Academic Program Review
University of New Mexico

Department of Psychology
Self-Study

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Summary

Drawing on a talented and devoted faculty (21.5 FTE), the Department of Psychology makes a singular contribution to UNM's educational and research missions. Despite our modest size and comparatively limited reliance upon part-time faculty, the Department generates more than 27,000 student credit hours per year. We service more majors and more minors than any other department in the College of Arts and Sciences, and by far, have the most majors and minors per FTE of any department. This raises concern about our ability to fully meet the educational needs of our majors. Psychology offers a large (N = 83), very competitive Ph.D. program, with training in the areas of clinical, cognition/brain/behavior, evolution and development, quantitative/methodology, and health psychology. Though we offer funding for all graduate students in good standing, we are concerned about our ability to recruit top minority students for graduate study and move students through the program quickly. Comparison with peer institutions reveals a high degree of faculty productivity. Further, we have achieved national prominence in three areas: addictions and substance abuse, cognitive neuroimaging, and evolutionary psychology. To maintain and enhance these research areas, and develop our community service and outreach efforts, we need to address three major challenges: renovation of our physical facilities, keeping our senior faculty at UNM, and adding two faculty lines in targeted areas.

Department of Psychology Self-Study
Spring, 2007

This report reviews and analyzes the history and current status of both graduate and undergraduate programs in psychology at the University of New Mexico. Based on these analyses we discuss current issues and future directions. The report follows the Self-Study Guidelines for Academic Program Reviews distributed in September 2005 by the Office of the Provost and Office of Graduate Studies.

1. General Program Characteristics

History. Since Clarence Herrick who founded the *Journal of Comparative Neurology* began offering courses in psychology upon assuming the presidency of UNM in 1897, the distinctive emphasis of the department has been on rigorous scientific approaches to the discipline. This was solidified under the influential chairmanship of Benjamin Franklin Haught, who taught at UNM for 25 years (1921-1946). His interests in psychometrics were reflected in the graduate degrees which UNM began awarding under his leadership as the first dean of the graduate school. The modern history of the department began in 1964 when Frank Logan (for whom our building is named) was lured away from a tenured position at Yale by President Tom Popejoy. As the leading Hull-Spence theorist of his day, it is not surprising that Logan's goal, as stated in his first annual report as chair, was to mold a department where "explicit emphasis has been placed on general experimental psychology with a focus on learning." Logan was able to triple the faculty size between 1964 and 1970 from five to fifteen, with the faculty being remarkably stable in the ensuing years. Although the department achieved APA accreditation for its doctoral program in clinical psychology in 1973, the distinctive emphasis on the psychology of learning, memory, and cognition, broadly defined, was maintained up through Logan's retirement in 1989 under the chairmanships of Henry Ellis (1975-84) and Douglas Ferraro (1984-90). When Bill Gordon (1990-92) began his ascent from chair of psychology to president of the university in 1992, two faculty served as acting chair for one year each (John Gluck, 1992-93; Harold Delaney, 1993-94) before Mike Dougher shouldered the load for 8 years (1994-2002). Another two-year chairmanship (Mark McDaniel, 2002-2004) preceded Ron Yeo's selection as chair (2004-present). The department has consistently had strong chairs over the past 40 years with four individuals (Logan, Ellis, Ferraro, Dougher) holding office for 6 to 9 years.

Mission. The department adopted a formal mission statement in 1985 and revised it in 1993-94. The statement as included in our most recent department annual report is presented below. As specified in the Self-Study Guidelines, our goals may be related to the broad strategic directions identified in the Strategic Plan developed under President Bill Gordon and Provost Brian Foster and adopted by the Regents in December, 2001 (the brief label of the relevant strategic direction is indicated after each goal in our mission statement; an explanation of the labels follows the departmental mission statement).

DEPARTMENT OF PSYCHOLOGY
STATEMENT OF MISSION

The Department of Psychology shares with other academic departments at the university its *raison d'être*: the discovery and dissemination of knowledge. It shares with other science departments a commitment to empirical research. The distinguishing feature of this purpose for a psychology department is that the knowledge being sought concerns the individual organism, and most typically the behavior of the individual person.

The UNM Department of Psychology embraces a number of goals which serve to give the program a distinctive flavor. These are reflected in the mission of the Department which is to:

- Create a supportive environment in which faculty and students associated with the Department are encouraged to achieve their maximum potential as scholars. *(Vital Academic Climate)*

- Promote a scientific approach to psychology, emphasizing both experimental and correlational methodologies as historic traditions. *(Vital Academic Climate)*

- Encourage respect for and openness to a variety of theoretical, philosophical, and empirical approaches, with the view that the study of psychology is enriched by the interaction of multiple perspectives. *(Diversity)*

- Value active research programs within the Department and in collaboration with colleagues outside the Department. *(Vital Academic Climate)*

- Maintain excellence in clinical and experimental psychology and foster the growth of neuroscience approaches to the study of learning, memory, and cognition. *(Areas of Marked Distinction)*

- Encourage and support effective teaching both in communicating psychology to undergraduates as an area of major study and a critical part of a liberal arts education, and in training graduate students at a professional level. *(Vital Academic Climate)*

- Train graduate students in the application of general experimental psychology in clinical and other professional settings. *(Public Responsibility)*

- Ensure that graduate students in all areas are well trained in methodology and ethics appropriate for their effective functioning as researchers and professionals. *(Vital Academic Climate)*

- Enable students to understand the development and operation of psychology in the context of diversity within the larger culture, and its application in the culture of the Southwest in particular. *(Diversity)*

- Be actively involved in service to the university, the community, the state, and the profession. *(Public Responsibility)*

- Evaluate, in an ongoing fashion, our performance as a Department with respect to our mission, and revise this Statement of Mission to accommodate to changing situations.

The four strategic directions in the university's Strategic Plan are:

- *Vital Academic Climate:* Foster a vital climate of academic excellence that actively engages all elements of our community in an exciting intellectual, social, and cultural life.

- *Public Responsibility:* Apply the University's education, research, and service capabilities to advancing the interests and aspirations of New Mexico and its people.

- *Diversity:* Value and benefit from the creativity, innovation, insight, and excitement generated by the many dimensions of diversity that are the essence of the University and the State.

- *Areas of Marked Distinction*: Provide an environment that cultivates and supports activities of national and global distinction and impact.

Substantial progress was made university-wide on specific tactics targeting objectives relevant to these broad strategic directions under Provost Foster up through Spring 2005 (see The University of New Mexico Interim Report on the Strategic Plan, 2005). However, given the very substantial turnover in the upper administration, the current status of the University's Strategic Plan is still under review.

Changes and Trends during the last 11 years. A large number of changes in personnel and programs have occurred since the last self-study and external review of our program in fall, 1995. In terms of faculty, the Department historically has maintained more Full Professors than Assistant Professors. A large number of retirements in recent years, combined with opportunities to hire junior faculty, resulted in our having more Assistant Professors than Full Professors in 2005-06 for the first time in many years. Retirements since our last program review include Bill Gordon, Eligio Padilla, Britt Ruebush, Dick Harris, Peder Johnson, Dennis Feeney, John Gluck, and Lynette Cofer (all full professors except Padilla). In addition to these 8 individuals, Bill Miller retired from the department in August, 2006 and is currently half-time at CASAA until his full retirement in 2007. Six faculty resigned since 1995 to pursue positions elsewhere: Rob Egly, Holly Waldron, Jack Blanchard, Robert Sutherland, Paul Amrhein, and Mark McDaniel. Given the departure of these 17 individuals the department was fortunate to hire 12 faculty at the assistant professor level, namely, Akaysha Tang, Sarah Erickson, Geoffrey Miller, David Witherington, Elizabeth Yeater, Steve Verney, Bruce Smith, Karin Butler (half time), Theresa Moyers, Kamilla Venner (transitioning from research faculty to tenure track), Derek Hamilton, and Eric Ruthruff; two Associate Professors, Vince Clark and Kent Kiehl; and one Full Professor, Claudia Tesche. Several of these hires were in accord with our plan "to

strengthen neuroscience approaches to learning, memory and cognition," to which the 1995 External Review Committee said "we wholeheartedly agree with this. If they could bring in a nationally recognized senior person who uses neuroscience approaches to cognition, this would provide a much needed bridge among the major areas of the department" (p. 5). Both of the two mentioned senior hires (Clark, Tesche) were in the neuroscience area and made possible through shared appointments with the Mental Illness and Neuroscience Discovery (MIND) Institute. Three of the junior appointments (Tang, Hamilton, and Kiehl) also have helped to bridge our historical strength in learning and cognition with our emerging strength in neuroscience.

The 1995 External Review Committee cited as perhaps "the most serious problem facing the Department and the University" the difficulty of trying to "serve the needs of some 800 undergraduate majors as well as over 100 graduate students" with only "a faculty of 25." One small step to address the over-reliance on part-time faculty was made in 2005 when an effective master's level instructor (Stephen Alley) was hired into a full-time, non-tenure track instructional faculty position as a Lecturer II.

The net result of this large number of personnel changes over the past 10 years, as shown in the table on the following page, has been a decline in the total number (from 25 in 1995-96 to 22 in 2005-06) and the average rank of our voting faculty (e.g. the number of Full Professors declined from 12 in 1995-96 to 7 in 2005-06, and has declined further to 6 in 2006-07). The total number of faculty is now quite comparable to the typical psychology doctoral department nationally (M = 21.4, Mdn = 19), and the number of female faculty in our department (8) is equal to the median number of female faculty in psychology doctoral programs nationally (Norcross, Kohout, & Wicherski, 2005). Two of our current full-time faculty are ethnic/racial minorities, and a third is transitioning to tenure-track status (see Appendix A, Table 16), again comparable to the 2.5 ethnic/racial minority faculty per department nationally. In terms of research activities, the mean number of books and articles published by the faculty over the past five years was 81.8, a 9% increase over the mean of 75.2 for the five years of 1995-2000. Total grant support for the past decade is detailed in Table 1. In AY 2003-4, our support spiked due to a large clinical trials grant. The mean extramural support for the past five years was $11,106,600 (Mdn = $8,232,000), which represents an increase of more than 350% over the mean of $2,364,800 for 1995-2000 (and 250% over the median).

Leadership, Governance, and Organizational Structure. In 1990 the Department adopted a "shared governance" model of organization. It is our intent to involve all faculty, from the most junior to the most senior, in discussing, formulating, and implementing departmental policies. Perhaps the most direct manifestations of this philosophy are our procedures for faculty hiring and for determining salary raises. In making decisions about hiring, the entire faculty vote, regardless of the area in which an applicant is to be hired. Regarding salary decisions, the entire faculty elect representatives to the salary committee, who then rank research, teaching and service contributions on a five point scale. Research and teaching contribute twice as much to the total ranking as does service. Forty percent of the pool of available raise money is allotted to "special merit," as defined by these rankings. Half is allocated to "basic merit" or cost of living raises.

Table 1. Department of Psychology summary statistics.

	AY 1995-96	AY 1996-97	AY 1997-98	AY 1998-99	AY 1999-00	AY 2000-01	AY 2001-02	AY 2002-03	AY 2003-04	AY 2004-05	AY 2005-06
Faculty Information											
Voting Faculty (total)	25	25	24	24	24	22	21	21	24	22	22
Professors	12	12	10	13	12	11	11	11	11	9	7
Associate Professors	8	8	7	7	6	6	6	5	5	5	5
Assistant Professors	4	5	5	5	5	5	4	4	7.5	7.5	9.5
Budgeted FTE Faculty	19.94	19.94	22	22	22	21.11	19.45	20	22.5	21.5	21.5
Visiting Faculty	1	3	1	1	3	3	3	1	3	1	1
Research Activities											
Books and Articles	64	78	82	78	74	53	82	90	71	73	93
Extramural Support	$1.959M	$2.377M	$2.348M	$2.529M	$2.611M	$2.463M	$9.949M	$23.392M	$8.232M	$7.333M	$6.627M
General Information											
FTE Staff	12.25	11.25	11.25	12.25	12.25	12.25	13.25	12.25	12.25	12.25	12.25
Department Budget	$1.014M	$1.786M	$1.799M	$1.936	$1.956	$1.921M	$2.080M	$1.988M	$2.229M	$2.259M	$2.139M

Ten percent is reserved for compaction, or the tendency for salaries to decline over years in service relative to salaries at peer institutions.

The major content domains of the department serve as important administrative units. Over the past decade or so these have changed somewhat. Brief histories of each area are provided in section 8. At present, our major administrative areas are Clinical (Michael Dougher, area head), Cognition, Brain, and Behavior (Vince Clark), Evolution and Development (Steven Gangestad), Quantitative (Harold Delaney), and Health Psychology (Bruce Smith). Area heads are appointed by the Chair. Areas have the primary responsibility for establishing the graduate curriculum in their area and monitoring student progress. However, the entire faculty votes on possible changes in basic requirements, such as the nature of preliminary examinations.

The Department has two Associate Chairs, for Graduate and Undergraduate Studies, each appointed by the Chair. The Associate Chair for Graduate Studies (Steven Gangestad) has primary responsibilities for assigning teaching assistant positions, overseeing financial aid opportunities, evaluating student grievances, and more generally, monitoring the the climate of the faculty-graduate student relationship. The Associate Chair for Undergraduate Studies (Gordon Hodge) has primary responsibilities for organizing our Introductory Psychology classes and handling all manner of undergraduate student questions, from applicability of transfer courses to student grievances. Both Associate Chairs work closely with our student advisor, Patricia Aragon-Mascarenas.

The Department has a Policy and Planning Committee that is comprised of the two Associate Chairs, the area heads, and the Chair. This committee is advisory to the Chair and to the Department; it is not a decision making body. As currently utilized, the P & P Committee tends to meet the week before our regularly scheduled faculty meetings, identifying and shaping relevant discussion items. Other important committees include the Admissions Committee, the Multicultural Committee, Human Research Committee, Colloquium Committee, Animal Use and Facilities Committee, Computer/Website Committee, and the Graduate Association of Students in Psychology (GASP). Search Committees are established on an ad hoc basis.

One of the most important tasks of the Department is making decisions about promotion and tenure. The Chair solicits input from both the candidate and faculty regarding external reviewers, and the Chair then coordinates communication with the external reviewers. The candidate, in consultation with their colleagues and the Chair, chooses two faculty members to help in the process of collecting all relevant information and presenting it to the faculty. One of these faculty members focuses on research issues and the other on teaching. They are not to serve as advocates, but as conduits for information. All faculty at or above the rank to which the candidate aspires write letters expressing their opinion. The Chair also writes a letter, summarizing faculty input and expressing his/her own opinions. These letters, along with all other documentation, are sent along to the College for additional consideration.

