MEASURING THE ECONOMIC IMPACT OF FESTIVALS AND EVENTS: SOME MYTHS, MISAPPLICATIONS AND ETHICAL DILEMMAS

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Communities may invest tax dollars or various types of in-kind public assistance into festivals and events for many reasons, but economic benefits are likely to rank consistently high among them. They anticipate an event will attract visitors from outside the area whose expenditures while they are there represent an infusion of new wealth into the community. A scarcity of tax dollars has led to increasing public scrutiny of their allocation. In this environment, producing an economic impact study to demonstrate that economic returns to a community will exceed its investment has become almost a *de rigueur* requirement for event organizers. Economic impact is defined as the net economic change in a host community, excluding non-market values, which results from spending attributable to the event.

Often, these studies are not conducted impartially or objectively. Rather they are mischievously concocted as advocacy documents. The political reality of many economic impact analyses of events is that they are undertaken not to find the true impact, but rather to legitimize the event's public support by endowing it with an aura of substantial economic benefits.

If a study is conducted in-house, it is likely to be tainted by some suspicion that its authors lack the expertise to do it correctly, and/or that their vested interest in the event may influence presentation of their findings. For this reason, external consultants, who appear to be both expert and neutral, are often hired to conduct the study. However, consultants are hired in large measure to tell their clients what they want to hear, "And what they want to hear is that their event is going to generate a lot of money" (Dunnavant, 1989). Curtis (1993) offers an analogy: "They are in truth the exact equivalent of an expert witness in a lawsuit who comes to testify in support of the side that is paying the expert's bill. An expert whose testimony harms his employer's case doesn't get much repeat business." The same commentator suggests, "The fees for the study are like a religious tithe paid to a priest to come bless some endeavor" (p. 7).

An executive of a major consultancy that conducts economic impact studies observed that if "you pick five consultants, you'll get five different numbers." Similarly, a partner in a major accounting firm who does these studies admitted, "It's a very inexact science" (Dunnavant, 1989). The discrepancies occur because economic impact analyses can be conducted using different assumptions and procedures, many of which are erroneous, which leads to dramatically different impacts being identified. Sometimes the errors result from a genuine lack of understanding of the economic impact concept and procedures used to measure it, but on other occasions they are mischievously used to deliberately mislead and generate large numbers.

The purpose of this paper is to alert festival organizers to the most common sources of error in

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economic impact studies. Data from a study under-taken by the authors is used to illustrate five of these errors: (1) use of incremental rather than true multi-pliers; (2) the use of sales rather than income multi-pliers; (3) misrepresentation of employment multipliers; (4) inclusion of local residents; and (5) failure to exclude "time-switchers" and "casuals." The im-pact each of these errors has on magnifying the real economic impact is demonstrated. The paper con-cludes with consideration of two other concerns which, if they are not addressed, are likely to lead decision-makers to overly optimistic conclusions when reviewing results of an economic impact study. They are displacement costs and the costs of negative im-pacts that accrue to a community as a result of stag-ing an event.

Data used in the paper were collected, using a multi-stage sampling procedure, from over 2,600 visitors to a 10 day festival comprised of multiple events in a large American city. Because it was a large city with extensive suburbs, the defined area for which the economic impact study was under-taken was delineated as the county within which the city's boundaries were confined and two surround-ing counties which embraced the city's suburbs. The three counties essentially represented the integrated local trading area. If the study had been limited to a single county, the economic interrelationships be-tween city and suburbs would have been ignored and results would have been less representative of economic impact on the area.

Use of Incremental Rather Than True Multipliers

The multiplier concept is a central component of economic impact analyses. It recognizes that when visitors to an event spend money in a community, their initial direct expenditure stimulates economic activity and creates additional business turnover, employment, household income and government rev-enue in the host community. The impact of this in-jection of outside money can be likened to the ripples set up in a pool if more water is poured into the system (Archer, 1973). The pool represents the economy and the additional water symbolizes extra spending by the outside visitors. The ripples show the spread of money through the economy. Some of the money spent by visitors leaks out of the city's economic system to pay taxes to, or buy goods and services from, entities outside the city. Only those dollars remaining within the host community after

leakage has taken place constitute the net economic gain.

