anatomy	2	DA 122L Adv Dent Sciences	5
DA 121L Intro Dent Sciences	3	DA 133L Practicum in Dent	
DA 131L Prin of Dent Assisting	2	Assisting	3
PE Activity	<u>1</u>	PE Activity	<u>1</u>
	15 + PE		16 + PE

A student who cannot type is required to take a 1-semester course in typing the first semester.

II. Financial Support

A portion of the budget for the Dental Assisting Program is financed by funds from the Vocational Education Division of the New Mexico Department of Education. The balance are monies allocated by the State Legislature of the University.

III. Future Plans

Plans for the coming academic year involve physical changes of the facilities and minor changes in course content. Plans are being made, too, for some extension courses to be offered to employed dental assistants in various communities around the state.

A five-room trailer is to be attached to the east wing of the barracks, B-2, by a six-foot long ramp. Access to the trailer will be through the reception area of B-2 only. Three of the five rooms in the trailer will be used for offices of full-time faculty members; one will serve as a dressing room for the clinical faculty and the fifth room will house audio-visual and reference materials and will serve as a study area for students. The trailer addition frees one faculty office in the barracks proper; the space will be used to enlarge the secretary's office which has been extremely inadequate in size. A second physical improvement is the construction of a central supply and sterilizing area in the west wing, the clinical facility of the building.

The major change in course content will be in the Radiography courses. Rather than graduating dental assistants capable of taking dental x-rays, the faculty believes graduates of a formal educational program should be proficient dental x-ray technicians. Therefore, emphasis will be on the clinical phase of the course with the dental assisting students working more with patients than in previous years.

Minor experimentation in increased intra-oral procedures for dental assistants will be attempted. These will include the placing of restorative material in prepared teeth and restoring anatomy and the placing of rubber dams with clamps.

At the request of dentists practicing in various smaller population areas, the faculty of the Dental Assisting Program will take several short courses to dental assistants in their communities. The students will be assistants who have not had the benefit of formal training but have learned their skills "on the job." The courses will be offered by the Continuing Education Division. The first will be Radiography for Dental Assistants. It will be a two to three day offering. The prospective date is in early 1970.

IV. Faculty and Staff

To be found in College of Pharmacy report.

REPORT OF THE UNIVERSITY COLLEGE AND COUNSELING CENTER

July 1, 1967 -- June 30, 1968

William H. Huber, Director

INTRODUCTION

There are four separate divisions that are included in the structure of the University College and Counseling Center. These are the University College, an administrative academic division for all freshmen and many sophomores, the Counseling Center, which provides psychological counseling and guidance for all students of the University, the Testing Division, which supplies group and individual testing for the entire University and the Office of Veterans Affairs, which under contract with the Veterans Administration processes, counsels and tests all persons eligible for educational benefits under any of the public laws providing for such benefits.

Each of these divisions will be discussed separately in this report even though the activities of the four are inextricably related and complementary to each other. All divisions grew rapidly during the period covered by this report. This growth was not limited to quantitative growth in numbers enrolled or served, but also many new activities were assigned to these divisions or begun by them. These developments will be enumerated below.

University College

The University College was established by action of the faculty and was activated in the fall of 1957. The considerations prompting this move and the nature, functions and responsibilities of the college can be found detailed in the Tidal Wave Report of the Tidal Wave Committee dated May, 1956. copies of which are available to interested persons on

request from the University College office. Much of the discussion that follows will be with direct reference to this report, with particular regard to demonstrating the extent the purposes and functions assigned to the college are being performed.

Admissions and Enrollment

The enrollment of the University College continued to grow substantially during this year at the beginning student level, though the total enrollment changed but slightly. The Fall Semester enrollment totaled 4897. This represents a decrease of 1.4% over the Fall Semester enrollment of the 1966-67 school year. This total enrollment was made up of 2601 new freshmen, which represents a 7.5% increase over the beginning enrollment of last year. Additionally, there were 2296 returning students who re-enrolled. It might be noted that new students accounted for 53% of the total enrollment and returning students 47%. This ratio of new to returning students does not vary appreciably from the experience over the past five years. The enrollment of the University College consists of all new beginning freshmen, all transfer students from other institutions who have less than 26 hours of acceptable collegiate credit and all students who are returning to the University at either freshman or sophomore level who have not decided on a degree-granting college as yet, or who have not done sufficiently well to earn their way into a degree-granting college. One further observation with regard to numbers is to call to the reader's attention that in the Fall of 1966 there had been a drop in freshman enrollment of 10%. As a result, the 1967 beginning freshmen still numbered 74 fewer students than the beginning

freshmen in the Fall of 1965, or of two years ago.

With regard to the quality of the beginning freshmen, it should be remembered that the University departed from the practice of administering its own placement tests to entering students in the Fall of 1966. At that time the University adopted the American College Testing Company's program. Students took this test during their senior year in high school and in the summer directly preceding their enrollment in college. This particular program is used by all other schools in the State of New Mexico and by the largest percentage of the colleges and universities throughout the United States. The test is not directly comparable to those that the University previously administered and therefore a continuation of longitudinal norming became impossible. This being but the second year that the ACT has been used presents too short a period of time and too few students to make an intensive study of trends regarding quality of the freshman class as measured by placement tests. Roughly, however, it is forecast that the beginning freshman class placed considerably above national norms for college-bound students. The freshmen at UNM averaged considerably above the composite average of all other state institutions in the State of New Mexico. As previous annual reports concluded, UNM beginning freshmen are quite capable both from the standpoint of high school grade point averages and performance on admission and placement tests. The University College is in the process of developing data which will result in a complete analysis of both intellectual and non-intellectual factors of the UNM student body, which should provide invaluable information to the University community and which information should be sufficiently valid to warrant distribution in another several years.

Enrollment statistics for Semester II of this fiscal year show that 4090 students registered in the University College at the beginning of Semester II. Three hundred and eighty-five (385) of this enrollment were new students or readmitted students. Three thousand seven hundred and five (3705) represented students who had been enrolled in the University College during Semester I. Therefore, 1192 of the students enrolled in the University College during Semester I did not re-enroll in the University College in Semester II. 602 (12.3%) of these transferred from the University College to one of the seven undergraduate degree-granting colleges between Semester I and Semester II and presumably enrolled in those colleges. This number would not constitute a loss in total enrollment to the University. Five hundred and ninety (590) students or 12.1% did not return to the University for the second semester. 161 (3.3%) were suspended for poor scholarship and 429 (8.8%) voluntarily dropped out.

Staff

University College staff consisted of the Director, the Secretary to the Director and four full-time clerical people. There had been a great need for additional professional help in the college considering the increased functions and the tremendous growth in enrollment. In August, 1967, Mr. E. Bruce Potter was employed to fill the vacancy created by the departure of Miss Marguerite Monk at the end of the previous fiscal year. Mr. Potter assumed the duties of Assistant to the Director of the University College as well as a part-time counselor in the Counseling Center. Mr. Potter had completed all course-work requirements for his

Ph.D. in Social Psychology from the University of New Mexico and expects to receive the doctorate in 1968. In addition to Mr. Potter's professional competence in the field of social psychology, he also is schooled in computers, computer programming and statistical research. It is felt that his qualifications are such that he will prove to be an invaluable asset to the University College and Counseling Center. Dr. Sven Winther was hired to head the Counseling Center at the end of the last fiscal year. (See the Annual Report 1966-67.) Dr. Winther assumed his responsibilities at the beginning of this fiscal year and began an intensive program for the development of counseling services for the entire University community. Specific reference will be made to these developments under the section of this report devoted to the Counseling Center.

University College Activities

The University College continued to perform the functions specified in the Tidal Wave Report, which document led to the creation of this division. Some of the more crucial and problem creating of these functions are briefly mentioned below.

- A. By virtue of the adoption of the ACT test considerable difficulties were encountered in developing new methods of placement of students in English and Mathematics. Many meetings were required between the University College staff and those responsible for freshman work in these two academic departments during the 1966-67 school year and this school year. It is felt that satisfactory placement formulae have been worked out to serve the great majority of the beginning students and to the satisfaction of these two academic departments.

- B. Considerable work has been done during this school year with reference to Remedial English, with a view to providing better services to those students requiring assistance to permit them to increase their chances for academic success.
- C. Advisement proved to be the usual difficult problem that has been referred to in every annual report since the creation of the University College. The number of advisers available has resulted in a very heavy load of advisees per adviser and the process has resulted in little more than assisting a student in filling out a program of studies as distinguished from offering the student individual attention with regard to his academic and vocational goals and similar help with his personal problems. The quality of advisement is no better than it was in the past. (See previous University College Annual Reports for detailed observations and pleas for relief for the faculty adviser as well as incentives for the faculty adviser. Also the Tidal Wave Report foresaw this problem. See p. 9, 2-c.)

Counseling Center

The Counseling Center which became an integral part of the University College in 1965 began to develop into an effective service during this fiscal year. Dr. Sven Winther began to organize counseling services for all students attending the University and the existence of this service began to be recognized by both faculty and students throughout the University community. His staff, however, was severely limited. It consisted of approximately one half of the time of Mr. E. Bruce Potter and four persons who had been classified as Special Advisers in the

University College in previous years, but who became members of the counseling staff under Dr. Winther. These part-time advisers were available ten hours a week each and this constituted one full-time employee. Additionally, several graduate students were available for several hours a week as they pursued practicum work through the College of Education. Organizational staff meetings were held regularly and in-training sessions were instituted. Liaison was developed with the Medical School and the Psychology Department whereby Dr. Robert Senescu, Chairman of the Department of Psychiatric Medicine, Dr. Karl Koenig of the Psychology Department and Dr. Jerome Levy of the Department of Psychiatric Medicine met with the Counseling staff regularly assisting in developing an effective service. Dr. Winther and Mr. Potter met with staff of the Student Affairs Division and particularly the staff of the offices of the Personnel Deans and the Student Health Service in an attempt to coordinate the activities of the Counseling Center and these offices. Similarly, Dr. Winther and Mr. Potter met with the religious advisers of the various off-campus groups with a view to coordinating efforts. Dr. Winther pursued contact with the leaders in student government and student advisers in the various residence halls. These efforts resulted in closer liaison between and among these various service-oriented divisions of the University and resulted in an awareness of the existence of counseling services through this division.

In the Summer of 1967 for the first time, the University College and Counseling Center participated in conjunction with the Student Affairs Division in conducting a Summer Orientation program for students who had been admitted as beginning freshmen. These sessions were attended

on a voluntary basis by admitted freshmen and their parents. Each session lasted for one day and numbered ten separate sessions. The evaluation of this new program jointly sponsored by the Student Affairs Division and this division was such as to recommend a continuance in future years. Reception by the students and their parents who attended was most gratifying.

On the following page is a tabulation of the Counseling Center interview record for the academic year 1967-68. If one examines this tabulation and compares it with interviews held by special advisers in the University College in prior years, one will note that the number of students voluntarily seeking counseling has risen to 63% with 37% having been invited for interviews. This compares to approximately 20% voluntary and approximately 80% invited in the past.

The number of interviews has risen dramatically and the colleges in which the students were enrolled show that approximately one-third of the total came from sources other than University College. To demonstrate the effectiveness of the development of liaison with various parts of the campus, it will be observed that students were referred to the Counseling Center from nearly every other office and division of the University. The same can be said for the places to which students were referred once their problems were identified. The difficulty that has arisen is that the success of the Counseling Center has resulted in a demand for the service that exceeds the staff's ability to supply the service. Additional staff is necessary if appropriate counseling is to be afforded the student without lengthy delays and if other activities such as research, administration, etc. are to be engaged in by the

INTERVIEW RECORD TABULATIONS
Academic Year 1967-68

Prepared by E. B. Potter
Date: November 21, 1968

Semester

Summer Session	255
Fall Semester	1300
Spring Semester	<u>1170</u>
TOTAL	2725

Interviews Scheduled

First-Fifth	2599
Sixth-Tenth	90
Eleventh & over	<u>36</u>
TOTAL	2725

Interviews

Self-initiated	
Show	1532
No Show	<u>180</u>
TOTAL	1712 (63%)
Specific Invitation	
Show	750
No Show	<u>263</u>
TOTAL	1013 (37%)
Grand Total	2725 (100%)

Interviewee College

Unknown, None & No Show	333
Arts & Sciences	132
Bus. Admin.	22
Education	70
Engineering	25
Fine Arts	16
Law	-
Medicine	3
Nursing	16
Pharmacy	5
University College	1810
Non-Degree	53
Graduate	31
Not enrolled, not admitted	76
Not enrolled admitted	94
Former student, not admitted	<u>39</u>
TOTAL	2725

Referrals from:

Self-referral	1064
Admis. & Records	98
Academic Adviser	14
Faculty Member	22
Univ.Coll.Office	1080
Dean of Students	21
Testing Division	233
Counselor	17
Orientation Prog.	123
Peers	12
Clergymen	5
Psychiatrist	1
Other	<u>35</u>
TOTAL	2725

Referrals to:

None	1789
Admis. & Records	53
Academic Adviser	38
Faculty member	83
Univ.Coll.Office	197
Dean of Students	23
Testing Division	275
Counselor	24
Other Universities	12
E & C Committee	14
Academic Dept. Chr.	50
Acad. Coll. Dean	51
Reading Specialist	12
Other	<u>104</u>
TOTAL	2725

Interview Record Tabulations

2

INTERVIEWS BY:	TYPE OF INTERVIEW				TOTALS
	Unknown No Show	Info.	Voc-Educ.	Pers-Soc.	
Practicum	73	148	53	41	315
Interviewer #1	46	78	28	2	154
Interviewer #2	3	64	16	12	95
Interviewer #3	50	176	101	40	367
Interviewer #4	50	110	16	6	182
Interviewer #5	99	302	158	83	642
Interviewer #6	43	164	32	6	245
Interviewer #7	89	283	160	193	725
TOTALS	453	1325	564	383	2725

INTERVIEWS BY:	TYPE OF INTERVIEW				TOTALS
	Unknown No Show	Info.	Voc-Educ.	Pers-Soc.	
Practicum	73	148	53	41	315
Special Advisers	192	592	193	66	1043
Counselors	188	585	318	276	1367
TOTALS	453 16.8%	1325 48.6%	564 20.6%	383 14.0%	2725 100%

members of the Counseling Center staff. It should be remembered that the interviewers listed on the tabulation consist of the Director of the University College and Counseling Center, the Director of the Counseling Center, the Assistant Director of the University College and four ten-hour a week special advisers. If one equates this to full-time equivalent and administrative obligations are subtracted from available time for counseling, the Counseling Center consists of two full-time equivalent persons.

This tabulation also indicates the nature of the problems students bring to the Center. Fourteen percent had personal-social problems that required professional assistance, 20% had vocational-educational problems with regard to academic and vocational role preferences. This latter percentage matches almost exactly the number of students who are undecided when they first arrive on campus.

General

University College and Counseling Center embarked upon a project to further study the high attrition rate of the University of New Mexico. The magnitude of this problem was pointed up by the longitudinal studies done between 1957 and 1965 by the Director of the University College. Through the good offices of the Academic Vice President, Dr. Ferrel Heady, authorization and financial support was given to permit a research project of the 1963 freshman class in the hope that intensive study of the total beginning freshmen of 1963 over a five year period to June 1968 would furnish useful information concerning this problem. It is hoped that this project will be completed prior to the end of the next fiscal year and will result in publishable findings.

Physical Facilities

The entire staff of the University College and Counseling Center, as well as the Testing Division are looking forward to the completion of the new building that will house this division and the Student Health Center. After eleven years of housing in Zimmerman Stadium, the new facility promises to be a distinct improvement which will contribute to higher morale and more efficient and effective service to the student. It appears that this facility will be completed early in the next fiscal year and that before the 1968 summer is over this division will have moved into its new quarters.

Professional Activities of the Staff

The Director, together with Dr. Sven Winther and Mr. E. Bruce Potter, attended the annual Counseling Center Directors meeting in Colorado Springs, Colorado. The Director has been asked to assume the Acting Deanship of the College of Business Administration for the 1968-69 fiscal year in addition to carrying on his present responsibilities. The Director, William H. Huber, as well as Dr. Winther and Mr. Potter each taught courses for various colleges on the campus. Committee assignments and other professional activities will be found on the biographical supplements of these personnel.

Testing Division

The development and activities of the Testing Division during the 1967-68 year are described below. The format is basically the same as the 1966-67 report.

A. Services

1. Psychometric services to the Counseling Center

2. Psychometric services to the Veterans Affairs Office
3. Testing center for institutional and national testing programs
4. Provide data reporting services to UNM colleges, departments, and offices
5. Institutional and related research studies
6. Measurement information resource center for the institution and community.
7. Measurement Services Center (MSC)

Each of the above will be briefly discussed. Where relevant they will be related to last year's report.

1. Psychometric services to the Counseling Center

This service provides individual testing of counselees as prescribed by the Counseling Center. During the 1967-68 year, 332 counselees were administered one or more tests. Since this is a decrease in testing from the previous year, several aspects should be noted:

- a. The Counseling Center was in a period of personnel growth. Due to the addition of two new full-time counselors, a conservative estimate by Dr. Winther of the UCCC indicates that the number will more than double during the 1968-69 year.
- b. The figure of 332 includes 47 Wechsler Adult Intelligence Tests (WAIS) administered for the UCCC. (This figure does not include those administered to VA counselees.) Prior to 1966 the Testing Division did not offer this service due to the lack of psychometrists trained in its use. The significant point, however, is that the administration of one WAIS requires an

average of 3-1/2 hours of a psychometrist's time. This includes administering, scoring, and write-ups. Thus, the decrease in tests administered still reflects an increase in time and sophistication required to service the UCCC.

2. Psychometric service to the Veterans Affairs Office

549 counselees were administered an average of 4.5 tests each for the VA Office. While this number reflects a slight increase over 1966-67, the same can be said for the VA testing as indicated above for the UCCC. That is, for the first time, the VA counselors could request administration of the WAIS, as well as several other individual tests.

3. Testing Center for institutional and national testing programs

8121 examinees were tested under these programs. It should be noted that this figure approaches that of 1966-67 even though the EPE and GRE institutional programs were eliminated.

4. Provide data reporting services to UNM colleges, departments, and offices

These services are continuing to be expanded and up-dated. Data processing applications were implemented and improved. It might be noted that this aspect of our services has been noted on a national level and a section of a book on uses of ACT data is devoted to UNM. This book has been distributed to the nearly 3000 institutions who participate in the ACT program.

5. Institutional research studies and related services

Again, a wide variety of studies were either initiated or participated in by the Testing Division. For example, a study was started which will result in our being one of the few institutions

in the country doing research on the student population with Spanish surnames. While our data will be a bit gross in that our Spanish surname population likely subsumes several sub-populations, we will have data on how this population performed on the ACT in addition to ACT performance correlated with GPA. Thus, a first approximation will be made toward more knowledge of this group. This study will be completed in November or December of 1968. Although this report will not go into detail on any of the studies in progress or completed, it can be pointed out that we are continuing to work with the colleges, etc., that were indicated in last year's report in addition to a few new ones.

6. Measurement information resource center for the institution and community

The Test Library is virtually complete and will be continually up-dated. Many people have made use of the materials. This service has not been formalized to any great extent due to lack of personnel. However, a much greater amount of informal contacts and discussions have taken place than in the previous year. For example, our Senior Psychometrist has appeared before the Economic Opportunity Board Adult Education Group to discuss the GED program, as well as being interviewed on KABQ radio station regarding the GED and related Testing Division responsibilities.

7. Measurement Services Center (MSC)

Although the MSC did not get officially underway until the tail end of the 1968 fiscal year, a great amount of effort was expended throughout the year on this matter. The MSC will be discussed

periodically in separate reports. However, it is appropriate in this report to indicate that the responsibilities of the MSC are to provide test scoring and measurement services to the public and private schools of New Mexico. This is a joint effort between the State Department of Education and The University of New Mexico. The MSC should prove of major impact on both the state schools and the University. The MSC will be discussed again in this report under the Staff and Extended Development sections.

B. Staff

Due to the increase both in staff and the nature of Testing Division services, this section will be divided into two parts. Part one will discuss staff as related to Testing Center activities, while Part two will be devoted to the Measurement Services Center. In addition, a new services chart is presented for clarification (page 18).

1. The Testing Center staff has continued to become more professionally sophisticated. While the Division Director devotes considerable time to Testing Center activities, the primary responsibility of the day-to-day function of the Center is that of the Senior Psychometrist. There are presently eight staff members (omitting the Director) directly associated with the functions of the Center. Three have advanced degrees, two of whom will complete their doctorate degrees by fall of 1969. Two are college seniors, two are undergraduates and one is a highly competent secretary. Of the eight, only two work full-time, the Senior Psychometrist and the Division Secretary. The remaining

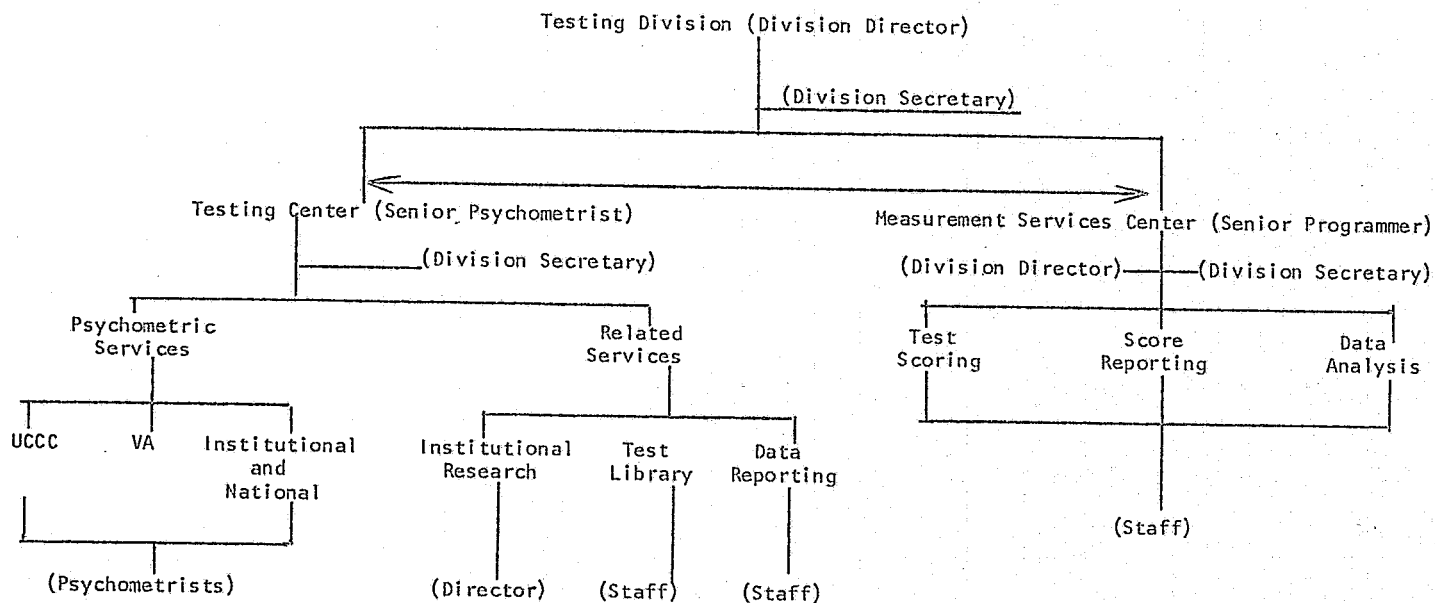
six work a combined equivalent of approximately 120 hours per week. It should be pointed out too, that on 15-20 Saturdays per year another 10-15 part-time staff are employed to assist with institutional and national testing programs. It may be observed again this year that the staff is operating at maximum output in regard to services rendered.

2. The Measurement Services Center staff currently has two full-time employees and two half-time employees. Two of the four are computer programmers. Another was a computer operator for the UNM Research Center, and the fourth has had several years experience with data processing and test reporting activities. Both of the computer programmers have had considerable experience with test scoring and reporting. The Division's Director will also lend considerable time and experience to staff development until the MSC becomes fully operational. During peak test scoring periods (September through December and March through May) 4 to 8 additional part-time clerical assistants will be employed. Thus, for being in operation only a month at the time of this writing, considerable progress has been made in MSC staffing.

C. Equipment

Equipment is a new heading this year. The initiation of the MSC meant the procurement of special equipment. Although all of the equipment has not arrived at this date, the following configuration will be operational in a few months:

Services and Personnel



* Note: Personnel is denoted by parentheses.

1. IBM 1130 computing system
2. IBM 1230-534 Optical Scanning system
3. NCR Sorter-Comparator
4. Two key-punches

D. Extended development, 1968-69

Testing Center services will remain fairly similar to those of last year. However, an increase in users is expected and flexibility will be retained.

Since the MSC services are just originating, I will wait until next year for an "extended" development section for this aspect of the Testing Division.

On the following page is the Services and Personnel chart for the Division for the 1967-68 fiscal year.

Veterans Affairs Office

The Veterans Affairs Office on this campus has two primary functions to perform.

1. To prepare the necessary documents in placing the eligible student into training under the benefits of one of the V.A. educational programs. These include:
 - a. Certification of the student's enrollment.
 - b. Change in the student's enrollment that may affect his training while enrolled.
2. To furnish vocational or educational counseling, tutorial services, and to obtain readers for any blind veteran as agreed upon by the contract held jointly by the University and the V.A. Regional Office.

Under the contract held by the University, this office provides complete vocational and educational counseling to all those eligible

for such service provided by the Veterans Educational Act. This service is provided for all those living within the confines of the city of Albuquerque and also a large portion of the State of New Mexico. For complete counseling the University receives from the V.A. a total of \$64.35 per case and \$28.70 for psychometrics only.

Considerable time is involved in each case that is handled through this office. Each must be reviewed by the Veterans Affairs Administrator for assignment to one of the counselors who prepares a narrative report on the case. Appointments must be scheduled and if the counselee is eligible for transportation costs to the Center, this must be arranged. These duties are met by the Veterans Affairs Administrator, one full-time counselor, one part-time counselor hired on a case basis, and the necessary psychometric professional aid provided by the Testing Services. All clerical duties are carried out by a clerk-typist under the supervision of a full-time Veterans Affairs Technical Advisor.

It should be pointed out that this counseling service is not restricted to only those planning to attend the University, but is for all those who have elected to go elsewhere for college training. They may also attend business schools, trade schools, or seek on-the-job training.

During the fiscal year 1967-68, this office scheduled a total of 942 cases for counseling. Of this number, 61 cancelled their appointments, 162 did not appear, and 113 were rescheduled. No charges were made for services on 22 cases. The University received from the V.A. a total of \$34,017.40 for counseling services covering 584 cases completed.

This is only a slight increase in revenue over the previous fiscal year. It is anticipated that the number of cases will show a greater increase for the next year since a larger number of servicemen are now being discharged. Also greater benefits recently made possible by Congress and pending legislation would cause one to believe the demand for counseling services will step up in the near future. Effective October, 1967, the V.A. regulations provided a payment to institutions of \$3.00 for each eligible student who is certified by that institution. This fee was to help offset the expenses incurred by this certification. For this service the University received \$3,057.00 which increased to \$37,074.40 the total received by this office for this fiscal year.

It is interesting to note that since the effective date of the Korean G.I. Bill, September 1952 through June 30, 1968, the University has received a total of \$167,597.00 for service rendered by this Veterans Affairs Office.

In looking to the future, it is difficult to make a prediction as to what the full impact will be of the present V.A. educational assistance programs upon this office as well as upon the University. It is felt that there will be a slight increase in counseling cases for the next fiscal year. If pending legislation is passed by Congress this year or early in 1969, the increase could be substantial. An increase in veteran student enrollment can be expected for several years to come. During Semester II, 1968, the total enrollment of eligible students under the V.A. programs was 1,101, which represented an increase of 3% over the fall semester. The 1968 summer session showed an increase of

nearly 20% over the 1967 summer session. This office is estimating an increase of 7 or 8% for the coming fall semester over the last spring semester. This would mean a total enrollment of nearly 1,200 students in this program for Semester I, 1968-69.

Personal and telephone contacts are another indication of the interest of eligible persons desiring to come to the University to use their V.A. educational benefits. These contacts along with the normal everyday inquiries made by the veteran students are most time consuming. We feel that these contacts have greatly increased over the previous fiscal year, as reported at that time. For the most part, these inquiries are handled by the Veterans Affairs Technical Advisor, with approximately 15% of the cases being referred to the Veterans Affairs Administrator for further advice and consultation.

