

1994

Measuring the Net Economic Impact of an International Sporting Event

Douglas M. Turco
Illinois State University

Follow this and additional works at: <https://scholarworks.bgsu.edu/visions>

Recommended Citation

Turco, Douglas M. (1994) "Measuring the Net Economic Impact of an International Sporting Event," *Visions in Leisure and Business*: Vol. 12 : No. 4 , Article 4.
Available at: <https://scholarworks.bgsu.edu/visions/vol12/iss4/4>

This Article is brought to you for free and open access by the Journals at ScholarWorks@BGSU. It has been accepted for inclusion in Visions in Leisure and Business by an authorized editor of ScholarWorks@BGSU.

MEASURING THE NET ECONOMIC IMPACT OF AN INTERNATIONAL SPORTING EVENT

BY

DR. DOUGLAS M. TURCO, ASSISTANT PROFESSOR

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION,
RECREATION, AND DANCE
212 MCCORMICK HALL
ILLINOIS STATE UNIVERSITY
NORMAL, ILLINOIS 61761-6901

ABSTRACT

Sporting events are a phenomena shared by numerous communities throughout the country and generally make a positive contribution to the local economy. To be able to determine the economic impact of races, tournaments, and championships is of great value to both public and private groups in any town. Economic gain may be the deciding factor for the future provision of these staged tourist attractions. The specific methods used to accurately assess the economic impact of sporting events have received considerable attention in the literature, contributing to the development of a refined economic impact methodology, however, relatively few studies have applied these valid procedures in aggregate. Further, considerable revenues leak from the local economy with events with nonresident allied businesses (i.e., food and beverage concessionaires, souvenir vendors, etc.) This research details the economic impact assessment model developed and applied to the 1991 Albuquerque International Balloon Fiesta. Issues specifically addressed by the model include the "vendor factor," sample

and recall bias, and switching of expenditures. Other methodological concerns in economic impact studies and research recommendations are discussed with direct implications to recreation, sport, and tourism researchers and practitioners.

INTRODUCTION

There are basically two components which contribute to the economic impact of special or sporting events on local communities. The first is the degree to which the event stimulates sales by nonresidents. The second is the degree to which residents and local businesses purchase their goods and services locally. Increasing either one of these components can increase the event's economic impact on the local economy. In order to accurately assess the economic impact of a sporting event, both of these components should be estimated for the area under study.

Large-scale sporting or special events may be considered synonymous to "hallmark events" as defined by Ritchie (8):

Major one time or recurring events of limited duration, developed primarily to enhance the awareness, appeal and profitability of a tourism destination in the short and/or long term. Such events rely for their success on uniqueness, status, or timely significance to create interest and attract attention (p. 2).

Methods used to accurately assess the economic impact of large-scale sporting or special events have received considerable attention (8, 2, 4, 9). Debate has focused on defining the "local" economy (3), sampling procedures (12) and output or sales multipliers (1). Previous research and discussion has contributed to the development of a refined economic impact methodology, but most have neglected to apply, in aggregate, these refined research procedures. Increasingly tight budgetary constraints are leading event sponsors such as private corporations, non-profit organizations (i.e., local chamber of commerce or convention and visitors bureau), and local government officials to demand proper evaluation of the event's economic impact.

A more accurate determination of economic impact extends current methodology to include local tax revenues generated by the event and returned to the host community. It behooves event organizers to compute tax revenues generated into this equation since budget decision-makers often judge the worthiness of the special event on the size of the financial. Such data need to be made clear to local government decision makers and business leaders so they do not underestimate the economic impact of these events on their community.

The ability to determine the economic impact of tournaments, races, and championships is of great value to public and private groups in any community since the outcome may be the deciding factor in future resource allocation decisions concerning the event (10). Demonstrating local taxes generated by a sporting event is most important to nonprofit and commercial sector sporting event organizers. Costs to produce a sporting event often include payment to local government units for such services as traffic control (police department), emergency medical rescue (fire department), and refuse collection (public works department) and may account for as much as 40 percent of the operating budget. In 1990, the Albuquerque Marathon, Inc. was presented a bill totalling \$20,000 from the city's police department for services rendered during the running race. An event manager, when negotiating with local government for discounts on previously paid-for government service costs, gains considerable "leverage" by detailing the local tax revenues which may be generated by the event.