The multiplier process is shown diagrammatically in Figure 1 (Liu and Var, 1982). It assumes that the group of festival visitors spend their money at four different types of establishments in a city. These expenditures constitute the *direct* economic impact on the community. The figure shows the five differ-ent ways in which each of these establishments could disburse the money it receives. The hotel is used to illustrate the process, but the pattern would be replicated for each establishment. The three local depositories of funds receiving money in Round 1 and in successive rounds that did not leak out of the community, will continue to spend this money in the same five ways. The visitors' initial expenditure is likely to go through numerous rounds as it seeps through the economy, with portions of it leaking out each round until it declines to a negligible amount. These subsequent rounds of economic activity are termed *indirect* impacts.

The proportion of household income (employees' wages and salaries) which is spent locally on goods and services is termed an *induced* impact. This is defined as the increase in economic activity gener-ated by local consumption due to increases in wages and salaries. The *indirect* and *induced* effects to-gether are frequently called *secondary* impacts. Thus, the *direct, indirect* and *induced* effects all contrib-ute to the total impact of a given injection of money by out-of-town visitors.

Unfortunately, the multiplier can be expressed in several different ways and available input-output analysis computer software produce alternatives. For example, IMPLAN, which has emerged as the most popular input-output model used to measure eco-nomic impact in tourism contexts, produces both Type 1 and Type III multipliers. The Type II multi-plier captures induced effects by assuming a linear relationship between income and consumption changes, but this multiplier is not available from IMPLAN. The Type II assumption is that an increase in output will raise income levels, and therefore increase house-hold spending proportionally. Population is assumed to be stable. The result is an exaggeration in total effect. To minimize the over-estimation that occurs with a linear consumption function, the Type III multiplier in IMPLAN estimates induced effects based on the changes in employment and population. The resultant multipliers are typically five to fifteen per-cent smaller than Type II multipliers (University of
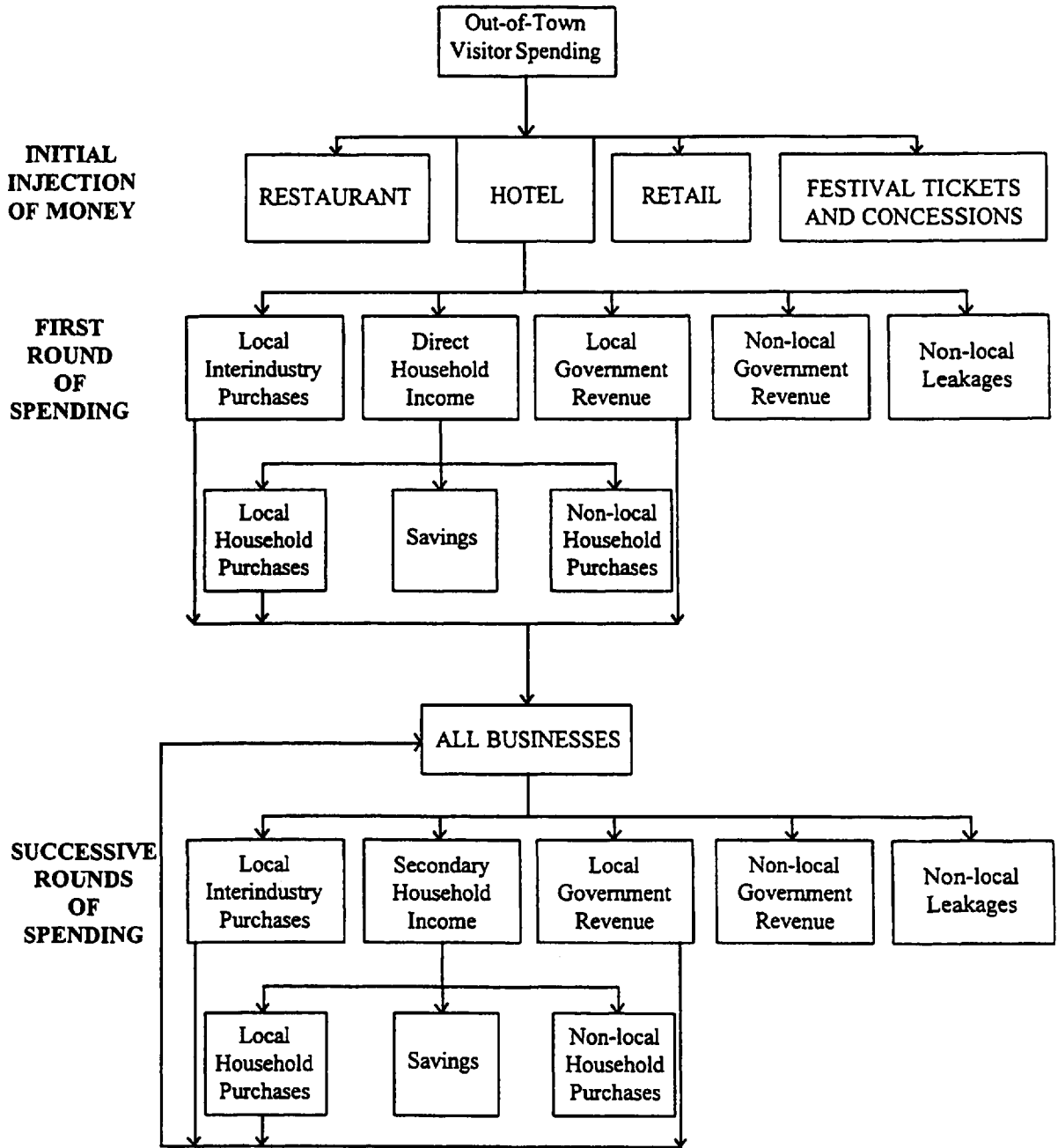
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                        ┌──────────────────┐
                        │   Out-of-Town    │
                        │ Visitor Spending │
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INITIAL INJECTION OF MONEY