Since the veteran student load is on a steady increase and will continue to be so for a number of years, we pause to reflect what impact this has had and will have on the economy of the city of Albuquerque. For example, for the present fiscal year, 1967-68, it has been estimated by this office that our University veteran students alone have received a total educational assistance allowance of \$1,500.00. This does not reflect the amount received by veterans who are attending other training facilities in this city.

At this time we feel that our present staff is adequate to handle the existing counseling load and the general duties that are carried out. It is necessary that extra help be called in during the registration periods of each term of school. This has been provided and usually by student help. However, as mentioned above, if pending legislation

is passed, there will be a greater demand for the services of this office. Another counselor might then be necessary, as well as additional clerical help. Since this department is taking over some of the space formerly occupied by the Testing Service we feel that if additional help had to be added, our present space would be adequate.

The annual report of last year mentioned the importance of careful scrutiny of the present contract held by the University and the V.A. to determine if the charges should be revised upward to compensate for increased salaries, cost of materials, etc. This has been done for the fiscal year of 1968-69. However, we feel strongly that this should be done next year; no doubt some revision should be made.

REPORT OF THE UNIVERSITY COLLEGE AND COUNSELING CENTER
July 1, 1968 -- June 30, 1969
William H. Huber, Director

INTRODUCTION

There are four separate divisions that are included in the structure of the University College and Counseling Center. These are the University College, an administrative academic division for all freshmen and many sophomores, the Counseling Center, which provides psychological counseling and guidance for all students of the University, the Testing Division, which supplies group and individual testing for the entire University and the Office of Veterans Affairs, which under contract with the Veterans Administration processes, counsels and tests all persons eligible for educational benefits under any of the public laws providing for such benefits.

Each of these divisions will be discussed separately in this report even though the activities of the four are inextricably related and complementary to each other. All divisions grew rapidly during the period covered by this report. This growth was not limited to quantitative growth in numbers enrolled or served, but also many new activities were assigned to these divisions or begun by them. These developments will be enumerated below. Before reporting on the activities of each of these separate divisions some general observations are indicated.

GENERAL

The Director in addition to his responsibilities for this unit of the University served as the Acting Dean of the College of Business

Administration. More than half of his time was devoted to that college and thus considerable burden was placed upon the staff of this unit beyond their normal duties. The manner in which this overload was assumed and was carried out was most commendable and deserves express recognition in this report. This is particularly true of Drs. Moore, Potter and Winther and the Director's Administrative Secretary, Mrs. Katherine Pelouze. Were it not for their efforts beyond their normal responsibilities, the Director would not have been able to perform these two functions.

At the inception of this fiscal year, literally on July 1, 1968, the physical move from the Zimmerman Stadium Building to the newly completed Student Health and University College and Counseling Center Building was undertaken. Though long delayed, the new quarters have proved most conducive to increased efficiency, raised morale and increased acceptance of the services provided by this unit of the University by the student body and the general public. Considerable credit and gratitude are owed to the Administrative Vice President, Sherman Smith, the University architect, Van Dorn Hooker and his staff and the architect for the building, William R. Buckley. The building has proven to be very functional, well designed and a handsome addition to the architecture of the campus. It might also be noted that this was the last building to be designed for the University by the late Edward Holien whose contribution to the preservation of the architectural scheme of the University of New Mexico will long be remembered and appreciated.

For the first time since the merging of the University College and the Counseling and Testing Division in 1965, which latter division

included the Office of Veterans Affairs and the Remedial Reading Clinic, all of the sub-divisions of the University College and Counseling Center were housed under one roof, with the exception of the Office of Veterans Affairs. The advantages of the physical proximity of the Testing Division to a rapidly expanding Counseling Center and to the University College and its responsibilities to the thousands of freshmen including advisement, testing and placement cannot be overstated. The same can be said with regard to the Reading, Study Habits and Skills Laboratories. The physical separation, and previous to 1965 the organizational separation, of these related activities resulted in a much less effective operation of each of the divisions and much less by way of service was afforded the individual student. It is to be regretted that the building did not permit sufficient space to incorporate the Office of Veterans Affairs in that this office uses counseling and more importantly the Testing Division as major aspects of its function. The plan originally was to locate the Veterans Affairs Office adjacent to the new building in the south end of Mesa Vista Hall. Delay in necessary remodeling has in turn delayed this proximate location of these related services and it is to be hoped that the original plan can be implemented in the very near future. This becomes even more imperative as Veterans benefits are being expanded and returning veterans are increasing in number due to the Vietnam conflict.

It also seems to have been most foresighted to locate the Student Health Service in the same structure. Increased rapport has been established between the Counseling Center and the Student Health Service and with particularity between the Counseling Center staff and the

psychiatrists attached to the Student Health Service. Continued coordination and cooperation between the divisions responsible for the physical, mental and emotional health of the student is anticipated.

UNIVERSITY COLLEGE

The University College was established by action of the faculty and was activated in the fall of 1957. The considerations prompting this move and the nature, functions and responsibilities of the college can be found detailed in the Tidal Wave Report of the Tidal Wave Committee dated May, 1956, copies of which are available to interested persons on request from the University College office. Much of the discussion that follows will be with direct reference to this report, with particular regard to demonstrating the extent the purposes and functions assigned to the college are being performed.

Admissions and Enrollment

The enrollment of the University College rose again this year. However, the composition of new and returning students was reversed over that of last year. The Fall Semester enrollment totaled 5046 students, up 3% over the total enrollment of last year. It should be remembered that the total enrollment of last year was down for the first time in the history of the University College. However, the beginning enrollment, i.e. beginning freshmen, was 2509 students or a decrease of 3.5% compared with the beginning enrollment of last year. This would indicate that the retention of students into the second year had improved while freshmen enrollments declined. The composition of beginning students and returning students shows a 50% - 50% relationship.

With regard to the quality of the beginning freshmen, it should be remembered that the University departed from the practice of administering its own placement tests to entering students in the fall of 1966. At that time, the University adopted the American College Testing Company's program. Students took this test during their senior year in high school and in the summer directly preceding their enrollment in college. This particular program is used by all other schools in the State of New Mexico and by the largest percentage of the colleges and universities throughout the United States. The test is not directly comparable to those that the University previously administered and therefore a continuation of longitudinal norming became impossible. This is the third year that the ACT has been used and considering the information and analyses that is provided by this testing service in addition to test scores, the decision to adopt the ACT program in place of self-administered tests has been more than justified.

English and Mathematics placement by the use of these test data has now been worked out to the general satisfaction of the two academic departments involved, this college and most of the students. Through the cooperative efforts of the University's Testing Division, computerized determination of individual student placement has replaced hand computation and has increased the accuracy and efficiency of placement.

Much information has been provided by the ACT testing service in the areas of demographic background on each student as well as a wealth of information of the non-intellective variety concerning individual student's aspirations, attitudes, psychological felt needs and similar

matters that previous investigation and research by the University College indicates is more predictive of the individual's likelihood of success at the University than quantitative measures of ability from test scores and high school grade point averages. The ACT service also provides the University with large quantities of information regarding sources from which students are drawn, fluctuations in numbers of students attending the University from various parts of the state and nation, projected academic and vocational goals as well as information concerning students who indicated the University to be their first choice but who did not actually enroll. This division is in the process of reducing this data for presentation to the University community in the hope that better input will make possible more effective utilization of physical and human resources of the University.

The quality of the beginning freshmen remained approximately the same as that of the 1967 freshmen as measured by the ACT test scores. There was neither a significant increase or decrease.

Enrollment statistics for Semester II of this fiscal year show that 4257 students registered in the University College at the beginning of Semester II. 449 of this enrollment were new students or readmitted students. 3808 represented students who had been enrolled in the University College during Semester I. Therefore, 1238 of the students enrolled in the University College during Semester I did not re-enroll in this college Semester II. 746 (14.8% of the first semester's enrollment) transferred from the University College to one of the seven undergraduate degree-granting colleges between Semester I and Semester II and

presumably enrolled in those colleges. This number would not constitute a loss in total enrollment to the University. 492 or 9.7% did not return to the University for the second semester. 176 (3.5%) were suspended for poor scholarship and 316 (6.3%) voluntarily dropped out. Attrition rate between Semester I and Semester II was 9.7%.

Staff

It should be noted that through retirement, the University and this division lost a loyal and effective employee, Mrs. Gene Chievitz, who retired June 30, 1969. Mrs. Chievitz joined the staff of the University of New Mexico in what was then the Counseling and Testing Division in the Student Affairs Division of the University in September, 1949. Mrs. Chievitz served as a Remedial Reading and Study Habits and Skills specialist for hundreds of students who profited from her understanding, sympathetic attitudes and professional assistance as they endeavored to make adjustments to the University and worked to overcome various learning disabilities.

Mr. E. Bruce Potter who assumed the duties as Assistant to the Director of the University College last year received his Ph.D. degree in Social Psychology from the University of New Mexico this year.

Other biographical information regarding activities of the professional staff will be found as an appendix to this report.

University College Activities

The University College in addition to carrying on its usual activities in performing the functions set out in the Tidal Wave Report engaged in two major projects during this year.

The first of these was an in-depth internal study of a single freshman class to ascertain the performance of a given group of students over a five-year period. Through the good offices of the Academic Vice President, Dr. Ferrel Heady, research funding was made available to defray part of the costs of carrying out this project.

Data was collected on all of the new freshmen who enrolled in 1963 regarding their actual performance through June, 1968. During the current year this data was reduced and evaluated, and by means of a stratified random sample an intensive effort was made to contact students in this sample to obtain individualized data, particularly in the areas of students' backgrounds, reactions to their collegiate experience, their current activities and similar matters. A sufficient response was received by mid-spring to permit the writing of a comprehensive report on the findings. The result was a publication by this division titled: A Longitudinal Study of the Beginning Freshman Class of 1963 At The University of New Mexico: The Invisible Student, more commonly referred to by its sub-title, The Invisible Student.

Many of the findings were surprising, particularly with regard to the causes for the high rate of attrition at the University of New Mexico. The performance of a Spanish surnamed sub-group was compared with that of the total group. Also, male and female performance comparisons were made. The findings confirmed some assumptions that had been held by many persons and disproved many other assumptions.

This study received fairly wide distribution, both within and without the University community, and has since been used both within and without the University as a basis for evaluation and proposing changes

in both the University and the State's educational programs. (A copy of this study is submitted as an appendix.)

It is anticipated that a second phase of this study, to be pursued next year will permit identification of those non-intellective factors that are common to students who proceed from freshman status through to successful completion of a bachelor's degree and those factors which are common to the group who become dropouts from the University at various stages of their formal educational experience.

The second major project was planning a more intensive orientation program of beginning freshmen during the summer prior to fall enrollment. For the past two years the University College has participated in a series of summer orientation sessions for beginning freshmen, which program was instituted and coordinated by the Division of Student Affairs. The University College has obtained agreement from the Registrar's office and the various degree colleges to permit the pre-registration of students attending the orientation program as a first step toward a new approach to academic program advisement and pre-registration. As of the close of this year, this activity is in progress and its effectiveness will not be ascertainable until an evaluation of it is made next fall. It is also the intention in conducting this pre-registration to obtain a sufficient sampling of student demand to permit this office to provide to the degree colleges, and their respective departments, beginning freshman enrollment projections for particular courses, in order that better allocation of faculty resources and better scheduling of sections of classes can take place with a view to serving the needs of freshmen in providing them with their first choice of courses, rather

than compelling them to take second or third choices as has been the case so often in the past. The major difficulty with implementing such a project has been the lack of personnel and funding which is requiring the use of counselors in the Counseling Center, special advisers in the University College, University College staff and staff of the Personnel Deans offices to act as academic advisers at the expense of these personnel carrying on their regular activities. If this program proves successful and is continued, it will be necessary to provide funding for it in order that other important activities not be slighted during the orientation period which extends over a twelve week span of time.

A further important development in the University College arose out of the recognition that many of the students who are admissible to the University are disadvantaged in the area of communication skills. Reading comprehension and writing problems for a significant number of students coming in as freshmen militate against satisfactory academic performance in their regular course work. An intensive attention to these problems is necessary if the student is to have any real chance to succeed in his academic endeavor. A committee of faculty members from various disciplines, chaired by the director of the University College, met regularly to formulate an approach which would promise meaningful assistance to these students. The members of this committee had expertise in the area of linguistics and tutorial techniques in aiding individuals in overcoming communication problems. The committee's report recommended a tutorial and linguistics approach to these students. It was recommended that this work be done under the jurisdiction of the

University College. This report was accepted by the Academic Vice President and the provision was made by him for immediate implementation. Beginning with the 1969-70 academic year, a comprehensive English Tutorial Program for a selected group of students is to be undertaken by the University College. A copy of the committee report and the implementing proposal is attached as an appendix to this report.

A major development in undergraduate education took place in the late spring of this year. On recommendation of the Committee on the Enhancement of the Educational Process, the General Faculty approved a new degree program to be known as the Bachelor of University Studies. This program in essence is a completely unstructured bachelor's degree where the student has unlimited control over his four years of work. The requirements for the degree are 128 hours of credit, forty of which must be at the upper division level and with a minimum grade point average of 2.0--a C average--in order to graduate. The administration of this program was assigned to the University College. This program was proposed by the afore-mentioned committee after several years of deliberation and on the basis of input by members of the student body, various members of the faculty and information provided by this office concerning student body characteristics, unmet educational needs as these were perceived by this office and various members of the University community and with reference to the high attrition rate. It is hoped that a considerable number of students who wish to construct an interdisciplinary-oriented curriculum will be able to do so by crossing college lines in the selection of courses, and as a result will find a more meaningful educational experience within the limits of the present

educational offerings of the University.

The administration of this program will have its main impact in this office in the areas of required entry interviews as provided by the Faculty and working out arrangements for information and advice for those students who feel the need of it but without requiring the students in the program to comply with the existing structured advisement, programming and registration procedures. This office is eagerly anticipating the impact this program will have on certain segments of the student body and the accumulation of information that will permit an evaluation of this unique program.

Also, the Faculty of the University approved the first Associate of Arts degree program upon recommendation of the academic deans. This degree is titled "Associate of Arts in Human Services". The program was precipitated by the New Careers program, funded by the central government under contract with the Institute for Social Research and Development at the University of New Mexico. Only persons who have been accepted into New Careers will be admitted to this Associate of Arts program. The great majority of the New Careers students would not qualify for admission to baccalaureate degree status at the University. This first step in recognizing the feasibility of providing a sub-baccalaureate track for otherwise inadmissible students is a major move in meeting presently unmet educational needs of a large segment of the population of Albuquerque and the State of New Mexico, as well as recognizing society's increasing need for sub-baccalaureate paraprofessional personnel. The administration of this first two-year degree program was placed under the jurisdiction of the University College. This

increased the responsibility for another sub-set of students with regard to administration of the program, record keeping and certification for the awarding of the degree.

Additional programs of this nature are needed and hopefully will be instituted to serve large numbers of students who do not find the traditional baccalaureate degree track compatible with their interests and needs.

Academic Advisement

Academic advisement as it has been carried on since the University College was established still proves inadequate and unworkable. The reader is referred to past University College reports and other special reports on academic advisement which point out in detail the reasons the present system proves unrealistic, inadequate and totally unworkable. Neither before the University College, nor during its existence to date has academic advisement in the great majority of instances been more than a clerical programming of courses for the individual student. Surging enrollments, coupled with limited numbers of faculty assigned to University College advisement have resulted in an overloading of the adviser. The method by which deans and department chairmen select and name faculty to the University College advisement activity has not resulted in choosing the most interested, knowledgeable and effective faculty members for this task. Failure on the part of departments and colleges to consider advisement as a major responsibility of the faculty member and recognize the time spent by the conscientious adviser when consideration of salary increment and promotion arises has not been conducive to good advisement. The turnover in the University College

faculty member advisement staff has run around 50 per cent a year. Students have resisted the requirement of seeing faculty advisers and other students have become discouraged with the quality of assistance received and have reacted by not returning to the adviser for information and assistance. Much more in the way of detail could be set out but it would be reiteration of that which has been said over a period of more than ten years. These criticisms have been raised in meeting after meeting with the Board of Deans of the University College, central administration, in various faculty committees. Various recommendations for change have been proposed by this office, but to this time no action has been taken to rectify the matter. Some of the past recommendations have been in conformity with the prophecy in the Tidal Wave Report that these advisers should receive either additional compensation or a reduction in teaching load. Neither of these have been well received by central administration, primarily because of the costs involved, but certainly the present arrangement is a contributing factor to disillusionment of students and concurrent attrition rates.

The efficient processing of student records and the provision of flexibility to students at the lower division level with regard to adjustment to college and exploration of various program offerings before making a final selection continue to be the most successful aspects of the University College device as the division was originally structured. The additional functions mentioned above as added activities, i.e. degree programs and research activities, are also most successful and welcome developments for the University as a whole.

The University College has taken major steps in using Data

Processing and computer facilities to perform many of the repetitious and detail tasks that previously were done by hand with regard to the keeping of student records, the assignment and re-assignment of academic advisers, the determination of scholarship standings and the storage, retrieval and reduction of data for research and reports on various aspects relating to the student body and the University's programs and activities. On the basis of the best information obtainable, this is the only academic office that has adapted its record keeping functions and data collection from hand to machine processing. Without this development, staff support would have had to be increased drastically in order to handle increased enrollments.

COUNSELING CENTER

The Counseling Center continued to expand its service to the University community, and the existence and nature of the service appeared to become more widely recognized throughout the University community. Two additional junior-level full-time positions were authorized in this year's budget. This resulted in the employment of two persons with counseling and guidance training at the master's level and with a minimum of three years of experience in either public school or college guidance work. Mrs. Sue Vrooman accepted employment as a counselor. Mrs. Vrooman previously was an Assistant Dean of Women in the Student Affairs Division of the University of New Mexico. Mr. Robert Morris accepted the other authorized position. Mr. Morris came to the University from the public school system of Denver, Colorado, where he had worked as a counselor for thirteen years. Considering the condition of the market and the budgeted funds, the University was most

fortunate in obtaining the services of these two experienced and excellent people. Dr. Sven Winther acted as the coordinator of the counseling service and was most effective in recruiting the personnel referred to above and in pressing for recognition by the student body and various other divisions of the University in this developing activity. Concurrently, he devoted much time and effort to the supervision of the internal study referred to earlier in this report and together with Dr. E. Bruce Potter and the director of the University College brought the study to fruition. The Counseling Center staff were also deeply involved and committed to the expanded approach to freshman orientation while continuing to provide services to individual students from all colleges and schools on the campus by way of academic, vocational and personal counseling.

Data obtained from the activities of the counselors were also placed in a machine format to permit retrieval in the form of summaries. The distribution of counselees by referral source and classification by colleges, as well as the incidence of various types of problems are shown on the following pages. The growth in demand for the service will be noted by comparing a similar report for the 1967-68 academic school year. One of the more interesting observations is the increase in self-initiated interviews rising from 63 per cent in 1967-68 to 86 per cent in 1968-69 of the total interviewed. This demonstrates the increasing awareness and acceptance of the service by the individual student. It is also interesting to note that the great majority of students who used the service had problems in the areas of academic information and vocational-

INTERVIEW RECORD TABULATIONS

Academic Year 1968-69

Prepared by E. B. Potter
Preliminary Report 9/1/70*

Number of individuals interviewed 2015
Number of interview sessions 2940

Semester

Summer Session	699
Fall Semester	1198
Spring Semester	<u>1043</u>
TOTAL	2940

Interviews Scheduled**

1st - 5th	2766
6th - 10th	115
11th - 15th	26
16th - 20th	13
21st - 25th	9
26th - 30th	5
31st - 35th	5
36th - 40th	<u>1</u>
TOTAL	2940

**Current interviews, arranged
according to number of interviews per
student held since September 1, 1967

Interviews

Self-initiated	
Show	2282
No Show	<u>246</u>
TOTAL	2528 (86%)

Specific Invitation	
Show	331
No Show	<u>81</u>
TOTAL	412 (14%)
Grand Total	2940 (100%)

Interviewee College

Arts and Sciences	195
B & AS	30
Education	65
Engineering	24
Fine Arts	55
Law	5
Medicine	1
Nursing	15
Pharmacy	2
Univ. Coll.	<u>1495</u>
Non-Degree	47
Graduate	60

Not Enrolled

Not admitted	176
Admitted	276
Adm. pending	135
Readmitted	72
Former student	<u>168</u>
TOTAL	2940

Referrals from:

Self-referral	1795
Housing Office	18
Orientation Program	17
Academic Dept. Chair.	13
Faculty member	17
Academic Adviser	28
U. C. Office	499
Dean of Students	28
Student friend	13
Testing Division	147
Admissions Office	87

Referrals to:

Other Universities	17
UNM Community Coll.	17
Admis. & Records	112
Academic Dept. Chair.	58
Academic Coll. Dean	28
Faculty Member	76
Testing Division	294
E & C Committee	16
U.C. Scholarship Comm	15
Univ. Coll. Dean	44
UNM Counselor	25

Interview Record Tabulations - Academic Year 1968-69

2

INTERVIEWS BY:	TYPE OF INTERVIEW				TOTALS
	Unknown & No Show	Info.	Voc-Educ.	Pers-Soc.	
Practicum	32	72	39	15	158
Interviewer #1	5	29	16	-	50
Interviewer #2	1	8	5	-	16
Interviewer #3	72	210	116	46	444
Interviewer #4	29	76	44	3	152
Interviewer #5	26	137	93	17	274
Interviewer #6	45	204	27	8	285
Interviewer #7	32	73	108	171	384
Interviewer #8	68	196	204	120	589
Interviewer #9	46	93	238	211	588
TOTALS	356 12.1%	1098 37.3%	890 30.3%	596 20.3%	2940 100%

*Tentative tabulations based upon preliminary computer run of 8/31/70

educational choice. The number requiring assistance with personal problems identified as psychologically oriented comprised but one in five of the students counseled.

TESTING DIVISION

This paper follows, in most aspects, the same format as the reports for 1966-67 and 1967-68.

A. Services

1. Psychometric services to the Counseling Center
2. Psychometric services to the Veterans Affairs Office
3. Testing Center for institutional and national testing programs
4. Data services to UNM colleges, departments, and offices
5. Institutional and related research studies
6. Measurement information center for the institution and community
7. Measurement Services Center

B. Discussion

1. Psychometric services to the Counseling Center

This service provides testing of counselees as prescribed by the Center. During 1968-69, 360 counselees were administered one or more tests. This is an increase of 28 examinees over last year. In addition, as was the case last year, the figure represents a more sophisticated level of testing for many of the examinees. For example, 68 of the 360 counselees were administered the WAIS, resulting in nearly a 50% increase in this type of testing.

2. Psychometric services to the Veterans Affairs Office

508 counselees were administered an average of 4.7 tests each.

This is a slight decrease in the number of counselees tested. Again, the test sophistication has increased somewhat due to allowing the V.A. counselors to prescribe individually administered tests such as the WAIS.

It should be noted also that the testing services for the V.A. underwent a procedural change due to the moving of the Testing Division offices away from close proximity to the V.A. offices. The Testing Division currently assigns one psychometrist to the V.A. offices to facilitate the V.A. testing program.

3. Testing Center for institutional and national testing programs
6327 examinees were tested under these programs. Last year the figure was 8121. However, the figure of 8121 included 3207 EPE examinations. Thus, the 6327 cases represent a considerable increase in the overall on-going testing programs.
4. Data services to UNM colleges, departments, and offices
These services remained constant the past year. Due to the addition of a computer-data processing position for 1969-70, the services in this area will be assigned a significant priority for increased development during the present year.
5. Institutional research studies and related services
An increased number of studies were participated in during the past year. For example, the Testing Division, in cooperation with Dr. Spolsky of the COE and with the Educational Testing Service, is involved in a study of the Test of English as a Foreign Language (TOEFL). In addition, the Testing Division has participated in two studies with ACT unique to the ACT program.

Data have been collected and are being analysed related to a study on the effect of preparing examinees to take analogies tests. Likewise, data have been collected on the effect of different methods of obtaining responses to questionnaires.

6. Measurement information center for the institution and community
The test library has been continually up-dated and refined and is enjoying greater use by faculty and graduate students. For example, a psychology class in tests and measurements held two class periods in the Testing Division. The Senior Psychometrist has continued to increase her role in the area of working with faculty and students in this manner. The Director of the Testing Division presented two formal papers to community and state associations related to the testing of minority groups.
7. Measurement Services Center (MSC)

The MSC has been discussed in previous reports.

C. Staff

The Testing Division staff consisted of three full-time personnel, the Director, Senior Psychometrist, and Secretary, and from six to eight part-time people. Overall, the staff has continued to be up-graded and has become more professionally sophisticated. The outlook for the present year is also quite good.

In summary, this report shows that the Testing Division has continued to increase and improve services. The present year's objectives will be concerned with continued improvement in psychometric services. In addition, data services and institutional research will receive a

significant proportion of administrative attention.

I shall be happy to go into more detail or to clarify any aspect of this report if requested.

VETERANS AFFAIRS OFFICE

The Veterans Affairs Office on this campus has two primary functions to perform.

1. To prepare the necessary documents in placing the eligible student into training under the benefits of one of the V.A. educational programs. These include:
 - a. Certification of the students enrollment.
 - b. Change in the student's enrollment that may affect his training allowance
 - c. Change in enrollment status
 - d. Scholastic progress and general status with the University
 - e. Records of attendance
 - f. Date for completion of his educational benefits
 - g. Any other general matters pertaining to his educational training while enrolled
2. To furnish vocational or educational counseling, tutorial services, and to obtain readers for any blind veteran as agreed upon by the contract held jointly by the University and the V.A. Regional Office.

Under the contract held by the University, this office provides complete vocational and educational counseling to all those eligible for such service provided by the Veterans Educational Act. This service is provided for all those living within the confines of the

City of Albuquerque and also a large portion of the state of New Mexico. For complete counseling the University receives from the V.A. a total of \$68.80 per case and \$28.70 for psychometrics only.

Considerable time is involved in each case that is handled through this office. Each must be reviewed by the Veterans Affairs Administrator for assignment to one of the counselors who prepares a narrative report on the case. Appointments must be scheduled and if the counselee is eligible for transportation costs to the Center, this must be arranged. These duties are met by the Veterans Affairs Administrator, one full-time counselor, one counselor hired on a case basis, and the necessary psychometric professional aid provided by the Testing Services. All clerical duties are carried out by a clerk-typist under the supervision of a full-time Veterans Affairs Technical Adviser.

It should be pointed out that this counseling service is not restricted to only those planning to attend the University, but is for all those who have elected to go elsewhere for college training. They may also attend business schools, trade schools, or seek on-the-job training.

During the fiscal year 1968-69, this office scheduled a total of 923 cases for counseling. Of this number, 78 cancelled their appointments, 176 did not appear, and 135 were rescheduled. No charges were made for services on 14 cases. The University received from the V.A. a total of \$33,928.50 for counseling services covering 513 cases completed. It will be noted that this is a decrease from the previous year, being due to fewer cases of only psychometric services rendered. It is

anticipated that the number of full counseling cases will show a greater increase for the next year since a larger number of servicemen are now being discharged. This is made evident since there were a total of 152 counseling cases during the first three months of the 1969-70 fiscal year. Effective October, 1967, the V.A. regulations provided a payment to institutions of \$3.00 for each eligible student who is certified by that institution. This fee was to help offset the expenses incurred by this certification. For this service the University received \$3,471.00 which increased to \$37,399.50 the total received by this office for this fiscal year.

It is interesting to note that since the effective date of the Korean G.I. Bill, September, 1952 through June 30, 1969, the University has received a total of \$238,296.31 for service rendered by this Veterans Affairs Office.

In looking to the future, it is difficult to make a prediction as to what the full impact will be of the present V.A. educational assistance programs upon this office as well as upon the University. It is felt that there will be a slight increase in counseling cases for the next fiscal year. If pending legislation is passed by Congress this year or early in 1970, which will provide a greater veteran's training allowance, the increase could be substantial. An increase in veteran student enrollment can be expected for several years to come. During Semester II, 1969, the total enrollment of eligible students under the V.A. programs was 1360, which represented an increase of 10% over the fall semester. The 1969 summer session showed an increase of nearly 19% over the 1968 summer session. This office is estimating an increase

of 11-12% for the coming fall semester over the last spring semester. This would mean a total enrollment of nearly 1550 students in this program for Semester I, 1969-70.