The Chair has primary responsibility for a wide range of activities. After receiving input from the area heads, the Chair determines teaching schedules and recruits part-time faculty. Assignments to committees are generally made by the Chair. The Chair allocates travel and research funds to all faculty. At present, all such funds are divided equally among all faculty.

The core office staff consists of the following: Candace Blashak, Department Administrator, who supervises and oversees the operation and maintenance of the department; Stan Bennett, Supervisor, Administrative Support, who directs the financial management of the department; Julie Torres, works as an accounting assistant for Stan Bennett; Patricia Aragon-Mascarenas, Coordinator, Program Advisement, who advises both graduate and undergraduate students; Jeanine Sarosi an administrative assistant primarily under Patricia Aragon-Mascarenas supervision; Mary Justus, Administrative Assistant II, who serves as the receptionist for the department and orders supplies, inventory items, and book orders. Research support staff are: Ector Estrada, Animal Research Coordinator; Gilbert Borunda, Sr. Lab Animal Tech; Patrick Sharp, Research Engineer; and a part-time veterinarian. Our editorial assistant, Elise McHugh, recently left and Jeani Sarosy was hired as her replacement. The department had relatively little need for an editorial assistant, but our student advising needs have substantially increased. For this reason, Jeanie's duties will include assisting our student advisor.

2. Degree Programs and Curricula

Undergraduate Majors. The Department of Psychology has experienced remarkable growth in its undergraduate program over the past ten years, despite the fact that there has been no concomitant increase in faculty size. The number of students majoring in our department has steadily grown from 775 in 1996 to 1,080 in 2005, an increase of approximately 40% (See Appendix A, Table 1). Thus, we now have nearly 50 times as many majors as we have faculty whereas a decade ago the ratio (thought to be so high by the External Review Committee) was closer to 30 to 1. Note that the mean ratio of all Arts & Sciences (A & S) departments, excluding Psychology is 11.8.

In order to best compare academic departments at UNM, we need to rely on the Arts & Sciences data base of students already admitted to the college. This data base includes fewer students than the total figures reported in Appendix A, Table 1. Current data indicate that Psychology has more majors and minors than any other A&S department, as shown in the Table 2. The department offers a choice of two degrees for undergraduate majors, a Bachelors of Arts and a Bachelors of Science. Academic year 2004-05 was typical in that of our 178 undergraduate degree recipients, 146 or 82% received the B.A. degree (See Appendix A, Table 2). The 4 to 1 ratio of B.A. to B.S. students has remained fairly constant over the years as our number of graduating seniors has increased from 154 in 1995-96 to 178 in 2004-05.

The breakdown of undergraduate psychology majors reflects the general UNM population in terms of ethnicity but not in terms of gender. Of the 26,280 students enrolled on UNM's main campus in Fall 2005 (which includes 5,922 graduate/professional and 1,971 non-degree students), 40.8% identified themselves as member of a minority group (30.0% Hispanic, 4.8% American Indian, 3.4% Asian, and 2.6% African American), while 58% of students were female (*UNM Fact Book, 2005-2006*, p. 2). Of the undergraduate degree recipients in the university generally, a slightly higher percentage (44.0%) were minority. In psychology, 80 of our 178 degree recipients (44.9%) in 2004-05 self-identified as minorities (34.8% Hispanic, 5.6% American Indian, 2.2% Asian, 2.2% African American) (See Appendix A, Table 3). However, three quarters (74.7%) of our graduates are female, much higher than for the university generally

but comparable to the proportion of females (77.5%) among psychology BA graduates nationally (Frincke & Pate, 2004).

Table 2. Majors and minors in A & S Departments, Fall, 2006 (Based on A & S numbers, which are lower than institutional figures shown in Table 1, Appendix A).

Department	**Majors**	**Minors**	**Total**	**Total/FTE[2]**
Anthropology	181	100	281	11.9
Biology	667	111	778	19.7
Chemistry	156	305	461	5.0
Economics	119	37	156	11.1
English	326	73	399	10.6
Geography	24	24	48	12
Earth and Planetary Sciences	44	0	44	2.3
History	221	126	347	12.5
Linguistics	48	19	67	6.1
Mathematics	106	81	187	4.8
Philosophy	45	57	102	9.3
Physics and Astrophysics	48	10	58	2.1
Political Science & Government	265	78	343	21.1
Psychology, General	668	342	1010	52.1
Sociology	461	255	716	36.1

Undergraduate Student Credit Hours. The number of student credit hours generated by the department has consistently been extremely high (See Appendix A, Table 5). In 2004-05 we generated 27,038 student credit hours (SCH), which with our 21.5 FTE faculty represents an average of 1,258 SCH per FTE faculty member. This is an increase of over 15% from the 1079 SCH per FTE faculty reported in our last self-study report, which at the time was the highest in of any department in the college.

Table 6 in Appendix A provides data allowing a comparison of SCH generated by Psychology with SCH generated by selected other A & S departments. The data are for Fall semester, during which Psychology generates less than half of its SCH for the year. Even so, the SCH generated in the fall by our department is greater than that in other similar A & S departments. For example, in Fall 2005, combining total undergraduate and graduate SCH, Psychology generated 12,846 SCH as compared to Biology's 11,502 SCH, Sociology's 11,482 SCH, and Anthropology's 7,388 SCH. Of course, given the small number of regular tenure-track faculty in our department, we must rely on lecturers and part-time faculty as well as graduate teaching associates to help us generate such prodigious output. However, we do so to a considerably lesser extent than do the two comparison departments generating SCH close to ours. That is, while 49.6% of Psychology's SCH are generated by tenure-track faculty, in Biology only 34.8%

are generated by tenure-track faculty, and in Sociology it is only 26.5% (See Appendix A, Table 7). Comparison with peer institutions and national averages further underscores the large number of students being taught by our faculty. Such comparative data is available only where tenure-track faculty are combined with other regular faculty, part-time faculty and teaching assistants (as in the Delaware study of instructional costs and productivity, see Appendix A, Table 19b). Even by this metric, the SCH per FTE of all types of faculty combined for our department is 10% higher than the national average for psychology departments, and 18% higher than the mean SCH per FTE at our peer institutions (see Appendix A, Additional Data – 2).

Undergraduate Curriculum. The department carried out a major revision of its undergraduate curriculum in 1997-98. These changes were implemented in 1999-2000 and may have been responsible for a temporary drop in SCH in the next couple of years (See Appendix A, Table 5). One of the primary motivations for the changes was to increase the amount of writing required across our curriculum. This goal was in part in response to the 1995 External Review report that had noted the "undesirable consequence of the large classes and small numbers of TA allotments is that the principal mode of evaluation is multiple choice tests… to the virtual exclusion of term papers and essay exams." To achieve a more coherent system of numbering courses and to arrive at a list of courses appropriate for the current expertise of the faculty, a large number of courses (23) were eliminated, six new courses were added, 12 courses were re-numbered, three courses were re-named, pre-requisites were added, and requirements for the major were revised. Included in the courses being dropped were two very popular sophomore-level courses in the clinical area, Psych 230 (Adjustment and Interpersonal Relations) and Psych 232 (Clinical Psychology). The clinical faculty believed the content of these courses could be more appropriately taught at an upper-division level. This decision likely contributed to the decline in SCH at the sophomore level around 1999, particularly among students whose major is outside the department (See Appendix A, Table 6). Indeed, our total SCH declined approximately 20% from 1995-96 to 2002-03 (see Appendix A, Table 5) even while our number of majors was increasing by approximately 15% over the same period (see Appendix A, Table 1). However, this decline in SCH has now been reversed as interest in psychology has continued to grow among undergraduate students in recent years. Our total SCH increased by 20% in just two years from 2002-03 to 2004-05 (see Appendix A, Table 5).

The major differences between the previous and revised requirements were: (1) the total number of credits required for a BA (or BS) degree in psychology was increased from 34 (or 33) to 36 (or 35); (2) majors no longer were required to take an introductory level lab (Psych 106L), which was one of the courses eliminated; (3) instead all majors were required to take a research methods course (Psych 302). The introductory lab course was a rather unusual requirement held over from the days when it was thought every freshman psychology major should have the opportunity to be involved in carrying out empirical research, e.g. with a lab rat. We had been offering roughly 14 Psych 106L lab sections per semester, with most taught by first-year graduate student TAs, which left relatively few TAs to service the relatively large number of large enrollment courses offered every semester.

While some re-allocation of TAs to other courses occurred, this was relatively temporary as many were required to support the new version of Psych 105 that was implemented fully around

2001. (The 1995 External Reviewers had noted the TA support for the large introductory psychology lecture classes had been "very deficient.") With support from the Pew Charitable Trusts and under the leadership of Gordon Hodge, all sections of Psych 105 were converted to a system relying on small, computer-intensive studios allowing for students to re-take quizzes. This revision in our curriculum was driven largely by administrative efforts to eliminate "killer courses" which were thought to contribute to the very low retention and graduation rates at UNM. Six-year graduation rates at UNM are only about 40% (*UNM Fact Book, 2005-2006*, p. 4). When the program was fully implemented in 2001 the pass rate in Psych 105 increased dramatically from 63.4% in Fall 2000 to 82.3% in Fall 2001, with the pass rate remaining above 80% in succeeding years. The mean grade in Psych 105 rose from 2.14 to 2.83, and the mean grade has remained above 2.7 (See Appendix A, "Additional department/program requested data"). Although this has clearly eliminated Psych 105 from the ranks of courses most responsible for failing students, the departmental objective of increasing writing across the curriculum has floundered. For example, although APA style is covered in Psych 302 it is in the context of a large lecture course which does not lend itself to the kind of individualized feedback and successive revisions of drafts that are critical to learning technical writing.

Educational objectives of undergraduate program. In November 1996 in response to a mandate from the Provost, the department approved the following statement of educational objectives and desired outcomes of students in our undergraduate degree programs.

Educational Objectives/Desired Outcomes
of the Undergraduate Program in Psychology
at the University of New Mexico

Students in our undergraduate program will acquire fundamental *knowledge* of psychology; specifically, they will achieve:

1. a critical awareness of the research bases utilized in psychology as a laboratory science and an applied discipline;
2. a basic knowledge of descriptive and inferential statistics;
3. an understanding of the interplay between theory and empirical research in psychology;
4. an appreciation of how experimental and correlational methodologies are utilized in scientific psychology;
5. a knowledge of brain structure and functioning, including principles of neural transmission, localization of function and plasticity;
6. an understanding of the principles of learning, memory and cognition, from conditioning through higher mental processes such as problem solving, concept formation and language;
7. a familiarity with the role of development in behavior from infancy through aging;
8. an understanding of the joint influence of the social context and the psychological attributes of the individual on human behavior and subjective experience;
9. an appreciation of ethical issues germane to psychological research and practice.

Students in our undergraduate degree programs are also expected to acquire the following specific *skills*:

1. the ability to use basic statistical methods to summarize data, and to select and carry out appropriate statistical tests for evaluating hypotheses;
2. the ability to evaluate critically research designs, results, and interpretations.

We further expect students completing our Psychology Honors program to:
1. achieve an integrated view of the historical development of the field of psychology;
2. be, as a group, above average in their overall *knowledge* of psychology in comparison to other graduating psychology majors nationally;
3. have acquired the *skills* to be able to design, carry out, analyze and write up independent empirical research.

Finally, we expect graduates of our undergraduate programs to leave with *attitudes* indicating:
1. a favorable evaluation of the instructors they had in the Department of Psychology;
2. overall satisfaction with the education in psychology they received at UNM.

The department conducted systematic outcome assessments for three years following the adoption of these goals. A new plan (p. 20) for the assessment of majors has been developed and will be implemented this year.

Graduate majors and admissions issues. In contrast to undergraduate majors in psychology, the department has intentionally chosen to reduce the number of graduate students in the department in order to achieve our goal of providing four years of financial support to all graduate students in good standing. Thus, the number of graduate students in the department steadily declined from a high of 103 in Fall, 1996 to 75 in Fall, 2005, though the number rebounded to 83 in 2006 (See Appendix A, Table 1). The distribution of graduate students across areas and years in the program are shown in Table 3 (below).

Table 3. Current graduate students in each training area, stratified by years in program.

	Years in Program							
	One	Two	Three	Four	Five	Six	Seven +	Total
Clinical	7	6	7	7	6	4	11	48
CBB	8	1	2	1	2	2	3	19
Ev/Dev	0	0	4	3	3	0	2	12
Quant.	1	0	0	0	0	1	2	4

Note. "CBB" denotes Cognition, Brain, and Behavior; "Ev/Dev" Evolutionary and Developmental; "Quant." Quantitative/Methodology.

Nationally, the median number of students enrolled in psychology doctoral programs ($N = 414$) was 77 in 2003-2004, with a median number of full-time faculty being 19, for a typical student to faculty ratio of roughly 4 to 1 (Norcross, Kohout, & Wicherski, 2005). Our ratio of grad students to faculty has declined from 5.2 (well above the national average) in 1996 to 3.9 per FTE in 2006, just about at the national average. We have continued to award approximately 20 graduate degrees per year (See Appendix A, Table 2), but we have achieved a smaller graduate student population by reducing the number of offers made to incoming students.

