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John N. Sievers

James A. McCormick

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1975 INTERNATIONAL BALLOON FESTIVAL

AN ESTIMATE OF THE IMPACT
ON THE ALBUQUERQUE ECONOMY

Bureau of Business & Economic Research - Division of Government Research

by

John N. Sievers
Assistant Economist

James A. McCormick
Assistant Economist

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INTRODUCTION

The Fourth Annual Albuquerque International Balloon Festival and the 1975 World Hot-Air Balloon Championship were held in Albuquerque from October 3 through October 12, 1975. This year marks the second time that the World Balloon Championship has been held in Albuquerque and establishes the City as one of the main ballooning centers of the world. The size of the annual balloon festival has grown from year to year, with the 1975 occasion attracting 162 participants from all parts of the United States and from many nations.

The first manned free balloon was invented by the Montgolfier brothers of France. It was flown over a distance of 5 1/2 miles attaining altitudes of up to 3,000 feet. Not until 1963, however, did ballooning become practical as a popular sport. This popularity came with the advent of portable heating apparatus and the development of a material which permitted the craft to be used many times over. Today's modern hot-air balloon is typically made of rip-stop nylon and has a diameter of 50 feet and a height of 70 feet when inflated. Holding an average of 56,000 cubic feet of air, these balloons have attained altitudes of over 36,000 feet, though this is indeed rare. The air is heated by means of burners fueled by liquified propane which shoots out flames up to eight feet high. These are used by the pilot to control his rate of ascent or descent. The sport of ballooning is increasing in popularity nationwide, and especially in Albuquerque where in one year membership in the Albuquerque Aerostat Ascension Association increased from 30 to 140.^{1/}

^{1/} Third Annual Albuquerque International Balloon Fiesta Official Program.

With the greatest number of hot-air balloons per capita of any major city in the world, holding the world balloon championships in Albuquerque is appropriate. Not only does the festival give Albuquerque worldwide publicity, but it also provides substantial input into the Albuquerque economy. The Bureau of Business and Economic Research, at the request of the coordinators of the 1975 International Balloon Festival, undertook a study to determine the size of this input.

ANALYSIS OF SURVEY RESULTS

In order to perform this study, three separate sample surveys were conducted. These surveys covered (1) balloon race participants, (2) occupants of hotels and motels in the area, and (3) Albuquerque residents via telephone interviews. A variety of questions was asked, with particular emphasis placed on daily and total expenditures of persons who were in Albuquerque either to watch or participate in the event. Table I shows the wide variety of locations from which the participants came.

Due to time limitations on the part of both the balloonists and interviewing personnel, contacting all balloonists was impossible. The origins of each foreign balloonist are known, but the information in Table I pertaining to U. S. balloonists applies only to those balloonists surveyed. It is known that out of the entire field of 162 balloonists 19.1 percent came from Albuquerque, 20.9 percent came from foreign countries and the remaining 60.0 percent came from areas of the United States outside of Albuquerque.

The festival attracted not only participants from many parts of the country and the world, but it also attracted a substantial number of spectators from points throughout the United States. Table II shows the wide

TABLE I
PARTICIPANTS BY STATE OR COUNTRY OF RESIDENCE

<u>Origin Within the U.S.</u>		<u>Origin Outside the U.S.</u>	
<u>State</u>	<u>% of Participants Surveyed</u>	<u>Country</u>	<u>% of Participants Surveyed</u>
Arizona	1.4	Australia	3.9
California	10.4	Austria	1.4
Colorado	2.8	Canada	5.6
Idaho	1.4	Denmark	1.4
Illinois	3.9	England	6.5
Kansas	3.9	Finland	1.4
Michigan	2.8	France	5.6
Minnesota	1.4	Holland	1.4
Missouri	1.4	India	1.4
Nebraska	1.4	Ireland	1.4
New Jersey	3.9	Japan	1.4
New Mexico	5.6	New Zealand	2.8
South Dakota	3.9	Norway	1.4
Texas	6.5	Spain	1.4
Washington State	2.8	Sweden	5.6
		West Germany	3.9
TOTAL	53.5	TOTAL	46.5

Source: Survey of 72 participants.

TABLE II
SPECTATORS' PLACE OF RESIDENCE

<u>State of Origin</u>	<u>% of Spectators Surveyed</u>
California	7.6
Colorado	13.1
Florida	13.1
Georgia	7.6
Kentucky	7.6
New Jersey	7.6
New Mexico	14.1
Oklahoma	7.6
South Carolina	7.6
Texas	13.1

Source: Survey Data.

range of states from which spectators came. All data referring to spectators were compiled from two surveys -- 1) a random telephone survey of 405 households in the Albuquerque area, and 2) a tabulation directed towards occupants of hotels and motels in the area that generated 141 responses.