Personal and telephone contacts are another indication of the interest of eligible persons desiring to come to the University to use their V.A. educational benefits. These contacts along with the normal everyday inquiries made by the veteran students are most time consuming. We feel that these contacts have greatly increased over the previous fiscal year, as reported at that time. For the most part, these inquiries are handled by the Veterans Affairs Technical Adviser, with approximately 15% of the cases being referred to the Veterans Affairs Administrator for further advice and consultation.

Since the veteran student load is on a steady increase and will continue to be so for a number of years, we pause to reflect what impact this has had and will have on the economy of the City of Albuquerque. For example, for the present fiscal year, 1968-69, it has been estimated by this office that our University veteran students alone have received a total educational assistance allowance of \$1,700,000. This does not reflect the amount received by veterans who are attending other training facilities in this city.

At this time we feel that our present staff is adequate to handle the existing counseling load and the general duties that are carried out. It is necessary that extra help be called in during the registration periods of each term of school. This has been provided and usually by student help. However, as mentioned above, if pending legislation is passed, there will be a greater demand for the services of this office.

Another counselor might then be necessary, as well as additional clerical help.

The annual report of 1968 mentioned the importance of careful scrutiny of the present contract held by the University and the V.A. to determine if the charges should be revised upward to compensate for increased salaries, cost of materials, etc. This has been done and the contract was revised effective April, 1969, providing \$68.80 per counseling case; however, for psychometric services only, the fee of \$28.70 remained.

APPENDIX

COMPOSITE OF BIOGRAPHICAL SUPPLEMENTS

Advanced Study

Potter, E. Bruce: Ph.D., University of New Mexico, June, 1968.

Research Projects or Creative Work in Progress

Huber, William H.: Continued research into student body characteristics.

Potter, E. Bruce: Draft of Report for North Central Association Committee.

Activities in Learned and Professional Societies

Huber, William H.: Southwest Management Development Program, Santa Fe, participant. New Mexico Bar Association, member.

Morris, Robert: American Personnel and Guidance Association Conference, Las Vegas, Nevada, March, 1969, participant.

Potter, E. Bruce: American Personnel and Guidance Association Conference, Las Vegas, Nevada, March, 1969, participant. American Educational Research Association, member. Phi Delta Kappa, member. Association of University Religious Advisors, member.

Winther, Sven F.: American Personnel and Guidance Association Conference, Las Vegas, Nevada, March, 1969, participant.

Other Professional Activities

Huber, William H.: Group meetings with counselors at several Albuquerque High Schools.

Morris, Robert: Presentation to sorority on campus on counseling.

Potter, E. Bruce: Instructor, Fall, 1968, "Introduction to Guidance", UNM. Instructor, Spring, 1969, "Socio-Economic Information in Guidance", UNM. Panel member, Humanities class, Highland High School, Albuquerque.

Winther, Sven F.: Taught two classes in the area of counseling in the College of Education. Supervised six in-training students in the College of Education in the area of counseling.

Non-teaching University Service

Huber, William H.: Acting Dean, School of Business and Administrative Sciences; Branch College Committee; Computing Science Committee; Management Committee; N.C.A. Committee Steering Committee.

Non-teaching University Service

Winther, Sven F.: Speech to Town Club, UNM. Student Affairs Staff Meetings, participant. Meetings with groups engaged in Counseling activities--Student Health, Campus Chaplains, Dorm counselors.

Service to Community

Morris, Robert: Boy Scout Troup Leader. Superintendent of Sunday School and Sunday School teacher.

Potter, E. Bruce: Presbytery of Rio Grande--United Presbyterian Church, U.S.A., member.

Winther, Sven F.: Group leader, Indian Guides.

THE UNIVERSITY OF NEW MEXICO

DATE: January 2, 1969

TO: Mr. Chester C. Travelstead

FROM: William H. Huber, Director

SUBJECT: Coordinated program of reading, study skills and language development for undergraduates

This fall at least four different groups of faculty on campus have demonstrated their interest in the area of "remedial" reading and language development. Two of these groups have proposed special programs to meet the needs of undergraduates with an inadequate background in the English language. These proposals have directed their concern towards various minority groups and other students who need additional training in the basic skills necessary for college study.

A general proposal, dated November 5th, was distributed by Bernard Spolsky, Associate Professor of Linguistics and Elementary Education, and Gerald Slavin, Director of International Services, which identifies the basic elements necessary for a program comprehensive enough to aid all those students who might be in need of special educational assistance due to linguistic and cultural disadvantages. The program outlined in this proposal illustrates the desirable scope of such a venture if it is to reach more than a few students and actually affect the chances of a large group of marginal students to stay in the University and pursue their educational goals.

On November 19th, David Darling, chairman of the department of Elementary Education, wrote a memorandum at the request of the members of his department urging that the "University should establish a Language, Reading and Study Center that would be inter-professional in nature, drawing from such areas as neurology, psychiatry, rehabilitation, speech therapy, language development, remedial and developmental reading, and guidance." This proposal discussed the necessary facilities and the value of such a program as a training ground for graduate students who are majoring in related areas. Also, the description of specific services necessary within the general concepts of language development, reading and study skills are detailed enough to form a job description of the professional qualifications necessary on the part of whoever would direct or carry out the implementation of this type of program.

Other developments within the department of English relate to this general area of concern. Department chairman Joseph Frank has indicated that the emphasis in the "remedial" course (English 010) will be focused less on reading and more on the development of language skills through written expression. That department does, however, wish to support and cooperate with a University-wide program focused on language development.

The common concern for a program in this area has been shared also by Fred Christ of the Department of Speech who has long been aware of the needs through his work with students in the Speech clinic. Since language development often touches these other areas in addition to speech, he also supports the idea of a broader, more comprehensive program than has yet been attempted at UNM.

Mr. Chester C. Travelstead - January 2, 1969

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At this time University College and Counseling Center is seeking a reading specialist to replace Mrs. Gene Chievitz who retires at the end of this year. We have hoped to employ someone who could direct a developmental reading program for large groups of students as well as be competent to work effectively with learning problems and complex language difficulties. The need for this type of service is amply demonstrated among counselees who seek assistance through the Counseling Center. This group alone is too large to be adequately dealt with by our reading specialist who presently has no assistants to work with her and direct groups of students in their practice sessions. We have planned, therefore, to seek some involvement with the training of graduate students and expand the range of services available in this area.

This outlines the separate yet related positions of different departments and faculty regarding the issue of improving educational opportunities for the predominant minorities in New Mexico. On December 18th these positions were expressed at a meeting at which the above-mentioned departments and divisions were represented. It was the consensus of this meeting that a program of considerable scope will be required to involve different departments in meeting the existing needs. The response of interest and willingness to cooperate on these matters has no doubt been stimulated by a portion of President Heady's inaugural address, but in order to respond more actively to these concerns it appears that the matter should now either be taken up by the appropriate standing committees or a new committee should be established to investigate the available resources and propose a plan whereby these resources be organized and supplemented to meet the existing needs.

The people indicated below have expressed interest in working towards the establishment of such a program in whatever manner seems appropriate or most helpful at this point.

WHH:kp

cc: Fred Chreist
David Darling
Samuel Fletcher
Joe Frank
Roy Pickett
Bruce Potter
Gerald Slavin
Bernard Spolsky
Sven Winther
Miles Zintz

PROPOSAL FOR AN
ENGLISH TUTORING SERVICE
and INTERCULTURAL ENGLISH PROGRAM
in the UNIVERSITY COLLEGE AND COUNSELING CENTER

the University of New Mexico

October 1, 1969

Dean Brodkey

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CONTENTS

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The following report and recommendations is based on a survey of existing UNM facilities and programs in English, with special reference to the Freshman English program. Primary consultants were as follows:

Judy Berryman, Graduate Assistant, Dept. of Speech.

Anna Boyd, President KIVA Club.

Louis A. Bransford, Asst. Prof. Guidance and Special Education
(associate of UMAS).

Fred M. Chreist, Professor of Speech.

Leroy Condie, Assoc. Prof., Elementary Education.

Caroline Davis, Librarian, Learning Materials Center,
College of Education.

Paul B. Davis, Assoc. Prof., English; Director of Freshman English.

Ned J. Davison, Prof. Mod. and Class. Languages (Hispanic lit.)

Kirstin Engstrom, Clinical Supervisor, Department of Speech.

Gina Harvey, Instructor, English (English as a Second Language).

Robert Holzapfel, Asst. Prof., Mod. and Class. Languages; Asst.
Chairman, Dept. of Modern Languages.

William H. Huber, Director, Univ. Coll. and Couns. Ctr.; Professor,
Business Administration; Acting Dean, Bus. Adm.

Lawrence Lomako, Asst. Dean of Students, Housing.

James C. Moore, Director, Testing Division; Asst. Prof. Educ.
Foundations.

David Peterson, Clinical Supervisor, Dept. of Speech.

Edward B. Potter, Asst. to the Director, Univ. Coll. and Couns. Ctr.

Gerald M. Slavin, Director, International Services; Fulbright Prog.
Advisor; Foreign Student Advisor.

Bernard Spolsky, Assoc. Professor, Linguistics and Elementary Educ.

Dal S. Symes, Teaching Assistant, English (English as a Second
Language).

Sven F. Winther, Asst. to the Director, Univ. Coll. and Couns. Ctr;
Asst. Professor, Education.

Miles V. Zintz, Professor, Elementary Education (Bilingual Educ.)

I.

ENGLISH TUTORING SERVICE
and INTERCULTURAL ENGLISH PROGRAM

A double title suggests itself for these reasons: ENGLISH TUTORING SERVICE is a simple, recognizable function applying to any student with English deficiencies and avoiding overtones of ethnic identification which may be distasteful to some of those seeking aid; while INTERCULTURAL ENGLISH PROGRAM calls attention to the program's important function of service to those non-Anglo American groups or individuals who choose to be so identified, and who want English tutoring with full cognizance of their ethnic and linguistic differences.

POLICY STATEMENT

The linguistic and cultural variety of the peoples of New Mexico is well known, and attempts to eradicate differences have been discredited. If the University of New Mexico, a state supported institution serving all of the state, is serious about recognizing the desirability of maintaining cultural and linguistic variety while providing higher educational opportunities in a bi- or multi-lingual situation, English language services on campus must be completely restudied and revised.

Recent university surveys indicate that cultural minority groups are either poorly represented at the university or appear prominently among early dropouts. Among the many complaints centered on inadequate tutoring and counseling, English disabilities are frequently mentioned. Evidently, traditionally oriented university policies with respect to English proficiency, namely, that the university functions as a screening device to preselect the most proficient and relegate the remainder to non-credit, sub-university "remedial" courses for the unqualified, have not thus far met the challenge of suitable English instruction in a linguistically diverse community.

The field of English as a Foreign Language has contributed much to analysis of the specific problems of students of other linguistic and cultural backgrounds engaged in higher educational pursuits in American universities. It is well recognized that a "foreign" student is able to perform effectively in an American university, competing with American students, and that this can be done without either attaining perfect native-like proficiency in all aspects of American English, or by substituting American cultural standards for his own except as these two factors directly impinge on his academic progress. In other words, a foreign student is not expected to become a middle-class Anglo-American as a result of his university experience. It seems that this sort of standard ought to apply as well to those native-born New Mexicans who choose to remain linguistically and culturally different. ESL may not have ready answers to the New Mexican problem, but perhaps offers more than usual sensitivity to the issues, both from an analytic and pedagogical point of view, and in philosophical outlook.

This statement is not to imply that all English language problems on campus are necessarily restricted to the cultural minorities. English deficiencies extending to the Anglo-American majority undoubtedly exist and require special service. The intercultural emphasis of this program is reiterated, however, in recognition of what is considered to be the more crucial issue for the community at large.

II

REVIEW OF ENGLISH INSTRUCTION

1. Freshman English

Examination of the ACT English test, interviews with the Director of freshman English, and a review of new class assignment criteria being used brings up serious questions as to the evaluation of English proficiency and the approach to language instruction for students with "underdeveloped" language.

As a discriminative tool, the ACT English section appears to be suitable for separating out only the highest levels of English performance. The test consists of a series of passages requiring editorial revision. The student chooses multiple-choice substitutions for underlined phrases. Emphasis is on discrimination of fine shades of levels of usage; typically

Even before his crew came aboard the courage which Heyerdahl possessed was again tested.

1. NO CHANGE
2. Heyerdahl's manly courage
3. Heyerdahl's courage
4. The courage of this man

Also tested in a few items are paragraphing indication, agreement of number, transition phraseology, the syntactical position of "only", punctuation of run-on sentences, choice of levels of usage, and such lexical "units" as "inveighed contrary to", "speculated about whether", "considered as if whether", etc.

Heretofore, entering freshmen have been assigned to English classes on the basis of scores on this test. An arbitrary set of cutoff scores resulted in assigning students to either English 010, a non-credit "remedial" class requiring a \$20 fee, English 101, a class in the elements of composition, or English 102, the advanced course introducing literature. Recognizing some of the deficiencies of this test, the Freshman English staff has instituted a new test of their own consisting of a written composition (this term on the theme "The influence of the mass media -- especially movies, magazines and television -- is so pervasive in our society that most Americans have become passive pawns of the media without minds of their own."). Criteria for judging compositions were not made explicit, but evidently agreement on overall impression of a composition as rated on a four-point scale was high among all sixty instructors. All students in 101 and 010 were required to write the essay, and were reassigned between the two courses on this basis.

I had the opportunity to look at eleven randomly chosen compositions which were used in testing the reliability of the four-point scaling method. In general, I felt in agreement with the ratings noted on each composition. However, a first impression was that the topic was one with not a little cultural bias: many foreign students unaccustomed to analytic criticism of the mass media would probably reply in vapid platitudes, and this indeed appeared in several of the compositions. Moreover, I thought that the criteria being used in overall judgment could have been made fairly explicit without too much trouble (use of paragraphs to define unified sections, use of transitional phraseology, use of specific examples to support the argument, use of personal observation rather than stereotypical assertions, etc.) It might be said that students who can do these things have in fact passed a reasonable criterion test of freshman composition, and one would want to know how the criteria of English 101 differ from this. In other words, why weren't high scoring students passed to English 102?

At present, the OLO staff has made some attempt to pinpoint objectives for the coming semester, and these were described roughly as follows:

1. To "feel comfortable" with the pen.
2. To master the basic 3-paragraph, 500-word essay structure (the standard for 101).
3. To show awareness of consistency in levels of language usage (called "expression").
4. To identify important and supporting ideas in reading and writing.

The desire to specify objectives is commendable and should certainly be continued in the future. It would be interesting to establish some good objective measures of achievement of these objectives as well. This seems particularly desirable in the light of the existence of three separate instructional streams, described as "rhetorical", "argumentative", and "gestalt". These are the preferred teaching modes of particular instructors and are not at this time a matter for student choice. Again, the faculty is described as being divided on the importance of "originality" in student compositions.

A number of experimental approaches are to be tried this semester with the OLO group, including the use of a composition workbook featuring photographs with high emotional content, reminiscent of psychoanalytic projective technique. Also, stress will be placed on student-to-student communication in an effort to stimulate the free passage of ideas in writing. In addition, there are plans for implementing certain ethnically-oriented special sections next year. Evidently one or two staff members who are experienced in teaching Indian and minority students have expressed interest in conducting freshman composition classes using ethnic or minority-experience subject matter. It is not clear what special linguistic skills these instructors might have or might choose to bring to bear on their teaching, but such talents on campus should not be ignored.

While aware of the special language problems of UNM students, and very willing to consider research and new proposals, the Director seemed basically uninterested in incorporating this sort of work into the existing English department program, and was anxious to encourage the development of a program in basic English skills outside of his immediate realm, preferably in the College and Counseling Center. By this might be meant the general run of OLO problems in reading, vocabulary, syntax, and such typical second-language and second-dialect difficulties. It is to be hoped that the Director's interest in seeing that such a program is established at UNM will also encourage him to support its development in necessary ways.

In terms of numbers, the OLO and 101 classes are approximately as follows:

OLO	280 students
101	2,400 students

If all 280 students in OLO are potential tutorial subjects, the load on the new Tutorial Service could be considerable. Thus, the need for a new set of placement and diagnostic tests is reemphasized.

In terms of morale, one English OLO instructor reports that her class is both bewildered and demoralized at being assigned to "dumb" no-credit English work.

These are a few excerpts from the sample of freshman essays I had a chance to examine. I have chosen them with an eye to possible linguistic inadequacies of a rather basic nature; inadequacies which may reflect language or dialectal interference as well as simple inexperience with college English usage. There is no evidence whether the freshman English staff did or did not consider these features as the writers were evidently assigned both to English 010 and English 101.

English 101

The influence of mass media -- especially movies, magazines, and television -- is so spread in our society that most Americans are listening to much of this media without using their own minds.

These advertisements can consist of almost any consumers product.

There are so many advertisements on cigarettes, and each of these advertisements claim to have the best cigarette or to have come out with the best cigarette on the market.

How then is a person to decide which cigarette to choose? He doesn't.

Sometimes television does such a great job of influencing the people about certain consumers items, that the people do not even use their own minds . . .

In concluding, the writer agrees . . . In fact, the influence of these medium may . . . One type of mass media and its influence . . .

English 010

Seems to me the mass media directs everyone's thoughts to an extent. But it seems apparent that as trend progresses, it becomes easier to decide, or for some television personality to decide, on not what is right or wrong, but what is the "thing" to do.

Though it is not always the ignorant that fall for this. But it does, admittedly, take a bit more subtle means to persuade others to use their product.

Now then I'm sitting down in front of the T.V. and here comes some one maybe just one of my favorite personalities and lo and behold he's wearing a moustache. I say to myself wow! he looks real great so I grow one.

As far as I'm concerned clothes keep you warm and cover your body, not as a status. My only status should be that I have a mind of my own.

English 010

The mass media of today influences people one way or another; it leaves definite imprints or marks in one's personality.

An example of some of the harm is the violence shown in all three of these types of media. people may get the idea that violence is the thing to do these days and pick up a gun and go out and shoot a few people.

2. Speech.

Interviews with the teaching staff of the Speech department and with Dr. Chreist revealed two things: that the approach to pronunciation training for foreigners as conceived by the Speech department and as practiced by ESL teachers is for all purposes identical, and that the Speech department as a whole does not look favorably on a service function for the university.

At present not more than eleven students are enrolled in Speech 105, and of these perhaps one is concurrently enrolled in the ESL program. Present policy with regard to foreign students is that they must take a speech interview at the Speech department. Students having excessive pronunciation or comprehension problems are recommended to take Speech 105, but enrollment is on a voluntary basis.

The interview itself consists of a brief, impressionistic evaluation without standardized testing procedures, but this is probably as good as anything going and rather better than microscopic analyses of pronunciation deficiencies. For classwork, analytic tools used include the Tucker Test: a fairly lengthy if primitive test of aural discrimination of phonemic minimal pairs in English, simple intonation patterns (questions), and sentence and word-stress indication. The classes themselves are conducted on a communicative level with a tendency to abandon sound discrimination drills in favor of the larger communication needs of the students, i.e. what to say in a given situation, etc. Therefore for many Speech students classes become roughly equivalent to the type of ESL conversation classes normally given in the ESL program itself, the main exception being that students are self-selected for trouble with oral communication. Dr. Chreist also emphasizes the higher-level aspects of aural communication in the sense of comprehending lectures, and uses materials exemplified by the EDL "Listen and Read" tapes and workbook series which are, incidentally, designed for use by native speakers of English but which may be useful with others.

The Speech "laboratory" itself is minimal, consisting of one Bell and Howell "Language Master" with their set of recorded pronunciation drills, several portable tape recorders; but no library of English language tapes. The facilities of the Department of Modern Languages are being used for laboratory work in pronunciation and aural discrimination.

Among staff members, Mr. Peterson alone expressed considerable enthusiasm at the prospect of sharing methods and teaching materials with the ESL staff. There seemed to be no awareness at all that a considerable body of teaching materials for foreign accent problems already exists in ESL libraries. It was with some surprise that I found the Speech department to be lacking in any extensive research literature on the accent problem comparable to the work done for functional disorders.

The three teachers assigned to foreign students were unanimous in their feeling that they have full teaching loads and could not extend their services. Moreover, they were concerned that only highly motivated students should apply for Speech 105, and that the current practice of teaching three hours per week for one semester should be revised in favor of two hours a week for two semesters, since long term speech improvement is so hard to come by in a tight schedule. I agree in this, providing that the course is actually aimed at remediation of severe oral communication difficulties and is not seen as just another ESL conversation class granting easy credit to shy students.

Of special note was Dr. Chreist's mention of a previous policy of requiring oral interviews of all incoming students. Evidently this was discontinued in the light of social protest, since speech remediation was required if strong signs of foreign accent were detected. However, I would suggest that some oral interview procedure, however surreptitious, might be a very good idea, if only to give the benefit of voluntarily choosing an accent correction course to those students who want it. Obviously this is a very touchy social issue. But it seems to me that a student whose educational goal is one that will require good, standard American English pronunciation (teaching out of state, etc.) the opportunity for him to take Speech courses should be there. I believe Dr. Chreist concurs in this.

Given the unusual difficulty of changing speech habits in most "remedial" cases, it should nonetheless be possible to offer accent improvement courses for many students who are demonstrably good mimics and who desire such training. Real results should be obtainable with such students, if they exist.

3. English as a Foreign Language

Dr. Harvey and Mr. Symes teach all classes in English 103 (basic, 3-credit) and the special sections of English 101 and 102 assigned to foreign students only. That these three courses provide a "separate but equal" stream for foreigners is commendable. It has long been recognized that foreign students do not succeed in classes which put them in direct linguistic competition with native speakers (especially English classes) and that in many respects a double standard of English proficiency is warranted. For graduate students and students in the sciences it has been noted that a foreigner can achieve a very high level of subject-matter proficiency with considerable control of English as it applies to his own special field. At the same time, he may be rather weak in English usage in other areas which are common knowledge for a native speaker. This raises the interesting question of linguistic double standards for American students for whom English is in effect a foreign language (particularly some Indians), a second language (perhaps many Spanish-Americans), or even a second dialect requiring a high level of stylistic judgment. One ought to consider the functional utility of smooth "standard college English" for those with different cultural backgrounds and life goals.

English 103 stresses basic syntactical skills and conversational English, 101 introduces composition, and 102 requires more elaborate research reports, etc. There are at present approximately 25 students enrolled in the ESL program. The diversity of students in language skills, native language, and academic interests makes objective placement procedures difficult. All foreign students are required to take the Michigan Test of English as a Foreign Language, which is entirely different from the ACT. Although the University of Michigan has attempted to validate this test in terms of predicting college success, the results are questionable. However, it does give a detailed measure of performance on a number of skills which are not tapped by the ACT, and provides a means to measure improvement in these skills. A written composition provides part of the test, but methods for scoring it are not indicated. Professor Kaplan of NAESA recommended that UNM design its own test, but evidently this has not been done.

Once assigned to the 103 class, a foreign student is obliged to take 101 and 102. There is no provision for advancement by testing. It is possible for a foreign student to transfer into a 101 or 102 class for native speakers if he so desires; but the ESL staff sensibly discourages this.

Having advanced this far in special English treatment for foreigners, it seems astonishing that equivalent consideration for native-born non-English speakers has not been made. At present, for example, an American Indian freshman is sent into 010 without any option for a class for non-native speakers. This is not entirely the fault of the ESL staff, for, as they point out, American-born students are not a good match for foreigners, who tend to be older, and who tend to have better than average scholarly skills and achievements. I concur in this, and would recommend that special classes for Indian and Spanish-speaking students for whom English is indeed a foreign language should by all means be provided. These should be credit-granting classes just as English 103 is. (A pertinent issue here is that the tribal councils will not accept non-credit English courses under the terms of their scholarship grants.)

Separate treatment in English should not be a compulsory matter, of course. Any individual who chooses a standard program should be allowed to do so, provided the advantages of special English treatment are understood by him. The main issue is that the entire notion of bonehead, non-credit, "remedial" English should be given a second look in this community, and probably discarded altogether.

4. Reading and study skills.

The University College and Counseling Center has a well-supplied reading laboratory including eight booths with controlled readers, conference tables and chairs. A variety of reading texts and self-instructional materials are on hand including the SRA developmental reading kit, EDL reading filmstrips and workbooks on several levels, two sets of CRAIG reading programs and reading machines, a comprehensive set of PDL films and workbooks and a Perceptoscope for group instruction, etc., etc.

Without exception, these materials have been designed and standardized with typical American school populations and without regard to the linguistic differences of foreign or second-language learners. One characteristic result is that foreigners using the standardized reading tests and programs find that they don't "fit" clearly into the norms. Graduate students may be ignorant of details of English idiomatic usage which are familiar to every American five-year-old. Vocabulary scores may show up extremely low in comparison with Americans at high school or even junior high school level, while the student himself feels that he is reading fairly efficiently at graduate level in Psychology or Engineering. In the same vein, cultural content is assumed to be common knowledge in these reading improvement texts, while this is obviously a false assumption with many foreigners.

To a lesser extent, but probably not altogether absent, second-language and second-dialect speakers in New Mexico may suffer from some of the same cultural and linguistic blind spots. Therefore all materials and equipment designed specifically for typical American students are to an extent suspect, and in need of evaluation.

Utilization of these reading clinic facilities will depend in large part on the number of tutors assigned to the Tutorial Service. Although the materials themselves are to a large extent self-instructional, clinicians invariably recommend close individual supervision in their use.

It is further recommended that in addition to the formal texts, a suitable library of current class textbooks and reading assignments, and also current books on ethnic topics should be obtained.

III INSTRUCTIONAL RESOURCES FOR ENGLISH

Reading Clinic: The facilities of the reading lab have been described.

Language Laboratory: The Department of Modern Languages is able to offer use of 25 laboratory booths equipped with individual tape decks and optional console facilities. They have also offered to provide collections of old tapes which can be erased and used for recording new English lessons. There is no collection of pre-recorded English instructional materials, however. Plans for the new language lab to be located on the site of the old football stands will increase these facilities.

Department of Speech: Speech has a number of individual tape recorders, and a Bell and Howell "Language Master" with pronunciation card sets. Dr. Christ owns a set of EDL "Listen and Read" materials, and undoubtedly other items of interest to accent correction and aural comprehension instructors.

Learning Materials Center, College of Education: This center has assembled an extensive collection of textbooks in English as a Foreign Language, as well as bilingual instructional materials. The collection cannot be used for ongoing instructional programs as classroom texts, but may be used for certain demonstration purposes or as inspection copies. Free copies of new textbooks and teaching programs should be ordered whenever possible and shelved here for reference.

Zimmerman Library: Especially useful for research in English instruction is the Library's complete collection of ERIC documents, kept up to date in microfiche form and with microfiche readers available on the third floor.

Testing Center: The testing center in the University College and Counseling Center has examples of all commercially available tests and can order sufficient copies of any given test for administration on a large scale within the campus. Dr. Moore can offer expert advice in evaluation techniques and the construction of new English tests. Reading tests for individuals seeking tutoring are now being given.

Law School Library: In connection with the Law School pre-law orientation program to encourage minority students to aim for careers in law, I understand that there is a collection of books on Indian topics and possibly other minority subject matter.

Subject-matter tutoring: The dormitories now provide certain counseling and tutoring services. Academic and guidance counseling techniques are now being taught to a special group of resident "counselors" who have the responsibility of following up on the academic and emotional adjustment of students in their living complex. However, only about 10% of the freshman class receives this assistance. A new tutoring program extending to the entire student body is being offered this semester as a result of a \$500 contribution to the dormitory tutoring program made by the UMM Association of Students. Student tutors are paid \$1.00 per hour to meet in the dormitories with students who request individual or group help with specific academic courses. Thus, tutoring tends to become a one-shot attempt to cram for a specific exam, rather than an aid in developing long term skills. It is interesting, however, that students seem to be eager to offer their services as tutors for this very low rate of pay. Also useful is the dormitory collection of old examinations.

Speed reading: Community College offers a speed reading course for \$25 for 12 weeks. Its capacity at present is far too limited, and should be expanded to meet the need of sophisticated students whose only English reading problem is speed.

IV

JOBS TO BE DONE

What English language services should the university provide, and what departments should provide them? It seems to me that the following are important activities which could lead to language skills improvement. The question is, how should these activities be distributed among existing university departments, how should they be coordinated, and who will foot the bill?