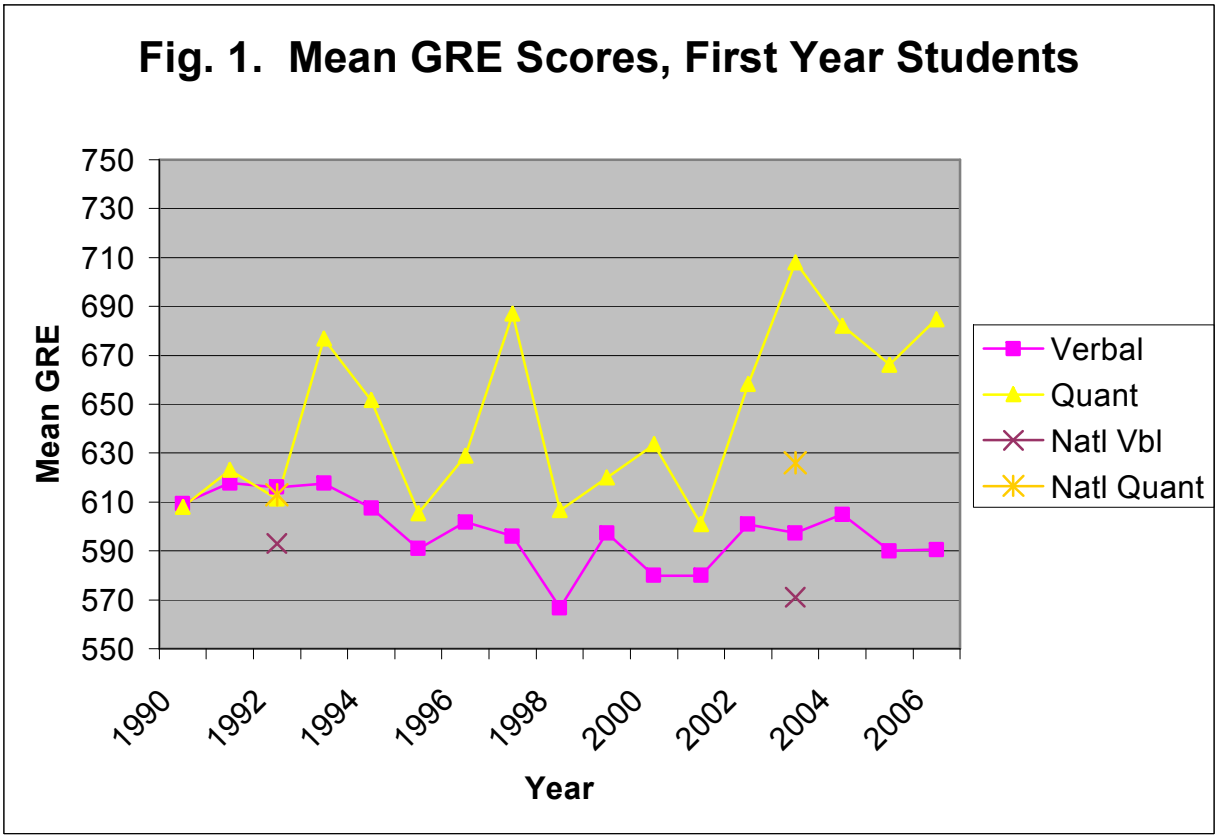
The data from the Office of Graduate Studies regarding graduate admissions is shown in Appendix A, Table 21. However, our own internal data is somewhat more detailed, e.g. in tracking percentage of offers accepted, and is shown below.

Thus, the number of offers made has declined considerably from the high of 49 in 1990. The percentage of offers accepted has been rising in recent years, with two factors likely responsible. First, we have been giving out fewer early offers and instead frequently withholding our offers until our top candidates have attended an open house scheduled relatively late in the spring. Second, we have been making a greater proportion of offers in recent years to local applicants, in part in an effort to increase the number of minority students enrolled in our program. What is perhaps most striking in Table 4 is the precipitous decline in the number of applications received by the program from 1994 to 2002. Although applications were declining nationally, at least to clinical programs, the national decline was much more gradual. Applications to clinical programs nationally were declining at a rate of about 2.5% a year, for a total decline of only about 20% over 8 years (Norcross et al., 2005). Thus, this temporary 70% drop in applications was more than three times greater than would be expected on the basis of national trends.

In any event, the quality of our admitted students has not been adversely affected by the declining number of applications. One contributing factor in this decline may have been that the department began publishing GRE scores of admitted students in the early 1990s. Our first-year students have fairly consistently had GRE scores that are above the mean of first-year students in psychology doctoral programs nationally. As shown in the Figure below, this was true in the early 1990s and has increased somewhat over the past decade, particularly in Quantitative. For example, over the five years of 1990-94, first-year UNM students had a mean GRE Verbal of 614 and a mean GRE Quantitative of 634. The national means for first-year students in psychology doctoral programs in Fall 1992 (the middle of this five-year period) were 593 Verbal and 613 Quantitative, so our students were approximately 20 points above the national mean on both scales. By 2003, the national mean for first-year students had declined over 20 points in Verbal to a mean of 571 and had increased by over 10 points in Quantitative to a mean of 626. At UNM the mean on Verbal also declined, but not as much as the national trend, and the mean on Quantitative also increased, but more than the national trend. Thus, for the five years from 2001 through 2005, the UNM GRE Verbal mean was 595 (24 points above the national average) and the GRE Quantitative mean was 663 (37 points above the national average).

Table 4. Department of Psychology Data on Graduate Admissions, 1990 to present.

Academic year beginning	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Applications for admission	294	295	293	386	416	361	266	263	195	157	129	130	130	181	162	173	207
Clinical Apps Rec'd									136	113	98	84	77	98	115	111	133
Experimental Apps Rec'd									59	44	31	36	53	83	61	65	74
Total Minority Applications						45	36	32	32	27	18	9	18	16	24	13	23
Percent Apps from Minorities						12%	14%	12%	16%	17%	14%	7%	14%	9%	15%	8%	11%
Offers of admission made	49	44	32	22	29	29	25	21	22	20	26	17	21	23	19	12	21
Clinical offers made									13	11	14	9	13	8	10	8	9
Total offers accepted and matriculated	16	13	15	13	12	11	11	13	9	11	13	8	11	15	15	8	18
Percent of offers accepted	33%	30%	47%	59%	41%	38%	44%	62%	41%	55%	50%	47%	52%	65%	79%	67%	86%



3. Institutional Contributions

Although the psychology department has more than a thousand undergraduate majors, the majority of our classroom instructional effort is devoted to students who have other majors. For example, as shown in Appendix A, Table 6, in Fall 2005 the department generated 12,030 SCH at the undergraduate level. Only 3,458 or 28.7% of these SCH were generated by psychology majors in Arts and Sciences. Although at the graduate level the pattern is understandably reversed, it is clear that the department plays a very central role for the university's undergraduate students generally.

What has changed over time is the percentage of our SCH that are generated by tenure track faculty. In 1996, three-fourths of all SCH (74.8%) were generated by tenure track faculty (See Appendix A, Table 7). This has declined steadily over the years such that the last three Fall semesters, less than half (45.9%, 48.6%, and 49.6%, respectively) have been generated by tenure track faculty. As the number of psychology majors has steadily grown without a concomitant increase in the number of faculty, we have had to rely increasingly on graduate teaching assistants and lecturers, particularly for our sophomore-level courses (See also Appendix A, Table 19a).

4. **Student Profile and Support Data**

Persistence and Graduation. At the undergraduate level, the majority of psychology majors who have been admitted to Arts & Sciences are classified as seniors (See Appendix A, Table 1). Thus, it of interest to know what proportion of these go on to graduate within the next year. As shown in Appendix A, Table 4a, somewhat more than 40% do graduate within a year, somewhat less than 40% remain enrolled, whereas roughly 20% will have "dropped out". It is important to note, however, that this figure includes individuals who are on leave or who did not enroll that semester for any reason. Hence, it appears to be the case that the percentage of students not immediately continuing has declined somewhat over time, from a percentage in the upper 20's before 2000 to a low of 18.4 % for Fall 2005.

Given UNM's relatively low graduation rates, it is presumed that the data on our undergraduates may be typical. More disconcerting are the figures on time to graduation at the graduate level. As shown in the first of the "Additional department/program requested data" tables in Appendix A, for the last several years the mean number of years required to earn a PhD in psychology has typically been 8 years, and on occasion as high as 9.5. The overall mean time to PhD at UNM of 8 years is two years greater than the national mean for clinical psychology PhDs of 6 years (SD across programs = 1.2 years) (Norcross et al., 2005, p. 971). Examining time to degree for clinical and non-clinical students separately and looking just at students earning their degrees in the 7 most recent years, the mean time to PhD at UNM for clinical students is 8.6 years, whereas for non-clinical students it is 6.9 years. Thus, the mean time to PhD for our students in our clinical program is more than two standard deviations above the national mean for other clinical PhD programs.

Financial Aid for Undergraduates. New Mexico is a relatively poor state, and most of our undergraduate students are employed and also are in need of financial aid. Those completing the FAFSA as a dependent of their parents report a mean parent income of approximately $45,000 while those students who are independent of their parents report a mean income of approximately $15,000 (See Appendix A, Table 11). Fortunately, over 80% of full-time undergraduate psychology majors receive some financial aid (See Appendix A, Table 8), although the most common form (42.1%) is a loan. It is the case that the percentage receiving some sort of scholarship has increased substantially over the past 10 years, from 20.7% in 1996 to 41.4% in 2005, presumably because of the advent of "lottery" scholarships (See Appendix A, Table 9).

Financial Aid for Graduate Students. In terms of graduate students, the Psychology Department has for several years been able to provide financial aid to all students who are in good standing. The total number of assistantships awarded has remained relatively stable at almost 50 with the exception of the 2001 and 2002 period (See Appendix A, Tables 12 and 13). The level of stipends UNM is able to offer (which had been 15% below the mean at peer institutions in 1995) had by 2004 reached a level slightly above the mean stipend at a set of institutions identified as peer institutions by the university, as shown in Table 5.

5. Student Performance Measures

General undergraduate program. The department has not been conducting outcomes assessments of our general undergraduate program in recent years. This year the department has committed funds to support such an assessment. Given most of our educational objectives concern our majors' knowledge and skills, our plan is to contact a randomly selected sample of approximately 50 senior majors who have completed at least ¾ of the hours toward their psychology major and ask them to take the ETS Major Field Test in psychology. To induce participation and motivation, students will be offered $10 for taking the test and an additional $10 if they are able to score above the national median on the test. In order to assess our educational objectives concerning student attitudes, a brief questionnaire will be administered to students nearing graduation, at the time they come in to the student advisor's office for their degree check. These data should provide the sort of detailed information needed for improvement in our undergraduate curriculum. For example, if we find student's knowledge of social psychology to be a relative weakness, we could alter individual class syllabi, select different instructors, and offer additional classes in the area.

Table 5. 2004 Graduate student stipends in psychology departments at UNM and our peer institutions.

Institution	No. FTE	No. full time students.	Stipend	Tuition remission
Arkansas	16	40	8300	Full
Colorado	47	94	12795	Partial
Kansas	33	159	11000	Full
Kentucky	32	79	10975	Full
Missouri	38	80	11375	Full
Oklahoma	19	48	10995	Partial
S. Carolina	36	114	11000	Partial
Texas	53	123	12000	Full
Utah	27	55	10500	Full
		Mean Stipend:	*10993*	
New Mexico	24	83	11250	Full

Departmental honors program. The Psychology Honors program, established by Frank Logan in 1964, is the oldest and largest departmental honors program at the university: 334 students have completed the program since the first honors students graduated in 1966. Admission to the two-year program for selected junior and senior majors is through a competitive application process. In 2006, 45 rising juniors applied; the 18 students admitted had a mean cumulative GPA of 4.02 and a mean GPA in their psychology courses of 4.20. After a sequence of four honors seminars, the program culminates with a symposium in which the graduating majors give an oral report of their completed thesis project. Their written theses, developed in conjunction with a faculty mentor, are evaluated by two faculty committees, and awards (funded by an

endowment established by the parent of a deceased honors graduate) are presented to the outstanding honors thesis and outstanding honors student. In general, the psychology honors program seems to provide students with a valuable preparation for graduate study.

Although we likely have incomplete information on those who eventually are admitted to a graduate program, we are aware that 135 (40%) of the 334 honors graduates have been admitted to a graduate degree program. Over the 11 years since our last external review, 34 (32%) of the 134 students completing the program between 1996 and 2006 have been admitted to graduate programs.

Graduate students. Although the department arrived at some goals for graduate training in psychology generally in 1998 that were assessed for some time via exit questionnaires upon successful defense of the doctoral dissertation, the more systematic on-going assessment of graduate student performance is via our annual end-of-the-year evaluation of graduate student research and progress toward degree. In terms of research productivity, points are awarded for various activities (e.g. 100 points for a first-authored journal article, 30 for a poster at a national conference). Total points achieved are used to rate student research productivity as "exemplary," "good," "satisfactory," or "unsatisfactory." Again the clinical area has been more systematic in monitoring this than other areas. For example, in 2003 for all students at the pre-internship level (and not on a leave of absence), 15 of 28 (54%) were rated exemplary, 4 (14%) were good, 1 (4%) was satisfactory, and 8 (29%) were unsatisfactory.

In terms of research activities of graduates, in preparation for the APA review of our clinical program we surveyed students completing our clinical program during the last 7 years. We received research reports from 33 of the 35 individuals who graduated from our program since 2000. Since graduation, these individuals produced a total of 88 peer-reviewed publications and 91 paper presentations. For these 33 individuals, the mean number of publications per year was .77, and the mean number of presentations per year was .83. Fifteen of these 33 individuals are either not working in psychology or are employed in primarily service delivery or administrative positions. These 15 individuals published a total of 13 papers (mean per year = .26) and presented a total of 12 papers (mean per year =.28). The other 18 graduates are working primarily in research or academic settings, and their total number of publications is 75 (range = 1-10 publications per graduate) with a mean of 1.23 papers per year (range = .33-2.5 publications per graduate). Total number of presentations for this group is 79, with a mean of 1.29 per year. Not surprisingly, the rates of publication are higher as are rates of presentations at scientific meetings for those former students with research jobs. These data indicate that more than half of our recent graduates are actively involved in research and are active and productive scholars.

Our review of the research activity of non-clinical students also involved reviewing productivity of students completing their PhD in the past 7 years. A total of 30 experimental students graduated between 1999 and the present. Review of curriculum vitae and searches on PsychInfo allowed us to get information on all 30 individuals. These 30 individuals had produced a total of 149 publications, 77 while students and 72 after completing their PhD, which on the average was only 2.6 years. The mean number of publications per year post PhD was 1.07, somewhat higher than the overall rate for clinical graduates though not quite as high as the rate for the subset of

clinicians working in research or academic settings. In any event, these data again indicate our graduates are active scholars.

6. Faculty Matters

Abbreviated two-page vitae for the psychology faculty are included in Appendix B.
As noted in Table 1, the 22 tenure-track psychology faculty for the 2005-06 academic year included 7 full professors, 5 associate professors, and 9.5 assistant professors. Fourteen of these faculty are male, and 8 female. In terms of ethnicity, 20 of 22 are non-Hispanic Caucasian, with one faculty member being an American Indian and one being Asian/Pacific Islander (See Appendix A, Table 16). In addition, as indicated in Appendix A, Table 15, the department has one regular non-tenure track faculty member who is a full-time lecturer, and 8 regular non-tenure track faculty who are primarily involved in research. Contingent faculty include 5 instructional faculty and 1 research faculty member.