Event directors consider it extremely important to know the local economic impact of their sporting events, but may believe that such measurement requires outside expertise. Additionally, there are other benefits of sporting events to the community that are difficult to quantify, including enhanced image, resident participant satisfaction and civic pride. This article, however, is restricted to only quantitative returns and is intended to describe the basic methods necessary to estimate the economic impact and tax revenues to the host local government attributed to a sporting event.

Large-scale special events often rely upon nonresident businesses to provide essential goods and services such as entertainment, food and beverage concessions and souvenirs. At the conclusion of the event, these contracted businesses may leave the local economy with a considerable amount of money (vendor factor). Monies collected by these allied businesses must be subtracted from the direct economic impact subtotal to accurately estimate net economic impact.

This study estimates the net economic impact to the Albuquerque economy resulting from the expenditures of the 1991 Albuquerque International Balloon Fiesta. To achieve this purpose, expenditures vacating the local economy via nonresident allied event businesses were factored out of the total economic impact estimate. Direct expenditures encompass the initial expenditures within the local economy that arise as a result of the operation of the sporting event. These are the expenditures that are attributable to the event's existence, and are therefore a direct measure of the impact of the event's operations on the local economy. This study measured the direct expenditures of: (a) AIBF nonresident patrons on and off the Balloon Fiesta grounds; (b) the AIBF, Inc. to conduct the event; (c) nonresident balloon pilots; (d) nonresident allied businesses (vendors); and (e) nonresident media personnel covering the event.

ALBUQUERQUE INTERNATIONAL BALLOON FIESTA

The Albuquerque International Balloon Fiesta (AIBF) is the largest ballooning event in the world with four hundred ninety-three balloonists representing 16 countries and 50

states participated with over 1.4 million people in attendance. The 20th Annual AIBF was a nine-day event held on a 70-acre park in Albuquerque's north valley and featured a musical concert, four mass accessions, balloon glow, daily balloon competitions, and food, beverage, and souvenir sales. Activities typically began on the Balloon Fiesta grounds at 6:00 a.m. and continued until 12 noon, except for the concert and balloon glow, which were held in the evening.

The Balloon Fiesta is considered the most photographed sporting event in the world (11). Previous studies have estimated that annually nonresidents spend approximately \$450,000 on the event grounds for film (11). Additionally, over 6,000 individual press credentials were issued by AIBF, Inc. officials to photojournalists in 1990.

DATA AND METHODS

Questionnaires were developed by the researcher and AIBF, Inc. officials to accurately measure expenditures of patrons, balloonists, media representatives, sponsors and vendors for all categories of possible spending on and off the event site. Other questions included on the survey instruments sought visitor group size, length of stay and satisfaction with the event. Data from 612 patron interviews were collected using the field survey technique prescribed by Turco (11). Questionnaires were mailed to all nonresident balloonists, sponsors and media representatives one week after the completion of the 1991 Balloon Fiesta. Mailing lists of these groups were maintained by AIBF, Inc. officials. Mail-back survey procedures as recommended by Dillman (5), excluding the certified mail

follow-up, were followed. Data were collected from all nonresident food and beverage vendors through on-site interviews during the last day of the Balloon Fiesta. Vendors were not required to report gross sales receipts to event officials. Survey responses were coded and entered into a computer statistical package to tabulate total expenditures, frequencies and percentages. Only data compiled from survey respondent's residing 50 miles or more (one-way) from Albuquerque were used to determine direct economic impact. The rationale for excluding Albuquerque residents is that their expenditures do not provide a net stimulus to the local economy. Residents of the local area, even though they may spend money at or near the Balloon Fiesta, presumably would have spent that money in the local area anyway on other goods and services. Expenditures by residents represent a switching of expenditures from one category to another (e.g., Balloon Fiesta admission fees instead of theater tickets). However, from a regional tourism business perspective, any switching to tourism is important, and from an individual tourism business perspective, switching expenditures are relevant because they represent a potential source of business. Expenditures resulting from the respective samples were determined by multiplying the average expenditure totals derived from respondent questionnaires by the total population of that cohort.