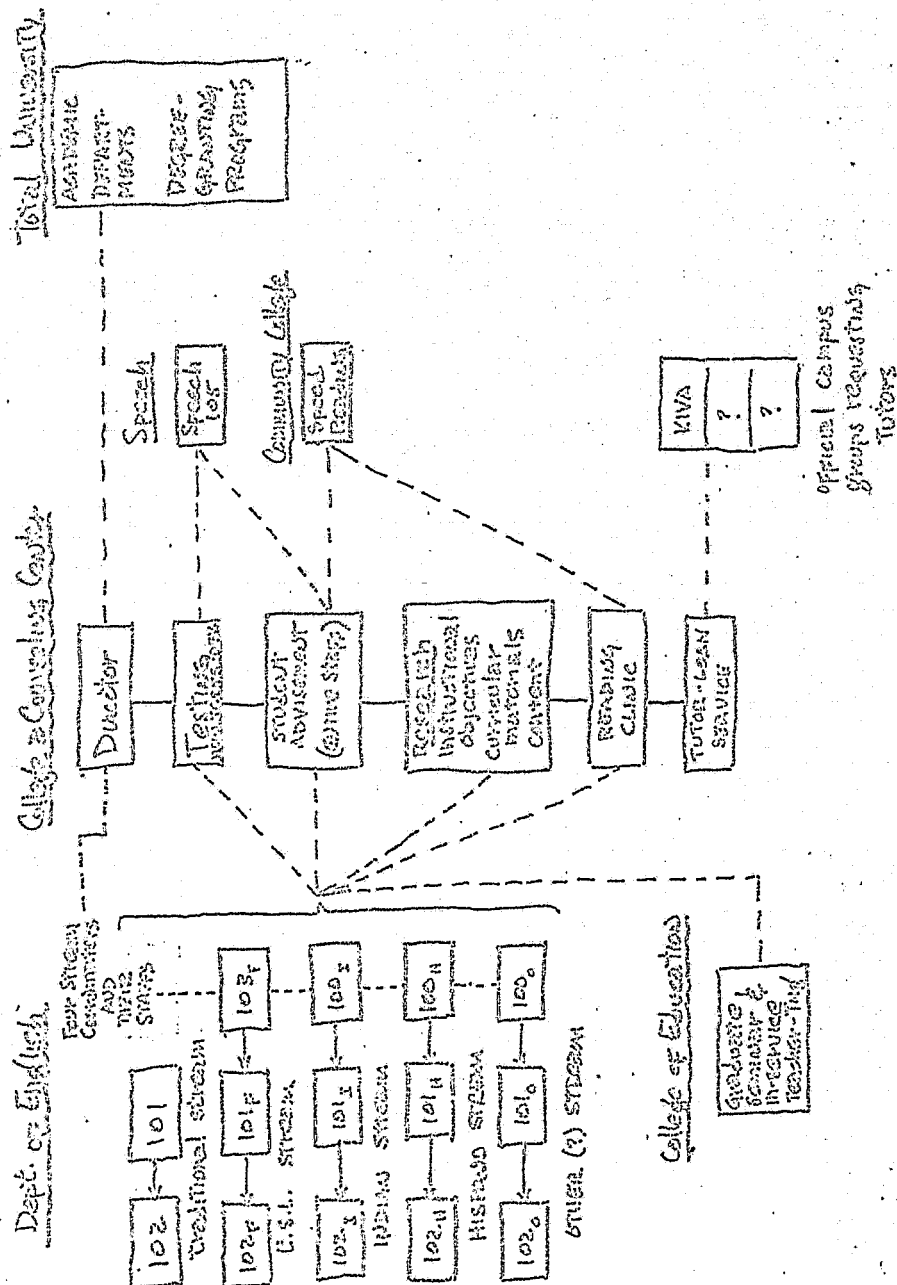
1. Routine testing of large groups, such as incoming freshmen, OLO classes, identifiable minority groups, etc., for the purposes of advisement or simply the gathering of useful data.
2. English counseling and advisement of individual students trying to set up their academic programs.
3. Instruction in basic English skills on a class level, presuming a complete revision of the present system such as eliminating English OLO and substituting new class "streams" for Indians, Hispano-Americans, and others, similar to the foreign-student stream.
4. Individual tutoring (not class work) for research purposes and especially during the early stages of developing a comprehensive new English program where the study of individual English problems would seem to be the best way to arrive at formulae for new class offerings.
5. Basic research in defining the linguistic problems of our students, in developing new tests, evaluating new teaching methods, evaluating old materials, and designing new course content and self-instructional aids.
6. Prescribing goals of instruction in behavioral terms: what English proficiencies are needed for what purposes? What are the academic English requirements necessary to major in Pharmacy, Physics, Anthropology, Art? How can the English program meet the needs of these departments as the academic faculty sees them and as we can show they exist?
7. Exchange of information among all campus English services and the subject-matter, degree-granting faculties. Communication with the student body.
8. A tutor-loan service providing skilled English tutors to campus organizations such as the KIVA club, who have requested such a service.
9. An in-service training program for future instructors and tutors equipped to step into our special type of program as other tutors leave.
10. Evaluation of the campus-wide impact of the English program in its parts and as a whole; how has it lowered the dropout rate, increased GPAs, or increased English skills per se?

V
TWO PROPOSALS

On the following pages are diagrams of two proposals for development of a new English program. The first is the diagram of an ideal plan to go into effect in one year. It features separate instructional streams for students with varying linguistic abilities and cultural backgrounds, with regular credit-granting classes to be provided.

The second diagram is an interim plan featuring individual tutoring as a preliminary activity to determine exactly what student abilities are and the best means of developing English skills; whether in ethnically-oriented classes, in classes separated by native language, in classes in particular skill areas (reading in special subjects, writing term papers, etc.) Findings of this investigation can then be applied to the next stage in terms of planning particular class/stream structures and content.

Program for Next Year (1970-71)
(Emphasizing new class offerings)

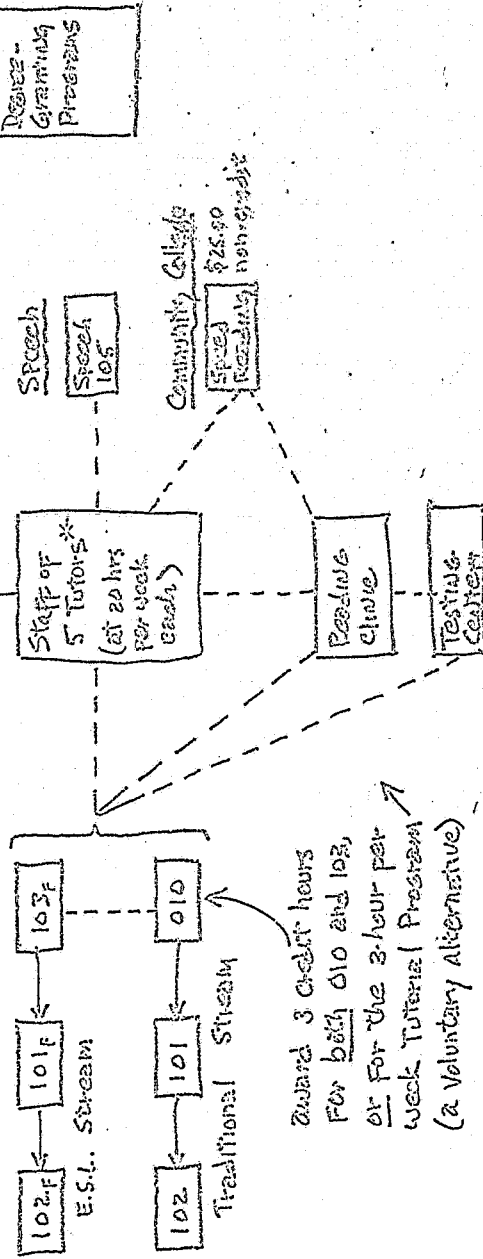


Program for Next Semester (Spring, 1970)
(emphasizing individual tutoring & research)

Dept. of English

College & Counseling Center

Total University



Award 3 credit hours
 For both 010 and 103,
 or for the 3-hour per
 week Tutorial Program
 (a Voluntary alternative)

*Tutors should include - 1 reading specialist
 1 Indian specialist
 1 Hispanic specialist

One tutor works 18 hours per week with students plus 2 hours conference with Director.
 (5 Tutors @ 3 hrs. per week per student = 30 students)

VI

BUDGETARY REQUIREMENTS

The following is a brief list of the most important items in the program budget, although I have not attempted to make a detailed estimate of the cost of each.

- A. Salary for full-time Director.
- B. Salaries for five tutors. (If graduate students, these could take the form of research assistantships or work-study grants where the student is eligible. However, it should be stressed that salaries should be commensurate with obtaining well-trained and experienced persons only.)
- C. Salaries for stream coordinators. Coordinators will receive a higher stipend than class instructors.* With three streams, three coordinator salaries will be required. If graduate students can be obtained for these positions the sources listed above may be suitable. Tutors in the first semester may become coordinators later.
- D. Salaries for clerical help. Typing, arranging tutorial schedules, contacting students, and supervising routine handling of self-instructional materials are typical clerical duties required. This could be taken care of with sufficient work-study helpers, although part-time assistance of a professional secretary is desirable for the program director.
- E. Allocation for expendable supplies (stationery, postage, telephone, etc. for the director and three coordinators).
- F. Allocation for obtaining new instructional materials for the reading lab, writing classes, speech classes, etc. (including commercially published texts, programmed materials, and tapes).
- G. Allocation for obtaining materials and process services necessary for the production of experimental teaching materials (including such items as duplicating paper, masters, visual materials, tapes, etc.)
- H. Office space and equipment, including a desk for each coordinator and the director, at least two typewriters, and suitable office space.

* The question of salaries for program instructors should also be noted here. The extent of the program will determine the number of such instructors needed. With 280 students now enrolled in O10, providing an instructor for each 15 - 20 students (a good ESL standard) would mean 12 to 15 instructors, including coordinators who would also teach.

VII IMMEDIATE PLANS

For the remainder of this semester, I plan to obtain a representative sample of counselees (5 to 10) including Indians, Hispano-Americans, and others. These will be individually tutored with an eye to establishing grounds for research, referral, and likely directions for course and materials development for similar students. In addition, the facilities of the reading lab have been opened to all students capable of getting some benefit from the self-instructional materials. I interview and test each student who inquires and assign him to whatever programmed materials seem most suitable. Approximately fifteen students are included in this group so far.

In the following semester, I would hope to obtain the tutors described and to commence a more extensive, semester-long study of the larger group of students to be tutored.

By the fall of 1970, it should be possible to offer a seminar-type course in the College of Education dealing with College English Development in a multi-cultural setting; such a course to be assigned three hours of credit with additional credit for in-service training as tutors in the program.

The summer of 1969-70 also presents an opportunity for participating in any freshman orientation program planned. It seems doubtful that any direct English instruction of use could take place in less than an eight week period, and the possibility of bringing off a summer orientation program of the type developed at Fort Lewis College (federally funded) could be investigated.

December 3, 1969

Vice-President Chester C. Travelstead

Advisory Committee: Center for the Improvement of Communication Skills

Report and recommendations

Pursuant to your establishment of this committee to study and recommend ways to improve English communication skills among students of the university, the committee has met in several sessions and now puts forward the following proposal for a program of individualized instruction in SCESOLD (Standard College English for Speakers of Other Languages and Dialects) to be organized within the University College and Counseling Center and to begin operation in the first semester, 1970-71.

The program which we propose is ambitious in both size and cost. Despite well-known budgetary crises we feel justified in presenting these plans in the light of an overriding concern for the social mission of this university as outlined by President Heady at his inauguration ceremony on November 9, 1968. As one of his imperatives he asked "that we strive to revitalize the mission of the university, particularly as it is directed at the liberal education of undergraduates . . . in view of a network of factors during the last two decades that have tended to deemphasize and dilute undergraduate instruction," and continued saying, "I urge that we give more attention to the problem of equalizing opportunity for higher education for young adults from all social, economic, racial, and ethnic groups in this state. . . . we have an obligation to offer educational enrichment programs to those whose educational experience through high school puts them at a competitive disadvantage academically. Less directly, we can train teachers equipped to cope in the elementary and secondary schools of New Mexico with special problems such as the teaching of English as a second language. We should strive for the day when only ability and motivation, unaffected by social or ethnic background, shall determine whether a young man or woman enters the university or graduates from it."

In support of the need for a new English language program in the University College and Counseling Center which would be interdisciplinary in nature and incapable of being subsumed under existing university departments or created by simple augmentation of existing courses, we cite the Proposal for an English Tutoring Service and Intercultural English Program dated October 1, 1969, which reviews the present status of English language instruction throughout the university, and sets forth a policy statement for a new program in harmony with President Heady's aims. A copy of this document is enclosed.

Following are the points of our present proposal:

1. All instruction in basic English language skills (reading, writing, listening, speaking, and "study") should be offered in one program to be administered, taught, and given credit within the University College and Counseling Center. It should be identified as the university program in SCESOLD. The program should not consist of "classes" but should be organized around blocks of skills and skill-development materials, much of a self-instructional type. Small group work would be advisable in some instances, just as self-instructional materials may be unsuitable for some students. The program should

Vice-President Chester C. Travelstead

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capitalise on a very narrow (1 to 5) ratio of teachers to students. Unlike typical English department courses, the SCESOLD program should not include the study of English literature, literary criticism, creative writing, or literature-as-culture. It should concentrate on development of the English language skills necessary for minimal satisfactory performance in the various undergraduate courses, with special reference to the freshman program.

2. The program should supersede or modify existing English language courses in the following manner:

English 010 (non-credit, \$20 fee) should be discontinued altogether as a course offering in the English department.

English 101 should be continued as a parallel alternative to the SCESOLD program. Entrance to English 101 or SCESOLD should be determined by regular examinations in English language skills. Those students needing primarily studinal and critical thinking improvement should enter 101, while those with extensive second language and dialect problems should enter SCESOLD. Graduates of both courses should be eligible to enter English 102. The SCESOLD program should not be considered a prerequisite to English 101.

English 103 and the special sections of English 101 for speakers of English as a second language should be discontinued as separate courses and should be offered as an integral part of the SCESOLD program. The approximately 25 students in the ESL stream could be easily absorbed.

Speech 105 in accent correction for foreign students should be coordinated with the SCESOLD program so as to avoid duplication of content and provide opportunity for Speech personnel to contribute to the SCESOLD program. Both this course and Speech 103 (speech improvement) should ultimately be integrated into the SCESOLD program. The goal should be to provide services in speech modification for all university students with academic, professional, and social needs in this area. Such integration would allow maximum utilization of skills from speech pathology and other specialties concerned with the linguistically handicapped.

Speed reading as now offered in the Extension Division should be continued and expanded to accommodate all university students who desire this special course. The \$25 fee now in effect should continue.

3. Approximately 500 entering freshmen should be served by the SCESOLD program, constituting the lowest quarter of the freshman class on tests of English language skills. This is an estimate of the number likely to be identified as deserving special language training beyond that required for English 101.
4. The program should be criterion-referenced. Performance tests should be used to determine when a student has achieved a necessary skill, thereby avoiding reliance on teacher impressions, on class-relative grading, or on the bare fact of having "done" the course.

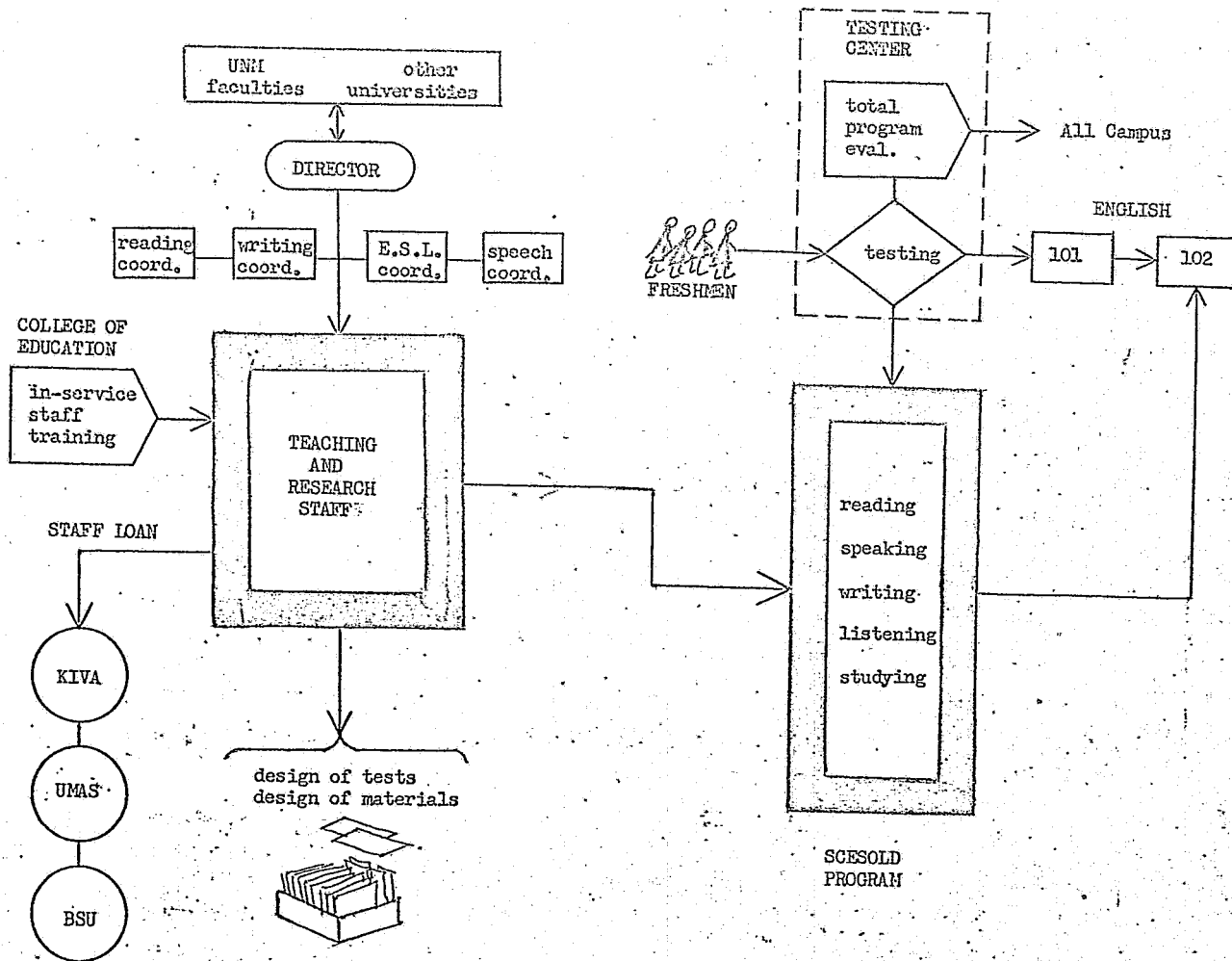
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5. Credit should be awarded for all study. A formula for giving credit based on the number of actual instructional sessions per semester should be worked out. An upper limit of 12 semester hours credit should be set.
6. There should be no special tuition fee for the SCESOLD program.
7. A Director and three or four Coordinators of faculty rank should supervise instruction and research. Coordinators should be specialists in reading and study skills, freshman writing, English as a second language, and speech. Each should be a Ph.D. or Ed.D.
8. The program should provide time for the Coordinating faculty to conduct research. Research should include the design of criterion tests, the design of freshman placement tests, the design of self-instructional materials, the evaluation of commercial materials and texts, and the design of controlled instructional research. The research staff should also provide for communication with the college faculty in order to ascertain the English performance requirements of specific courses. It should also provide for communication with other colleges and universities offering similar English skills improvement programs.
9. A teaching staff should be provided in the approximate ratio of one teacher to five students. Teachers should design study programs tailored to the needs of each individual. Teachers should be experienced, preferably having worked with Mexican-Americans, Indians, Blacks, foreign students, and other culturally and linguistically atypical people.
10. An in-service training program for teaching staff should be offered in conjunction with specified linguistics and language pedagogy courses in the College of Education.
11. The ethnic and language-group divisions among students at UNM may or may not influence the form of the SCESOLD program. There is as yet no clear linguistic reason for absolutely segregating any particular ethnic group for all aspects of English study. More importantly, segregated study has become a highly charged social issue and the SCESOLD program will have to respond accordingly, sending teachers to ethnic groups which request them, treating students as individuals when they desire it, hiring qualified teachers of specific ethnic backgrounds as recommended, etc. However, the usefulness of including ethnic-interest study materials in the resources of the SCESOLD program should be explored.
12. Evaluation of the campus-wide effects of the SCESOLD program with respect to student GPA's, dropout rate, morale, etc. should be conducted by the University College and Counseling Center staff, including counselors and Testing Division personnel. In addition, the Testing Division will administer all tests and will cooperate in the development of new tests.

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STAFF, SUPPLIES, AND FACILITIES
 Projected for complete program implementation

1. Program Director. Ph.D. or Ed.D. with both administrative and faculty status.
2. Coordinators. Ph.D. or Ed.D. with faculty status. On 12 month contracts. (Assistant professors).
 - 1 specialist in reading and study skills (full-time).
 - 1 specialist in English composition (full-time).
 - 1 specialist in English as a second language (full-time).
 - 1 specialist in Speech (1/2 time).
3. Teaching Staff. 100 half-time teachers to accommodate the approximately 500 students anticipated in the program. These must be experienced professional English language teachers including persons experienced in teaching Mexican-Americans, Indians, Blacks, foreign students, and other linguistically and culturally atypical groups. Teachers may be drawn from graduate student programs as teaching assistants, or from the community at large as visiting lecturers.
4. Assistants. 20 clerical and laboratory assistants to aid the teaching staff in typing, scheduling students, and supervising use of laboratory materials. This group may include in-service trainees who have had little or no previous teaching experience.
5. Secretary. One professional full-time secretary for the program Director and Coordinators.
6. Capital expenditures.
 - Library of subject-matter textbooks and taped lectures.
 - Library of high-interest pocketbooks for reading practice.
 - Library of theoretical reference books.
 - Library of self-instructional kits, tapes, film strips, etc.
 - Lab machinery, tape recorders, controlled readers, etc.
 - Library of reading, study and writing textbooks.
7. Supplies and expense.
8. Office and classroom space and equipment as required. (Currently available within the University College and Counseling Center building.)



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This proposal is respectfully submitted by:

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A Longitudinal Study of
The Beginning Freshman Class of
1963 At The University of New Mexico

THE INVISIBLE STUDENT

University College and Counseling Center
The University of New Mexico
Albuquerque, New Mexico
May, 1969

A LONGITUDINAL STUDY OF
THE BEGINNING FRESHMAN CLASS OF
1963 AT THE UNIVERSITY OF NEW MEXICO
THE INVISIBLE STUDENT

University College and Counseling Center
THE UNIVERSITY OF NEW MEXICO
Albuquerque
May, 1969

PREFACE

Annual reports of the University College of the University of New Mexico from 1957 through 1965 raised considerable interest in many quarters of the University regarding the nature of the student body. The primary concern resulted from data reflecting the proportions of students who graduated and students who dropped out. This widespread interest has resulted in the present study which is intended as the first phase of an attempt to discover patterns of abilities and value systems that might aid both in explaining these proportions and in predicting with greater accuracy which student would likely fall into one or the other of these categories. Endorsement of such a project, together with financial support, was provided by the Office of the President and the Office of the Academic Vice President. This support is gratefully acknowledged.

Dr. Sven F. Winther of the Counseling Center constructed the model followed in making the study, supervised the gathering and distillation of the mass of data from which observations have been made and conclusions drawn, and prepared the first draft of the report. This final text is the joint effort of Sven F. Winther, E. Bruce Potter and William H. Huber. The graphic illustrations are the work of William R. Gafford. Lawrence Salpeter acted as Research Assistant. Mrs. Katherine V. Pelouze edited and prepared the final manuscript for printing.

These contributors wish to acknowledge and express their sincere appreciation to Mr. J. C. MacGregor, Director of Admissions and Registrar of the University, and his staff; the deans of the several degree-granting colleges of the University and their office staffs; the Committee on the Improvement of Instruction in the College of Arts and Sciences; the Alumni Office, and all other University personnel whose direct and indirect support during the preparation of this manuscript proved invaluable. Without the cooperation of these divisions of the University and their personnel, this study would have been impossible.

William H. Huber, Director
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FOREWORD

The University College is in the closing months of its twelfth year. In this period considerable data have been collected which have raised many questions for the University. What is the nature of the student body that is attracted to the University of New Mexico? What is the ability level of the student body? What are the characteristics other than intellectual abilities of the student body? How homogeneous, or one might better put it, heterogeneous are the students? What trends, if any, can be observed with regard to goals of the students by field of major, levels of educational aspiration and attitudes toward the University and its system? Why does the University of New Mexico experience an attrition rate higher than that of comparable state institutions of higher learning?

The relatively low "success" rate by way of completing degree programs has resulted in expressed concern from various quarters of the University community among students, faculty and administration as well as segments of the community outside the confines of the University. These concerns have led to this study which attempts to examine these broad questions with a view to narrowing them by providing detailed information about the students, their view of the University, their interaction with the system, in the hope that interested segments of the University will have better insight with regard to these problems.

This report, as a first study, affords a beginning in providing answers to some of the questions, and in turn raises more specific and basic questions to which answers must be given by the University community. To do so would seem to require the University to state its mission in philosophical terms and to set goal priorities among the many possible avenues or choices open to it. Following this a system of implementation would be devised that promised achievement of the goals. It must be emphasized that this first intensive study is but a beginning. It is hoped that it will lead to more extensive examination by the University in an effort to further understand the student, his capacities and his needs to the end that he and the state can better be served.

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INTRODUCTION

When one tries to think of the model or typical University of New Mexico student, several images come readily to mind. There is the clean cut, well mannered, industrious, all-American type, who graduates in four years, obtains employment and later marries. Currently, this image is being replaced by the somewhat shaggy, pacifist and activist oriented type of student, who is irregular in his academic progress, but nevertheless stays close to the University. During the prolonged span of his young adult life, parents provide all or most of the necessary financial support. As people observe, discuss and ponder this transition, in which the one image gradually replaces the other, it is ironic that we fail to realize neither image fits the typical UNM student.

It seems as though the typical student at The University of New Mexico is, and has been for some time, almost invisible. It is difficult to say why he does not stand out or at least take form in people's minds. Possibly, it is because the indigenous UNM student does not conform to any of the popular stereotypes that people hold concerning college students. This typical student lives at home, attends college for one year to two years, and then drops out to pursue work or marriage. His educational career ends at that point because he does not transfer to another college or seek to return to UNM, even though he is eligible. What he does, therefore, is incongruous with his previous aspirations to get a college degree, so it may be that the University and the community finds it easier and more comfortable simply to deny that this type of student even exists.

Though the term is not completely descriptive this type is usually known as a dropout. Locally, the rate of dropouts appears to be high, since around 75 percent of the students who enrolled at UNM during the late 1950's did not graduate here. This decreased to around 70 percent in the early 1960's, but is still a large percentage in comparison with other institutions.

It is difficult to gauge which other colleges and universities are most comparable to UNM because numerous characteristics, such as size, location, curriculum, student population, affect the retention of students by an institution. State universities generally have a dropout rate of about 50 percent. UNM has a larger percentage of commuting students than do many state universities, and the commuter type colleges often exceed a 50 percent dropout rate though these seldom approach 70 percent. The most one can say is that state institutions grossly comparable to UNM seldom exceed an attrition rate in excess of 50 percent.

The literature concerning college dropouts is extensive, and the problem has been dealt with from many points of view. Some writers have approached it as an administrative problem, others as part of a nationwide social phenomenon, and still others as a particular kind of psychological reaction that can be identified and dealt with on an individual basis.

All of these approaches have something to offer, and students dropping out of this particular University can be expected to do so for a wide variety of reasons, some of which are common throughout the United States, and others which are peculiar to the region and the specific locality of UNM. In dealing with the issue at this institution, a basic question is, "to what extent do local conditions mirror the general nationwide phenomenon, and to what extent are they unique to this institution?" Until this basic question has been answered, the extensive literature on college dropouts is of unknown value as a basis for planning changes to deal with the problem at UNM.