We have compared faculty salaries in Psychology to salaries at public institutions throughout the United States and in the Mountain States region (see Table 6). These figures are based on 2005-2006 salaries, as this is the most recent data available for comparison. The good news is that UNM offers very competitive salaries for assistant professors. We are 4.0% above the US mean and 6.6% above the Mountain States mean. Clearly, this helps us hire high quality new faculty, which is evident by perusal of junior faculty CV's (see Appendix B). The bad news is that our full professors lag far behind our peers – 10.4% behind the US totals and 5.2% behind Mountain States totals. This suggests that our top senior faculty are "ripe for raiding." Indeed, we lost two of our best experimental faculty in recent years to other universities (Rob Sutherland and Mark McDaniel). With excellent support from the College during 2006, we were able to compete effectively with a very strong job offer Steve Gangestad received from a top university.

Table 6. Faculty salaries in Psychology at UNM, as compared to national and regional salaries at public institutions (AY 2005-2006).

		Rank		
		Assistant	Associate	Full
UNM				
	Mdn	57,000	60,019	84,689
	Mean	57,631	65,204	86,254
US Total				
	Mdn	55,450	64,210	91,118
	Mean	55,401	66,247	96,301
Mountain States				
	Mdn	53,585	63,054	89,272
	Mean	54,059	65,872	91,007

The Department supports the development of our junior faculty in several ways. In general, we strive to limit service and administrative duties, while allowing exposure to important tasks. However, as we now find ourselves with a smaller proportion of senior faculty than in years past, we have had to rely on our junior faculty for service on admissions, human subjects, and search committees. We take several steps to facilitate research development. All junior faculty receive a "pre-tenure sabbatical" that they may take whenever they like. They also have a faculty mentor, with whom they consult on all aspects of research. This year we are very fortunate to have hired Dr. Milton Strauss as a Visiting Professor. Dr. Strauss has many years of experience editing APA journals and he now serves as editor of Psychological Assessment. One of his primary roles will be to work with our junior faculty in preparing and editing manuscripts for publication.

7. Facilities and Resource Base

Logan Hall. The Psychology Department (Logan Hall) is housed in its own three story building constructed in 1972. The ground floor includes all faculty and staff offices and a few small classrooms. A computer laboratory facility (five new computers, two printers, one copy machine) for graduate students is located next to a spacious graduate student lounge. There is no separation of clinical vs. nonclinical faculty offices, a design facilitating our goal of establishing an "experimental" department as a whole. The basement floor contains many student offices, a small classroom, and some laboratories focused on human research. The second floor also provides some student offices, research labs for our more neuroscience-oriented faculty, and our animal colony.

Though Logan Hall is generally a functional facility, it has become quite clear in recent years that we will need more, and differently configured space than is currently available. We have developed a comprehensive plan for a remodel and major addition. This is now on the University's three year building plan. A critical component of the design is establishing the Psychology Clinic in a separate wing of the Department, closely linked with new space for clinical research laboratories.

The Psychology Department Clinic and Agora. The Clinic is housed in a nearby remodeled house in the heart of the campus. There are four therapy rooms, three professionals' offices, and a converted garage used as a call center by Agora, the UNM Crisis Center. There is a waiting area for clients and minimal work-space for students and the Clinic office manager. The Psychology Clinic offers extensive video and audio recording capabilities. It also provides a wide array of assessment materials for students. These include the most recent versions of standard intelligence and achievement tests, a collection of varied neuropsychological tests, and major personality tests.

The Department of Psychology Clinic provides general outpatient psychotherapy and assessment services to the University and Albuquerque communities. Each of our 27 doctoral students in the third year or beyond carries a caseload of two cases under close supervision, mostly by Psychology Department faculty. Some of these cases will be individual adult, child or adolescent psychotherapy for individuals typically with moderate severity of symptoms. Clients come from throughout the Albuquerque area, including UNM and TVI campuses. The Clinic is

one of the few places in the community where individuals can receive long-term psychotherapy, if needed, for low costs as the Clinic provides services on a very affordable sliding fee scale.

Some student-clinicians also provide health-related consultations within the UNM Health Sciences Center. Others provide psychological, neuropsychological and attention-deficit/hyperactivity disorder evaluations for individuals referred by the courts, other health care providers or themselves or their children. Student clinicians are also involved in providing therapy and assessment services at the Albuquerque Veterans Administration Medical Center (several students are involved at the VA at any given time), and one or more students at the Center for Development and Disabilities, Center for Family and Adolescent Research, Center On Alcoholism, Substance Abuse, and Addictions, and the MIND Institute. The Family Assessment and Intervention Resource is a joint project of the Clinic and the Second Judicial District Court to provide assessment and treatment of parents where there are issues of domestic violence in the home. Four graduate students provide individual and group treatment for about 30 families a year.

In addition to the student work, the educational diagnostician who works for the Clinic provides assessments for learning disabilities to children mostly in Albuquerque and throughout the state. Under a Clinic contract, she consults with Bosque School regarding accommodations for students with learning disabilities. The Clinic Director, a licensed psychologist, participates in the treatment and assessment of Clinic clients, besides his role as supervisor. He provides required psychological assessments for the Truth or Consequences Police Department, an underserved area for such services. He is active in the New Mexico Psychological Association as legislative co-chair and is a former president of that organization. Both the diagnostician and Clinic Director have served or currently serve on various campus committees lending their expertise in the areas of disability services and psychological expertise. The Director has also been involved in several community efforts and organizations to improve health care for all New Mexicans including the Governor's Task Force on Health Care Coverage and Access.

The Agora Crisis Center, which is integrated with the Psychology Department Clinic, provides free, compassionate and confidential phone or walk-in services for anyone in need of emotional support. Our services include 24-hour talk-line, a walk-in clinic during business hours, referral service, community education and volunteer opportunities. Agora is also a member organization of the NM Suicide Prevention Coalition and helps to increase awareness about suicide prevention, intervention and follow-up throughout the state. We are one of two nationally accredited crisis centers in the state of New Mexico.

Since it's inception in 1970, Agora has trained over 5000 volunteers and helped over one hundred thousand callers and walk-in clients. We currently have over a hundred volunteers staffing the crisis lines and helping to promote the Center. Over 95% of these volunteers are undergrad students at the University of New Mexico. In the past two years call volume at the center has more than tripled – in September, 2004 total calls received were 189; in September, 2005 we took 302 calls, and in September of 2006, we are on track to answer over 600 phone calls on the crisis line!

In 2005 the NM Department of Health awarded Agora a contract to host the new NM Crisis line – a toll-free number which we are able to offer to people throughout the state. This program has helped us to provide access to people who previously did not know about the crisis center and who would have had to call long-distance to reach us. Agora also received a Community Fund grant from the United Way of Central NM for $40,000 to finance a community outreach program in the four counties of Bernalillo, Valencia, Sandoval and Torrance. We were also awarded a grant from the Albuquerque Community Foundation for $9,900 to fund outreach to the Senior Citizen community in the area.

The recent APA clinical site visit report, and before that, the 1996 program review, noted that the space at the Clinic was quite insufficient for its multiple functions. The simplest way to express the space problem at the Clinic is that the building is barely adequate for any two of its three components, but not all three. The situation has become even more acute since 2005 when Agora received a New Mexico Department of Health grant to implement the primary teen crisis line for the state. That grant has funded two additional employees (who do not have their own offices) and additional volunteers. Agora's space includes a converted garage and the Director's office, and it shares the kitchen area with the Clinic. Their space needs now greatly exceed their initial allotment, even though they have now moved into space that was once devoted to the Clinic. Planning, good will, and flexibility have averted major conflicts over space usage, but the situation is difficult at best.

The MIND Institute. The MIND Imaging Center is a world-class neuroimaging facility, a joint effort of UNM and the MIND Institute. It is located on the North Campus in the School of Medicine, an easy walk for our students. Currently, the MIND Imaging Center supports new 1.5T and 4.0T MRI systems, as well as a full-head magnetoencephalography system and separate high-density electroencephalographic array. A major expansion is underway and a new full-head magnetoencephalography system and another 3T MRI system will be available next year. The MIND Institute has provided some salary support allowing the Psychology department to hire internationally recognized experts in magnetoencephalography (Dr. Claudia Tesche) and fMRI (Dr. Vince Clark), both of whom conduct research on clinical populations. It has also provided research stipends for several students over the past few years. Currently, students are involved in fMRI research on addictive behaviors and psychopathy, and magnetic resonance spectroscopy (MRS) studies of traumatic brain injury, aging, ADHD, schizophrenia, and intelligence. The New Mexico Neuroimaging Institute is located at the Albuquerque VA Hospital, about five miles from campus. This is another world-class imaging facility, uniquely devoted to magnetoencephalography. Four members of the research staff at the MIND Institute are UNM Ph.D.s (Drs. Rex Jung, Robert Thoma, Faith Hanlon, and Michael Weisend) who maintain close relationships with the Psychology Department, teaching courses and helping supervise graduate student research. Recently, students have investigated the neurophysiology of schizophrenia and PTSD, normal and abnormal hippocampus function, the neurobiology of addiction, and many basic cognitive neuroscience questions.

UNM Medical School. Our students benefit in many ways from our adjacent medical school. Students regularly attend Psychiatry and Neurology Grand Rounds and lectures sponsored by various departments. Students also are welcome in courses offered in the Department of Neurosciences. Prof. Tesche has a joint appointment in Neurosciences and Prof. Yeo has a joint

appointment in Psychiatry. We have recently been expanding our working relationships with the Health Sciences Center as part of our growing interest in Health Psychology training. A graduate student placement in the on-campus Family Practice Clinic began this year, focused on substance abuse intervention within primary care. Collaboration with the UNM Institute for Public Health led to a research development program for minority investigators, funded by the National Institute on Alcohol Abuse and Alcoholism, for which Dr. William Miller (recently retired) is the senior mentor. This Southwest Alcohol Research Group is focused on health disparities among Hispanic, Native American, and rural poor. Graduate students have also had placements with the Trauma Unit.

CASAA. The Center on Alcoholism, Substance Abuse, and Addictions (CASAA) is an interdisciplinary center encompassing over 100 faculty from 7 UNM colleges. Currently there are seven Research Faculty working at CASAA, all of whom are on faculty contracts through the Department of Psychology. Our Ph.D. graduates and graduate students work in both branches of CASAA: the Clinical Research Branch, and the Prevention/Education Research Branch. CASAA has over $20 million in active extramural grants and contracts, and is the University's second largest research center. CASAA has maintained excellent working relationships with UNM departments and colleges, and reports to the Vice Provost for Research. Three years ago, CASAA and the Psychology Department began a collaborative colloquium series on the psychology of addictive behaviors. CASAA is also a significant source of financial aid placements for psychology graduate students, with 6-10 students normally holding research assistantships at CASAA.

Libraries. University library resources needed by psychology students are scattered over three different facilities. Fortunately, most psychology journals (all APA journals) are in the Centennial Science Library, which is just outside our door. Journals and books reflecting the sociological or educational side of the field are in Zimmerman Library, a short (and pleasant) walk from the Department. Many other needed journals are in the Health Sciences Library on the north campus. Over the past few years the University has worked hard to improve library holdings. Coupled with new on-line resources, we feel that access to the current scientific literature is adequate for students and faculty. A unique library resource for our own faculty and students is the Logan Literature and Laws of Learning (Quad-L) Library. Dr. Frank Logan, now deceased, established this library to provide a readily available collection of resources in the area of learning and memory studies, as well as APA and Psychonomic Society journals. The Quad L Trust also funds a yearly lecture by eminent psychologists in the area of learning and memory. Recent speakers include Elizabeth Loftus, Henry (Roddy) Roediger, Howard Rachlin, Nate Azrin, and Steven Hayes. The trust also funds a part-time GA position and a dissertation award.

8. Graduate Training Programs and Research Areas.

In the sections below we offer more detailed descriptions of our graduate training units.

Clinical Psychology

Historical Perspectives From the time it was established and up until three years ago, the clinical program, along with most other university-based clinical programs, adopted a scientist-

practitioner or "Boulder Model" orientation. That is, science was integrated into the training program and, to the extent possible, informed practice. That model worked well given the rather eclectic blend of theoretical orientations (including psychoanalytic, existential, humanistic, systems, cognitive, and behavioral perspectives) that characterized the clinical faculty at the time. Since 1999, however, six members of the clinical faculty have either retired or left for other positions. We replaced one of these losses with a new assistant professor in 1999, and we hired three more assistant professors in 2003. The addition of these new faculty resulted in a more homogeneous science-based orientation in the clinical area, so we decided to move from a scientist-practitioner to a clinical-science training model. In essence, a clinical-science model sees all aspects of clinical psychology as science-based and seeks to avoid the dichotomy between science and practice implied by the term science-practitioner. This change in emphasis resulted in a fundamental overhaul of curriculum, which is described in detail in the Graduate Guidelines which is available on-line.

Current Status. The clinical area hired two new half-time assistant professors in the fall of 2005 (one is currently tenure-track and one will move to tenure-track status next year). In addition, Dr. Milton Strauss has joined our faculty as a visiting professor for the next two years. We are particularly happy to report that Dr. Barbara McCrady, an addictions researcher with an outstanding international reputation, will join our faculty beginning in fall 2007. She will be half time in the Psychology Department and will also serve as Director of UNM CASAA. This year the clinical area will search for an additional addictions researcher (open rank). This will take the area to 10.5 FTE.

The quality of our faculty is amply demonstrated along the related dimensions of research/scholarship, teaching, and service. The faculty demonstrate a wide range of interests, providing diverse possibilities for our graduate students: addictive behaviors, human brain function, neuroimaging, psychopathology (especially eating disorders, schizophrenia, obsessive-compulsive disorder, autism, attention deficit hyperactivity disorder), health psychology, sexual victimization, cross-cultural psychology, and child clinical psychology.

We provide here summary data on research productivity for our current faculty (for comparisons across areas, see Section 10, "Overall analyses of department strengths and weaknesses). For our five newest faculty members, numbers reflect their total academic careers. For other faculty, we provide data from research activities from 2000 through the present time. Our new faculty have an average of 15.66 total publications (peer reviewed journals plus chapters), 26.2 presentations at scientific meetings, 2 post-graduate school grants, with a mean grant funding level of $579,772. Our "long term" faculty have a mean of 17.2 publications (peer reviewed journals plus chapters) each since 2000, 19.25 scientific presentations each, 3.4 grants (local and national), received as PI or Co-PI each, with a mean total funding over this interval of $ 3,435,120 each (Mean = $234,000).