It must be acknowledged that because of limitations inherent in a survey of this type, the states listed may not constitute all of those from which spectators came; but it may be correctly assumed that the great majority of visitors came from New Mexico and neighboring states. However, Table II does point up the nation-wide appeal that the festival apparently holds for spectators as well as participants.

In addition to determining the number and origins of spectators, the telephone survey was also intended to determine the attitude of the residents of Albuquerque toward the Balloon Festival. Of the households surveyed 71.2 percent knew that the races were being held and 46.1 percent indicated that they planned to attend the races. A major question surrounding the festival pertains to possible sources of funding and, in particular, the question of funding from the City. Table III shows the attitudes of Albuquerqueans toward the possibility of the City contributing funds for the staging of the event.

For the 1975 festival the needed funds (approximately \$80,000) were raised from the citizens of Albuquerque. Of the households surveyed, 56.6 percent knew that the funds were raised in this manner. As to the question of the city contributing funds to the staging of the event, 58.8 percent of all respondents and 72.3 percent of those who knew of the source of funding for this year's festival felt the city should assume some of the financial responsibility.

TABLE III
PUBLIC OPINION AS TO FUNDING

	<u>% of Responses</u>
Respondents who feel City should contribute funding	58.8
Respondents who feel City should not contribute funding	28.6
Respondents who had no opinion as to source of funding	<u>12.6</u>
	100.0

Source: Survey Data.

ANALYSIS OF THE ECONOMIC IMPACT

In order to determine the impact of the festival on the Albuquerque economy, estimates of expenditures by the following three groups were made and later the results were combined to obtain a total expenditure figure:

1. Participants
2. Spectators staying in hotels and motels
3. Spectators staying in private homes

PARTICIPANT EXPENDITURES

At the completion of the interviewing period, the collected data was compiled and analyzed for the three groups through established computer techniques. Table IV summarized the data pertaining to expenditures by participants. (In later portions of the study expenditures by the two groups of spectators will be subjected to similar analysis.) At first glance, it may appear that the daily expenditure figure of \$180.10 per party and the length of stay expenditure figure of \$480.29 per party are relatively high. However, as noted in Table IV, the mean party size (the participant and any guests) was 4.1 so that the relative expenditure figures account for not only the participant but other persons in the party. When viewed in this light, these figures are, in fact, reasonable.

Using the data presented in Table IV a total participant-expenditure figure was calculated. Excluding Albuquerque residents, the number came to 131 participants. The rationale behind the exclusion of those participants from Albuquerque is that any expenses they may have incurred are paid for with money that comes out of the Albuquerque economy. Consequently, the net effect in terms of impact on the local economy is zero, since money is merely being taken out (in the form of income received) and then being put back in (in the form of expenses incurred).

TABLE IV
PARTICIPANT EXPENDITURES

<u>Item</u>	<u>Mean Expenditure (in dollars)</u>
DAILY EXPENDITURES	
Lodging per day per party	62.91
Food and drink per day per party	65.10
Miscellaneous items per day per party	52.09
Daily expenditures per participant party (P_{de})	<u>180.10</u>
TOTAL OTHER EXPENDITURES	
Propane for entire stay	56.30
Transportation for entire stay	62.09
Balloon repairs for entire stay	65.54
Other items for entire stay	<u>296.36</u>
Expenses incurred over entire length of stay per participant party (P_{te})	480.29

Mean party size = 4.1

Source: Survey Data.

These 131 participant parties (P_p) stayed an average of ten days in Albuquerque or 1,310 participant days (P_d). Therefore, to compute daily expenses the relevant calculation would be:

$$\text{Participant days } (P_d) \times \text{Participant daily expenditures } (P_{de}) = \text{Total Daily Participant Expenditures}$$

$$\text{or, } (1310) \times (180.10) = \$235,931.00$$

In addition to those expenses incurred on a daily basis there are certain costs which are met as the need arises (e.g., propane, transportation costs, repairs, etc.). In Table IV these costs are designated by P_{te} or expenses incurred over entire length of stay per participant party. The following calculation is used to obtain an estimate for length-of-stay expenditures.

$$\text{Participant parties } (P_p) \times (P_{te}) = \text{Total participant expenses incurred over length of stay}$$

$$\text{or, } (131) \times (480.29) = \$62,918.00$$

Total participant expenditures are equal to the sum of daily expenditures and length-of-stay expenditures. The calculation used in arriving at a total participant-expenditure figure is shown below:

Total Daily Expenses	\$235,931.00
Total Length of Stay Expenditures	<u>62,918.00</u>
Total Participant Expenditures	\$298,849.00