Until recently, the amount of attention given dropouts at UNM has been minimal. Beginning with the University College annual report for the year 1957-58 (Huber, 1958), statistics were presented to show the magnitude of the problem within University College, but there has been no way of accurately estimating the overall dropout rate for the entire four year undergraduate program at UNM. The number of eligible students who have not re-enrolled in University College since its origin in 1957 has reached 15,000 in just over ten years. Outside of a study conducted by Goetz and Leach (1967), there has been no attempt to contact any of these people. Goetz and Leach did receive questionnaires from 90 students (42%) in their dropout group of 215, and concluded that these people had faced the same kinds of problems as those who continued in college.

These findings may tend to reinforce the common belief that students drop out because they cannot successfully meet the intellectual demands of college life. It is expected, after all, that college should be rigorous and that it should test the mental discipline and capacity of entering students. These expectations continue to generate concern in prospective students and their parents for "adequate preparation" or "ability" on the part of the student and for "higher standards" on the part of the college and its faculty. The assumption underlying this common point of view is that educational "success" depends entirely upon the intellectual dimensions. This assumption probably dominates the thinking of both college personnel and students and their parents because it provides an "answer" to the failure of so many

students to stay in school. However, this assumption that "successful" college education depends altogether on the ability of the entering student is a dangerous one because it precludes consideration of ways for the University to promote the growth and welfare of its students, and furthermore this assumption is not borne out by the facts.

In examining this assumption it is important to note that entering UNM freshmen have for a number of years performed well on the tests of the American College Testing Program (ACT) required of all students entering the University, but used only for counseling and placement. Admission requires only a high school diploma and a C average. As a group they score at the average for Type IV or doctoral degree-granting institutions. These institutions representing a nationwide spectrum of state universities and some of the larger, better known, private universities comprise a very acceptable norm group for comparison purposes. The fact that our entering freshmen have adequate preparation in terms of this norm could be seen as a commendable achievement for the public school system of New Mexico. It can also be observed that UNM attracts and selects the better students in terms of preparation or ability from within the state, because on the basis of ACT composite scores students beginning at UNM are superior to those entering all other New Mexico state colleges.¹

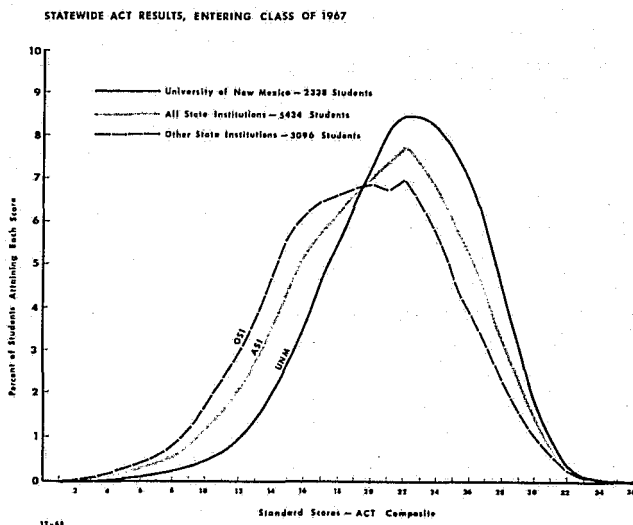


Figure I

¹The number of high school graduates who leave New Mexico to attend college outside of the state is unknown and unavailable currently.

There has been a continuous rise of ability level on the part of entering freshmen since 1957. This rise has been recorded in the annual reports of the University College. These reports point out that the continuous rise of ability level on the part of entering freshmen has not been met by a comparable increase in transfers to degree colleges or in the percentage of students who graduate from UNM. This has been the experience locally, and it is not inconsistent with the findings of more than 2,000 studies in colleges throughout the nation aimed at the prediction of college success on intellectual factors alone.² Ability can account for college success in very gross terms, but non-intellective and often unmeasured factors have a greater influence on a student's performance. Therefore, one of the primary ideas behind this study is the belief that the spiral of rising expectations involving the concern for the "ability" of students and "higher standards" for the University should receive a closer and more considered look, and that particular attention should be given to the non-intellective influences on student performance.

In February 1968 the Committee for the Improvement of Instruction of the College of Arts and Sciences began to inquire into the effectiveness of Arts and Sciences instructional programs as indicated by the tendency of students to discontinue their program of studies. With their cooperation, access to the records of the College of Arts and Sciences was obtained and later the other undergraduate colleges at UNM participated and made available the raw data on students who had entered their colleges from the University College. This information has made it possible to look longitudinally at the experience of a freshman class at UNM for a period of five calendar years.

DEFINITIONS AND PROCEDURE

Definitions

The general category of dropouts, as it has been defined for the purposes of this study, includes all students who failed to return to UNM once they enrolled as beginning freshmen. The sub-categories are:

1. Students who are suspended. They become eligible to reapply in one year. However, less than 35 percent of this group has reapplied in the past, even though readmission is almost automatic. As a group, their subsequent

²The very highest multiple correlations obtained between several intellectual variables and college grade point average are from .60 to .65, accounting, therefore, for only 36 to 42 percent of the variance in college achievement.

performance has been poor in that the majority are resuspended in a session or two. (Huber, 1965)

2. Students who withdraw during a term. Withdrawals occur during a term, usually near the beginning with some tuition refunded. Other withdrawals occur as late as the end of the twelfth week of a semester. The reasons offered by these students have to do with family, finances and "personal".
3. Students who are ineligible to return. Students who academically perform well enough in the University College to avoid academic suspension but who do not achieve at the level required to transfer to a degree-granting college eventually exhaust eligibility to re-enroll in the University College. These students then are barred from re-enrolling in the University of New Mexico but are not under traditional academic suspension.
4. Students who fail to return. After one or more completed semesters in attendance, large numbers of students do not re-enroll making this the largest of the four sub-groups of dropouts. The largest proportion quit after the first full year with a decreasing percentage failing to return after each subsequent session. Figure II below is illustrative of the relative proportion of students in each of these four sub-categories. This figure is based on data which were available prior to the present study on freshmen who enrolled for the first time in the fall semesters of 1957 through 1961. The composite data are totals as of June 30, 1965. This provides eight years' experience for the fall group of 1957, seven years' for the 1958 group, etc.

FINAL DISPOSITION OF FALL ENTRY GROUPS 1957 THROUGH 1961

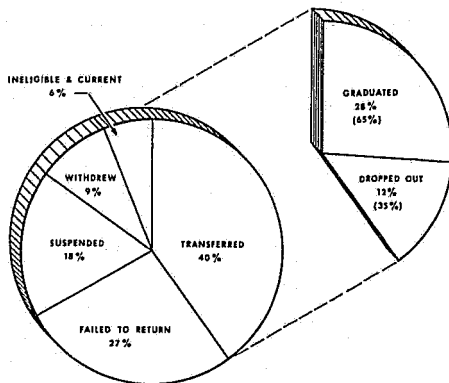


FIGURE II

It is apparent that some of the students in these four sub-categories, all of whom are dropouts according to the previous definition, may enroll in some other college or university. These people have dropped out of UNM but may be

continuing or have completed their education elsewhere by the time the data for this study was collected. Counting the number of students who requested that transcripts be sent to other institutions is a way to determine the percent continuing their education elsewhere. It was thought that this would represent the maximum number who transferred as it was considered most difficult for one to enroll in another school without a complete set of transcripts. However, as some of the people who have transcripts sent are not admitted to other schools, procedures for determining who actually transferred to other institutions might be better indicated by the student's self report. A significant discrepancy between these two indices of the number of students transferring from UNM will be reported and discussed later. Using either approach, however, transfers are not a sizeable group, and for the remainder of this report these students will be defined as dropouts.

Also, some people continue their college education after a lengthy interruption. For example, males who enlist in the Armed Forces, and females who leave to marry and raise a family may continue their formal education many years later. In the broadest perspective, these people also should not be considered dropouts. On the other hand, there is no practical way to distinguish them from students who leave here and never return to a university. In this study those who were no longer in attendance five years after they enrolled as beginning freshmen were defined as dropouts. Students readmitted to UNM within that period of time were not defined as dropouts if they were in attendance five years later.

In selecting a group to study, the entering class of 1963 was chosen for several reasons. This group is current enough so that the findings should be relevant to the present and at the same time the majority of students who will graduate from this entry group have already done so and have acquired some perspective from which to evaluate their experience at the University. Though the primary focus of this study is on those who don't graduate, this group cannot be assessed in a vacuum, and graduates and current students provide a valuable reference group for comparison with the responses of dropouts. Hence, certain information was obtained on every new entering freshman of 1963. This group totaled 1596 students. Actually, 1910 freshmen enrolled in the fall of 1963, but transfers--students from other colleges and universities, students entering from UNM Non-Degree status and previous UNM students returning in freshman status were not included. The kinds of data which were found to be available within the University in reasonably complete form on the 1596 new entering freshmen are as follows:

1. Name
2. Sex
3. Location of high school
4. High School grade point average
5. Semesters in attendance at UNM
6. Probation information
7. Suspension information
8. School and College Ability Test composite scores
9. Semesters in University College
10. Grade point average in University College
11. Grade point average in degree college
12. Initial choice of degree college

Procedures

Data were obtained from University College on each subject from entrance to the time he was admitted to a degree-granting college. Each student who transferred out of University College was followed in the records of the college to which he transferred. The students were followed until June of 1968, and were assigned whatever status they had at the time, i.e., current, dropout, graduate.

Data were obtained from the degree colleges for all students who transferred from University College. Records in the various college offices were examined. This task was quite time consuming since some of the colleges kept non-current records in back rooms or in files that were not arranged or ordered according to any easily understood system, and parenthetically it should be observed that common definitions and a policy of controlled access to a central data bank would constitute a valuable step to expanded and efficient self-studies of this nature. At each college office the 1963 group was categorized into those graduated, those expected to graduate in June 1968, current and non-current. All these lists were later updated by the use of the Certified June Graduation List and the suspension lists from each college.

Data in the form of transcripts were obtained from the Records Office for all non-current students. From these transcripts it was noted whether copies of transcripts had been sent to other colleges at the student's request subsequent to his last semester in attendance at UNM. These were used primarily to gauge the number of students who might have transferred to other institutions of higher learning.

Because of the current concern for minority groups and the high percentage of Spanish-Americans in the State of New Mexico, a sub-group was identified at this point in the procedures. The surname of each student was categorized as "Spanish" or "other" by two Spanish-speaking students with a high rate of agreement between them. This was done to provide a basis for comparing enrollment

and performance between this large minority group and all other students.

As a first phase in studying dropout problems at UNM, the data collected on the total 1596 students in the entering class of 1963 were analyzed by comparing each of the variables on page 7 against every other variable which appeared to be independent. For example, since probationary status and college G.P.A. are not independent, this comparison was not made. However, every potentially meaningful or revealing type of comparison between two variables was made. The results of these analyses and some possible interpretations are presented beginning on page 10 in the section entitled Results--Total Class of 1963.

At the same time it was decided that the information available at UNM on the total 1963 class was not precise and extensive enough to permit a very interpretative or analytical assessment of the problem. For this reason contact with the students via mail and using a questionnaire seemed necessary. Because some data were available on the total class, only a sample was needed for more intensive study. Therefore, a sample of approximately 25 percent of the students was selected that accurately represented the entire population of 1596. The stratified random sample of the entering class of 1963 was set up as follows:

TABLE I
Representation in Sample of 1963 Entry Population

College	Dropout Univ. Coll.		Dropout Degree Coll.		Current		Grads	
	A*	B*	A	B	A	B	A	B
A & S	61	243	33	142	14	57	50	190
EDUC	36	142	11	46	2	14	34	136
ENGR	30	118	6	20	2	16	16	60
BUS ADMIN	35	141	5	12	2	10	12	47
FINE ARTS	13	52	4	17	4	18	7	23
PHARM	6	22	3	4	2	9	6	16
NURS	8	30	2	2	0	1	4	8
TOTAL	189	748	64	243	26	125	129	480

*A = Sample

*B = Population

For certain sub-groups, larger percentages of students were chosen in that several degree colleges are very small. For example, 50 percent or 4 subjects were chosen from the graduates of the Nursing College. University College students were assigned to colleges according to the last preference of degree

college noted in their records. The sample is representative of the entire spectrum of students contained within the entering class of 1963. This is seldom the case when faculty or students attempt to assess student opinion. The usual procedure is to consult student leaders, interested students or even a sample of students presently enrolled. Such samples are strongly biased in favor of the interested, verbal type of student who is managing at least to pass his courses. These are the "winners" at the college game. The larger proportion of students disappears from the campus and these individuals remain silent about their experiences, presumably because such experiences are associated with failure. These are the "losers" and they readily accept any blame or liability as theirs because they accept the popular explanation concerning "high standards" and "low ability". At least this is a frequently observed condition in counseling with students who are about to drop out or who have dropped out, yet who possessed adequate "potential" for academic success.

In recognition of the above tendency to rationalize, an effort was made in designing the questionnaire to avoid general questions such as "How did you like college?" Too often the student would already have arrived at an answer that is acceptable socially and to himself. Principally, the items were distilled from a lengthy list suggested by the American Psychological Association, and some were devised to correspond to questions asked by the American College Testing Program. From inspection of the attached version of the questionnaire in the appendix, it can be seen that some items deal with biographical information, some with matters of opinion and some with understanding or knowledge. The emphasis is on the area of vocational and educational experience and aspirations.³

Initially, the questionnaire was sent out accompanied by a cover letter signed by the president, Dr. Ferrel Heady, (see Appendix page 46). Addresses were obtained from the Records Office, past student directories, phone books, the Alumni Office and various other college offices. Yet many questionnaires were still returned "address unknown". More current addresses were then sought, usually through contact with parents. Of the initial 408 people in the sample 31 turned out to be "hard core unlocatables". Most of these were

³The final version of the questionnaire was the result of many revisions and comments by the following people who are thanked for their criticisms and suggestions. In addition to the staff of the University College and Counseling Center, Dr. Sidney Rosenblum and Dr. Ralph Norman of the Psychology Department and Dr. Charles Beckel of the Physics Department, who served as liaison with the Committee for the Improvement of Instruction, helped with the questionnaire.

people who attended briefly in 1963, and whose parents have since moved. About 36 percent of locatable subjects responded on the basis of the initial contact.

A second letter was sent over the signature of William Huber, Director of the University College and Counseling Center. This letter asked the subjects either to call or write if they did not want to respond or if they needed another questionnaire. Only nine subjects called and said they did not want to complete the questionnaire, and the letter raised the response rate to around 52 percent.

The third contact with non-respondents was by phone. Students and former students in Albuquerque, greater New Mexico and throughout the continental United States were called "station to station" after 6:00 p.m. Frequently, brief conversations were held with parents, wives or husbands, roommates, or someone other than the subject. Generally, the interaction was positive, and this type of contact increased the response rate to 64 percent of the contactable subjects.

At that point, it was decided to proceed with some analyses, mainly to determine what kind of bias existed in the group of responding subjects and to look at the necessity of continuing to pursue the remaining 41 percent of the sample. Other follow-up procedures which are still likely to increase the number of respondents are 1) to use registered mail or 2) to directly contact the subjects, obtaining responses verbally and having the interviewer fill out certain parts of the questionnaire. The advisability of continuing to try to increase the number of respondents is one of the principal questions underlying this report.

Some analysis of the questionnaire data will be reported in the section entitled Results--The Questionnaire on page 26. A good deal of attention is given in this section to the question of who responded and whether this group constitutes a representative sample of the entering class of 1963. However, the first results to be discussed are those obtained by following the progress of the total beginning class of 1963 consisting of 1596 subjects. The variables analyzed are those listed on page 7.

RESULTS--TOTAL CLASS OF 1963 PERFORMANCE PATTERNS

Overall Performance

After tracing the progress of each member of the entering class of 1963 the population of 1596 students was subdivided into one of the following four categories as of mid-June 1968. Students who dropped out and re-entered prior to the mid-June cutoff date were not classified as dropouts provided they were in attendance during the spring of 1968 and were not suspended at the end of that term.

TABLE II
Final Status of the Entering
Class of 1963

Dropout University College		Dropout Degree College		Current		Graduated		Total	
N	%	N	%	N	%	N	%	N	%
748	(46.9)	243	(15.2)	125	(7.8)	480	(30.1)	1596	(100.0)

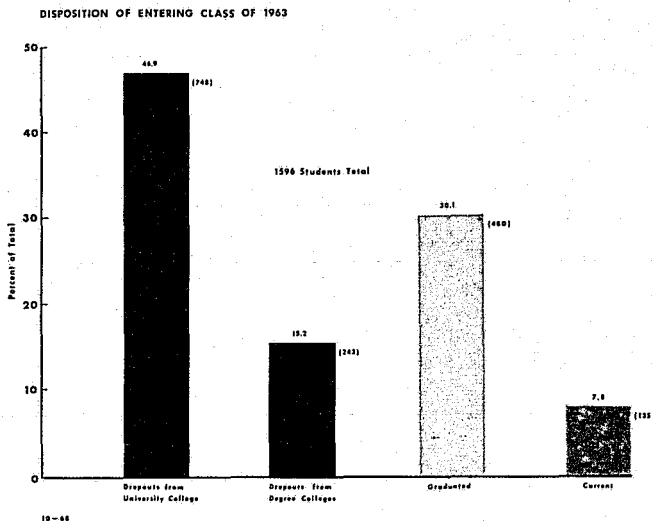


Figure III

The percentage of students graduating after five academic years (30.1%) is probably near the maximum that will graduate from the 1963 entry group. Previous studies showing the annual increase of the graduation rate after five years (Huber, 1965) indicate that in the sixth and seventh years the rate may be expected to increase only four to five percentage points. By inspecting the academic records of the 125 students from the 1963 entry group who are currently enrolled, it appears that about one third of this group has a reasonable chance of graduating at some future date. Of course, a few of the people who are categorized as dropouts in the above table may return in the far future and extend their academic progress to the point of graduation. Taking these possibilities into account, a minimal estimate of UNM's present rate of attrition is around 66 to 67 percent. The dropout rate within University College is at, or very near, its maximum and the dropout rate from degree colleges will most likely rise to above 20 percent.

A great deal of speculation is involved in estimating how many students intended to graduate when they enrolled in the University in 1963 and how many

planned to quit short of a bachelor's degree. However, 95 percent of the students who now come to UNM state, when they take the ACT test during their senior year in high school, that their goal is at least a bachelor's degree. If this figure is regarded as an accurate indication of the intentions of the 1963 class, we may conclude that a majority of that group changed their plans with regard to a formal education. No doubt a large number of these made this change with considerable frustration, disappointment and anger.

Though it is clear that 95 percent intend to obtain at least a bachelor's degree, large numbers of students come to the University hoping to discover their interests and talents through involvement with fellow students, faculty and the system as they do not know with certainty what degree they wish to obtain. For the last three years around 25 percent of freshmen were undecided as to their major when they entered and an even larger percentage changed their plans one or more times during their enrollment. Some of these changes appear to be positive responses to new challenges within the system and others seem a result of following the path of least resistance. In general, there is a great deal of interaction between the University system and students, once they arrive on campus.

The complexity of this interaction cannot be accurately traced in the present study because of inadequate data on the changing intentions of the 1963 class. However, some gross indications of what has been taking place may be obtained by looking at the relative performance of students in terms of their designated degree objective at UNM.

TABLE III
Distribution of the Entering Class of 1963
According to Final Degree Objective

<u>Degree College</u>	<u>Designated Objective</u>		<u>Dropouts Univ. College</u>		<u>Dropouts Degree College</u>		<u>Graduates</u>		<u>Current</u>	
	N	%	N	%	N	%	N	%	N	%
A & S	632	(39.6)	243	(32.5)	142	(58.5)	190	(39.6)	57	(45.6)
EDUC	338	(21.1)	142	(18.9)	46	(18.9)	136	(28.3)	14	(11.2)
ENGR	214	(13.4)	118	(15.9)	20	(8.3)	60	(12.5)	16	(12.8)
BUS ADMIN	210	(13.2)	141	(18.9)	12	(4.9)	47	(9.8)	10	(8.0)
FINE ARTS	110	(6.9)	52	(6.9)	17	(7.0)	23	(4.8)	18	(14.4)
PHARM	51	(3.2)	22	(2.9)	4	(1.6)	16	(3.3)	9	(7.2)
NURS	41	(2.6)	30	(4.0)	2	(0.8)	8	(1.7)	1	(0.8)
TOTAL	1596	(100.0)	748	(100.0)	243	(100.0)	480	(100.0)	125	(100.0)

A chi-square test was run on this table to test the null hypotheses that the distribution of students according to status does not differ significantly from what would be expected if each college contributed proportionately to the four classifications. This hypothesis was rejected at the .001 level by obtain-

ing a chi-square value of 148.59 with 18 degrees of freedom. Therefore, the performance of students with different final degree objectives is not the same.

First, students intending to enter the professional schools, particularly Nursing, Business Administration and Engineering, tend to drop out of the University before they qualify for transfer to these colleges.

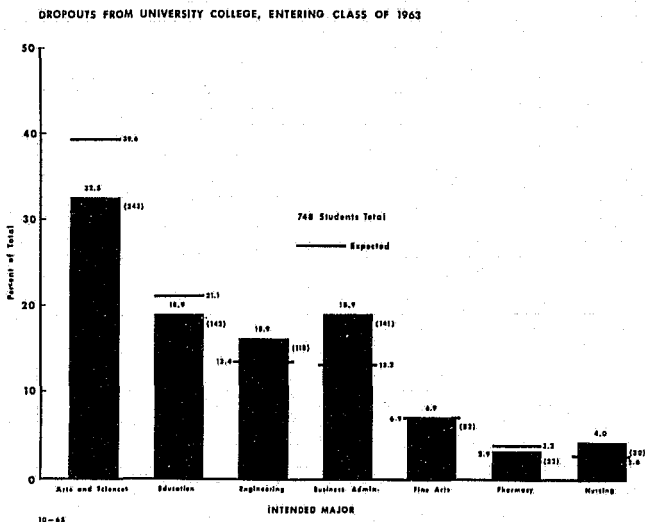


Figure IV

This may indicate a higher level of difficulty of prerequisite or beginning courses in these fields or discrepancies between the popularized role of these professionals and the actual demands of the profession, or less motivation to study among professional or work-oriented students. This is simply pointing out some of the kinds of interpretations that are possible.

Second, of students who transferred to a degree college, it was found that those in Arts and Sciences tend to drop out with greater frequency than those enrolled in other degree-granting colleges. This may reflect less incentive for these students to finish because of less-perceived immediate vocational value to degrees from this college. It may also indicate that this college was easier to enter initially, or students who cannot narrow their choice to a specific objective eventually transfer there because of the more general nature of the curricula of this college. Again, these are only possible interpretations at this point. (Fine Arts and Pharmacy have a higher percentage of students currently enrolled five years after entering because the programs within each of these colleges are longer than the usual four years.)

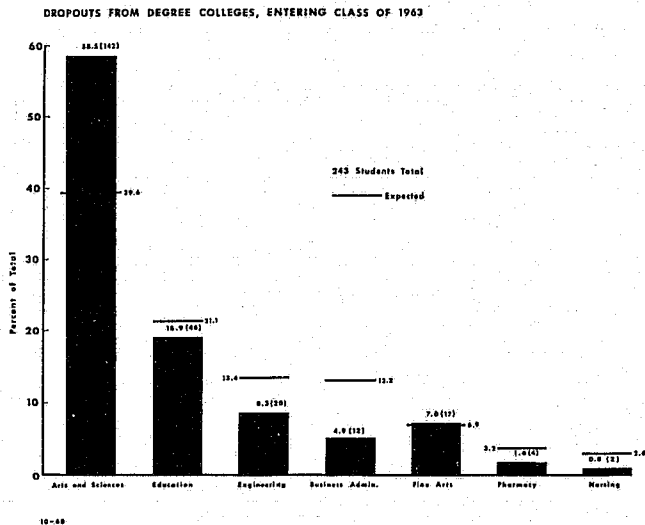


Figure V

Third, of students who graduate, those in the College of Education do so in greater proportion than those designating other degree-granting colleges. Numerous explanations have been offered, such as accessibility to vocational opportunities for those with an education degree, the concern of the Education faculty for the individual student, less severe grading practices within the College of Education, and even that education majors more readily conform to the system. It is difficult to judge the validity of any of these or other possible explanations on the basis of data presently available. The Colleges of Arts and Sciences and Pharmacy graduate students at a rate equal to the proportion expected based on original designation of degree college choice. All other degree-granting colleges fall below expected rates.

GRADUATES FROM DEGREE COLLEGES, ENTERING CLASS OF 1963

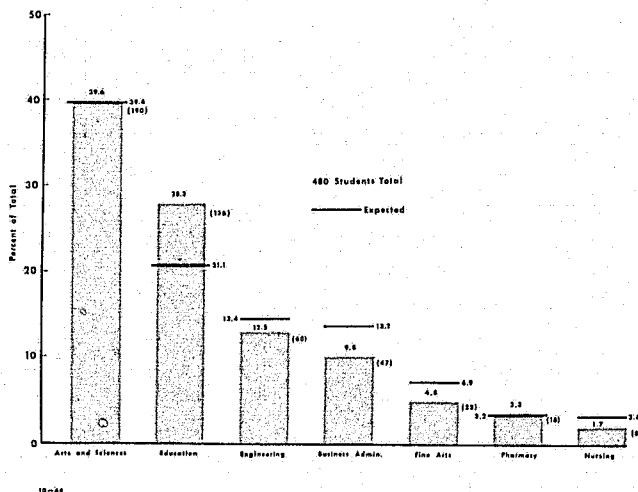


Figure VI

Fourth, of students currently enrolled after five calendar years, three colleges exceed expectations based on rate of original designation of degree objective. These are Fine Arts, Pharmacy and Arts and Sciences. Pharmacy specifies a five year program and Architecture in the College of Fine Arts required six years. This tends to account for the larger than expected proportion of currently enrolled students in these colleges. There is no comparable explanation for the College of Arts and Sciences.

CURRENTLY ENROLLED, ENTERING CLASS OF 1963

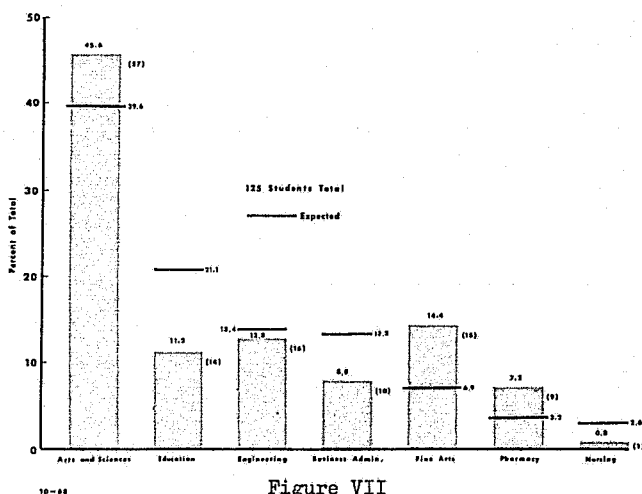


Figure VII

Performance--Transfers to Degree-Granting Colleges

Another way to look at this data is to disregard the 48 percent of the entering class who have not transferred to a degree college and pay attention only to the performance of the remaining 52 percent or 829 students who did transfer. Initially it is interesting to compare the relationships between percentages of students designating the various degree colleges as their first choice to the percentages of students actually transferring to different colleges.

TABLE IV
Designated Objective in Relation to
Degree College Transfer

<u>College</u>	<u>Designated Objective</u> %	<u>Total Transferred</u> %
A & S	39.6	46.8
EDUC	21.1	23.0
ENGR	13.4	10.6
BUS ADMIN	13.2	8.0
FINE ARTS	6.9	6.9
PHARM	3.2	3.4
NURS	2.6	1.3
TOTAL	(1596) 100.0	(829) 100.0

A chi-square test was run on this table to test the null hypothesis that the distribution of students actually transferring to the various colleges does not differ significantly from what would be expected if each college received its proportionate share on the basis of original designations of degree college. This hypothesis was rejected at the .001 level by obtaining a chi-square value of 2.76 with 6 degrees of freedom.

The College of Arts and Sciences exceeds its expected proportion of transfers while the Colleges of Engineering, Business Administration and Nursing fall below expectations. The most likely reasons for this shift are the less-structured curricula of the former college and the number and nature of freshmen prerequisite courses required for transfer to the latter three colleges.

Once students are enrolled in degree-granting colleges it is possible to compare their performance in the different colleges.