Our faculty also contribute to the science of psychology through journal editing and reviewing. Dr. Dougher serves as an Associate Editor for the Journal of the Experimental Analysis of Behavior and The Behavior Analyst. Dr. Moyers is an Associate Editor for the Journal of Substance Abuse Treatment. Dr. B. Smith is now Guest Editor of a special issue on emotion and health in the Journal of Personality. Dr. Yeo serves as Associate Editor of Laterality. In addition,

Drs. Dougher, Miller, Yeo, and J. Smith have served on NIH, NIMH, NIDA, NICHD, and NINDS grant review teams.

Strengths and Weaknesses. A clear strength is in addictions research. Despite losing William Miller, an internationally renowned addictions researcher, the addition of Drs. Theresa Moyers, Kamilla Venner, Barbara McCrady, and a to-be-named addictions researcher next year allows us to at least maintain our international reputation in addictions research and perhaps even enhance it. Another area of strength is in neuropsychology and clinical neuroscience. Although only two of our clinical faculty work directly in these areas, the number of experimental neuroscientists in the department, our close collaborations with north campus neuroscientists, and the availability of various imaging technologies renders this area a clear strength.

Given that we have a fixed number of faculty and many are concentrated in the addictions and clinical neuroscience areas, it is inevitable that there would be some gaps in our program. One of those is in the child-clinical and family areas. Currently, only one faculty member works clinically with children, and none of our faculty specialize in working with families. These are areas in which we clearly would benefit from being able to hire additional faculty. Additional hires in this area would also shore up our developmental area, which is quite understaffed. A weakness in the clinical area that we have tried to rectify is that we currently do not have any Hispanic faculty. We lost two Hispanic faculty to retirement five years ago, and although we have hired two ethnic minority faculty since then, neither is Hispanic. In a state with such a high percentage of Hispanics, this is clearly a problem that needs to be addressed.

A final weakness is that our graduate students on average take too long to complete their degrees. We addressed this issue by modifying our preliminary examination procedures, and we will continue to explore ways to facilitate students' progress through out program.

Future Directions. Because the clinical area has been able to make some recent hires, the possibility of new hires in the immediate future is slim. As our curriculum just underwent substantial revision, we will need to monitor the effectiveness of our new model to refine and modify it as indicated.

Cognition, Brain and Behavior

Historical perspective. The department's strength in experimental psychology had been in learning during the late 60's and then in the 70's and 80's its strength moved to learning, memory, and cognition. The shift away from learning and memory towards cognition and neuroscience over the last ten years has been an important event in the history of the department. This shift was driven largely by our perceptions of growth areas within psychology, as well as available resources outside the department.

In the last ten years, the CBB has lost six senior and one junior faculty, and gained three senior and six junior faculty (one serving half time). These faculty joined three senior faculty who have been in the department longer than 10 years. In this time the CBB has added an additional concentration in Cognitive Neuroscience, which uses human brain imaging as a tool to examine human cognition and other mental processes. In 2006 we re-organized the diverse graduate training domains in these areas, forming a single training entity. Our major goal was to

facilitate broad training of graduate students, ensuring that all students would have a strong background in cognitive psychology, behavioral neuroscience, and cognitive neuroimaging. Our faculty believe that this type of training helps distinguish our students from those emerging from more specialized training programs, and will, over the long run, help attract the very best graduate students.

The CBB area has seen a great increase in the connections with other academic and research groups, including other areas within psychology, other UNM departments such as Neuroscience, Computer Science, Electrical and Computer Engineering and Mathematics and Statistics on Main Campus, and Psychiatry, Pediatrics and Neurology in the Medical School. This also includes collaborations with other research institutes, especially addictions research through CASAA and human brain imaging through The MIND Institute, and with government research labs such as Los Alamos and Sandia National Labs. These collaborations have broadened the scope of work done within the CBB beyond the concentrations of behavioral neuroscience, cognitive neuroscience and cognition, to include clinical and health psychology, quantitative psychology and neuroscience, among others.

Current Status. The Ph.D. program in Cognition, Brain and Behavior (CBB) reflects a unique opportunity for training in experimental psychology. As noted above, this area was created primarily to allow greater cross-fertilization of ideas between these traditionally separate areas of study. While students may stay mostly within one area of concentration, they are also free to explore other areas, and apply these ideas to their research. It offers offer immediate, hands-on experience, coupled with comprehensive course work, in order to build competent, confident students capable of developing a competitive research profile. Students enter under a faculty mentor and begin active research in the first year. There are three concentrations in the CBB: Cognitive, Behavioral Neuroscience and Cognitive Neuroimaging. All CBB students are required to complete three core courses (Cognitive Psychology, Biological Bases of Behavior and Introduction to Functional Neuroimaging) and to participate in a weekly seminar beginning in their second year. Students also complete two or more elective courses, typically in their area of concentration. Forty-six students have entered CBB concentrations over the past 10 years. Of these 19 are currently enrolled, 16 have graduated, with a mean of 6.3 years to Ph.D., and 11 have left the program (typically because their faculty mentor had left) or been terminated before graduation.

Strengths and Weaknesses. The greatest strength of the CBB is in its faculty. This is shown by a variety of measures. The CBB have produced an average of 22 peer-reviewed papers each over the last 10 years, roughly half of these first authored. The citation rates to these papers are very high, with an average of over 21 citations per paper. The 13 CBB faculty teach a broad variety of courses in their respective areas. This breadth provides students with a wider perspective than can be achieved in other departments of similar size. The CBB faculty receive a impressive amount of grant funding from diverse sources such as NIH, Sandia National Labs, DARPA, NSF, and various private foundations. With the recent loss of senior faculty and hiring of junior faculty, the composition of CBB faculty has changed substantially. The energy of this young group of faculty is helping to move us toward the next decade of psychology that integrates findings in brain imaging and other areas of neuroscience with traditional areas of psychology (cognitive, learning and memory, health, clinical and others).

Another strength of the CBB lies in its students. Nearly all of our graduates have found academic or research positions. These have included positions locally within our own department and at the MIND Institute, New Mexico State, and Sandia National Laboratory, as well as nationally and internationally at institutions such as Yale, Rochester, University of Toronto, Alleghany College, CSU Northridge, Ursinus College, and Wright State among other institutions. This reflects both the strength of their training and the broad interest generated by these areas of research.

One weakness of the CBB area is a result of increasing undergraduate teaching demands, without any increase in faculty number. This results in a greater need for graduate students to become instructors in order to cover the course load. This may produce an unnecessary burden on some students, and increase time to graduation. A related problem is that there are insufficient funds to support graduate research fellowships. While many students are able to arrange funding through grants to themselves or their PI, many students must take jobs unrelated to their research program (i.e., traditional teaching assistantships). Though this experience is valuable, it makes it more difficult for the student's ability to obtain their degrees in a reasonable time. It also increases the reliance of Psychology on outside entities to support their students. Another problem is the lack of sufficient imaging and information technology infrastructure within Psychology for faculty to perform their data analysis. Large volumes of data are acquired on expensive and difficult to maintain equipment, and must be analyzed using high-end computer hardware and software. This also increases the reliance of psychology faculty on outside entities that have these resources to sell or to share.

Future Directions. There are a number of possible changes which would benefit the CBB. One would be to hire new faculty. Faculty cross trained in multiple areas of concentration will help to increase cross fertilization of ideas within our area and help to broaden the expertise of our students. We also intend to put more effort into obtaining support for our students. Ultimately, we hope to be able to provide support in the first year, so that students may devote themselves to laboratory studies, and in the final year so students can focus on completing their dissertation. In order to accomplish this, we plan to increase development efforts and to write more grants.

Evolution and Development

Historical Perspective At the time of our last external review, the Department offered three majors administered by a broader area, DPS (Developmental, Personality, and Social Psychology). Each major concentration was represented by a small number of core faculty: Two developmentalists (Lynette Cofer, Kathy Stansbury), one social psychologist (Richard Harris), and one personality psychologist (Steve Gangestad). In addition, a number of faculty whose primary appointments were in clinical psychology participated in administering these areas (Sam Roll, John Gluck, Kristina Ciesielski, Holly Waldron, Eligio Padilla).

What once was covered under the DPS area has undergone major changes since the last site visit, in terms of both the major concentrations we offer and the faculty who represent the areas. In 1999, the faculty approved a major concentration in Evolutionary Psychology. Gangestad represented that area. It is an area that forms part of a larger interdisciplinary focus at UNM on human evolutionary behavioral science, with faculty and graduate student representation in the

Department of Biology and Department of Anthropology as well as Psychology. Personality Psychology was dropped as a major concentration. In 2000, we hired in the broad area of social psychology to replace Harris. Geoffrey Miller was brought in. Miller works in the area of evolutionary psychology and bolstered that area. As we no longer had any faculty who work primarily in social psychology (using a perspective other than an evolutionary one), the Department dropped Social Psychology as a major concentration the following year.

In 2000, we also hired in Developmental Psychology (to replace Kathy Stansbury, who was denied tenure). David Witherington was brought in. In 2004, Cofer, our other developmental psychologist, retired. The department decided not to request to replace Cofer in this area last year, choosing instead to bolster its strengths in the Addictions area. Witherington hence remains our only faculty member with a primary focus on developmental psychology. As was true previously, a number of other faculty participate in the administration of this area (Ciesielski, Sarah Erickson, Akaysha Tang).

When Evolutionary Psychology was added as a training track, it was not placed under the broader administration of DPS. Hence, what was DPS simply became the Developmental Psychology area after Personality Psychology and Social Psychology were dropped as major concentrations. Last spring, the Department adopted a reorganization that placed Evolutionary Psychology and Developmental Psychology under a broader umbrella, the Evolution and Development area. Within this area, Evolutionary Psychology and Developmental Psychology are represented by separate training tracks.

Current Status. Three faculty members are core members of the Evolution and Development area. Steve Gangestad (1985 Ph.D, Minnesota) is a Full Professor (hired in 1987), and was promoted this fall to the rank of Distinguished Professor. Geoffrey Miller (1993 Ph.D., Stanford) is an Assistant Professor (hired here in 2001). David Witherington (1998 Ph.D., Berkeley) is an Assistant Professor (joining UNM in 2002). Both Miller and Witherington will be evaluated for tenure and promotion to the rank of Associate Professor during academic year 2007-2008. Three additional faculty whose primary affiliations are with other areas are members of the Evolution and Development area: Sarah Erickson (Clinical), Kristina Ciesielski (Clinical, CBB), and Akaysha Tang (CBB).

The last site visit team described the former DPS area as an “administrative convenience,” an amalgamation of small areas with no overarching, coherent structure for graduate training. The Evolution and Development area is very different in this regard. The decision to unite these graduate training tracks was a conscious decision to create a combination of perspectives that is both synergistic and dialectical in nature, and sparsely represented in Departments of Psychology. The Developmental and Evolutionary area at University of California at Santa Barbara is perhaps the only similar program in the country.

Evolutionary and developmental perspectives have a variety of communalities. Unlike many other areas of psychology, which concern content domains (e.g., social, cognitive, learning areas), they concern processes. Each specifically concerns processes through which change occurs. Furthermore, evolution and development are intimately tied to each. Evolution through selection selects on developmental variations. What developmental variations exist in a population constrain how selection can act. At the same time, evolution through selection shapes, over time, developmental processes (and constrains what developmental variations may subsequently occur). The interface between evolutionary and developmental processes, in fact, is

the focus of a growing, exciting area within biology referred to as evolutionary developmental biology (also known as "evo-devo" biology).

Though the graduate training tracks in Evolution and Development will be separate, they will overlap. We are in the process of developing a course that concerns issues at the interface of developmental and evolutionary perspectives, one that will focus on commonalities shared by as well as tensions between them. This course, which will be co-taught, we plan to offer first in fall 2007. As an area, we jointly created a course structure (set of topics, organized week by week, together with provisional readings).

The Evolution and Development area services large undergraduate courses. Developmental psychology is a popular topic for undergraduate students. Enrollments in the Psychology 220 course are some of the largest in the department. Even 300-level courses such as Infancy attain high enrollments (up to 100 students). Another reason we see a need to hire a second developmentalist is that we could then offer more courses in this area at the undergraduate level. After Geoffrey Miller joined the faculty, we added an undergraduate course in Evolutionary Psychology (Psychology 342: Evolution, Brain, and Behavior). For an advanced undergraduate class, the course is a popular one.

Strengths and Weaknesses. A relatively large number of prospective graduate students apply to work in Evolutionary Psychology here. UNM is one of the few universities in the country offering a major concentration in evolutionary psychology. Moreover, partly due to the broad and very strong interdisciplinary representation in evolution and human behavior, UNM offers one of the best programs in the country. Hence, the Evolutionary Psychology area typically gets about 20-25 applications per year, including some exceptionally strong ones—about as many applicants as all other non-clinical concentrations combined. Since taking its first students in 2000, two evolutionary psychology graduate students have received highly coveted NSF Graduate Fellowships and several others have received honorable mention in this competition. Developmental Psychology currently receives few applicants. We hope to see that number increase as the new overarching area is developed.

Future Directions. The Evolution and Development area sees a need to add a developmental psychologist to our faculty, if UNM is to be able to effectively train developmental psychologists in the future. Optimally, this person would be a developmentalist who also works with an evolutionary perspective.

Health Psychology

Historical Perspective. Health psychology is the scientific study of the role of psychology in physical health and illness. It includes research to understand the relationship between psychology and health and the development of psychological interventions to prevent and treat physical health problems. Just this past spring, UNM approved Health Psychology as a new concentration within the Department of Psychology. The development of this program has involved the collaboration of several faculty members including William Miller (recently retired), Harold Delaney, Sarah Erickson, and Bruce Smith. Dr. Smith was specifically hired three years ago as a health psychologist and has served as director of the program for the past two years. The development of the Health Psychology program has involved establishing

collaborative relationships in the Albuquerque community, designing a curriculum, establishing core courses, and establishing the Health Psychology concentration.

Current Status. While all current students interested in Health Psychology now pursue this as an area of emphasis within Clinical, experimental applications are also encouraged. The goal of the health psychology program is to provide graduate students with the coursework, research, and clinical experiences that will enable them to do research or clinical work in health psychology and behavioral medicine. This is accomplished both within the department and through rich collaborative relationships with other UNM departments and medical settings in the Albuquerque community. Students with a Health Psychology concentration must complete three required courses and two electives in addition to the department requirements for psychology graduate students. Up to two of the electives can be taken from the Public Health electives. The required courses are Advanced Health Psychology, Emotion and Health, and Health Psychology Interventions.