| RESTAURANT | HOTEL | RETAIL | FESTIVAL TICKETS AND CONCESSIONS |

FIRST ROUND OF SPENDING

| Local Interindustry Purchases | Direct Household Income | Local Government Revenue | Non-local Government Revenue | Non-local Leakages |

| Local Household Purchases | Savings | Non-local Household Purchases |

ALL BUSINESSES

SUCCESSIVE ROUNDS OF SPENDING

| Local Interindustry Purchases | Secondary Household Income | Local Government Revenue | Non-local Government Revenue | Non-local Leakages |

| Local Household Purchases | Savings | Non-local Household Purchases |

Figure 1. The multiplier process.

Minnesota 1989).

The Type I measure is derived from the following formula:

$$\frac{\text{Direct } + \text{ Indirect Income}}{\text{Direct Visitor Spending Injected}}$$

This ignores the induced component which in the labor intensive tourism field is likely to be substantial. The Type III coefficient incorporates this component and is derived from:

$$\frac{\text{Direct } + \text{ Indirect } + \text{ Induced Income}}{\text{Direct Visitor Spending Injected}}$$

These two types of approaches are both termed "true," "normal" (Archer, 1982) "proportional" or "unorthodox" (Vaughan, 1984) coefficients. An alternative is to derive a coefficient by using an "incremental" (Vaughan, 1984) or "ratio" (Archer, 1982, 1984) approach which is calculated by using the formula:

$$\frac{\text{Direct } + \text{ Indirect } + \text{ Induced Income}}{\text{Direct Income}}$$