FINDINGS

Patrons

Nonresident patron groups comprised 66.3 percent of the total Balloon Fiesta patron

attendance; averaged 5.41 persons in size; and attended the event an average of three times. Visitors to the Balloon Fiesta spent \$20,379,499 in Albuquerque off the Balloon Fiesta grounds primarily for lodging, meals, and alcoholic beverages; an average of \$760 per visitor group (Table 1). These expenditures were derived from a question on the survey which asked nonresident patrons about their spending behavior while in Albuquerque (off the Fiesta grounds) for such things as food and beverages, lodging, retail shopping and other purchases. Nonresident patron groups also spent \$2,461,078 on the Balloon Fiesta grounds for such goods and services as food, entertainment, souvenirs and beverages (Table 2).

Balloonists

Five hundred thirty-four nonresident balloonists representing 49 states and 14 countries participated in the 1991 Balloon Fiesta. For the purpose of this study, nonresident balloonists were those residing 50 miles or more (one-way) from Albuquerque. A total of 295 completed questionnaires were returned by the sample, yielding a 55.2 percent response rate. Due to time and financial constraints, no attempt was made to assess nonresponse bias. Research by Doleson and Machlis (6) has indicated that mail-back recreation/tourism surveys achieving response rates of 55 percent or more negate nonresponse bias.

Nonresidents comprised 68.6 percent of the total balloonist population (N=778); their immediate travel group averaged approximately six persons (5.89) in size; and stayed in Albuquerque 8.25 nights.

Nonresident balloonist group expenditures off the Balloon Fiesta grounds averaged approximately \$2,171. This average, when applied to the total number of nonresident balloonist groups, reveals the extent of their direct impact to the local economy \$1,159,448 (Table 3). This money is attributed as economic impact from the Balloon Fiesta because these expenditures were made by nonresidents and would not have benefitted the local economy were it not for the existence of the Balloon Fiesta.

Expenditures by nonresident balloonist groups on the Balloon Fiesta grounds totaled \$201,494 (Table 4). These groups spent, on average, \$377, primarily for souvenirs/gifts, food and beverages. Approximately 60 percent of on-site balloonist group spending was for souvenirs/gifts. Collecting memorabilia (i.e., pins, hats, shirts, etc.) from ballooning events is a popular hobby among pilots and explains, in part, the high total within this expenditure category.

MEDIA REPRESENTATIVES

Two hundred fifty-two nonresidents were issued media credentials by the AIBF, Inc. to cover the 1991 Balloon Fiesta. Each was mailed an expenditure questionnaire following the event. A total of 80 completed questionnaires were returned by the sample, yielding a 31.7 percent response rate. No attempt was made to assess nonresponse bias, therefore, conclusions based on these results should be made with a degree of caution in terms of their validity.

The average nonresident media representative and her/his immediate travel group averaged nearly three persons in size (2.65), stayed in Albuquerque approximately six nights (6.17), and spent \$1,220.75 in

Albuquerque off the Balloon Fiesta grounds. Offsite expenditures by nonresident media travel groups totaled \$307,629. Nonresident media representative spending on the Balloon Fiesta grounds averaged \$169.39 and totaled \$42,686.28. Overall, nonresident media representatives spent \$350,315.28 locally while photographing, writing and talking about the Balloon Fiesta.

SPONSORS

Each nonresident sponsor was mailed an expenditure questionnaire following the event (N=200). A total of 49 completed questionnaires were returned by the sample, yielding a 24.5 percent response rate.

The average nonresident sponsor and her/his immediate travel group averaged over fourteen persons in size (14.28), stayed in Albuquerque approximately six nights (5.61), and spent \$4,094 in Albuquerque off the Balloon Fiesta grounds. Off-site expenditures by nonresident sponsor travel groups totaled \$184,236. Nonresident sponsor spending on the Balloon Fiesta grounds averaged \$603 and totaled \$27,159. Overall, nonresident sponsors spent \$211,395 locally.

VENDORS

Thirty-two businesses were issued permits by event organizers to sell food, beverages and souvenirs on the Balloon Fiesta grounds and collected \$2,547,538 in sales receipts. Nine of these businesses (28.1 percent) were headquartered outside of Albuquerque and spent \$78,271 for such purchases as lodging, meals, gasoline, employee wages, taxes, and business supplies. Assuming on-site

business supplies. Assuming on-site expenditures made by patrons, balloonists, media representatives and sponsors to resident and nonresident vendors were equally distributed, it is estimated that \$637,587 left the local economy with the nine nonresident businesses when they returned home after the Balloon Fiesta.