Students have opportunities to be involved in research and clinical work in a variety of settings in the Albuquerque community. These include the University of New Mexico Health Sciences Center, Department of Family and Community Medicine, UNM Public Health Program, Center for Alcoholism, Substance Abuse, and Additions (CASAA), New Mexico Veteran's Healthcare System, New Heart Wellness Center, MIND Institute, the New Heart Cardiac Rehabilitation Program, and the Section of Integrative Medicine at UNM. Most of these settings have psychologists, medical doctors, or researchers who have or are supervising and training graduate psychology students. Psychologists who have been most involved have included Anjanette Cureton, Robert Annett, Mark Pedrotty of UNM Health Science and Brian Kersh, Annette Brooks, and Elizabeth Dettmer of the VA. Physicians who have been most involved have included Richard Lueker of New Heart and Brian Shelley of the Section of Integrative Medicine.

By working in these settings and with these professionals, students have the opportunity to learn how psychology addresses both issues of prevention and health behavioral change and issues regarding coping with a variety of illnesses including cancer, chronic pain, heart disease, and diabetes. With regard to research, there are ongoing studies involving students with cardiac rehabilitation, chronic pain, smoking cessation, and cancer. With regard to clinical work, there are ongoing opportunities involving students doing stress management, support and caregivers groups, health behavior change, and individual counseling.

Strengths and Weaknesses. The main strength of the program is the outstanding opportunities for collaboration and for students gaining research and clinical experience in the Albuquerque community. There is a great demand among physicians and researchers at the UNM Health Science Center for more application and integration of psychology in medical settings and for medical problems. Because of this, health psychology students have the opportunity for the broad array of experiences that are necessary for preparation in health psychology and for understanding the complex relationship between behavioral and health.

The main weaknesses of the program are that it is still in the very early stages of development and there are few faculty within the department of psychology who are doing traditional health psychology research. While all of the elements are there for a very strong health psychology

program, there is a need for the greater organization and administrative structure to maintain and initiate all of the collaborative relationships that are possible and necessary for such an integrative concentration. Yet, despite its small size, the Health Psychology area of emphasis within Clinical receives a great many excellent graduate student applications, testimony to the growing national interest in this area.

Future Directions. The future directions include continuing to establish and maintain collaborative relationships with medical settings and supervisors in the Albuquerque community, refinement of the health psychology course work, the greater involvement of current psychology faculty with health psychology students and committees, and the hiring of new faculty whose interests involve health psychology. A major goal of the program is to continue to work to better integrate both the psychological and the medical/health sciences in prevention and treatment of the full range of health problems.

Quantitative/Methodology Psychology

Historical Perspective. The departmental history reflects a long-standing tradition of emphasis on quantitative approaches to the field of psychology. At the time of our last self-study report, five faculty (Harris, Delaney, Amrhein, Gangestad, and Goldsmith) were identified with the quantitative area. Recognition of the strength of the quantitative area was fostered by the wide-spread use in other psychology graduate programs of the multivariate statistics text by Richard Harris (*Primer of multivariate statistics*, 3rd ed., 2001) first published in 1975.

Current Status. While the quantitative area primarily offers coursework to students completing other concentrations within the department, a small number of students (all of whom served as teaching assistants for our first-year graduate statistics courses) have gone on to academic positions with responsibilities for teaching quantitative courses. These include James Grice (Oklahoma State University), Laura Little (University of Washington), and David Trumpower (Marshall University). Three other students completed a Ph.D. in quantitative over the past decade but are not in academic positions (Nick Lucas, Marnie LaNoue, and Birgit Vigil). The area currently has four students specializing in the quantitative concentration (Stacey Hendrickson, Denise Ernst, Chris Radi, and Samara Lloyd).

Strengths and Weaknesses. The tradition of graduate texts in methodology coming from New Mexico has continued with *Designing experiments and analyzing data: A model comparison perspective* (2nd ed., 2004) co-authored by Harold Delaney with Notre Dame psychologist Scott Maxwell. The book has been adopted in prestigious doctoral programs such as the University of Michigan and Harvard University. Although our program like most quantitative programs will not attract large number of graduate students, the current national context is such that our program has an important role to play. The demand for quantitative psychologists nationally in academic departments, as well as in research settings and industry, exceeds the supply. The critical need in this area was highlighted in February of 2006 by the American Psychological Association's step of creating a task force charged with developing strategies for increasing the number of quantitative psychologists (Aiken, 2006). Even if we only are able to produce a quantitative psychologist every other year, we can help be part of the solution to this problem. The major weakness of the area is that with only three full-time faculty involved, two of whom

have affiliations with other areas as well (Goldsmith—Cognition, Gangestad—Evolutionary), graduate course offerings within psychology have been limited. Beyond the first-year core graduate sequence of lecture courses and associated labs in Advanced Statistics and Experimental Design and Analysis, in recent years our offerings have consisted of Multivariate Statistics offered by research professor Teddy Warner, Hierarchical Linear Modeling offered by Delaney, and Analysis of Data offered by Gangestad. Fortunately, the area has a good working relationship with quantitative faculty in other areas, in particular, Educational Psychology and Public Health. Students in quantitative can take course work in structural equation modeling and advanced psychometric theory in Ed Psych, and courses in survival analysis and biostatistics from Public Health faculty. A sequence of advanced quantitative courses has been jointly developed by faculty in Psychology and Ed Psych.

At the undergraduate level, our department is typical in requiring two methodology courses: an introductory statistics course and a research methods course. We also offer an optional junior-level course on analysis of variance (Psych 300). A major challenge is posed by the large class sizes in our required courses. For example, in the current semester our two day-time sections of statistics (Psych 200) have 115 and 119 students enrolled, and our two sections of research methods (Psych 302) have 87 and 89 students enrolled. Thus, a weakness of our undergraduate quantitative/methodology program is that such large class sizes restrict the opportunity for individualized feedback to students on solutions to homework problems or on attempts to write a research report. The problem is most pronounced in the attempt to develop specific skills such as technical writing and use of APA style in a large lecture class. With over 1,000 majors and a only very small proportion going on to pursue graduate degrees in psychology, we wonder if we would serve our students more effectively by adding a lab to Psych 302 to cover such topics which would be required only of selected majors, e.g. B.S. majors.

Future Directions. The greatest need of the area remains the hiring of additional faculty to contribute to the breadth of the graduate program. Faculty with content interests in other areas who have expertise in advanced quantitative methods could also make important contributions to the program. The quantitative methods could include either relatively standard statistical techniques such as meta-analytic methods, log linear modeling, and structural equation modeling, or they could involve more specialized techniques, such as the quantitative methods particularly applicable to neuroscience (e.g., neural network models, dynamical systems, or volumetric/ stereological techniques) or to cognitive science (latent semantic analysis, or clustering methods).

9. Program Comparisons

Systematic surveys of quality in graduate education by recognized academic bodies are relatively infrequent. In one such early survey done by the American Council of Education (Carter, 1971), UNM's Psychology Department ranked 40.5 in the rated quality of the graduate faculty. The National Research Council produces such ratings only about every dozen years, and unfortunately the University of New Mexico administration did not submit data for the most recent survey in 1995. In the previous survey, reported in the *APA Monitor* in March 1983, scores were reported on multiple indices such as rated scholarly quality of faculty and number of published articles in the period 1978-80, with measures standardized to have a mean of 50 and a

standard deviation of 10. In terms of rated scholarly quality of faculty, UNM received a score of 51, that is, just above the mean but high enough to rank us in a tie for 58th (with 6 other institutions) out of a total of 150 research-oriented doctoral programs in psychology. The department's total number of publications at that time merited a score of 45, that is, half a standard deviation below the mean, for a rank of 95.5 (tied with 4 other institutions).

One difficulty with these NRC ratings of productivity is that they do not adjust number of publications for faculty size, which distorts comparisons with schools such as Michigan with more than 100 psychology faculty. An early survey of APA journals that adjusted productivity for faculty size ranked UNM's Psychology Department 41.5 (Cox & Catt, 1977). Ten years later, our department failed to make a list of the top 75 programs in the country in total number of publications, or the top 40 adjusted for number of faculty in the department (Howard, Cole, & Maxwell, 1987). Much more recently, a published analysis of publications and citations gave UNM a composite ranking of 51 (Matson et al., 2005). The study looked at clinical psychology faculty members in 157 APA-approved clinical programs in terms of mean numbers of lifetime publications and citations per faculty member. Matson et al. (2005) also published a list of the top 25 individual clinical faculty nationally (out of well over 1,000 core clinical faculty) and UNM's William Miller ranked 9th nationally (just ahead of Martin Seligman) among all clinical psychology faculty in their composite index of publications and citations, which likely had a substantial impact on our clinical faculty's mean rating.

Arguably, considerably less reliable are the ratings of programs published by U. S. News and World Report. Their ratings are based on replies to surveys sent to two individuals at each of approximately 200 psychology doctoral programs. They reported a return rate of only 23 percent (U. S. News and World Report's "America's Best Graduate Schools 2007," n.d.), asked respondents who are not familiar with a particular school's program not to provide a rating, and computed trimmed means eliminating the two highest and two lowest responses. Thus, mean ratings for a program, even if every rater returning a survey was familiar with it, are based on fewer than 90 responses and means for less well-known programs are almost certainly based on many fewer responses, but the number of ratings is not reported. Perhaps not surprisingly, UNM's ranking using this system has varied widely over the years in the U. S. News and World Report poll. In 1992, UNM's mean rating of 2.9 ranked 79th out of 202 programs. In 1999, the department's mean rating of 3.0 ranked 75th. In the most recent report, based on a survey conducted in 2004, however, UNM's mean of 2.8 ranked 143rd of 209.

The discrepancy between the declining subjective ratings of our program and the fact that publication rates of faculty seem to be at least holding steady if not increasing perhaps merits further comment. Over the past 20 years our department has evolved from one primarily identified as having a strong experimental program in learning and cognitive psychology to a department that, besides its clinical program, consists of programs such as evolutionary, neuroscience, and quantitative, which are less common. A recent survey of individual doctoral programs in psychology nationally by subfield (Norcross et al., 2005) reported on 918 specific programs, with the four most prevalent subfields being clinical (212 programs), developmental (99 programs), cognitive (88 programs), and social (80 programs). By contrast, there were only 49 programs in neuroscience and 14 in quantitative. Although 19 different types of programs were included, evolutionary was not one of the subfields represented in the survey.

It should be noted that the U. S. News and World Report rankings include a large number of non-Psychology departments and programs, and perhaps increasingly so. Hence, though UNM ranked 143rd in the most recent survey, we ranked 75th of Departments of Psychology.

To obtain some additional insight into how the Department compares with other psychology programs, we obtained *H* statistics for each faculty member at four other institutions. This is a relatively new measure, defined as "a scientist has index h if his/her N_p papers have at least h citations each, and the other (N_p-h) papers have no more than h citations each" (Hirsch, 2005). (Roediger (2006) generalized this measure to include chapters and books as well as peer-reviewed papers, *H*. For instance, an individual with an *H* of 10 has 10 papers with at least 10 citations each, but not 11 papers with at least 11 citations each.) By averaging these figures across assistant, associate, and full professors, we can compare accumulated research productivity and impact. (Naturally, H increases over a person's career and, indeed, can increase even after the faculty member is no longer productive.) These data, unlike the U. S. News and World report ratings, are not confounded by department size. We chose as comparison departments that ranked somewhat above us in the U. S. News and World Report rankings. UNM is ranked 143, Utah is ranked 121, Texas A & M University (TAMU) 114, Rice 101, and Georgia 95, and Kansas 84. Table 7 provides program comparison data.

UNM has approximately mean productivity among full professors and greater productivity among associate professors than each of these more highly ranked programs in the U. S. News and World Report. Across programs, productivity across assistant professors varies little. UNM's total is adversely affected by its greater percentage of assistant professors. Indeed, as shown in the last line, the mean for UNM unweighted by numbers within rank (i.e., simply averaged across means for rank) is greater than that for any of the comparison programs.

Table 7. Comparison of peer psychology programs in research productivity, using the h statistic. (Notes: UNM's data includes Barbara McCrady and Kent Kiehl. All faculty are counted as one FTE).

	UNM		Utah		TAMU		Rice		Georgia		Kansas	
Rank	H	N	H	N	H	N	H	N	H	N	H	N
Full	18.3	7	20.0	16	16.4	13	18.0	6	16.7	20	19.9	19
Assoc.	12.3	6	9.2	11	9.8	7	9.5	4	8.8	12	6.2	10
Asst.	5.4	11	3.9	8	5.9	14	4.0	6	5.0	5	5.7	9
Mean	10.9	23	12.9	35	10.9	34	10.6	16	12.5	37	12.9	38
Mean across rank unweighted by N	12.0		11.0		10.7		10.5		10.2		10.6	

In comparison to many other programs, we are also relatively young at the full professor level. Our oldest faculty member is currently 56 years of age. The mean year of Ph.D. for full professors at UNM is 1980. Texas A&M and Georgia have similarly young full professors (mean

years of Ph.D. of 1981 and 1982, respectively) but Utah, Kansas, and Rice have appreciably older full professors (mean years of Ph.D. of 1978, 1974, and 1973, respectively, with some faculty receiving the Ph.D. up to 16 years prior to the oldest UNM full professor). Table 8 adjusts *H* for years of productivity for full professors in two ways. First, we calculated residual *H* statistics across the 82 full professors, with year of publication statically controlled). Second, we calculated *m*, the slope of *H* as a function of years since two years prior to the Ph.D. (estimated to be approximately the first year of publication; i.e., here *m* = *H*/[years since Ph.D. + 2]; see Hirsch, 2005).

Table 8. Mean residual *H* scores, adjusted for year of Ph.D., and mean *m*, change in *H* per year since 2 years prior to the Ph.D., for UNM and comparison institutions.

	Mean Residual *H*	Mean *m*
UNM	.79	.688
Utah	1.13	.632
Texas A&M	-1.11	.656
Rice	-.97	.529
Georgia	-.68	.678
Kansas	.61	.644

Overall, these values do not vary much. As can be seen, however, UNM ranks second in residual *H* (behind Utah) and first in mean *m*.