Table V on page 17 illustrates the experience in the various colleges.

TABLE V

Distribution of Entering Class of 1963
After Transferring to Degree Colleges

<u>College</u>	<u>Number</u>	<u>Dropout</u>		<u>Current</u>		<u>Graduate</u>		<u>Total</u>
		N	%	N	%	N	%	
A & S	388	142	(36.6)	56	(14.4)	190	(49.0)	(100.0)
EDUC	191	46	(24.1)	9	(4.7)	136	(71.2)	(100.0)
ENGR	88	20	(22.7)	8	(9.1)	60	(68.2)	(100.0)
BUS ADMIN	66	12	(18.2)	7	(10.6)	47	(71.2)	(100.0)
FINE ARTS	57	17	(29.8)	17	(29.8)	23	(40.4)	(100.0)
PHARM	28	4	(14.3)	8	(28.6)	16	(57.1)	(100.0)
NURS	11	2	(18.2)	1	(9.1)	8	(72.7)	(100.0)
TOTAL	829	243	(29.3)	106	(12.7)	480	(58.0)	(100.0)

Engineering, Business Administration and Nursing, which had large numbers of their intended majors dropping out in University College and which also had substantial numbers changing majors prior to transfer, do fairly well with their students once they are enrolled in the college. These three colleges have among the lowest dropout rates together with the highest graduation rates when viewing their performance as beginning at the point when students transfer to them. The College of Education poses a unique performance compared to the other colleges which is discussed below.

This raises a question. Do these colleges lose fewer of the group of students who transfer in because so many are "weeded out" in University College? Further, if this is the criteria of the efficiency and "success" of a college, then discouraging 70 percent before they transfer into the college will make it possible to graduate 70 or more percent of those who do transfer. But this raises a more basic question: "Is education a process of admitting students in large numbers and then screening and reduction to distill quality out of large quantities of raw material?" or "Is education a living-learning process that can create or produce the desired quality by stimulation and motivation of the individual?" To strengthen the importance of this question requires only an examination of the data relating to the College of Arts and Sciences. It was previously shown that this college lost considerably fewer students at the University College level who designated this college, and received considerably more students by transfer than was anticipated. It was suggested that the less demanding and less structured curricula of this college in the lower division years were the most likely explanations for the lower losses of its own designees as well as its capturing of designees of professional colleges. At this point it is noted that the College of Arts and Sciences loses more than its expected share of dropouts from the degree college, and furthermore these drop out later than those enrolled in other degree colleges. The data show that

most of these students have the ability to perform satisfactorily in an academic program. Evidence exists that indicates these students lack the non-intellective factors of commitment to educational and vocational goals, persistence and general educational motivation but who concurrently are motivated by external social pressures to persist in school. These students find a false security for a longer period of time in this relatively unstructured college. However, the curricula of this college finally overtakes these students in the last several semesters and they find themselves in a situation that mitigates against their eventual graduation. This fact was not recognized by the student at an earlier date nor was he appraised of it by the college when these conditions first manifested themselves. (One might question the performance of Fine Arts and Pharmacy as being comparable to Arts and Sciences. It must be remembered that these colleges have five and six year programs and have high percentages of currently enrolled students. This again distinguishes them from Arts and Sciences. See page 17.)

During the course of this research, some academic folders were perused where it was found that students in their eighth semester needed to gain twenty, thirty or more grade points to be eligible for graduation. This would mean achieving a grade-point average of better than a 3.0 for two or more terms, and yet these same students had never in the previous seven or eight semesters achieved a grade-point average above 2.3. These students encounter insurmountable difficulties in their final terms and drop out without graduating.

Keeping this in mind, it is interesting to look at the performance of the different degree colleges in terms of the final or last semester in attendance for students who drop out of degree colleges. Whereas we would anticipate a pattern showing that more people dropped out in their earlier semesters in degree colleges the opposite is more nearly true. Contributing most strongly to this pattern is the College of Arts and Sciences. This college has a significantly greater proportion of its students dropping out during the later semesters than do all other colleges combined ($\chi^2 = 4.4$; d.f.=1; $p < .05$).

See Table VI page 19.

TABLE VI
Dropouts from Degree Colleges by
Last Semester of Attendance

<u>College</u>	<u>Number</u>	<u>Early*</u>		<u>Late*</u>		<u>Total</u>
		<u>Semesters</u>		<u>Semesters</u>		
		N	%	N	%	%
A & S	142	54	(38.0)	88	(62.0)	100.0
EDUC	46	22	(47.8)	24	(52.2)	100.0
ENGR	20	12	(60.0)	8	(40.0)	100.0
BUS ADMIN	12	6	(50.0)	6	(50.0)	100.0
FINE ARTS	17	8	(47.1)	9	(52.9)	100.0
PHARM	4	3	(75.0)	1	(25.0)	100.0
NURS	2	1	(50.0)	1	(50.0)	100.0
TOTALS	243	106	(43.6)	137	(56.4)	100.0

*"Early semesters" are defined as those through the fifth semester of attendance at UNM; "Late semesters" are defined as the sixth semester and beyond.

At this point a consideration of the College of Education is indicated, which previously was mentioned as having unique performance patterns compared to the other degree-granting colleges. The students of the College of Education have performed well at each level in relationship to the other colleges. Fewer students drop out in the University College, a larger than projected number transfer to the degree college, fewer drop out in the degree college and most significant more graduate than do the students of the other degree colleges. The graduation rate is particularly noteworthy in that no other degree college substantially exceeds its expected rate and only one college having sizable numbers, Arts and Sciences, equals its expected rate. (See Figure VI page 15.)

At various points in this study conjectures have been made to explain differences in performance such as these. Several possible explanations were suggested earlier when the College of Education was discussed. Several other possibilities can be added in this general summary. When transferring to the College of Education, students must also qualify for admission to Teacher Education which involves a review of their academic records and a personal interview. Again, a couple of semesters later, students must qualify for admission to Student Teaching. This involves another such review of academic performance, future requirements and personal characteristics. It is possible that such individual attention explains the performance of students in the College of Education which in turn suggests that comparable individual attention might result in higher retention and graduation rates in the other degree colleges. These conferences with the individual should not be confused with "academic check sheets" and "form letters". There is strong suggestion that a personal interview that goes

beyond mere intellectual or academic performance but includes a frank discussion of the non-intellectual factors relating to goals, probability of attainment and alternative courses of action is critical and experience shows it is welcomed by most students.

Performance--High School Grade-Point Average

It was found that high school grade-point average is related to length of stay at the University. A large proportion of eventual graduates enter with high school grade-point averages in the 3.0 to 4.0 range (chi square = 83.39; d.f.=3; $p < .001$), students who drop out in degree colleges tend to have high school grade-point averages in the range from 2.50 to 3.00 (chi square = 25.32; d.f.=3; $p < .001$), and the dropouts from the University College tend to be admitted to the University with averages right around 2.00 (chi square = 97.75; d.f.=3; $p < .001$). These findings are at least partially explained by the relationship between high school G.P.A. and college G.P.A. because college G.P.A. is in turn related to suspension at the lower end of the scale resulting in compulsory dropping out of the University and graduation at the upper end of the scale. However, even after eliminating those who are suspended and those who graduated, the relationship between length of stay at the University in terms of number of semesters and high school G.P.A. is still significant (chi square = 16.9; d.f.=9; $p < .05$).

These findings show that a higher proportion of students entering with high grade-point averages from high school will graduate or at least stay longer at the University and that a larger proportion of students who enter with grade-point averages near the minimum of the 2.0 required for admission will leave or become suspended after their first few semesters at the University. Further, if those who graduate and those who are suspended are removed from consideration, among those who voluntarily leave the University there still is a positive relationship between the number of terms they attend and their high school grade-point average. Findings such as these are not unexpected. It should be pointed out that high school grade-point average has consistently been found to be the index most highly related to performance in college, because it is a global, general indicator of what an individual has done in the past. This includes not only his intellectual ability but what has been heretofore referred to as non-intellectual factors such as aspirations, motivation and cultural background.

By working with the specific correlations between the School and College Ability test, high school G.P.A., college G.P.A. and length of stay in the University it will be possible to further refine the distinction between intel-

lective factors and show what each of these proportionately contribute to the "success" of students in college.

Performance--Male-Female

A finding not anticipated was that males and females perform substantially the same with reference to staying or dropping out of the University. Studies conducted at other universities usually show that females drop out more often than males and that they drop out earlier in their college career, usually after the first or second year. However, Figure VIII shows no statistically significant difference in the performance of males and females in the entering class of 1963.

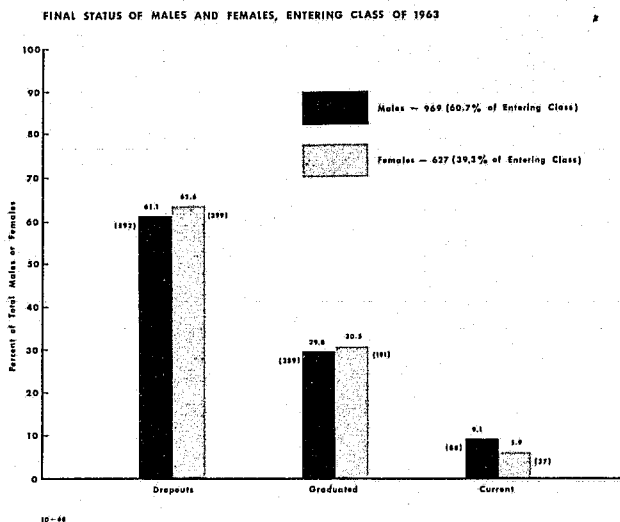


Figure VIII

Eliminating those who graduate from the University, and considering only the dropouts, there is a slight tendency for males to persist or stay longer. Though this is the type of finding anticipated, it is not statistically significant. As can be noted from Figure IX, the difference is almost entirely due to more females leaving during or after the first and second semesters. From the third semester on, females actually drop out less often than males.

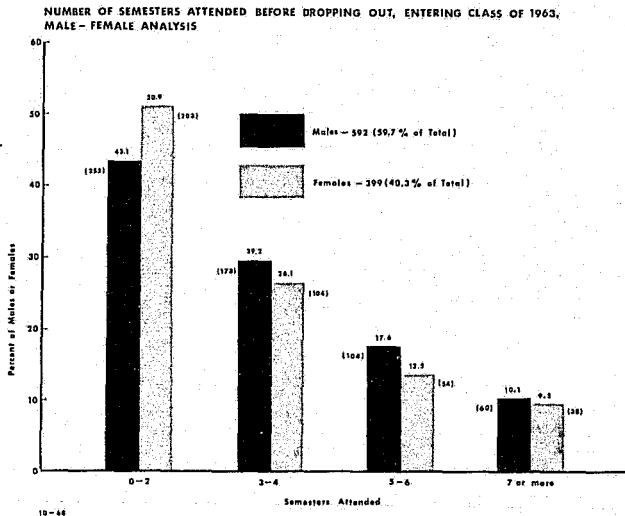


Figure IX

Though the overall performance of males and females does not differ significantly with regard to eventual graduation or dropout, there is clear evidence that in other ways, females tend to perform better than males. Females spend fewer semesters in University College before transferring out (chi square = 17.50; d.f.=7; $p < .02$). Throughout their stay in the University females are also suspended less often (chi square = 52.89; d.f.=7; $p < .001$). These findings are consistent with a tendency for females to have higher grade-point averages both in high school and college.

It appears, therefore, that while females drop out as often and at about the same time as males, they do so for different reasons. Fewer are suspended and the others tend to be in better academic standing when they leave the University. It is likely, then, that they leave voluntarily because of greater interest in the more conventional approaches to womanhood such as marriage, work and having a family, than in getting a college degree. To put it another way, they are not pressured or forced to leave the University for academic reasons to the extent that males are.

Performance--Spanish Surname

The total population of the entering class of 1963 was divided into the categories of "Spanish-American" and "Other" on the basis of surname. Two Spanish-American students made these judgments with a very high rate of agreement. They differed on roughly ten out of 1596 names. The result of this

sorting procedure was that 198 students were judged to have Spanish surnames, or 12.4 percent of the total class.

Before proceeding to an analysis of relative performance, a further breakdown examining New Mexico residents in these two groups might prove interesting. If one eliminates non-resident and foreign students from the totals, the following distribution and percentages emerge. One hundred sixty-eight with Spanish surnames and 899 "Others" were New Mexico residents, or 15.7 percent of the total New Mexico residents were Spanish surnamed.

A further breakdown shows 94 (56%) with Spanish surnames from Albuquerque and 74 (44%) from greater New Mexico. All "Others" numbered 566 (63%) from Albuquerque and 333 (37%) from greater New Mexico.

The validity of using Spanish surname as a criteria for identifying persons having a Spanish-American cultural background can be questioned because some Spanish-Americans are named Jones, and other non-Spanish-American people may be named Chavez or Martinez. To get a rough idea of the accuracy of the surname as an index, one of the items asked on the questionnaire was what languages were spoken in the home. Table VII is based on the 234 respondents who answered the question concerning language spoken in the home. A comparison was then made between surname and whether Spanish was spoken in the home as a first or second language, and it was discovered that identification by surname is a fairly inaccurate procedure. If the results of our small sample hold more generally, about as many errors are made by using only surnames as are correct identifications. These errors are about evenly split between falsely identifying non-Spanish speaking people as Spanish-American and not identifying some of those who speak Spanish in the home as Spanish-American.

TABLE VII
Relationship Between Spanish Surnames
and Spanish Spoken in the Home

Spanish spoken in the home	Yes No	Judged "Spanish-American"	Judged "Other"
		15 8	7 204
Total		23	211 = 234

Contingency coefficient = .56

To the extent that surname does not absolutely identify those of Spanish-American cultural background, such differences as may exist in the performance of Spanish-American and other students are more difficult to ascertain. Therefore whatever differences might exist would be more exactly determinable if it were possible to use more valid criteria.

Overall the Spanish-American group initially does not perform as well as the "Other". From Table VIII and Figure X it can be seen that a greater proportion tend to drop out in University College and the observed difference in dropout rate when tested statistically is significant by itself, (chi square = 6.08; d.f.=1; $p < .02$). There are also significant findings to the effect that Spanish-Americans have poorer grade-point averages in University College (chi square = 50.13; d.f.=3; $p < .001$).

TABLE VIII

Distribution of Spanish-American Surnamed and Other
According to Final Status in the University

	Dropouts U.C.		Dropouts Coll.		Graduates		Current		Total	
	N	%	N	%	N	%	N	%	N	%
Spanish-American	109	(55.8)	28	(13.7)	49	(24.4)	12	(6.1)	198	(100.0)
Other	639	(45.7)	215	(15.4)	431	(30.8)	113	(8.1)	1398	(100.0)

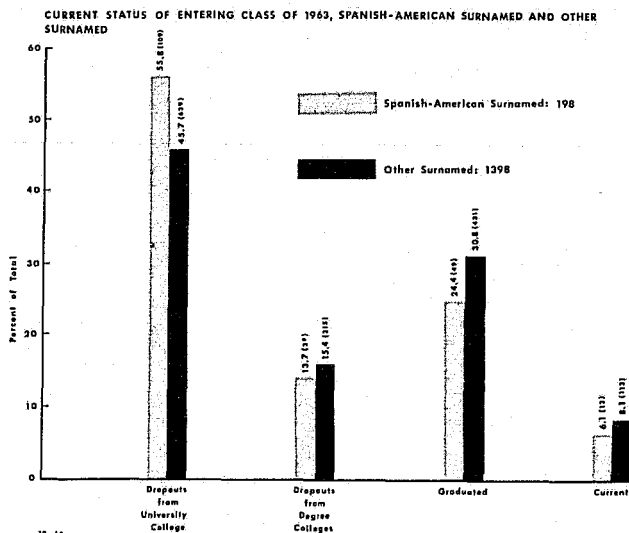


Figure X

This initial difficulty appears to be overcome in the first two semesters. There is no noteworthy difference in grade-point between Spanish-Americans and others during the later semesters, and the dropout rate is lower or just about the same for Spanish-Americans in every semester after the first. This seems to indicate that the most trying and difficult period is the first one or two semesters in college. Of course, this is true of all students, but even more so of those with Spanish surnames. This could also be interpreted as a result

of rural and small town background, but the majority of those with Spanish surnames entering UNM in 1963 came from high schools in Albuquerque, rather than from greater New Mexico or from out of state. Also it can be observed there is no significant difference in graduation rate between the Spanish-American surnamed and "Others" ($\chi^2 = 3.8$; d.f.=1; $p > .05$).

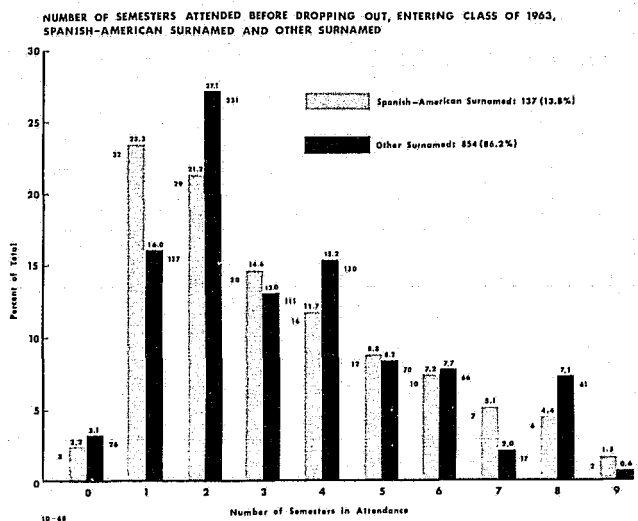


Figure XI

It can be observed from Figure XI that the patterns for "Spanish-American" surnamed and "Others" are different. Whereas the "Spanish-Americans" show the highest dropout rate in the first semester and thereafter a diminishing rate semester by semester, the "Others" show the highest dropout rate after the second semester and thereafter alternating dropout rates semester by semester. This alternating pattern shows a relatively low dropout rate at mid-year and a relatively higher rate at the end of each academic year.

This indicates that the Spanish-Americans do not wait until they are forced to leave by suspension, and it tends to support the idea of a more difficult initial period of adjustment for these students. The fairly even decrease in dropout rates by semester suggests that the "Spanish-Americans" are less influenced by the traditional academic year cycle than are the "Others". This is an important finding as it suggests the likelihood of differential influence of the formal academic system upon those of different cultural backgrounds. As mentioned before, these patterns would probably be clearer if more valid criteria were used to accurately identify Spanish-American background.

Summary

This section of the study has dealt with all the significant findings on the performance of the total entering class of 1963. These have been total performance of the class of 1963, transfers to degree-granting college, high school grade-point average and comparisons of two sub-groups--male-female and "Spanish-American surnamed" and "Others". The findings provide a basis for conjecture about the interaction of the University and its student population, as well as providing a basis for suggesting how this interaction can be improved. Such suggestions will be covered in the final section of this report entitled Summary and Recommendations. In the next section results thus far obtained from the contacts made with a representative sample of the class of 1963 will be presented.

RESULTS--SAMPLE OF 1963 CLASS QUESTIONNAIRE RESPONSE

A sample of the entering class of 1963 consisting of 408 individuals was selected according to stratified random sampling procedures designed to insure that graduates, current students, and dropouts would be represented in the same proportion as they exist in the population. Also students who were either enrolled in or intended to transfer to each of the seven degree-granting colleges were represented in appropriate proportions. Questionnaires were sent to each of these people following the procedures described on page 9. Eventually, 31 people or 7.6 percent of the sample turned out to be unlocateable, and in all probability these people did not receive a copy of the questionnaire. At this time 241 questionnaires have been filled out and returned for a response rate of 64 percent of the locateable subjects or 59 percent of the total sample.

These 241 respondents were compared with the original sample group to ascertain how representative they were of the original group. It was found when the respondents were matched to degree-granting college choice that there was no pronounced bias shown on this basis.

However, dropouts, particularly those from the University College, did not respond as frequently as current students or graduates. The difference in response rate between these groups was significant at the .001 level (chi square = 34.9; d.f.=3; $p < .001$).

TABLE IX

Distribution of Responses to Questionnaire

	<u>Responding</u>		<u>Not Responding</u>		<u>Unlocateable</u>		<u>Total</u>	
	N	%	N	%	N	%	N	%
Dropouts U.C.	83	(44.1)	84	(44.7)	21	(11.2)	188	(100.0)
Dropouts Coll.	38	(58.5)	20	(30.8)	7	(10.7)	65	(100.0)
Current	23	(82.1)	4	(14.3)	1	(3.6)	28	(100.0)
Graduates	97	(76.4)	28	(22.0)	2	(1.6)	127	(100.0)
Total	241	(59.0)	136	(33.4)	31	(7.6)	408	(100.0)

From the table it can be seen that a fairly representative sample of graduates and current students was obtained since around 79 percent of these students responded. On the other hand, 58 percent of those who dropped out of degree colleges and only 44 percent of those who dropped out in University College responded. It could be that response rate represents the strength of a student's association with the University. If we arranged these four categories either in terms of length of stay at the University or in terms of time since last enrollment in the University, they would be arranged in an order that corresponds perfectly to degree of response to the questionnaire, i.e., current students highest, then graduates, followed by dropouts from degree colleges and University College dropouts lowest. This response pattern supports the assumption that the strength of a student's relationship with the University is proportionate to his length of stay. Conversely, it tends to confirm that early dropout is a reflection of "alienation" or "lack of identification with institutional goals and values". It should be pointed out that traditionally a University allocates its resources and services following this same pattern; that is, the longer a student remains the more attention he receives. For example, alumni are shown a great deal of concern and attention by the institution, and the alumni reciprocate to some extent. But as was pointed out before, virtually no attention has been shown the greater proportion of students who have not graduated from UNM and the least attention is given the beginning student.

Dropouts receive no announcement of new programs or alumni bulletins. Current addresses are not kept for these people. No concerted effort is made to ascertain the reasons for dropping out by way of exit interviews or other contact. In fact, in most instances the identity of a dropout is of no apparent concern to the University or the student's college.

With regard to beginning students, it is well established that the bulk of University services is reserved for upper division and graduate students at the expense of the beginning student. Several illustrations are: the

large lecture sections, contact primarily with teaching and graduate assistants, academic advisement primarily by new, inexperienced faculty, lack of freshman-oriented extra-curricular activities and related student services. In fact, most services are reserved as rewards for the "winners" rather than their being considered as aids to the student in "making an adjustment" and "identifying with the institution". The system is oriented in the direction of requiring a student to prove himself, unless he has done so by outstanding high school performance, before he can participate in most activities or receive many of the services and recognition provided by the school. To ignore the beginning student and the early dropout in this manner contributes to the student's "alienation" and "lack of identification with the institution", which tends to insure that such explanations for attrition will be self-fulfilling.

Other likely interpretations of the lower response rate from dropouts can be suggested. The university experience is colored by failure for the dropouts making it a "touchy" or sensitive issue with which they would rather not deal. This leads to "forgetting" the questionnaire, misplacing it, etc. The nature of the questionnaire, since it vaguely resembles a final examination in general psychology, is more often rejected by the disaffected dropout for the same reasons that led him to drop out. Still another possibility is that the dropouts have not thought through to any great extent their university experience. They are therefore simply at a loss and have nothing to say.

However, whether dropouts do not want to speak out, cannot speak out or need a different means to do so, it is important that they be heard. It does not seem reasonable or safe to conclude that the dropout group is adequately or fairly represented by a response rate of 40 to 50 percent. The error that would be committed by assuming that dropouts are adequately represented among the respondents would be to assign greater weight to the opinions of the "winners", just as most analyses and reports currently do.

To further emphasize this point, we might look at the final item on the questionnaire which is an open-ended "essay" item. This item asks the respondent to generate an answer or to think out, organize and write some constructive criticism of the University. The question is reproduced below, but keep in mind that it came at the end of a rather lengthy questionnaire.

We are further interested in whatever ideas you may have as to how the educational experience at the University of New Mexico could be improved from the student's point of view. You may leave this item blank, if you feel that previous items have covered the areas in which you would have major suggestions; but if you have other points to add or areas you wish to emphasize indicate these below:

Again, by college there were no significant differences in whether students wrote on this question or in the nature of complaints, though Nursing, Pharmacy, and Engineering students tended to be a bit more critical on all student services while Business Administration students confined their complaints to classes and professors. But the significant matter is that even among those who sent back the questionnaire, students currently enrolled and graduates wrote more often and more critically than dropouts on this particular item ($\chi^2 = 11.42$; d.f.=4; $p < .01$). Of course, the critical nature of the responses is no surprise since this is what the item calls for. But outside of spontaneous positive comments offered, one in support of the Newman Center and two in support of the graduate assistants who have time to provide individual attention, and several on the questionnaire itself, all other comments were negative in nature. A tabulation of the complaints follows.

A. Classes

1. too large (14)
2. lecture method (4)
3. use of grades (7)
4. use of graduate students (1)
5. curriculum is restrictive and unrealistic (22)

B. Professors

1. don't care (6)
2. don't know how to teach (15)
3. are not accessible (2)
4. assign busywork (2)
5. are not fair (2)

C. Administration

1. lack of involvement with students (6)
2. lack of involvement with the community (1)
3. too much bureaucracy (2)
4. rules too strict or lenient (5)

D. Student Services

1. lack of individual attention (1)
2. poor counseling and advisement (28)
3. lack of social activities (8)
4. lack of financial assistance (2)
5. poor library facilities (1)
6. complaints about student government (1)

E. Questionnaire (2)

These findings tend to support a general thesis that the "winners" are more verbal and expressive, at least in writing, and the above outline gives us a general idea of what they are saying. However, can we assume that the "losers" would say the same thing if they had taken the opportunity to speak out as often? Perhaps their relative silence on this item means that they do not wish to be critical of the University or have not looked at the University

as sharing the responsibility for their unrewarding educational experience.

Because the dropouts are not adequately represented in the sample and because other evidence indicates the very method of measurement exerts some biasing effect, it seems important to try to increase the size of the sample and to introduce new methods such as directly interviewing the subjects. It would be possible to get a fair indication at this time of what the "winners" or the current students and graduates have to say on the questionnaire, since roughly 79 percent have responded. Little is known concerning how the "losers" contrast in their responses. To compare these groups with a view to ascertaining any variance in their responses would be inappropriate at this time.

One very interesting finding that can be reported at this point is that according to the self-report of the respondents, 35 out of 121 responding dropouts had continued their education at a four-year college after leaving UNM; this does not include vocational schools or in-service business training programs. In checking to see how many of this group had requested that transcripts of their UNM work be sent to another institution we found that 31 had had transcripts sent to one or more schools and 4 had no transcripts sent. Six of the 31 asked that transcripts be sent to one or more schools, but not to the one they had listed themselves as currently attending. Based on self-report, the actual number or proportion of students who leave UNM and go to other schools is somewhat higher than the number projected from examining transcripts. On the other hand, it may be that some of these people took extension courses or were not actually enrolled in the college they reported attending, and therefore were not required to report all schools they had previously been enrolled in.

The above figures would seem to suggest that 26 to 29 percent constitutes the maximum percentage of UNM dropouts that later enroll in some other college. However it must be remembered that these figures are based on responses from only 50% of the total dropouts in the sample. It is reasonable to assume that those who did not respond were the disaffected students as mentioned above. If all dropouts had responded the above percentage would likely be considerably lower. When checking the transcripts of the total population of dropouts of the 1963 entering class, it was found that 18.4 percent had requested that transcripts be sent to other institutions. In view of the close relationship between these two methods of identifying transferring dropouts, this lower percentage of transcript requests provides additional evidence to support the assumption that actual transfers constitute a far smaller proportion than the 26 to 29 percent.

Thorough statistical analysis of the responses to the questionnaire will not be undertaken at this time because of the bias referred to above. After

further contacts are made with non-respondents in the sample, which it is hoped will provide a more adequate proportion of dropouts, a detailed comparison will be made between dropouts and graduates, male and female, "Spanish surname" and "Other" as well as relationships among the items of the questionnaire in order to identify patterns of responses and differentiations in categories of students, if any.

However, in the Appendix a copy of the questionnaire and a tabulation of the answers given to each item by the total 241 respondents is provided. Additionally a tabulation of the responses of the "Spanish surname" group is attached. (It must be remembered that this sub-group is included in the tabulation of the total group if one wishes to make his own comparisons.) The reader is encouraged to examine these tabulations keeping in mind that at this point it is possible only to get a general idea of what most students are saying without regard to their current academic status as previously defined, i.e., dropout, current, graduate.