The "true" approach is easy to use, because it only requires that the multiplier be applied to direct visitor spending. The incremental approach, however, will yield results identical to those of the true multiplier *if* care is taken to ensure that the correct units of measure are observed. Unfortunately, the incremental approach is sometimes misapplied. The incremental multiplier should not be multiplied by the direct visitor spending because that spending represents a transaction (sales) value and not direct income. If direct visitor spending is correctly converted to direct income, the total income impacts will be identical. Consider the following data (Archer, 1982):

External visitor expenditure injected		$100
Direct income created	$25	
Secondary income created	$20	
Total income created	$45	

The induced approach applied to these data would yield a value of 45/25, giving a multiplier coefficient of 1.8. In contrast, the true approach would be calculated by 45/100 giving a multiplier coefficient of 0.45. There may be some temptation to report the incremental 1.8 coefficient as "the multiplier" because it is a much larger number. However, this is only a measure of internal linkage within an economy and to multiply it by visitor expenditure is meaningless. To accurately derive total income impact using the increment approach, the direct visitor spending has to be converted to direct income by multiplying the spending by 25/100 (the ratio of direct income to direct spending). When the 1.8 is multiplied by 25/100, then the correct multiplier of 0.45 is derived. (The authors appreciate the comments of a reviewer who provided this explanation of equivalency between the two approaches.)

Use of Sales Rather Than Income Multipliers

When they undertake economic impact analyses, it is usual for festival and event organizers to use sales rather than personal income multiplier coefficients in presenting results to their publics. A *sales or transactions multiplier* measures the direct, indirect and induced effect of an extra unit of visitor spending on economic activity within a host community. It relates tourism expenditure to the increase in business turnover which it creates. It may be of some interest to business proprietors interested in sales impacts or to officials in governmental entities who are interested in approximating sales revenues which may accrue. In contrast, an *income multiplier* measures the direct, indirect and induced effect of an extra unit of visitor spending on the changes which result in level of household incomes in the host community. It is operationalized as *the ratio of change in income to the initial autonomous change in expenditure that brings it about*. It most clearly demonstrates the economic impact on residents of the host community.

Table 1 reports the multiplier coefficients derived by the authors, using the IMPLAN model, for the economic impact study in city X. The table illustrates two points that are crucial to properly interpreting and communicating the impact of a multiplier. First, the coefficients are different for each category of expenditure that is listed. Thus, in city X, a $1 expenditure by visitors on gasoline (private auto) yielded substantially less household income than a similar $1 expenditure on food and beverages (69 cents compared to $1.26 dollars).

The second notable point illustrated in Table 1 is that the values of sales coefficients are substantially higher than those of *personal income* coefficients.

Table 1

A Comparison of the Sales and Personal Income Coefficients for a Festival in City X

ITEM	SALES COEFFICIENTS				PERSONAL INCOME COEFFICIENTS			
	DIRECT	INDIRECT	INDUCED	TOTAL	DIRECT	INDIRECT	INDUCED	TOTAL
FOOD & BEVERAGE	1	0.18	1.68	2.86	.58	.06	.62	1.26
ADMISSION FEES	1	0.22	1.72	2.94	.37	.07	.63	1.07
NIGHT CLUBS, LOUNGES & BARS	1	0.31	0.92	2.23	.61	.13	.34	1.08
RETAIL SHOPPING	1	0.18	1.48	2.66	.51	.07	.54	1.12
LODGING EXPENSES	1	0.27	1.24	2.51	.49	.10	.46	1.05
PRIVATE AUTO EXPENSES	1	0.25	0.71	1.96	.33	.10	.26	.69
COMMERCIAL TRANSPORTATION	1	0.30	0.68	1.98	.45	.11	.25	.81
OTHER EXPENSES	1	0.18	1.48	2.66	.51	.07	.54	1.12

For example, the table indicates that, on average, each $1 expenditure by visitors on accommodation will generate $1.05 dollars in income for residents of the city, but business activity in the city should rise by about $2.51 dollars. Since both of these multipliers are measured in dollars they are often confused. If it is not clearly defined which multiplier is being discussed, then there is a danger that inaccurate, spurious inferences will be drawn from the data.