UNM's relatively low ranking in the U. S. News and World Report survey, in relation to these comparison programs, appears to reflect factors other than mean faculty productivity. We have some "nonconventional" areas of expertise, we are a rather small department, and we are fairly young, both within the full professor rank and in terms of having relatively many assistant professors.

10. Overall Analysis of Department Strengths and Weaknesses

An understanding of the Department's strengths and weaknesses is critical for guiding our future plans. Below we analyze strengths and weaknesses in our program, and outline future objectives. We conclude with a discussion of the strategic choices our Department faces, as we attempt to optimally allocate limited resources to different components of our academic mission.

One rough way to evaluate the strength of our different department areas is through analysis of faculty productivity. We have assessed faculty research in three ways. First, we computed career citation counts. Second, we computed the *H* statistic for everyone. Third, we list total publications (articles, chapters, books) per faculty member in the area for the academic year 2005-2006, as defined in our annual report. These three statistics are shown in Table 9 for each major training area, along with the current proportion of assistant professors.

Table 9. Quantitative Indices of Mean (and Median) Faculty Productivity by Area. (Notes: Each faculty member is counted only once, though some participate in more than one training area. Kent Kiehl and Barbara McCrady are included. Each faculty member is counted as 1 FTE).

Area	N	Subarea	Pubs/yr.	Citations/career	*H*	%Asst.Profs.
Clinical	11		3.0 (2)	414 (201)	9.2 (5)	55
CBB	8		4.1 (5)	783 (507)	11.8 (8.5)	37
		Cog. Neuro. (5)	4.8 (5)	1101 (1185)	14.4 (12)	20
		Cognitive (3)	3.3 (4)	252 (245)	9.7 (7)	68
Ev/Dev	3		6.3 (5)	1332 (578)	14.7 (10)	75
		Evol. (2)	8.0 (8)	1960 (1960)	20.0 (20)	50
		Dvlptl. (1)	3	77	4	100
Quant.	1		3	1375	12	0

In general, the different measures show similar trends. Areas with more assistant professors appear to be relatively weaker. The Evolutionary area is clearly an area of strength, ranking first in each domain, though it should be noted it has just two members. Cognitive Neuroscience is also a clear strength. The Clinical area looks weaker at this point than it would have last year before Bill Miller retired, but this would not affect the median scores for Clinical, which are lower than other major areas.

Another important measure of faculty productivity is grant funding. Table 10 provides details on all current grants to faculty members. Barbara McCrady is not included in this table. All major training areas receive intramural and extramural funding. Research funding is especially significant in the specific areas of cognitive neuroimaging and addictions research.

In the Spring 2005 semester the department submitted a requested report to the College of Arts & Sciences entitled "Psychology's Plan for Distinction." Dean Reed Dasenbrock (now UNM's Provost) noted in his memo requesting this report, "[UNM's] resource base is such that while we can compete, we cannot compete broadly, i.e., to try to be good in every discipline and in every aspect of every discipline. The search for distinction is always a search for comparative advantage—where are we strong and where can we be strong?" Below we summarize and update the sections of this report most relevant for describing our perceived strengths and future directions.

We currently have national or international distinction in three areas, with each area's strength drawing, in its own way, on other resources in the larger university community.

Cognitive Neuroimaging. Currently, seven faculty (four clinical) incorporate neuroimaging techniques into their research programs: Claudia Tesche, Vince Clark, Ron Yeo, Bruce Smith, Kristina Ciesielski, Akaysha Tang, and Steve Verney. Tesche and Clark were hired as senior faculty in highly competitive national searches. Tesche, Yeo, and Clark have each received more than 1000 citations in scientific journals for their work. The MIND Imaging Center (MIC), which is located on UNM's campus is a collaboration between the MIND Institute and UNM. It

has recently undergone a major expansion and renovation to become a world-class facility. The MIC now has two research dedicated human MRI systems, and state of the art magnetoencephalography (MEG) and electroencephalography (EEG) systems, as well as offices for 90 people, computer databasing and data processing facilities, and conference and training facilities.

We compared UNM's cognitive neuroimaging program to several other nationally visible programs in cognitive neuroscience based in departments of psychology at state universities with an emphasis on neuroimaging: Rutgers, University of Oregon, University of Georgia, and SUNY Stony Brook. The overall citation rate for our faculty is substantially higher than for most of these institutions. Oregon, while similar in size, has more senior faculty, and has supported its imaging program to a greater extent, with seven faculty out of 30 doing some work on imaging, and an imaging center with a research dedicated MRI system located within the department of psychology. With sufficient support, our imaging program could reach the same stature.

Good training in cognitive neuroimaging requires a solid background in basic experimental psychology. Moreover, synergies between basic experimental areas and neuroimaging are possible. Since the original report on Distinction was submitted, we have made several very important hires. In the fall of 2006 Drs. Eric Ruthruff and Derek Hamilton were added to our faculty as assistant professors. Dr. Ruthruff is a cognitive psychologist with expertise in attention, and Dr. Hamilton is a cognitive neuroscientist with expertise in learning and memory. In Spring 2007, the Department will add Kent Kiehl (currently at Yale Department of Psychiatry and Olin Neuropsychiatric Institute) as an Associate Professor. Dr. Kiehl studies the neurobiology of psychopathy, conduct disorder, and substance abuse, most often utilizing fMRI technology. He is funded by four NIMH grants. He was hired under a special agreement with the MIND Institute. MIND agreed to cover Dr. Kiehl's full salary for three years and to continue that funding as long as MIND's federal support remained constant. Dr. Kiehl will admit graduate students, participate in all aspects of the Psychology Department's mission, and teach one course per year. With these hires we have clearly strengthened this area since the original submission of our report.

Addictions and Substance Abuse. Over the past several years, three full-time faculty, Bill Miller, Jane Ellen Smith, and Vince Clark, have worked extensively in the area of addictions and substance abuse. Sarah Erickson has recently begun work in the area as well, serving as the PI on a federal grant with addictive pregnant mothers and newborns. (Clark, who has an R01 funded by NIDA to study the relationship between brain function and relapse in abstinent cocaine addicts, is also in the Cognitive Neuroimaging area; see comments above.) Smith has received two NIH grants to study substance abuse in homeless populations and has published extensively in the area as well, including a first-authored book published last year.

Table 10. Current Faculty grants.

NAME	AGENCY	DATES	AMOUNT	TITLE
Karin Butler	UNM Research Allocation Committee	10/1/06-9/1/07	$2,235	Cause of Age-related Increases in False Remembering
Vince Clark	NIDA, NIH Principal Investigator	10/1/01-6/30/07	$1,425,000	Neural Functional in Cocaine Dependence and Relapse
Vince Clark	NIMH, NIH Co-Investigator.	9/1/05-8/30/08	$1,125,000	CRNCS: Bayesian Analysis of Neural-Behavioral Interactions in Mental Illness.
Vince Clark	NSF Principal Investigator	9/1/04-8/30/06	$60,000	fMRI Imaging of Learning Strategies.
Harold Delaney	Metanexus Inst. Science and Religion	6/1/2003 - 10/1/2006	$150,341	Antecedents of transformation: Spiritual formation
Sarah Erickson	UNM Pediatrics	7/1/2006-6/30/2007	$5,000	Facilitating School Reintegration for Children with Acute Lymphoblastic Leukemia
Sarah J. Erickson	UNM GCRC	1/2004-present	personnel	Toddler Mental Health and Development Study
Sarah J. Erickson	UNM Resource Allocation Committee	7/2001-present	personnel	Adolescent Cancer Survivor Quality of Life Outcome Study
Sarah J. Erickson	UNM Pediatrics	7/2001-present	$2,250	Adolescent Cancer Survivor Quality of Life Outcome Study
Steven Gangestad	NSF Principal Investigator	2002-2006	$340,882	Conflicts of interest, fluctuating asymmetry, and the MHC
Tim Goldsmith	Federal Aviation Administration	5/2/00-12/31/06	1,488,500	Training and Assessment of Aircrew Sills:
Derek Hamilton	NIAAA/NIH	April 2006- March 2008	394,000	Prenatal ethanol, social behavior and prefrontal cortex
Gordon Hodge	Washington University	2006-2010	$673,978	Test Enhanced Learning
Kent Kiehl	NIMH	12/15/04-12/14/08	$1,192,320	ERP and fMRI of emotion and cognition in psychopathy
Kent Kiehl	NIMH	07/01/05-06/30/10	$1,542,750	Abnormal functional connectivity in psychosis
Kent Kiehl	NIMH	02/01/06-01/31/11	$1,815,000	Neurocognitive assessment of 'Callous' Conduct Disordered youth
Kent Kiehl	NIDA	10/01/05-09/30/10	$2,942,529	Neurocognitive changes associated with behavioral treatment in cocaine abusers
Theresa Moyers	Department of Defense	2002 - 2007	$1,336,262	Motivational Interviewing to Prevent Alcohol Abuse.
Theresa Moyers	NIAAA	2002 - 2007	$692,317	How does Motivational Interviewing Prevent Alcohol Abuse?
Theresa Moyers	NIDA	2007 - 2010	$2, 088.698	Testing Theory-Based Training in Motivational Interviewing.
Bruce Smith	UNM Resource Allocation Committee	2005-2006	$3,900	Examining the Role of Stress, Emotion, and Pain in Fibromyalgia
Bruce Smith	UNM Cross Campus grant	2005-2006	23,900	Examining the Effects of Emotion on Pain-Related Neural Activity in Fibromyalgia
Bruce Smith	Sandia National Lab	2006	$65,000	The Effects of Angry and Fearful Emotion States on Decision-Making
Kamilla Venner	NIAAA K23 AA014207	9/02 - present (8-07)	670,344	Cross-culturally appropriate treatment for Native Americans
Kamilla Venner	NIAAA U01 AA014926	1/05 - 8/06	30,000	Adapting Motivational Interviewing in Partnership with Native Americans
Kamilla Venner	NIDA R01	pending	1,599,234	Zuni MI/CRA Project
Steven P. Verney	NIA through U Colorado HSC	1/1/06 to 12/31/07	$50,000	Native Elders Research Center Fellowship
Steven P. Verney	NIA through U Colorado HSC	1/1/07 to 12/31/07	$10,000	The Nature of Neurocognitive Impairment Due to Alcohol in Older American Indians
Steven P. Verney	UNM Pediatrics	4/1/06 to 3/31/07	$15,000	Information processing efficiency and executive function in fetal alcohol spectrum
Steven P. Verney	Defense Advanced Research Projects, Dept of Defense	1/1/06 to 12/31/06	$104,646	Effect of palm cooling with negative pressure on heat balance during exercise
Steven P. Verney,	NIAAA through UNM	4/1/05 to 6/30/06	$20,000	The Nature of Neurocognitive Impairment Due to Alcohol in Older Ethnic Minorities
Akaysha Tang	Sandia National Lab	Feb 2006-Sept 30	$150,000	Construction, Validation, and Extraction of human "Brain Prints" from High Density EG
Akaysha Tang	Sandia National Lab	Oct, 2006-Sept., 2007	$200,000	Predicting decision making using human "Brain Prints"

Again, UNM has additional resources that enhance its national standing in this area. CASAA is UNM's second largest research center. Established in 1989, over $40 million in extramural grants and contracts has been generated by 20 different CASAA investigators. Currently, eight research faculty of the Department of Psychology are conducting research at CASAA. Several (e.g., Scott Tonigan, Robert Meyers) have international reputations. In addition to its research function, CASAA has always been a major training facility. Sample training programs have included: Minority Career Opportunities in Research (undergraduates), NIAAA/NRSA (graduate students), the APA-approved Southwest Consortium (clinical internship), and the NIAAA/Faculty Development Program (Psychology Faculty with addiction interests).

We compared UNM's addictions and substance abuse program with similar specialty training programs within several other nationally visible Clinical Psychology Programs (e.g., Rutgers University, University of Washington, and University of Missouri at Columbia). A comparison of citation rates across the various universities shows that UNM holds a very respectable second place position, despite not including Dr. Clark's work.

Dr. Miller retired in August of 2006. At the same time, however, the Department hired Dr. Barbara McCrady from Rutgers University as a Professor. She will start at UNM in August, 2007, and will also serve as Director of CASAA. Dr. McCrady is a prolific researcher best known for her research on substance abuse treatment, often from a couples/relationship perspective. She will admit graduate students, participate in all aspects of the Psychology Department's mission, and teach one course per year. In 2006 we will undertake an open rank search for a researcher in the area of addictions. Thus, while the loss of Dr. Miller is keenly felt, we are confident that our addictions area will remain a strength with these new hires.

Evolutionary Psychology. Two faculty specialize in evolutionary psychology, Steve Gangestad and Geoffrey Miller. The work of Gangestad, the senior member, has received over 3000 citations. In addition, two other faculty have mentored (or co-advised) evolutionary psychology students, Ron Yeo and Michael Dougher, and seven faculty in other departments provide key interdisciplinary training. Despite its small size within the department, the evolutionary psychology program is considered one the best in the nation. Evolutionary psychology is an inherently interdisciplinary field, with strong ties to Biology and Anthropology. UNM's program is particularly well known because, to a degree unparalleled by any other North American institution, it has strong representation in all three departments.

We compared the citation rates of UNM's evolutionary psychology faculty to that of other major programs in evolutionary psychology: Texas, UC-Santa Barbara, UCLA, Arizona, Arizona State, McMaster, Harvard, Michigan, and Penn. UNM ranks well. Again, however, because evolutionary psychology is interdisciplinary and UNM has broad representation, comparison of psychology faculty alone underestimates UNM's strength. Three years ago, the broader Human Evolutionary Behavioral Science (HEBS) group at UNM conducted a self-study. Comparisons of citation and publication rates showed that UNM is clearly well ahead of any competitor in North America, including Harvard, Texas, UCLA, UC-Santa Barbara, Rutgers, and Michigan. In recent years, more students have applied to the evolutionary program than any other non-clinical area in the department, largely because UNM is one of the few places in the country that offers training

in this field. We receive approximately 20-25 applications per year. Many applicants have excellent test scores and we have competed well with other institutions to attract the best students. Of 11 students admitted in the past three years, six accepted and, of these, most declined offers from major competitors (e.g., UCSB, Texas).

In September 2006 Dr. Gangestad was awarded UNM's highest academic title, Distinguished Professor. After discussion with the College of Arts and Sciences, and colleagues in Anthropology and Biology, Dr. Gangestad will form and lead a new academic center, the Center for Human Evolutionary Studies. He has been allowed several course releases to get the new Center off the ground and seek external funding. Also, the Anthropology Department now has a faculty search underway for an assistant professor in this interdisciplinary area. Thus, we feel confident we have strengthened this area of distinction.