To illustrate to the reader and perhaps encourage such independent examination, the following items are discussed with suggested interpretations. These have been chosen either because of their high interest value or because the patterns of response are so clear that reasonable assurance exists that future responses will not alter the results.

- Item 22. How did your father or guardian feel in regard to you going to college?
1. Did not want you to go. (2)
 2. Seemed indifferent. (5)
 3. Showed some interest but did not think it was really necessary. (10)
 4. Maintained there was some need for a college education. (52)
 5. Constantly impressed on you the need for a good education. (169)

The above item illustrates a clear pattern of responses. It demonstrates that from the students' point of view strong parental pressures exist to pursue a collegiate experience. This raises a question of whether enrollment in college is the result of a student's internal desire and commitment to an educational experience or whether his enrollment is the result of strong external pressures without regard for the student's felt needs?

- Item 27. Who influenced you most to attend college?
1. Yourself. (63)
 2. A parent. (34)
 3. Both parents. (78)
 4. Teacher, minister, or other adult. (11)
 5. Friends your own age. (12)
 6. No special person. (39)

The pattern emerging from responses to this item tends to support the suggestion that attending college is attributable more to external influences than self-determination. Only 27 percent of the respondents viewed their enrollment as primarily their own decision.

Item 30. While in school, when did you first consider most seriously quitting and going to work?

1. During the early years in high school. (2)
2. On graduation from high school. (14)
3. During the early years in college. (86)
4. Late in college. (23)
5. Never. (113)

Considering those respondents who enrolled and had not thought of quitting school prior to enrollment it is most interesting that an even split occurs. Fifty percent continued, giving no serious thought to interrupting their attendance while 50 percent gave it serious consideration. A further observation that needs to be made is that most who thought about dropping out did so in the first several semesters. This reinforces the assumptions concerning "alienation" and "failure to identify with the institution" and the high incidence of these reactions in the beginning semesters.

Item 42. If you were to begin college now, would you:

1. Choose the same courses at the same school? (98)
2. Choose the same courses at another school? (30)
3. Choose other courses at the same school? (81)
4. Choose other courses at another school? (25)
5. Not enter college? (5)

One cannot use this item at this time to demonstrate alienation from or affinity for UNM as graduates and current students are the greater number of respondents. Until the detailed analysis is done, this kind of conclusion would be inappropriate. But one can properly observe that of those who would again choose to go to college (98 percent or all but five) 45 percent would pursue a different course of study. This significant number lends further weight to previous observations regarding indecision, vacillation and lack of personal commitment other than to obtaining an "education" or a degree. In short, regardless of the nature of the first collegiate experience, the same pressure to "attend college" is present.

Item 44. When you attended college, what percent of your college expenses did you earn?

1. Less than 10%. (102)
2. More than 10% but less than 25%. (23)
3. More than 25% but less than 50%. (22)
4. More than 50% but less than 75%. (29)
5. More than 75%. (64)

This item points up the bi-modal nature of the student population of UNM

with regard to financial backing for a college experience. A large group receives total or nearly total support while another sizeable portion support themselves either totally or nearly so. The financial pattern is one of extremes and raises a crucial question for further examination in reference to a possible relationship between graduates and dropouts and also possible forced choice of college because of location and financial constraints.

Item 47. While in college, the areas in which I found little or no assistance available were: (circle those which apply)

1. Selection of course. (77)
2. Tutoring. (37)
3. Financial aid. (21)
4. Vocational planning. (68)
5. Personal-social counseling. (63)
6. Academic information. (34)
7. Spiritual guidance. (10)
8. Reading and study skills. (49)
9. Job placement services. (22)

Responses to the above item lead to two related conclusions. The first reveals that students seek individualized assistance in getting to know themselves better. They seek help in ascertaining their vocational interests and counsel regarding their personal and social problems. They also feel a need for assistance in overcoming weaknesses in academic skills relating to study habits and linguistic deficiencies.

The second observation is related to the failure to find adequate services to fill these needs. Academic advisement, vocational planning and personal-social counseling head the list of inadequacies with reading and study skills, tutoring and academic information services coming as the second group in this order.

It should be noted that this same pattern is found in the answers given to the open-ended question which is discussed on pages 28 and 29. These findings further support earlier suggestions that serious deficiencies exist in the system that is the University. When one considers that increasing size tends to create an atmosphere of depersonalization, efforts to offset this atmosphere require more attention. Such efforts can be greatly aided by increased support of individualized services to convey to the student a sincere feeling that he matters first as an individual and second as a "freshman" or a "student". More typical of the large university however is the reservation of such recognition for upper-classmen or graduate students with less attention given to those beginning students seeking to develop a satisfying relationship with their college and therefore those most in need of such services.

Many items not noted specifically in the above discussion prove most

interesting if one examines them. However, most are more significant when they are related to other items and the responses are correlated, particularly if such correlation is made with regard to status, i.e., graduates, late dropouts and early dropouts. Patterns of background, value structure and motivation orientation are sought by this device and if such emerge, a more reliable basis for making specific predictions and recommendations will exist. But as previously noted, the bias in the responses received at this time, in that many more graduates and currently enrolled students than dropouts have cooperated, makes reporting of such relationships inappropriate. As will be noted more particularly in the final section of this study, every intention exists to pursue non-respondents with the view to increasing both total responses as well as to eliminate the bias so that complete analyses can be made. It is usual when using the questionnaire device to experience such incomplete data results and in fact the measuring approach of the questionnaire itself produces a "response set" that is predictable and biased. These known factors dictate that follow-up by way of structured and unstructured in-depth personal interviews and other measuring devices be used before final conclusions are arrived at.

Some grouping of items that might well be generally examined by the reader, but without these being considered as all-inclusive, are suggested as follows. a) Items 60, 62 and 63 tend to demonstrate the values and goals of those who enter and experience some college exposure. The present sample is heavily weighted toward a kind of gregarious, socially-oriented person who places primary emphasis on job, family and leisure, with experience combined with formal education as the most promising route to attainment of these goals. Few are concerned with activism in either local or national problems or affairs. b) Items 80 through 84 are worded in a less personal, or more abstract, fashion and relate to less practical and more idealistic values and goals. In these cases the respondents appear to shift their responses accordingly, i.e., support in the abstract of critical examination of ideas, individual exploration of social and moral ideas and development of creativity in the individual rather than the responses showing an orientation toward structuring educational programs to prepare one for a job or career that would tend to lead more directly to job security, family and leisure. These two sets of items and responses can be reconciled, but the divergence in responses seems more striking and tends to support a thesis of "response set" or responding as one believes he "ought" to when dealing with abstract principles, but responding more directly when the item is worded in a personal fashion.

c) Items 40, 41 and 67 with the responses seem to reflect a pattern that emphasizes a philosophical commitment to mass education with few or no failures in the educational endeavor, that both admission to and completion of an education at the higher level is more a matter of right than one of earned privilege. This pattern is more interesting when compared with the responses to item 72 dealing with reaction to competition and other items regarding assessment of the respondent's relative "success" or "failure" level with that of his peers.

The possibilities of other similar general analyses are innumerable. But those discussed above should serve the purpose intended, namely to illustrate. Further treatment of the questionnaire at this time will be left to the reader.

SUMMARY AND RECOMMENDATIONS

Gross data accumulated on the entering freshman class of 1963 at UNM demonstrates that 47 percent of the students dropped out of college in their early semesters in attendance and few continued their education at another college five years after initial enrollment. An additional 20 percent drop out of degree-granting colleges, most in the third, fourth and fifth years. Those who drop out comprise 67 percent of the enrollment that came in contact with the University. Little has been done in studying this large group or in providing services to them either to persuade them to continue or to assist them in moving to other tracks promising an upward thrust in general growth and development as well as preparing them for useful employment and a satisfying life.

Simultaneously, many services and the bulk of available resources are made available to those who graduate. As the "winners" emerge from the mass, the system rewards them with smaller classes, privileges in participative activities, increased opportunity for financial aid, placement services, individual recognition and awards, and finally follow-up alumni services. The tradition and trend is service to the "winners" and forget the "losers". Nearly all programs, services and structure lead one to conclude that most of those responsible for the system view the mission of the University as solely production of students who have earned a degree at the bachelor's level or above and that possession of the degree is the sole proof of a successful educational experience. Those who come and for any reason "do not make it" are largely left to their own devices and after the fact are explained, if at all, by "they didn't belong here in the first place". But the more basic question seems to be what a formal educational experience actually is and whether this University's mission is not to provide the opportunity for a satisfying and valuable experience to all that are admitted and who enroll.

The following Figure is based on a study conducted by the Department of Guidance of the New Mexico State Department of Education published in March, 1967. The youth that entered grade nine in 1959 was followed to graduation from high school. Follow-up of those who entered college and performance at this institution to graduation by June, 1968 is added.

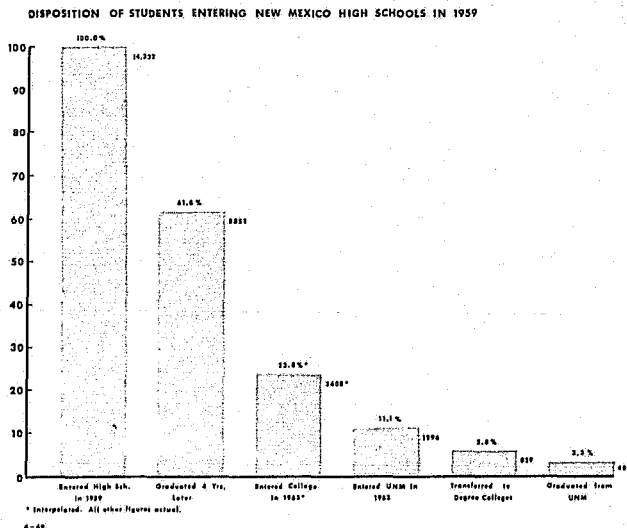


Figure XII

The overall picture should cause anyone to question the nature of the educational system in New Mexico, and particularly as this system relates to the needs of this state and its citizens. The emphasis appears to be to push people upward on the academic ladder through high school, to and through college at exceedingly high financial cost, and the end result of this thrust is to supply the "indispensable credential" of the "educated man" to approximately 10 percent of those who initially entered high school. Additional data exists to show that a sizeable portion of those who receive the ultimate benefit then leave the state.

If one accepts the premise that the educational system should be so organized and the financial resources used in a manner that will provide the greatest benefit to each youth as his abilities and interests permit, recognizing that four year degrees and graduate degrees are but one of the desirable ends and fill the need of but a few of those served, then it follows that a reallocation of available resources take place. Presently nearly all resources are expended on a system that provides maximum benefit to only 10 percent of the users, the "winners". An appropriate system would recognize the diverse nature and diverse

needs of the users and use the system and its resources to assist each individual in deriving maximum benefit from whatever time he is involved in and exposed to the formal educational experience.

In the light of the findings set out in this study and the conclusions suggested by these findings, several recommendations of a rather specific nature emerge which hold promise for the short run. These recommendations are but interim until a consolidated, long-run master-plan for education in general and higher education in particular can be evolved and implemented for the State of New Mexico and UNM in the light of the needs of the citizenry in the latter years of the twentieth century. It should be stressed that this long-run approach is finally being suggested in many quarters after years during which a few voices advocating wide-sweeping reform went unheeded and action was limited to reaction to fragmented pressures, both statewide and within individual institutions. This approach has resulted in a patchwork growth and in the overlapping and inefficient arrangements that serve neither the youth as individuals nor the general society for whom the educational system exists.

The first set of recommendations relates to creation of significant official contact with students. A decade or more ago casual and informal associations between faculty and students served the basic needs of most students and the institution. Size and emphasis of the school made such contacts possible and relatively fruitful. As enrollments soared, as programs multiplied and fragmented, as class sizes rose, as faculty increased with constantly more emphasis being placed on graduate education and research, and as social change both on the campus but more importantly in the larger community took place, these informal contacts were then officially encouraged through university-wide large-scale talk-ins, teach-ins, self-evaluations and other devices in the hope that increased communication and understanding would result. As commendable as these activities might be, only a very small faction of faculty and administration, and more importantly only the most active students, a fraction of the "winners", have participated. Little direct action by way of help to the individual or modification of the system has resulted from these activities. And most crucial of all, the 70 percent who drop out have had little contact with these activities and there has been no significant lowering in attrition in the past twelve years. Probably these efforts have diminished the general problems of student discontent by encouraging self-expression by these minorities, but strong evidence indicates more reliance has been placed in the effectiveness of these methods than they merit.

In order to begin closing this "open-bottomed" system where students are free to come and go with hardly any official acknowledgment, there must be more involvement with students at crucial, decision-making stages. The first of these points is advisement in University College, particularly for freshmen. Most advisement contacts are presently ineffective (see page 33, and item 47 of the questionnaire). At present students are required to obtain their adviser's signature on a program of studies during registration and are also expected to pick up mid-term grades from their advisers. Spot checks have indicated that far fewer than 50 percent of the students do pick up mid-term grades or otherwise see their adviser during the term. Failure of the student to take the initiative is quite understandable in view of their orientation evidenced by various findings set out in this study, thus the initiative must come from the individual adviser. Such initiative is effective. A few advisers manage to meet with most of their advisees each term for a pre-advisement planning session by using initiating but non-coercive devices to arrange appointments with their advisees.

To encourage this type of interaction of the students and advisers does little good if advisers are not interested in the student who is not performing up to expectations academically or those whose past records do not promise outstanding performance. Advisers themselves seldom did poorly in college, so they simply do not understand. They find it difficult to lose their negative attitudes or are just plainly disinterested in students who "don't belong here". A few advisers, because of special background or experience, can tolerate working with the student who is marginal and some thoroughly enjoy it, but the majority are clearly more interested in the "winners".

In order to perform effectively as an adviser, one must desire to work with all the students he encounters. This requires a great deal of time and thus it becomes necessary that effectiveness in this activity must be rewarded both financially and with a recognition of the activity as a "respectable" function along with research and community service. Together with advanced registration procedures, much advisement could be done in late summer before freshmen actually arrive in that the majority live in the Albuquerque area. A corps of advisers selected for interest and appropriately compensated could handle the bulk of the freshmen at a level of quality and individuality presently unknown to UNM. Such a corps of advisers would need special training in understanding the problems of students and in becoming acquainted with the options open to the student as he grapples with and learns to deal with a university system. The effects of such a comprehensive training program would not be limited to the freshman class

or the selected group of faculty, but would surely spread to other members of the faculty and administration. To put this type of training program together would require time and financial support.

A second area where it is important to have meaningful official contact with students is during withdrawal from the University. Interviews with students at the point of readmission reveal the diversity of reasons that led to withdrawal. For many of these students withdrawal would have been avoided or the impact of withdrawal with regard to the system and the students' status on return could have been minimized with pre-exit advisement and counsel. For example, questions as to academic status and grades have been left unanswered as far as the student is concerned, so that he did not know his status. (See Questionnaire Item 35.) It seems that it would be much better for students to both exit and re-enter through the same process so that they might show that such conditions as were related to their leaving initially (be they health, family, or financial) had now changed. Also, it may be possible to provide some help in terms of advice or information on managing these outside circumstances and to recommend when or in the wake of what kind of change the student should seek readmission. The Counseling Center and the Health Service should be jointly responsible for managing this type of traffic since the major concerns are health, both physical and mental, the area of social relationships and responsibilities, and the student's ability in relation to his academic plans and program. If this is interpreted by students as paternalism, it should be pointed out that private industry and government show at least as much paternalism in their personnel policies, and in later life these kinds of contacts are likely to increase.

The third recommendation is that the University should maintain contact with students who are under academic suspension. If the theory or philosophy behind suspending a student is that he needs time to increase his general preparedness for college before being given another chance, the University should also be concerned about the availability of community resources and provide the additional services necessary to help students discover their needs and correct their deficiencies. Our present lack of involvement with students under suspension projects the image to nearly everyone that suspension is a purely punitive measure designed to improve student performance in the same way that "a whipping" was supposed to have helped one to become morally sound.

Students under suspension should have the opportunity to follow a reading and study skills program geared specifically to learning how to learn in a university setting. The only community resources that have come close to providing this kind of educational experience have been commercial reading dynamic courses

and the Community College speed reading course. However, none of these courses base their offering on an analysis of the student's individual needs regarding the learning process. Furthermore, because of the emphasis, these courses tend to be of greater benefit to those who begin courses with at least average reading ability. Other commercial courses emphasize content or subject matter rather than how to learn. Educational and vocational guidance should be combined with such a course or program, if one were initiated, to form a complete diagnostic and correction service.

The last specific interim recommendation to be made here deals with degree college dropouts. Following the thesis that significant official contact with individual students at crucial times during their college experience is highly desirable, annual review of records in some form or manner should be instituted by the degree colleges. This type of formalized contact should help decrease the high number of dropouts from degree colleges in the third, fourth and fifth years. Advisers are presently expected to perform this function in most departments, but apparently they are hesitant to accept this responsibility. Perhaps some kind of periodic statement, analogous to a financial statement, might be issued. Clerks might do a better job than professors in handling this aspect of advisement, since the detail work necessary to determine a student's standing can become frustrating to someone who is not used to handling it. On the other hand, the student might be required to submit an annual report of classes taken and grades earned, worked out in relation to requirements for graduation. This would be similar to what is now done at the graduate level. This type of self-accounting and reporting would help the student to become aware that he is ultimately responsible for seeing that he will meet requirements and be able to graduate when he anticipated.

Other specific recommendations can be made that would prove helpful to some, if not all, students such as calendar modification, changes in curricula structure and re-examination of regulations regarding academic and non-academic programs of the University. Many of these are under discussion in various quarters of the University and furthermore they require much more study before changes are instituted. They therefore would be better considered in the nature of long-run rather than interim possibilities.

This study has demonstrated how much is not known about the nature of the youth enrolling in the University and their interaction with the policies and practices of the institution. Without such knowledge, it is impossible to make intelligent decisions regarding directions the University should take in carrying out an educational mission. This certainly is true also at the planning level

for a state educational system.

Nature of degrees, curricula, admission criteria, services and their relative priorities for support through claims on scarce resources must be considered in the light of the nature of those who enroll, their needs and demands. Even if one takes the position that the exclusive function of UNM is to offer traditional programs of higher education, ignoring the heterogeneity of the students and their needs and demands, and that only those who seek this type of higher education should enroll and continue, then a clearer knowledge of what kind of person this is becomes necessary in order to set admission standards that would select this homogeneous group. Without this knowledge one must be content to continue with the present state of affairs which tolerates large admission numbers and a 70 percent attrition.

It is doubtful, however, that either of the latter alternatives are real options even if large numbers of faculty and staff might cling to the "traditional". The commitment of society to some form of higher education for all, the emphasis on providing individuals with a variety of post-high school educational opportunities, the increasing concern about social problems and the resultant pressures upon the educational systems to find solutions all tend, in the long run, to mitigate against the narrow view of academe as a community of scholars mutually pursuing the traditional type of undergraduate and graduate education.

If one were to take the above position and attempt to defend it, it would be found that the mass admissions and dropout approach is so costly in both human and financial resources that other more efficient educational and training institutions would arise and demand financial support. The pressure from such developments would soon impact upon UNM and upon the educational system of the state to an extent far greater than that now existent.

The development of UNM in the past several decades, and particularly in the most recent past, is strong evidence that the direction is to retain quality traditional-type programs and, simultaneously, to offer increasingly diverse programs to meet the demands of society and the needs of its youth. However, most of these developments have occurred as a result of a widely perceived need or external pressure, but with little advance study of the nature of the youth to be served or of the most efficient and effective method of organization of the program.

Thus, it is strongly urged that research be carried on in an organized and continuing fashion into student characteristics and institutional policies and practices. Masses of potentially useful data are presently in the hands of the Office of Admissions and Records, the University College, the Testing Division,

the degree colleges and the Graduate School, as well as various other student service offices such as the Placement Center and the Student Aids office. Each of these divisions makes some use of the information in terms of annual reports and by taking note of unexpected trends or changes. However, the integration and analysis of this information as it bears on a specific question, such as dropouts or the Spanish-American student, is presently left to independently interested groups or individuals.

This means that each of the various offices is faced with continually recurring questions concerning 1) whether to provide the data; 2) what form to provide it in, and 3) should they provide clerical assistance or otherwise permit their operations to be interrupted. Since this study has cut across the operations of many of these offices, it should be pointed out that obtaining interest and cooperation was not a problem. The problem was in asking these offices to provide information or make it available to an outside agency without adequate guidelines relative to who should have access to such data. The risks were taken but such need not have been the case. Because of growing interest in, and need for, this type of research, the problem will grow and offices will be faced with the contention that since data was provided for this group or individual it should be provided for that one. It may then become necessary for these offices to withhold their cooperation for self-protection.

Two problems arise which are related to support for a coordinated research effort as suggested. The first is one of mechanics and the second involves determination of policy. With the availability of high speed data processing and computer equipment, a uniform definitional and coding system should be developed. All records and information on students kept by all colleges and offices should use these definitions and codes. This information can then be stored for immediate retrieval without the necessity for hand search of each original record in the various offices throughout the University. A central data bank is the essence of this suggestion. Speed of data retrieval and reduction as well as speed in analysis would permit research to proceed more rapidly and at lower cost after the initial outlay for installation of the system. (It should be observed that the University College and the Office of Admissions and Records have cooperated in such a venture that permits machine processing of data for limited studies up to the point of student transfer to degree colleges. But this is but a small start in the suggested direction.) A consolidation of all data now available, such as matriculation date, academic record, status, college, etc., and personal profile data from the American College Testing Program together with test scores, high school attended and all similar data

could well be included in any centralized data storage plan. The details need not be spelled out here to demonstrate the advantages that would flow from such a system.

The second critical problem deals with the establishment of policies governing access to such data. Access can be limited or unlimited. Certainly academic records of a college's own students would be available to the college. But should personal data be available? Should any individual or group, faculty, student, or combination thereof have unlimited access for any proposed research project? The question of confidentiality on the one hand and appropriateness of proposed use and responsibility of the user or user agency on the other requires both carefully drawn guidelines and a method of applying these guidelines. The judging of requests is critical now, and if a centralized system is instituted, it will become more crucial as more demand for access is generated.

The closing request is that the other phases of this study not now complete receive support to permit continuation of this research into student characteristics. Continuing research of this nature needs encouragement and financial support. The worth of such studies depends on the questions they raise in the minds of the readers and the changes that take place in the system as a result of the information and insight that the study may supply. It has been the intention of the authors of this report to generate such questions and to provide information relevant to changes at this institution.

References:

- Huber, William H. Annual Reports of the University College, 1957--1965.
- Goetz, Walter and Donald Leach. "The Disappearing Student," Personnel and Guidance Journal (May, 1967), 883-887.
- New Mexico's School Leavers (A Summary Statement). Guidance Service Division, State Department of Education, Santa Fe, New Mexico. GSS #1. March, 1967.

APPENDIX

THE UNIVERSITY OF NEW MEXICO
ALBUQUERQUE

OFFICE OF THE PRESIDENT

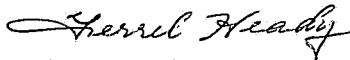
July 29, 1968

You are being contacted as a member of the freshman class that entered The University of New Mexico in the fall of 1963. Our attention has been narrowed to a small portion of that class in order to ask some questions which should reflect the overall experience of the total class in their relationship with the University. You have been selected as a member of this smaller group or sample. Will you please participate by filling out the enclosed questionnaire and returning it to us? We are depending upon a sample of only one-fifth of the original class, so your particular reactions are all the more important to us.

Why are we doing this? Why is this important, and why should you be asked to participate? The picture in higher education is a rapidly changing one, but it often changes without benefiting from the experience of those who have directly confronted the challenge of classes, degree requirements and other features of the University setting. The beginning class of 1963 seems to be a group whose experience is both tested to some extent and yet fairly current and therefore relevant to present conditions.

Please begin by reading the directions on the first page of the enclosed questionnaire. As a result of filling it out you may have further questions or issues which you care to discuss. Write the University College and Counseling Center, or contact them by phone.

Sincerely yours,

Ferrel Heady
President

FH:kp



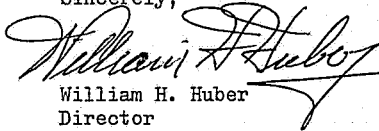
THE UNIVERSITY OF NEW MEXICO | ALBUQUERQUE, NEW MEXICO 87106

UNIVERSITY COLLEGE AND COUNSELING CENTER
TELEPHONE 505; 277-2631

You should have received from the President of the University, Ferrel Heady, a questionnaire concerning your relationship with the University of New Mexico. Your response will be valuable to us in assessing the effects of education from the student's point of view. by completing the questionnaire and mailing it back, you will put your experience to work in a way that may profit other students who are just coming to the University.

If you did not receive, or have mislaid, the questionnaire we would like to send you another. If you do not wish to participate please inform us so we may ask a different member of the beginning '63 class to respond. We invite you to communicate with us so that we may know the effects of our research and the extent to which our efforts in reaching people have been successful. Write or call 277-2631.

Sincerely,

William H. Huber
Director

WHH:kp

University of New Mexico Questionnaire

General Directions:

Most of the questions relate to the value of your educational background. Whether you are continuing your education or working and becoming involved in new experiences seemingly unrelated to formal education, we are asking you to look back and give us thoughts and opinions concerning your formal education.

Necessarily, some of the questions pertain to family background, present circumstances and future aspirations, information which is essentially personal. We recognize this, and offer assurance that such information will be held in strict confidence. At the same time, we appreciate and in fact depend upon your being forthright. Such information will help us to realize the significance of your other responses.

Answer the questions as best you can. We recognize your right to skip an item you consider to be private. At the same time we have tried to eliminate such items from the questionnaire. It will take approximately 35 minutes of your time to answer all the questions. Please complete and return the questionnaire to us by _____.

Today's date _____

Name: _____
Last First Middle

Address: _____

Age: _____ Date of Birth: _____ / _____ / _____ Sex: _____

Marital Status: (check one) Married () Single () Divorced () Widowed () Children ()

Your chief occupation: _____

Father's chief occupation: (if deceased list mother's) _____

Name of high school from which you graduated: _____

List all colleges, trade schools and training programs you attended since the fall of 1963:

School	Attended from:	to:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

I. Place a number next to the languages spoken in your home while you were in grade school and high school. Use the number (1) through three (3) with "one" indicating the most frequently spoken language. Where only one language was spoken just indicate by placing an "x" next to the appropriate category.

_____ a) English	_____ d) Italian
_____ b) Spanish	_____ e) German
_____ c) French	_____ f) Other (specify) _____

II. Before answering the main part of this questionnaire, please state briefly why you left UNM. [(For example, graduated, was suspended, etc.) If you have been in continuous attendance during the regular school year since enrolling in 1963, please indicate.]

III. If you were again a graduating senior (high school) would you want to enter UNM? If the answer is no, please briefly give your reasons.

Name: _____

Directions: Please choose the single best answer for each of the following questions by circling the number preceding the statement of your choice, unless otherwise indicated.

1. How old are you now?
 1. 20-25.
 2. 26-30.
 3. 31-35.
 4. 36-40.
 5. 41 or older.
2. What is your sex?
 1. Male.
 2. Female.
3. How old were you when you were married?
 1. Not married.
 2. Less than 18 years old.
 3. 18 to 20 years old.
 4. 21 to 25 years old.
 5. 26 to 30 years old.
 6. Over 31 years old.
4. With whom do you live?
 1. Alone.
 2. With spouse.
 3. With one or both parents.
 4. With other relative.
 5. Other.
5. How many persons (not including yourself) are dependent upon you for all or most of their support?
 1. None.
 2. 1
 3. 2 or 3.
 4. 4 or 5.
 5. More than 5.
6. In what part of the country did you live most of the time before you were 18?
 1. The Northeast (including Pennsylvania and New Jersey).
 2. The Southwest (including Oklahoma, Texas, and New Mexico).
 3. The South
 4. The Middle West (including the Rocky Mountain area).
 5. The Pacific Coast.
 6. Outside the continental United States.
7. The place in which you spent the most time before
 1. Farm or open country.
 2. Town of less than 2,000.
 3. Town of 2,000 or more but less than 10,000.
 4. City of 10,000 to 50,000.
 5. City of 50,000 to 100,000.
 6. City of 100,000 to 500,000.
 7. Over 500,000.
8. During most of the time before you were 18, with whom did you live?
 1. Both natural parents.
 2. Two parents.
 3. One natural parent.
 4. A relative.
 5. Foster parents or non-relatives.
 6. In a home or institution.
9. How many other children were there in your family?
 1. None.
 2. One other child.
 3. Two other children.
 4. Three other children.
 5. Four other children.
 6. Five other children.
 7. Six or more.
10. With regard to your brothers or sisters you are the:
 1. Oldest.
 2. Youngest.
 3. A middle child.
 4. Have no brothers or sisters.
 5. Other.
11. In what type of community are you now living?
 1. Farm or open country.
 2. Town of less than 2,000.
 3. Town of 2,000 or more but less than 10,000.
 4. City of 10,000 to 50,000.
 5. City of 50,000 to 100,000.
 6. City of 100,000 to 500,000.
 7. Over 500,000.
12. In what size city would you prefer to live?
 1. Farm or open country.
 2. Town of less than 2,000.
 3. Town of 2,000 or more but less than 10,000.
 4. City of 10,000 to 50,000.
 5. City of 50,000 to 100,000.
 6. City of 100,000 to 500,000.
 7. Over 500,000.