In an economic impact analysis of a festival or event, sales multipliers are likely to be of little interest to most local residents. The point of most interest is likely to be the impact of those sales on household income. Most residents are likely to be interested in knowing how much extra income they will receive from the injection of funds from visitors. Their interest in value of sales *per se* is likely to be limited since it does not directly impact their standard of living. Further, high sales multipliers may give a false impression of the true impacts of visitor spending, because the highest income effects are not necessarily generated from the highest increases in sales. The authors of a respected community guide to tourism development commissioned and endorsed by the U.S. Travel and Tourism Ad-

ministration (University of Missouri, 1986) observe:

It is not uncommon to find, in the literature on tourism, statements to the effect that initial expenditures by tourists are multiplied many times over as a result of subsequent rounds of spending. Such statements may be misleading. We are concerned not with the volume of sales attributed to the tourist expenditure, but with the portion of that expenditure which ends up as local income.

As Fridgin (1991) correctly observes, it is misleading to multiply total visitor expenditures by a sales multiplier and refer to the product as the economic impact of that injected money on residents of the host community. Nevertheless, because sales multipliers are substantially larger than income multipliers they tend to be attractive political tools for advocates to use in attempting to further the cause of their festival.

If it is not feasible to derive multipliers for a festival or event because of a lack of resources or expertise, then a "ball-park" estimate of income multipliers can be made using the following guidance (University of Missouri 1986:57):

90 to 95% of United States county income multi-

Table 2

Employment Coefficients for a Festival in City X

ITEM	EMPLOYMENT COEFFICIENTS			
	DIRECT	INDIRECT	INDUCED	TOTAL
FOOD & BEVERAGE	46.65	2.81	32.06	81.52
ADMISSION FEES	46.93	3.39	32.81	83.13
NIGHT CLUBS, LOUNGES & BARS	21.09	5.95	17.52	44.56
RETAIL SHOPPING	40.59	2.87	28.18	71.64
LODGING EXPENSES	32.23	4.30	23.68	60.21
PRIVATE AUTO EXPENSES	16.46	4.45	13.55	34.47
COMMERCIAL TRANSPORTATION	15.78	4.37	13.06	33.21
OTHER EXPENSES	40.59	2.87	28.18	71.64

pliers fall within a range of 0.4 to 0.8. Thus for most areas we expect a $100 (visitor) expenditure to increase local incomes by $40 to $80. Your multiplier will tend to be at the upper end of the range if:

• Your region is urban rather than rural
• [Visitors] buy products which require considerable local labor in production.

The income multipliers shown in Table 1 are slightly higher than the guideline cited above because city X was a large urbanized community and thus the impact on a three county area was measured, rather than the single county in which the guidelines were based. The magnitude of a multiplier varies according to the structure of the host community. That is, the extent to which businesses where visitors spend their money proceed to trade with other businesses within the host economy. A smaller community tends not to have the sectoral interdependencies which facilitate retention of monies spent during the first round of expenditures. Hence, much of the expenditure would leak outside the immediate region leading to a lower local economic multiplier. Typically, the larger is the defined area's economic base, the smaller is the leakage that is likely to occur and the larger is the value added from the original expenditures.

In the authors' experience, the types of responsible guidelines offered in the University of Missouri manual cited above are rarely used in festival studies. Too often in situations where multipliers have not been empirically derived, project advocates step into the data void and offer arbitrary coefficients which purport to be "conventional wisdom" but do not draw on reputable sources. Frequently, their assignment of those coefficients will be prefaced by the mischievous phrase, "A conservative estimate of the multiplier is . . .," when what is put forward is, in fact, an outrageously high coefficient.