TOTAL ECONOMIC IMPACT

Direct spending in Greater Albuquerque attributed to 1991 Albuquerque International Balloon Fiesta totaled \$26,905,737 (Table 5). Adjusting this figure to account for expenditures leaving the economy via nonresident vendors reveals the net economic impact of the 1991 Balloon Fiesta to the local economy - \$26,619,922. Failure to account for the vendor factor in this case would have lead to a \$637,587 overestimation of total direct economic impact.

TAX REVENUES

The City of Albuquerque directly received \$748,899 in gross receipts and lodging tax revenues as a result of the Balloon Fiesta (Table 6). Gross receipts tax revenue accruing to the City of Albuquerque totaled \$438,233; lodging expenditures generated \$310,666 in local taxes. The State of New Mexico also benefited economically from the 1991 Balloon Fiesta, receiving \$466,206 in gross receipts taxes and \$51,809 in gasoline tax revenues.

CONCLUSIONS

This article has detailed the steps involved in assessing the economic impact of a

largescale recreation special event--the 1991 Albuquerque International Balloon Fiesta. Specific calculations to determine the expenditures leaving the local economy via nonresident allied event businesses have been illustrated.

Sporting events which rely upon numerous nonresident allied businesses for such services as entertainment, food and beverages and souvenir sales must take into account the dollars leaving the local economy with these businesses to accurately assess economic impact. Methods employed in this research and in previous studies by Long and Perdue (7) and Turco (9) which examine the spatial distribution of expenditures attributed to recreation special events should be followed by researchers to take into account the vendor factor, yielding a more accurate estimation of economic impact. In this case, failure to adjust for spending vacating the local economy with nonresident vendors would have contributed to a significant (\$637,587) overestimation of the total direct economic impact and an event evaluation of questionable validity. To minimize the vendor factor, event organizers should patronize local businesses and permit local vendors sales opportunities as long as such businesses meet event standards for service quality and variety.

Significant tax revenues accrue to local and state governments where large-scale sporting events are held. Economic impact studies of sporting events should attempt to assess the tax revenues attributed to the attraction and returned to government units. Such information may be of particular use to event organizers as a "bargaining tool" when seeking financial support for their activities or service cost discounts from government agencies.

REFERENCES

1. B. H. Archer, Economic impact: Misleading multiplier, Annals of Tourism Research, 11, pp. 516-518, 1984.
2. J. P. A. Burns, J. H. Hatch and T. J. Mules, The Adelaide Grand Prix: The Impact of a Special Event, Adelaide: Centre for South Australian Economic Studies, 1986.
3. L. S. Davidson and W. A. Schaffer, A discussion of methods employed in analyzing the impact of short-term entertainment events, Journal of Travel Research, 18, pp. 1216, 1980.
4. A. J. Della Britta, D. L. Loudon, G. G. Booth and R. R. Weeks, Estimating the economic impact of a short-term tourist event, Journal of Travel Research, 16 (2), p. 16, 1977.
5. Dillman, Mail and Telephone Surveys, New York: John Wiley and Sons, 1968.
6. D. E. Doleson and G. E. Machlis, Response rates and mail recreation survey results: How much is enough?, Journal of Leisure Research, 23(3), pp. 272-277, 1991.
7. P. T. Long and R. R. Perdue, The economic impact of rural festivals and special event: Assessing the spatial distribution of expenditures, Journal of Travel Research, 61, pp. 10-14, 1990.
8. J. B. Ritchie, Assessing the impact of hallmark events: Conceptual and research issues, Journal of Travel Research, 23, pp. 2-11, 1984.
9. D. M. Turco, Assessing the Spatial Distribution of Expenditures Attributed to a Large-Scale Special Event (Unpublished doctoral dissertation), Albuquerque, New Mexico: University of New Mexico, 1991.
10. D. M. Turco and C. W. Kelsey, Determining the Economic Impact of Recreation Special Events, Alexandria, Virginia: National Recreation and Parks Association, 1992.
11. D. M. Turco, Economic Impact and Market Assessment of the 1990 Albuquerque International Balloon Fiesta (Technical report presented to the AIBF, Inc.), Albuquerque: AIBF, Inc., 1990.
12. P. Wang and R. Gitelson, Limitations with the Economic Benefits of Short-term Events, Nineteenth Annual Conference Proceedings of the Travel Research Association, pp. 257-261, 1988.