Research area weaknesses. All of our research areas would benefit from additional expertise in quantitative methods. Currently, we have only a single faculty member (Harold Delaney) with a primary affiliation in that area. We also have a great need for better information technology infrastructure, including shared hardware and a department programmer. The Department's only staff member with expertise in computer technology is overwhelmed by demand, is not a programmer, and has many other duties to perform. Also, having so many junior faculty may adversely affect the number of grant proposals from the Department. A clear challenge before us is effective mentoring of our junior faculty.

Graduate training. Our graduate program possesses several strengths. We get a fairly large number of very good applicants, and increasingly so. The GREs of out incoming classes of graduates are generally on the rise. We have been able to fund graduate students with TA positions or research positions, so long as they remain in good standing. Students in several areas (notably, brain imaging through the MIND and substance abuse research through CASAA) have excellent research opportunities.

Our program also has several weaknesses and faces challenges. Many of our students take too long to graduate. One contributing factor may be structural aspects of the program. We've found that students take a long time to complete their comprehensive exams and tend to put other activities on hold for several months while they do so (a reason two areas recently changed the nature of their comprehensive exams). Another factor possibly contributing to this weakness is that too many of our students rely on TA support, rather than research grants, for funding. TA support can provide valuable time in the classroom but also takes time away from research and training activities. Though we have a good number of productive graduate students, we would like to see our students publish at a higher rate than they now do. UNM provides some forms of support for student travel and research, which students can apply for (e.g., Student Research Allocations Committee [SRAC] awards, RPT awards), but the university is not rich compared to many other large public institutions and, hence, we would like to see our students' travel to conferences and research better supported.

Undergraduate training. The most obvious strength in our undergraduate program is our ability to effectively teach huge numbers of students. However, it is also important to note that Psychology has a well deserved reputation for teaching excellence. These faculty that have won major awards for teaching excellence (UNM's Teacher of the Year, Regent's Award): Steven Alley (lecturer), Harold Delaney, Michael Dougher, Gordon Hodge, Jane Smith, and Ron Yeo. Our Honors Program is one of UNM's "jewels," providing an incredibly rich learning

opportunity for select juniors and seniors. Each year, the Psychology Department is voted either the best or second best department at UNM in the informal poll conducted by the student newspaper, the *Daily Lobo*.

Our specific weakness at the undergraduate level is just as obvious. With more than 50 majors plus minors per FTE, we simply cannot provide the sort of hands on training our students need. Another weakness concerns outcomes assessment. We have proposed a modest testing program that will help us rigorously evaluate student learning. However, this requires a substantial commitment of time and money from very limited department resources. We believe that the University administration should coordinate and fund these local department efforts.

11. Strategic Choices

All academic departments face a variety of difficult strategic choices in determining how to allocate scarce resources to the diverse components of its mission. The choices made help define the character of the department. Reflecting our philosophy of governance, the entire department, and especially, area committees engage in an ongoing debate about resource allocation. We would benefit from input from the review team on these matters. Here are some of the most dynamic tensions facing us at this time:

Upper Division vs. Lower Division Undergraduate Classes. Undergraduates clearly benefit from smaller classes, as they allow greater development of oral and written communication skills. Most likely, smaller classes also contribute to a greater sense of academic community, which in turn may enhance academic retention rates. We believe it is especially important for psychology majors to experience smaller classes. Obviously, our resources do not permit small undergraduate classes across the curriculum. We have chosen to offer very large sections of Introductory Psychology in order to allow some smaller upper division classes.

What is the cost of very large Intro classes? Perhaps this choice leads to fewer Psychology majors, as students are not as intimately engaged as they might be in smaller classes. But, as we have more majors than any other academic department, and indeed, as many as we can now handle, we are willing to bear this potential cost. Perhaps students feel less connected to their instructor and other students, potentially increasing university drop-out rates. However, the manner in which we teach Intro (under the skilled direction of Gordon Hodge) was specifically designed to structure the learning experience of new students so as to help them pass the course. As detailed elsewhere, these efforts have been very successful.

After Intro, our students move on to a series of rather large 200 level classes (e.g., Social, Statistics, Developmental, Cognitive, Brain and Behavior, Learning and Memory). At this level we have recently begun to offer some additional small discussion sections. Our hope is that these begin the process of getting students more intimately involved with our department and the larger academic community, and also provide for the development of written and oral communication skills. Preliminary data indicate that students offer higher course ratings when a class is linked with a discussion section and they also obtain slightly higher grades. However, these efforts utilize quite a few of our scarce teaching assistant positions.

Although we have many large upper division classes, we are at least able to offer some intimate classes that allow more discussion and writing opportunities. We are very proud of our Honors sequence for select juniors and seniors, but size constraints limit this opportunity to all but a very small portion of our majors. A particular concern is how well we teach scientific writing skills to our majors who are not in the Honors program.

Graduate vs. Undergraduate Education. Mentoring graduate students and teaching small graduate seminars place a great burden on our faculty, but these are clearly among our most highly valued activities. A vibrant graduate program is essential for our research mission. Conceivably, we could offer fewer graduate seminars, or admit fewer graduate students, and shift resources to our undergraduate program. However, the sheer number of our undergraduate majors/minors and the total student credit hours generated are such that a modest shift of faculty resources from graduate to undergraduate education would have relatively little impact. Further, reduction in the size of our graduate program, with attendant impact on our research mission, would hamper the ability of undergraduates to gain valuable experience in faculty research labs. Nonetheless, this is an important question: have we optimized the balance of resources devoted to graduate vs. undergraduate education?

Breadth vs. Depth in Coverage of Subfields within Psychology. As a department of modest size in a university of modest resources, we inevitably confront the question of how we should try to cover the many interesting and important subfields in psychology. On the one hand, we could attempt to hire faculty so as to have experts in each of the major domains of the field (e.g., social, developmental, personality, I/O, etc). Or, we could choose to emphasize a few areas in which to specialize. Our undergraduate teaching mission would probably benefit from the former strategy, while our graduate program might benefit from the latter.

This issue has been discussed at many points over the past couple decades. We have chosen to identify a rather small number of areas in which to develop expertise. In selecting which areas to foster, we have tried to identify historic strengths of the department, external resources upon which we could capitalize, the nature of other academic programs with whom we compete for graduate students, and our vision of the future of the field.

As described earlier, we have identified three important strengths in the Department. We aim to maintain each and broaden them so as to facilitate the development of "adjacent" academic areas. These are (1) Addictions, largely within our clinical area, (2) Cognitive Neuroimaging, and (3) Evolutionary Psychology. In both relative and absolute terms, we believe these areas are genuine strengths. We can compete effectively with other top programs in each area. Further, we can build bridges from these programs to other resources in New Mexico. The Addictions area is intimately linked with CASAA and the Medical School (especially, the departments of Psychiatry, Neuroscience, and Public Health). Our Cognitive Neuroimaging area enjoys numerous collaborative relationships with colleagues in the MIND Institute, and has strong links with the Departments of Neuroscience, Electrical and Computer Engineering and Computer Science. We now have important relationships with both Sandia and Los Alamos National Laboratories, and these ties are likely to grow. The Evolutionary Psychology area builds on close relationships with internationally recognized leaders in UNM's Biology and Anthropology departments.

The potential cost of this specialization is deficient coverage of traditionally important domains of psychology. Of particular concern is our lack of coverage of social psychology (we have no traditional social psychologists on our faculty) and developmental psychology (we have one developmental psychologist). Have we struck the right balance between fostering areas of excellence and covering our bases?

12. Future Directions and Opportunities

Diversity Issues. The Department of Psychology is committed to enhancing educational opportunities for minorities. Several new initiatives have begun, or are pending, in service of this goal.

At the undergraduate level, we offered a new course during the summer of 2006 "Minority Careers in Mental Health." It was supervised by Steve Verney, and taught by graduate students who are members of our Multicultural Committee. The goal was to recruit undergraduates at the beginning of their college career (the only prerequisite was that they had taken Intro) and provide information on advanced training, applying to graduate schools, and the broad range of employment opportunities in mental health settings. Both informal and formal course evaluations indicated that the course was very successful. We plan on offering this course again next summer.

Recently, the Robert Wood Johnson Foundation (RWJF) requested a proposal from UNM to establish a premier national Center for Health Policy at UNM. The stated overarching goal is "to establish a Center that will be the voice for Hispanics, Native Americans and other minorities in discussions of health policy." UNM responded with a comprehensive 18 million dollar proposal ($8 million in an initial endowment and $10.5 million in grants over 5 years) that received extremely positive reviews. We are extremely please to report that UNM was awarded this major grant at the end of 2006. The Department of Psychology is one of seven identified departments that will have a direct role in the RWJF funded center. The proposed center will have a significant impact on the recruitment and retention of ethnic minority graduate students in psychology. Psychology students interested in public health policy will have several sources of scholarships and training opportunities available including pursuing joint degrees, dissertation or research funding, graduate student scholarships, student exchange programs, and post-doctoral fellowships. The department already has graduate students that will be top candidates for the center's resources if and when they become available. The RWJF proposal also includes funding for new faculty, with a focus on ethnic minority issues in public health policy. One strong possibility would be an interdisciplinary minority faculty with a health psychology interest that would add to the department's diversity. Existing psychology faculty will also be able to apply for pilot funding for research projects with a public health policy component. An additional benefit of this center will be increased interaction, research, and training for psychology students and faculty with other departments active in the center. A nationally recognized premier center such as this will also assist in undergraduate training. As one of the largest undergraduate departments, Psychology is poised to be a prominent source of graduate applicants for this and other related graduate programs.

Further, the Department was contacted by the American Psychological Association (APA) in Washington, D.C. regarding the Indians into Psychology Program (InPsych). This is a program funded through the Indian Health Service that aims to increase the number of American Indians with doctoral degrees in psychology to serve in Indian country and help address the considerable disparity that exists in the psychological well being of American Indians relative to the general population. APA is interested in collaborating with the University of New Mexico to establish such a program at our University.

The ultimate goal of the program is to send trained American Indian clinical psychologists back to reservations to meet the disproportionate needs of the American Indian population. American Indians, compared to the general population, tend to underutilize services, experience higher therapy drop-out rates, are less likely to respond to treatment, and have negative opinions about non-Indian providers. The suicide rate for American Indians is 60% higher than the general population. The highest suicide rate is found in American Indians ages 15-34, compared to ages 74 and older for the general population. Therefore, the InPsych Program addresses four major issues: 1) too few mental health professionals in Native American communities; 2) too few Native American mental health professionals; 3) substandard availability of quality mental health services in Native American communities; and 4) insufficient cross-cultural training in mainstream psychology.

If the effort is successful and an InPsych program is established at UNM, the University will receive funding of approximately $300,000 a year from the Indian Health Service. Once established the program tends to be relatively permanent and will not require an annual lobbying effort. Furthermore, the APA is willing to help lobby for the project in Washington at no charge to the University.

Currently, 13.5% of our clinical graduate students are ethnic minorities, as compared to 11.4% of our experimental students. We can do better. At the graduate level, we have recently (1) increased travel funds for recruiting minority applicants to visit our campus; (2) funded trips for graduate students and faculty to attend meetings for the express purpose of recruiting more minority applicants; (3) established a new Multicultural Committee that has provided input to both general faculty and graduate students; (4) revised our procedures for screening new applications to ensure that all minority applicants are examined by multiple faculty; and, (5) provided significant financial assistance to graduate students seeking national funding (last year one student was awarded a APA Minority fellowship and another was awarded a Ford Foundation fellowship).

Endowments and Development. The Psychology Department just recently received a major gift from the estate of Dr. Robert Grice, a former professor. For 2006, we shall receive $178,000 in unencumbered funds, with another $250,000 to arrive in 2007. We will establish three endowed funds to help us achieve important objectives. One ($150,000) will help fund graduate student tuition, graduate student travel, and minority student recruitment. The other two funds will enhance our efforts to develop more external funding. One will be devoted to establishing a colloquium series bringing in 4-5 speakers per year. Our greatest priority will be of bringing in potential collaborators for our current faculty. The third fund will be aimed at research enhancement. The most important goals this fund will be to provide matching funds and

facilitate the development of projects that engage more than one lab or more than one academic department.

We have also recently established a Department newsletter (see Appendix C) to improve communication with our alumni and the larger UNM community. We hope this will enhance alumni donations to the department.

Community Outreach. An important part of UNM's strategic plan concerns "Public Responsibility." The Psychology Department is proud to contribute to this goal in important ways. Though our faculty are engaged in diverse types of community service, the major Department contribution is through the Psychology Department Clinic and Agora (see section on Facilities and Resources). The Clinic is oriented to providing services within the walls of our offices but also getting psychology doctoral students out into the community to provide care in various settings. We encourage (and model) a life-long commitment to contribution to the community beyond research and practice.

The Clinic has enormous potential for growth, though it is hampered by severely inadequate facilities. This deficiency was noted in our prior academic review, and in every one of our APA clinical psychology accreditation reports. The current plan favored by the administration is to request federal funding for a remodeling and expansion of Logan Hall. Our goal is to bring all aspects of our community outreach efforts under a single roof, adjacent to Logan Hall. In this new facility, we would like to include space for our clinical faculty that conduct research with patient populations. Not only would this facilitate our ability to train students in the clinical science model, but it would free up valuable space in Logan Hall for experimental research labs.

We are now implementing new ways to engage undergraduates in community service. This fall we started an advanced two semester undergraduate course in Refugee Mental Health taught by Jessica Goodkind, a community psychologist in the Department of Pediatrics. Students work closely with African refugees in the Albuquerque area, while engaged in relevant coursework on PTSD, acculturation, and related topics. We also have submitted a proposal to offer course credit for the student volunteers that cover the suicide prevention hotlines at Agora. If they volunteer for 500 hours of work, and take appropriate coursework, they will be eligible for certification in crisis intervention.

Personnel. Though we realize it is always difficult to add new faculty lines to an academic department, we also believe there is a strong case to be made in Psychology. First and foremost, we are a successful department in terms of undergraduate teaching, graduate teaching, and research. New faculty in Psychology will likely succeed and have an impact on UNM. Second, targeted hires will greatly enhance both our teaching and research missions. As noted earlier, we hope to add a developmental psychologist, hopefully with an interest in evolutionary psychology. We also need another quantitative psychologist, though their primary affiliation may be with one of our other training areas.

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