Misrepresentation of Employment Multipliers

An *employment multiplier* measures the direct, indirect and induced effect of an extra unit of visitor spending on employment in the host community. It shows how many *full-time equivalent* job opportunities are supported in the community as a result of the visitor expenditure. Table 2 shows the employment multipliers derived by the authors in their festival impact study for city X. It indicates that for every $1 million spent on food and beverages by visitors from outside the area, *81 full-time equivalent jobs* would be created.

The employment multiplier assumes that all existing employees are fully occupied, so an increase in external visitor spending will require an increase in level of employment within the region. However, its use in the context of festivals and events may give decision-makers a misleading impression, because local businesses are likely to respond to addi-

Table 3A

Economic Surge in the City X Area Created by Residents and Non-Residents Who Attended Festival Events

ITEM	TOTAL SALES OUTPUT	TOTAL PERSONAL INCOME	TOTAL JOBS CREATED
FOOD & BEVERAGE	109,196,634	48,238,234	3,110
ADMISSION FEES	38,691,412	14,200,095	1,095
NIGHT CLUBS, LOUNGES & BARS	20,163,133	10,987,611	402
RETAIL SHOPPING	66,934,134	28,159,101	1,805
LODGING EXPENSES	47,872,258	19,922,456	1,148
PRIVATE AUTO EXPENSES	14,727,339	5,123,586	259
COMMERCIAL TRANSPORTATION	22,146,640	9,126,217	370
OTHER EXPENSES	1,874,950	1,076,825	69
TOTAL	321,606,498	136,834,125	8,258 JOBS

Table 3B

Economic Impact in the City X Area Created by Non-Residents Who Attended Festival Events

ITEM	SALES	INCOME	EMPLOYMENT
FOOD & BEVERAGE	37,859,887	16,737,554	1,078
ADMISSION FEES	7,837,688	2,875,055	222
NIGHT CLUBS, LOUNGES & BARS	4,555,057	2,478,865	91
RETAIL SHOPPING	23,545,491	9,909,880	635
LODGING EXPENSES	35,124,109	14,637,961	843
PRIVATE AUTO EXPENSES	4,744,930	1,653,118	84
COMMERCIAL TRANSPORTATION	10,710,664	4,340,311	179
OTHER EXPENSES	1,088,768	458,243	29
TOTAL	125,466,594	53,090,987	3,161 JOBS

tional demand by greater utilization of their existing labor force. It is unlikely that businesses would hire additional employees as a result of a festival or event because the extra business demand only lasts for a few days. Rather, existing employees are likely to be released from other duties to accommodate this temporary peak demand or requested to work overtime. At best, only a few very short-term

additional employees may be hired. Thus, the "full-time" jobs which decision-makers may be anticipating (not understanding the significance of the word "equivalent") as a result of the multiplier do not come to fruition.

Some empirical confirmation of these types of employment adjustments was reported by Arnold (1986) and Bishop and Hatch (1986) after their interviews with managers of transportation and restaurant businesses immediately after the Adelaide Grand Prix. They found that companies in both types of businesses increased their labor requirements by increasing the hours of existing employees, although some restaurant establishments indicated they hired "casuals" to supplement this action. Arnold (1986) concluded, "There were virtually no new permanent jobs in the transport area generated as a result of the Grand Prix. In fact several companies had organized the increased work load in such a way that they did not pay overtime although this was not possible for all the extra work" (p. 81).

Inclusion of Local Spectators

Economic impact attributable to a festival or event relates only to new money injected into an economy by visitors, media, external government entities, or banks and investors from outside the community. Only visitors who reside outside the jurisdiction and whose primary motivation for visiting is to attend the event, or who stay longer and spend more because of it, should be included. Expenditures by those who reside in the community do not represent the circulation of new money. Rather, they represent only a recycling of money that already existed there. It is probable that if local residents had not spent this money at the festival, then they would have disposed of it either now or later by purchasing other goods and services in the community. Twenty dollars spent by a local family at a community festival is likely to be twenty less dollars spent on movie tickets elsewhere in the community. Thus, expenditures associated with the event by local residents are merely likely to be switched spending which offers no net economic stimuli to the community. Hence, it should not be included when estimating economic impact.