TABLE I
NONRESIDENT PATRON SPENDING IN ALBUQUERQUE BY CATEGORY

Category	Mean	Total *	Percent of Total
Lodging	\$160	\$5,962,251	29.3%
Meals	162	7,121,140	35.0
Transportation	42	666,587	3.3
Retail	118	3,553,004	16.4
Alcoholic Bev.	33	450,618	2.2
Entertainment	55	681,442	3.3
Gasoline	41	928,661	4.5
Groceries	9	72,112	0.4
Camera Items	12	623,974	3.1
Other	<u>128</u>	<u>518,710</u>	<u>2.5</u>
Total	\$760	\$20,379,499	100.0%

*Totals based on category mean as applied to the total number of non resident patron groups which spent money for category goods and services.

TABLE 2

NONRESIDENT PATRON SPENDING ON FIESTA GROUNDS BY CATEGORY

Category	Mean	Total*	Percent of Total
Food	\$33.1	\$1,524,766	61.5%
Beverages	3.4	58,962	2.4
Entertainment	9.9	43,181	1.8
Souvenirs	7.3	299,889	12.2
Alcohol	30.3	425,275	17.3
Film	7.4	49,693	2.0
Parking	5.1	39,551	1.6
Other	<u>21.2</u>	<u>28,761</u>	<u>1.2</u>
Total	\$117.7	\$2,461,078	100.0%

TABLE 3

NONRESIDENT BALLOONIST SPENDING IN ALBUQUERQUE BY CATEGORY

Category	Mean	Total	Percent of Total
Lodging	\$716.13	\$382,413	32.98%
Meals	500.86	267,459	23.06
Balloon Fuel	26.55	14,177	1.22
Retail Shop.	417.19	222,779	19.21
Entertainment	84.19	44,957	3.87
Camera	46.67	24,921	2.14
Alcohol	120.54	64,368	5.55
Groceries	99.73	53,255	4.59
Gasoline	119.74	63,941	5.51
Other	<u>39.55</u>	<u>21,119</u>	<u>1.82</u>
Total	\$2171.25	\$1,159,448	100.00%

*Mean spending figures multiplied by total number of nonresident pilots (N=534).

TABLE 4

NONRESIDENT BALLOONIST GROUP SPENDING ON THE BALLOON
FIESTA GROUNDS BY CATEGORY

Category	Mean	Total *	Percent of Total
Food	\$106.96	\$57,116	28.34%
Alcohol	11.75	6,274	3.11
Parking	223.61	119,407	59.26
Souvenirs	223.61	119,407	59.26
Film	8.39	4,480	2.22
Other	<u>20.41</u>	<u>10,898</u>	<u>5.40</u>
Total	\$377.33	\$201,494	100.00%

TABLE 5
TOTAL DIRECT ECONOMIC IMPACT OF THE 1991 ALBUQUERQUE
INTERNATIONAL BALLON FIESTA

Patrons in ABQ	\$20,379,499
Patrons On-site	2,461,078
Balloonists in ABQ	1,360,942
Balloonists On-site	201,494
Media in ABQ	350,315
Media On-site	42,686
Sponsors in ABQ	184,236
Sponsors On-site	27,259
AIBF, Inc.	<u>2,250,000</u>
Subtotal	\$27,335,780
Vendor Factor	<u>-715,858</u>
Total Direct Impact	\$26,619,922

TABLE 6

LOCAL AND STATE TAX REVENUES ATTRIBUTED TO THE
1991 ALBUQUERQUE INTERNATIONAL BALLOON FIESTA

Tax	Rate	Local Spending	Tax Revenue
Gross Receipts			
City of Albuquerque	(.0235)	\$18,648,232*	\$438,233
State of New Mexico	(.0250)	18,648,232	466,206
Lodging			
City of Albuquerque	(.0500)	6,213,332*	310,666
Gasoline			
State of New Mexico	(\$.07/gl.)	999,187#	51,809
Total Tax Impact			
City of Albuquerque		\$748,899	
State of New Mexico		518,015	

*Assumes 95% of category spending occurred in Albuquerque

#Assumes gasoline price of \$1.35 per gallon