(2)

13. What is your present total family income per month?
1. Under \$300.
 2. \$300 to \$374.
 3. \$375 to \$424.
 4. \$425 to \$499.
 5. \$500 to \$599.
 6. \$600 to \$699.
 7. \$700 to \$800.
 8. Over \$800.
14. How many times did you change schools before you were 16 years of age (other than by graduation)?
1. Never.
 2. One or two times.
 3. Three to five times.
 4. Six or more times.
 5. I can't remember.
15. From which kind of high school did you graduate?
1. Military.
 2. Private, church related.
 3. Non-denominational.
 4. Public.
 5. Received a graduate equivalency diploma.
16. How many students were there in the high school you graduated from?
1. Less than 100.
 2. 100 to 499.
 3. 500 to 999.
 4. 1,000 to 1,999.
 5. 2,000 to 2,999.
 6. 3,000 or more.
17. How did you feel about high school?
1. Liked it very much.
 2. Liked it most of the time.
 3. Just accepted it as necessary.
 4. Was often a little unhappy with it.
 5. Disliked it and was glad to finish.
18. How do you now feel concerning the adequacy of your high school preparation for college?
1. Was superior.
 2. Was weak in certain areas.
 3. Was very inadequate.
19. Were you employed regularly while in high school?
1. Yes, in order to help support my family.
 2. Yes, in order to help support myself.
 3. Yes, in order to have extra spending money.
 4. No.
20. During your junior and senior high school days, in which type of activity did you participate the most?
1. Athletics.
 2. Boy Scouts, 4-H Clubs, FFA, or YMCA.
 3. Student government, school politics.
 4. Student paper, yearbook.
 5. Science clubs.
 6. Musical and artistic activities.
 7. Other activities.
 8. Did not participate.
21. How much education did your father have?
1. Grade school or less.
 2. Some high school.
 3. High school education.
 4. Some college.
 5. College graduation (liberal education).
 6. College graduation (scientific education).
 7. Graduate degree.
22. How did your father or guardian feel in regard to you going to college?
1. Did not want you to go.
 2. Seemed indifferent.
 3. Showed some interest but did not think it was really necessary.
 4. Maintained there was some need for a college education.
 5. Constantly impressed on you the need for a good education.
23. How much schooling did your mother have?
1. Grade school or less.
 2. Some high school.
 3. High school graduation.
 4. Some college.
 5. College graduation (liberal education).
 6. College graduation (scientific education).
 7. Graduate or professional degree.
24. How did your parents feel about the marks you made in high school?
1. Were very pleased.
 2. Were satisfied but thought you should do better.
 3. Did not care about marks as long as you did your best.
 4. Did not care about marks as long as you passed.
 5. Paid very little attention to your marks.
25. When you first left home for college or a job, parting from your family was:
1. Very easy.
 2. A little difficult because you were reluctant to leave.
 3. Difficult because your family was reluctant to have you leave.
 4. Very difficult because your family was very close.
 5. You have never left home.

(3)

26. About how often have you changed your mind about future vocational plans since the time you entered high school?
1. Still have not decided.
 2. Have not changed them.
 3. Once.
 4. Two or three times.
 5. More than three times.
27. Who influenced you most to attend college?
1. Yourself.
 2. A parent.
 3. Both parents.
 4. Teacher, minister, or other adult.
 5. Friends your own age.
 6. No special person.
28. I consider my formal education:
1. A waste of time.
 2. Unrealistic when compared to the outside world.
 3. Valuable.
 4. Prepared me well for the problems I will face.
29. How long have you been out of college?
1. Just graduating.
 2. Still attending.
 3. Less than 3 months.
 4. 3 to 11 months.
 5. 1 year to 1 year 11 months.
 6. 2 years to 2 years 11 months.
 7. 3 years to 4 years 11 months.
30. While in school, when did you first consider most seriously quitting and going to work?
1. During the early years in high school.
 2. On graduation from high school.
 3. During the early years in college.
 4. Late in college.
 5. Never.
31. Are (or were) you married while an undergraduate in college?
1. Yes, married before I entered college.
 2. Yes, married while in college.
 3. No, unmarried while in college.
32. If married, did your spouse favor your going to college?
1. Yes, my spouse supported morally and financially.
 2. Yes, my spouse supported morally.
 3. Yes, my spouse supported financially but not morally.
 4. No, my spouse did not support the idea.
 5. I was not married.
33. What is your opinion of the University of New Mexico?
1. One of the best.
 2. Above average.
 3. About average.
 4. Below average.
34. Do you plan to continue your formal education? (circle as many as apply)
1. No.
 2. Take additional college courses.
 3. Take vocational courses.
 4. Complete my B.A. (B.S.).
 5. Complete my M.A.
 6. Complete my doctorate.
 7. Complete other advanced degree.
35. Are you eligible to return to UNM?
1. Yes, in good standing.
 2. Yes, on probation.
 3. No.
 4. I don't know.
 5. I graduated.
36. How would you classify yourself as a student in college?
1. Considerably above average.
 2. Somewhat above average.
 3. Average.
 4. Below average.
 5. Poor.
37. How do (did) your grades in college compare with what you expected to achieve before you entered?
1. Much better than expected.
 2. Somewhat better than expected.
 3. About as expected.
 4. Poorer than expected.
 5. Much poorer than I expected.
38. At UNM where did you stand scholastically?
1. Far above average.
 2. Above average.
 3. Average.
 4. Below average.
 5. Far below average.
39. How much freedom do you think a student should have in planning his college curriculum?
1. Very little; he should have a definite program planned out for him, with a few electives.
 2. He should have a general program planned for him, with room for a number of electives.
 3. He should be required to take a few basic courses specified for him, and choose the remainder of his program for himself.
 4. He should be given complete freedom in determining his program.

(4)

40. What is your feeling concerning the most desirable entrance policy for a college?
1. The entrance requirements should be strict so that only the best students can enroll.
 2. The entrance requirements should be such as to eliminate only those students at the bottom.
 3. Every student who wants to do so should be allowed to enroll in college.
41. What is your feeling concerning the best grading policy for a freshman course in your department?
1. A sizeable proportion of the group should fail the course in order to keep up the standards.
 2. Grading should be done on the normal curve (some will fail).
 3. Only a few who do an exceedingly poor job should be failed.
 4. No one should fail the course (except possibly in extreme or unusual circumstances).
42. If you were to begin college now, would you:
1. Choose the same courses at the same school?
 2. Choose the same courses at another school?
 3. Choose other courses at the same school?
 4. Choose other courses at another school?
 5. Not enter college?
43. Before you entered college, did you know what college would be like?
1. No, it was a complete mystery to me.
 2. I had a vague conception of it.
 3. I had a fairly good conception of it.
 4. I had a very good conception of it.
44. When you attended college, what percent of your college expenses did you earn?
1. Less than 10%.
 2. More than 10% but less than 25%.
 3. More than 25% but less than 50%.
 4. More than 50% but less than 75%.
 5. More than 75%.
45. From what sources was your education financed? (circle more than one if necessary)
1. Scholarship(s) (service free).
 2. Assistantship(s) (service rendered).
 3. Veteran's benefits.
 4. Part-time job.
 5. Family, relatives, or friends.
 6. Full-time job.
 7. Other.
46. In college, which type of course did you most enjoy?
1. Lecture.
 2. Laboratory.
 3. Discussion.
 4. Had no preference.
 5. Did not attend college.
47. While in college, the areas in which I found little or no assistance available were: (circle those which apply)
1. Selection of course.
 2. Tutoring.
 3. Financial aid.
 4. Vocational planning.
 5. Personal-social counseling.
 6. Academic information.
 7. Spiritual guidance.
 8. Reading and study skills.
 9. Job placement services.
48. What did you usually do during your college days when you found material hard to understand?
1. Asked teachers for help.
 2. Asked parents for help.
 3. Asked schoolmates for help.
 4. Figured it out for myself.
 5. Never had trouble understanding.
 6. Nothing.
49. The teachers I got the most out of in school, usually treated me this way:
1. Gave me very general instructions or directions and then left me alone to do the assignment.
 2. Were somewhat specific in their assignments and followed me up from time-to-time.
 3. Went into thorough detail and followed my work frequently.
50. Generally I feel most teachers in college:
1. Require too much work of their students.
 2. Require about the right amount of work.
 3. Require too little work of their students.
51. In your opinion, how do college teachers feel about their students' performance in their courses?
1. Most of them care.
 2. Some of them care.
 3. A few of them care.
 4. Almost none of them care.
52. How far did your wife (husband) go in school?
1. Some high school, but did not finish.
 2. Graduated from high school.
 3. Some college.
 4. Undergraduate degree.
 5. Some graduate work.
 6. Advance degree.
 7. Secretarial or vocational school.
 8. Not married.

53. How far do you intend to send your children in school?
1. High school.
 2. College.
 3. Graduate or professional school.
54. Where do you feel that you gained the most knowledge?
1. School.
 2. Home.
 3. Personal experiences.
 4. From other individuals.
55. For what reason did you choose your particular profession?
1. Interest in the area.
 2. Influence of parent(s).
 3. Influence of friends or relatives other than parents.
 4. Opportunities available in the field.
 5. Money.
56. If you could do it again would you go into your present field?
1. Yes.
 2. No, but would go into a closely related field.
 3. No, would go into an entirely different field.
57. What is your wife's (husband's) job status?
1. Not married.
 2. Wife (husband) not employed.
 3. Wife (husband) employed part time.
 4. Wife (husband) employed full time.
58. Have you been in the Armed Forces?
1. Yes, as an officer.
 2. Yes, as an enlisted man.
 3. Yes, both as an officer and as an enlisted man.
 4. No.
59. How close to your present place of employment is/was your parental home?
1. Within 5 miles.
 2. Within 25 miles.
 3. Within 100 miles.
 4. Within 500 miles.
 5. Over 500 miles away.
60. Would your choice of an ideal job be one which:
1. Allowed a great amount of interaction with other people.
 2. Would require working with a small group.
 3. Would allow you to work closely with one other person.
 4. Would allow you to work by yourself.
61. How often have you considered leaving your present position for some other line of work?
1. Regularly.
 2. Occasionally, at one time.
 3. Occasionally, at present.
 4. Rarely.
 5. Never.
62. Which one of these will help you most in speeding up your progress toward better jobs?
1. Knowing the right people.
 2. Having a better educational background.
 3. Gaining more experience on the job.
 4. Something else.
63. What three things or activities in your life do you expect to give you the most satisfaction? (circle three)
1. Career or occupation.
 2. Participation as a citizen in community affairs.
 3. Family relationships.
 4. Leisure-time recreational activities.
 5. Participation in activities directed toward national or international betterment.
64. Albert Einstein was quoted as saying that in any given field "... imagination is more important than knowledge." How does that statement strike you?
1. True.
 2. Not true.
 3. No opinion.
65. While attending college, your closest friends:
1. Continued in college.
 2. Started college but didn't continue.
 3. Did not attend college.
 4. I didn't have any close friends.
66. How well do you like to be with people in a social setting?
1. Enjoy being with people very much; very rarely like to be by yourself.
 2. Usually enjoy being with other people; prefer to be by myself only occasionally.
 3. Like being with other people sometimes, and at other times like to engage in private activities.
 4. Prefer to engage in private activities, and only occasionally like to be with other people.
67. Which of the following most closely represents your viewpoint?
1. Our civilization advances on the backs of a few people who must be given the breaks.
 2. Since the U.S. is a democracy, our concern must be for all people.
 3. Certain disadvantaged minorities in our societies presently deserve the focus of our concern.

(6)

68. How do you usually behave in a group session with people you know?
1. I feel free to express my views, and sway the group considerably.
 2. I feel free to express my views, but the group doesn't always share them.
 3. I am reluctant to express my views, but they are usually very well received.
 4. I am reluctant to express my views and unsure of their reception.
 5. I don't usually participate.
69. How do you tend to react to an unpleasant situation?
1. Generally try to react immediately and figure out the best solution.
 2. Most of the time I put off a decision for a little while so I can think it over.
 3. Often want to sleep on it or put off a decision for quite a while.
 4. I don't worry about it, things will take care of themselves.
70. Comparing yourself to others you work with, how do your decisions seem to stack up on quality?
1. In most instances, my decisions are better.
 2. About the same as decisions of others.
 3. In most instances my decisions are poorer.
 4. Rarely make decisions.
71. During most of your school years, were your needs:
1. Well provided for?
 2. Satisfactorily provided for?
 3. Somewhat meagerly provided for but tolerable?
 4. Unsatisfied most of the time?
72. In the past, how have you reacted to competition?
1. Have enjoyed competitive situations.
 2. Have been unaffected by competitive situations.
 3. Haven't liked competitive situations.
73. How well do you do most things you have decided to do?
1. I almost always succeed in the things I have decided to do.
 2. I often find I have bitten off more than I can chew.
 3. Once I have decided, things seldom go as well as I expected them to.
 4. I find it almost impossible to make a decision.
74. Do you consider your achievements to date to have been:
1. Less than those who have the same amount of education?
 2. Equal to those who have the same amount of education?
 3. More than those who have the same amount of education?
75. Where do you think that the period of your peak performance is:
1. Sometime in the past.
 2. About now.
 3. Sometime in the future.
 4. Doubt there is a "peak period".
 5. Can't be sure.
76. When some difficult problem is bothering you with whom do you usually talk it over?
1. Father.
 2. Mother.
 3. Friend.
 4. Older adult, not parent.
 5. Wife or husband.
 6. Professional (counselor, clergy).
 7. I usually don't discuss it.
77. From your experience, at what stage in his life do you think the average man reaches his period of peak performance?
1. When he is single.
 2. When he is married, but childless.
 3. When he is married, and his family is young.
 4. When he is married and his family is grown.
 5. There is probably no difference among the above.
78. If one receives a surprise "F" in a course you thought you had passed, it is best to:
1. See the administration in order to find out about the situation.
 2. Check with your professor to find out what is wrong.
 3. Accept it; you must have flunked the final.
 4. Accept it and repeat the course.
 5. Wouldn't do anything.
79. "It was very difficult to cope with University policies and regulations."
1. Strongly disagree.
 2. Disagree.
 3. Undecided.
 4. Agree.
 5. Strongly agree.

80. "The goal(s) of education should be dictated by a student's interests as well as by the larger demands of society."
1. Strongly disagree.
 2. Disagree.
 3. Undecided.
 4. Agree.
 5. Strongly agree.
81. "The traditional moral standards of our culture should not just be accepted; they should be examined and tested in solving the present problems of students."
1. Strongly disagree.
 2. Disagree.
 3. Undecided.
 4. Agree.
 5. Strongly agree.
82. "Education and educational institutions must be sources of new social ideas; education must be a social program undergoing continual reconstruction."
1. Strongly disagree.
 2. Disagree.
 3. Undecided.
 4. Agree.
 5. Strongly agree.
83. "Students should be allowed more freedom than they usually get in the execution of learning activities."
1. Strongly disagree.
 2. Disagree.
 3. Undecided.
 4. Agree.
 5. Strongly agree.
84. "Learning is essentially a process of increasing one's store of information about the various fields of knowledge."
1. Strongly disagree.
 2. Disagree.
 3. Undecided.
 4. Agree.
 5. Strongly agree.

Directions: For items 85 through 94 place a "1" in the blank preceding those statements which you consider to be wholly true or mostly true, according to your own experience. Place a "2" before those statements you consider to be false.

85. ____ The most difficult courses in college are the upper division or advanced courses in a department.
86. ____ In taking an essay test, it is best to answer the most difficult questions first.
87. ____ Class notes should be taken or put down in your own words.
88. ____ Poor grades can usually be attributed to a lack of preparation or background.
89. ____ To get good grades you should concentrate on what the professor thinks is important.
90. ____ Studying two hours outside of class for every hour spent in class is usually enough study time.
91. ____ It is best to read textbook assignments after they are discussed in class.
92. ____ Beginning students should postpone their choice of major as long as possible.
93. ____ The most difficult decision to face in choosing a major is whether to take something practical or something you enjoy.
94. ____ The best professors are those who grade the easiest.

(8)

Directions: For items 95 through 104, rank each of the items high-1, medium-2, or low-3, in importance to you. Place 1,2, or 3 in the blank preceding each statement.

The ideal job for me would have to:

- 95. ____ Provide an opportunity to use my special abilities or aptitudes.
 - 96. ____ Provide me with a chance to earn a good deal of money.
 - 97. ____ Permit me to be creative and original.
 - 98. ____ Give me special status and prestige.
 - 99. ____ Give me an opportunity to work with people rather than with things.
 - 100. ____ Enable me to look forward to a stable, secure future.
 - 101. ____ Leave me relatively free of supervision by others.
 - 102. ____ Give me a chance to exercise leadership.
 - 103. ____ Provide me with adventure.
 - 104. ____ Give me an opportunity to be helpful to others.
105. We are further interested in whatever ideas you may have as to how the educational experience at the University of New Mexico could be improved from the student's point of view. You may leave this item blank, if you feel that previous items have covered the areas in which you would have major suggestions; but if you have other points to add or areas you wish to emphasize indicate these below:

QUESTIONNAIRE RESPONSES OF SAMPLE 1963 ENTERING CLASS

N = 241

Questions	Choices								
	1	2	3	4	5	6	7	8	9
I 1st Choice	232	3	1						
I 2nd Choice	4	23	1	6	2	4			
	(Yes)	(No)							
III	183	52							
1	224	12	2	1	2				
2	151	89							
3	114	4	48	67	4				
4	37	114	51	1	38				
5	166	44	29	2					
6	32	163	4	26	11	2			
7	21	12	25	52	14	93	18		
8	216	10	15						
9	20	63	78	42	17	8	13		
10	86	84	52	14	2				
11	10	7	19	41	13	110	35		
12	24	4	12	42	25	97	35		
13	21	24	18	27	20	23	32	61	
14	102	70	49	20					
15		23	37	213	2				
16	7	52	43	74	53	11			
17	89	95	33	10	13				
18	77	139	22						
19	7	16	59	158					

Questions	Choices								
	1	2	3	4	5	6	7	8	9
20	87	13	30	15	5	24	42	18	
21	25	30	62	51	5	27	29		
22	2	5	10	52	169				
23	19	34	87	46	35	8	12		
24	78	127	26	3	4				
25	100	50	28	34	24				
26	27	45	48	74	42				
27	63	34	78	11	12	39			
28	3	34	175	25					
29	8	46	24	40	51	27	43		
30	2	14	86	23	113				
31	15	41	178						
32	36	21	8	3	133				
33	35	105	87	4					
34	28	88	26	65	93	23	28		
35	129	33	3	31	41				
36	22	87	101	20	5				
37	16	30	81	79	31				
38	16	58	100	42	16				
39	3	112	103	22					
40	10	87	141						
41	4	133	81	15					

Questionnaire Responses of Sample 1963 Entering Class (continued)

Questions	Choices								
	1	2	3	4	5	6	7	8	9
42	98	30	81	25	5				
43	27	103	96	13					
44	102	23	22	29	64				
45	61	8	6	108	170	25	30		
46	69	42	88	39					
47	77	37	21	68	63	34	10	49	22
48	26	6	107	87	7	5			
49	61	127	47						
50	50	149	33						
51	61	88	71	18					
52		32	49	20	11	7	5	100	
53	8	123	99						
54	82	8	122	21					
55	155	6	4	42	12				
56	164	32	30						
57	109	44	13	63					
58	13	48	12	165					
59	62	41	14	32	80				
60	149	60	8	20					
61	50	28	44	67	33				
62	27	103	85	16					
63	202	63	217	144	45				

Questions	Choices								
	1	2	3	4	5	6	7	8	9
64	153	44	40						
65	177	46	6	11					
66	32	85	115	8					
67	16	157	58						
68	52	142	30	11	5				
69	132	90	9	6					
70	94	127	2	9					
71	115	107	16	2					
72	177	34	29						
73	193	31	10	5					
74	28	131	77						
75	3	14	170	22	28				
76	13	14	58	10	88	3	51		
77	5	12	89	45	74				
78	7	229	5						
79	44	143	25	21	7				
80	10	25	8	156	40				
81	6	15	18	132	64				
82	4	17	23	121	73				
83	10	50	51	96	25				
84	7	57	17	116	36				
85	85	152							

Questionnaire Responses of Sample 1963 Entering Class (continued)

Choices

Questions	1	2	3	4	5	6	7	8	9
86	61	177							
87	192	47							
88	166	73							
89	192	47							
90	176	64							
91	58	183							
92	94	142							
93	145	94							
94	14	222							
95	193	37	11						
96	65	143	33						
97	139	80	22						
98	43	105	92						
99	125	81	33						
100	123	96	20						
101	101	108	30						
102	100	116	24						
103	103	82	55						
104	158	65	16						
105	117	responded							

QUESTIONNAIRE RESPONSES OF SPANISH-AMERICANS

* G/Graduate

* D/Dropout, Current

		Choices							
Questions	1	2	3	4	5	6	7	8	9
I 1st Choice									
G*		9	1						
D*		12	1						
I 2nd Choice									
G		1	4						
D		1	9						
III (Yes)(No)									
G		9	1						
D		11	2						
G		9				1			
D	1	12	1						
G		5	5						
D	2	3	10						
G		3		2	5				
D	3	5		4	3				
G		2	6				2		
D	4	1	6	5	1				
G		6	4						
D	5	6	3	4					
G			9	1					
D	6		13						
G		1	2				5		
D	7	2		2	2	1	6		
G		8		2					
D	8	10	1	2					
G		2	1	6			1		
D	9			3	5	1	1	4	
G		2	5	1		1			
D	10	1	5	2	2				
G			1	1	3	1	4		
D	11		1	1			9	2	
G		1	1		3	1	3	1	
D	12			1	3		5	3	

		Choices								
Questions		1	2	3	4	5	6	7	8	9
G	13		1	1	3	1		2	1	
D		1	2		1	1	2	2	3	
G	14	3	6	1						
D		7	3	3						
G	15		3		6	1				
D			2		11					
G	16		2	3	3	1				
D		2	3	2	3	3				
G	17		2	3	3	1				
D		9	2	1	1					
G	18	4	4	2						
D		2	9	2						
G	19			4	6					
D		1	2	3	6					
G	20	4	1	3				1		
D		7		2				1		
G	21	3	1	4			2			
D		5		3	1	3		1		
G	22		1	1	1	7				
D		1			3	8				
G	23	1	2	3	1	2	1			
D		4	6	1	1		1			
G	24	3	6	1						
D		5	4	2						
G	25	4	1	1	3	1				
D		3		6	2	1				
G	26			2	7	1				
D		3	4	2	2	2				
G	27	3	1	4	1		1			
D		1	3	3	2	2	1			
G	28			10						
D			3	8	1					
G	29			3	4	3				
D			6	1	1	1	3			

Questionnaire Responses of Spanish-Americans (continued)

		Choices							
Questions		1	2	3	4	5	6	7	8 9
G 30				5	1	4			
D 30				5	2	5			
G 31		1	1	8					
D 31		1	5	8					
G 32			2			8			
D 32		3	3			5			
G 33		1	5	4					
D 33		2	5	6					
G 34			5	2		5	2	3	
D 34		1	6	3	8	7	1	1	
G 35		2		1	3	4			
D 35		8	3		2				
G 36			5	5					
D 36		1	6	3	2	1			
G 37				6	4				
D 37				5	7	1			
G 38			4	6					
D 38		1		7	1	3			
G 39			6	4					
D 39			6	5	2				
G 40			3	7					
D 40			3	10					
G 41			6	3	1				
D 41			4	7	2				
G 42		5	1	4					
D 42		4	2	5	2				
G 43		3	3	3	1				
D 43		3	4	5	1				
G 44		7		1		2			
D 44			3	1	2	7			
G 45		2			2	8	2		
D 45		4			6	9	5	1	
G 46		3	4	1	2				
D 46		5	4	2	2				

		Choices							
Questions		1	2	3	4	5	6	7	8 9
G 47		2	1		2	3	2		2 2
D 47		3	2	2	5	2	1		3 2
G 48		2		4	4				
D 48		1		5	5		2		
G 49		4	5	1					
D 49		2	6	5					
G 50		3	6	1					
D 50		4	6	2					
G 51		3	3	4					
D 51		2	2	9					
G 52				1	3	1			2 3
D 52			3	5					3
G 53		1	2	7					
D 53			6	6					
G 54		7		3					
D 54		5		7	1				
G 55		8			2				
D 55		8			4				
G 56		6	3	1					
D 56		10	1	1					
G 57		3	3	1	3				
D 57		6	3		4				
G 58		1	3		6				
D 58				3	10				
G 59		1	2	1	2	4			
D 59		3	5	1	2	2			
G 60		6	2	1	1				
D 60		6	5	2					
G 61		1	1	2	5	1			
D 61		2	4	1	4	2			
G 62		1	3	5	1				
D 62		1	6	6					
G 63		8	3	10	7	2			
D 63		11	2	8	8	2			

Questionnaire Responses of Spanish-Americans (continued)

		Choices								
Questions		1	2	3	4	5	6	7	8	9
G 64		6	3	1						
D 64		7	2	4						
G 65		7	1	2						
D 65		8	3	1	1					
G 66			2	8						
D 66		3	4	6						
G 67			3	7						
D 67			8	5						
G 68		2	4	4						
D 68			9	3						
G 69		4	6							
D 69		7	4	2						
G 70		1	7		2					
D 70		6	7							
G 71		4	5							
D 71		4	5	3	1					
G 72		6	3	1						
D 72		11	1	1						
G 73		10								
D 73		12		1						
G 74		3	6	1						
D 74		2	2	9						
G 75			1	8		1				
D 75				10	1	2				
G 76			2	1		5	1	1		
D 76		2		4	1	3		3		
G 77				7	1	1				
D 77		1		5		7				
G 78			10							
D 78		1	12							
G 79		2	7	1						
D 79		2	7	1	2	1				
G 80				3	5	2				
D 80		1	2		8	2				

		Choices								
Questions		1	2	3	4	5	6	7	8	9
G 81			2	1	6	1				
D 81		1	2	2	7	1				
G 82					10					
D 82		1	3	1	7	1				
G 83		1		1	6	2				
D 83			4	3	4	2				
G 84			2		6	2				
D 84			3	2	3	5				
G 85		6	4							
D 85		6	7							
G 86		2	8							
D 86		3	10							
G 87		9	1							
D 87		10	3							
G 88		10								
D 88		7	6							
G 89		9	1							
D 89		7	6							
G 90		6	4							
D 90		5	8							
G 91		1	9							
D 91		4	9							
G 92		3	7							
D 92		4	9							
G 93		9	1							
D 93		4	9							
G 94			10							
D 94		1	12							
G 95		8	1	1						
D 95		12		1						
G 96		4	6							
D 96		5	7	1						
G 97		8	1	1						
D 97		9	2	2						

Questionnaire Responses of Spanish-Americans (continued)

		Choices							
Questions		1	2	3	4	5	6	7	8 9
G 98		3	4	3					
D 98		3	7	3					
G 99		7	3						
D 99		6	6	1					
G 100		7	3						
D 100		11	1						
G 101		3	6	1					
D 101		6	7						
G 102		2	7	1					
D 102		6	6	1					
G 103		5	2	3					
D 103		5	4	4					
G 104		9	1						
D 104		9	3	1					
G 105		4 responded							
D 105		4 responded							