SPECTATOR EXPENDITURES

Total spectator expenditures equal the sum of expenditures for that group of spectators staying in hotels and motels and those spectators staying in private homes. Table V contains the data needed to calculate an expenditure figure for spectators staying in hotels or motels, assuming that each occupied room represents one spectator party. The following variables are used in the calculation:

TABLE V
EXPENDITURES OF SPECTATORS STAYING IN HOTELS OR MOTELS

<u>% of Hotel/ Motel Rooms Occupied by Spectators</u>	<u>Number of Hotel/ Motel Rooms in Albuquerque *</u>	<u>Number of Rooms Occupied by Spectators</u>	<u>Mean Number of Days in Albuquerque</u>	<u>Avg. Amount Spent Per Day Per Party</u>	<u>Mean Party Size</u>
5.0	4451	223	8.0	\$96.00	2.4

* Source: Albuquerque Chamber of Commerce, *Guide to Hotels and Motels in Albuquerque*.

Source: Survey Data.

TABLE VI
EXPENDITURES BY SPECTATORS STAYING IN PRIVATE HOMES

<u>% of Households with Spectator Guests</u>	<u>Total Number Households in Albuquerque^{1/}</u>	<u>Total Number Households with Spectator Guests</u>	<u>Mean Number Days in Albuquerque</u>	<u>Avg. Amount Spent Per Day Per Party^{2/}</u>	<u>Mean Party Size</u>
4.4	117,719	5,180	4.6	\$22.51	2.5

^{1/} *Business Information Series*, No. 56, "Population Estimates: July 1974", Bureau of Business and Economic Research, The University of New Mexico.

^{2/} This figure was obtained from data contained in *Out-of-State Visitor Recreation Demand Patterns in New Mexico*, New Mexico State Planning Office, 1973.

Source: Survey Data.

- S_p - Total spectator parties staying in hotels or motels
 S_d - Mean number of days in Albuquerque
 S_e - Average amount spent per day per party

The calculation used would then be:

$$S_p \times S_d \times S_e = \text{Total expenditures by spectators in hotels or motels}$$

or, $(223) \times (8) \times (96.00) = \$171,264.00$

The data needed to calculate expenditures by spectators staying in private homes is contained in Table VI. The following variables are used in the calculation.

- S_h - Number of households with spectator guests
 S_{hd} - Mean number of days in Albuquerque
 S_{he} - Average amount spent per day per party

Assuming that the percentage of households with spectator guests is equal to the percentage of spectator parties in private homes, the following calculation would be used in obtaining an expenditure figure for this group of spectators.

$$S_h \times S_{hd} \times S_{he} = \text{Total expenditures by spectators staying in private homes}$$

or, $(5180) \times (4.6) \times (22.51) = \$536,368.00$

The initial or direct economic impact of the balloon festival would then be equal to the sum of expenditures for participants and spectators as shown below.

Total participant expenditures	\$298,849.00
Total expenditures of spectators in hotels or motels	171,264.00
Total expenditures of spectators in private homes	<u>536,368.00</u>
Direct economic impact of the Balloon Festival on the Albuquerque economy	\$1,006,481.00

The total economic impact is not limited to the initial impact of expenditures by participants and spectators. In addition to this, a multiplier or chain-reaction effect of this spending occurs. As local merchants

receive money resulting from the expenditures of participants and/or spectators, they allocate in part those receipts to other local merchants and individuals to pay for goods and services that they have used. These individuals in turn use those funds to pay for services and goods purchased in the local economy. The chain reaction effect gradually diminishes as the dollars leave Albuquerque, again as payment for goods and services received elsewhere. The effective multiplier in this case, has been estimated at a conservative figure of 1.5.^{1/} (Actual multipliers for the overall economy ranged from 1.56 to 1.79 with individual sectors ranging well above 2.0 and below 1.5. The 1.5 used in this study is a conservative figure.) For every dollar of expenditure by participants and spectators a secondary impact of \$0.50 is made in addition to the original amount. Thus, by multiplying the initial impact by a factor of 1.5 the total economic impact may be calculated.

Initial impact	\$1,006,481.00
Multiplier factor	x <u>1.5</u>
Total economic impact	\$1,509,721.00

Therefore, the International Balloon Festival brought a flow of \$1,509,721.00 into the Albuquerque economy, when both initial and secondary impacts are accounted for.

This study made no attempt to estimate the negative effect of the festival on the Albuquerque economy resulting from costs incurred by the City and local individuals in order to stage the event. However, the calculated positive impact of \$1,509,721.00 is significant. In addition to the

^{1/} Source: Adcock, Larry and Clifford, Bill, unpublished study, entitled *The Albuquerque Economy, 1974.*

direct economic effect, certain intangible benefits and assets accrue to the City as a result of the annual staging of the festival. World-wide as well as nationwide recognition and publicity is obtained, complementing the positive economic results on the Albuquerque economy.