The difference in impact when local residents are included in an analysis and when they are omitted is illustrated by the sales and personal income values in Tables 3A and 3B which report data from the

authors' city X study. When residents from within the three county area were included, sales and personal income impacts were $322 million and $137 million, respectively (Table 3A). However, when only expenditures by visitors from outside the area were included, these impacts were reduced to $125 million and $53 million, respectively (Table 3B).

These substantially different economic impact estimates illustrate why the widespread admonition from economists to disregard locals' expenditures is frequently ignored by event organizers; viz, when expenditures by locals are omitted, the economic impact numbers become too small to be politically acceptable. To rectify this, two disconcerting new terms are emerging in the economic impact vocabulary of festival organizers. First, some organizers now report their festival contributed $X million "to local economic activity." The second term is "economic surge" and it has been incorporated in the title of Table 3A. Both of these terms are used to describe all expenditures associated with the event, irrespective of whether they derive from residents or non-residents. This generates the high numbers that study sponsors seek, but the surge or economic activity figure is meaningless. Its only purpose is to enable festival organizers to obfuscate and deliberately mislead decision-makers and the public for the purpose of boosting their political advocacy position.

If there is evidence to suggest that an event keeps some residents at home who would otherwise leave the area for a trip, then these local expenditures could legitimately be considered as an economic impact since the money has been retained in the host community and would otherwise have been spent outside it. Some indication of the extent to which this occurs can be gained from including questions which address this issue in an expenditure survey. For example, a survey conducted at the Adelaide Festival of Arts indicated that 10.3 percent of the audience who were Adelaide residents were actually "vacationing at home" to spend their vacation time and money at the festival which extended for a four week period. In addition, 7000 residents indicated they would travel out-of-town more often to attend performances and exhibitions, if the Adelaide Festival was not held. The incremental expenditure retained in the community by these two groups was estimated at $3.4 million (Centre for South Australian Economic Studies, 1992). In a personal communication to one of the authors of this paper, the

Table 4

Economic Impact in the City X Area Created by Non-Residents (Excluding Casuals and Time Switchers) Who Attended Festival Events

ITEM	SALES	INCOME	EMPLOYMENT
FOOD & BEVERAGE	7,371,629	5,088,151	328
ADMISSION FEES	1,550,953	874,005	67
NIGHT CLUBS, LOUNGES & BARS	606,780	753,562	28
RETAIL SHOPPING	4,943,987	3,012,571	193
LODGING EXPENSES	6,655,528	4,449,879	256
PRIVATE AUTO EXPENSES	824,220	502,541	25
COMMERCIAL · TRANSPORTATION	1,897,734	1,319,433	54
OTHER EXPENSES	213,126	139,305	9
TOTAL	24,063,957	16,139,447	960 JOBS

Adelaide researchers stressed, "Without the evidence from the survey we would not have included local expenditure." In most cases, these types of estimates are tenuous and the preferred action is to disregard all expenditures by local residents and recognize that the resultant impact figure will be somewhat conservative.

Failure to Exclude "Time-Switchers" and "Casuals"

Visitor expenditures should be net of "time-switchers" and "casuals." Some non-local spectators at an event may have been planning a visit to the community for a long time, but changed the timing of their visit to coincide with the event. Their spending cannot be attributed to the event since it would have been made without the event, albeit at a different time of the year. Other visitors already may have been in the community, attracted by other features, and elected to go to the event instead of doing something else. These two groups may be termed "time-switchers" and "casuals." Expenditures by these visitors would have occurred without the event, so income generated by their expenditures should not be attributed to it. It is necessary to distinguish between gross visitor expenditures and the net increment of those expenditures, which is the spending attributable to increased length of stay because of the event.

In the city X study, respondents were asked questions which enabled the authors to conclude that 27% were "time-switchers" who would have visited the city without the event, but the event was a reason that influenced their decision to come at that time. Another 43% were "casuals" who would have come to the city at that time, irrespective of the event. They went to the festival because it was an attractive entertainment option while they were in the community. Table 4 shows the impact on the city when these two groups were discarded, because their expenditures would have entered the city's economy even if the event had not been held. The survey failed to include a question which asked if the "casuals" had extended their stay because of the event. If they did, then that increment of their expenditures should be included in those totals. To that extent, the economic impacts shown in Table 4 may be underestimates.

Omission of Displacement Costs

There is some likelihood that visitors from outside a community who are attracted by a sports event, may displace other visitors who otherwise would have come to the community but do not, either because they cannot obtain accommodations or because they are not prepared to mingle with crowds attracted by the event. Thus, an economic impact study done after the 1984 Los Angeles Olympic Games, estimated that $163 million of out-of-region visitor expenditures did not occur in Southern Cali-

fornia during the period of the Games which would have accrued if they had not been held. This was attributed to two major factors (Economics Research Associates, 1986):

- Widespread national media reporting of potential congestion at the 1984 Olympic Games, and of potential exorbitant visitor travel and accommodation pricing in early 1984, had negative effects on potential summer tourists and visitors.
- The 1984 Olympic games had been known to be scheduled for Los Angeles for six years, with resultant alternative vacation and visitation planning by out-of-town tourists and by regional residents, and some postponement of business trips.

In calculating the economic impact of the Los Angeles Olympic games, the $163 million which would have occurred but which was squeezed out by the Games was appropriately deducted from the gross economic impact in order to arrive at the event's net economic impact.

Measurement Only of Benefits, Omitting Costs

Economic impact studies report only positive economic benefits and costs of negative impacts sustained by a community are not considered. If additional people are attracted to a community, they will create extra demand on its services. Negative cost impacts may include such items as traffic congestion, road accidents, vandalism, police and fire protection, environmental degradation, garbage collection, increased prices to local residents in retail and restaurant establishments, loss of access, and disruption of residents' lifestyles. Translating some of these impacts into economic values is difficult which may be one reason why they are usually ignored.

Incorporating costs into a study changes it from an economic impact analysis to a benefit-cost analysis. Despite the difficulties associated with deriving accurate costs, in the authors' view decision-makers should be using benefit-cost analysis when evaluating alternative investments. An economic impact analysis is designed to study the economic effect of additional expenditure attributable to an event and should be compared with equivalent investments designed to create economic stimulus in other sectors of the economy. In contrast, benefit-cost analysis is designed to identify the most beneficial investment alternative. It considers the long term benefits that

can be obtained from the investment, identifies the long term costs, and compares the net benefits with those likely to accrue if the same resources were employed in other options.

Concluding Comments

The paper has demonstrated the wide range of numbers which purport to measure economic impact which may be presented by festival organizers from the same set of primary data. If a press conference was held in city X to report the festival's economic impact, the organizers could, at one extreme, announce that the sales output from the economic surge associated with the festival was almost $322 million (Table 3A). At the other extreme, they could announce that the economic impact of the festival on personal income was approximately $16 million (Table 4). The authors suggest that the latter figure is a more appropriate measure of economic impact, although many organizers may be tempted to report the larger estimate.

The authors have undertaken approximately a dozen economic impact studies for public and non-profit sector clients in the tourism field, many of which were festivals. Our experience has been that the media, general public, city council and other relevant publics are unaware of the subtleties and potential error sources described in this paper. Rather they have a "feeling that there is some magical process through which one dollar of spending eventually turns into two and perhaps even three" (Davidson and Schaffer, 1980:16). This lack of sophistication and the apparent objectivity which numbers convey, make it tempting for advocates to act unethically.

There is a dilemma. If the correct $16 million figure for city X is presented, the festival's economic contribution is likely to appear relatively insignificant compared to other festivals who announce the equivalent of the $322 million figure as their estimated economic impact. The relatively small impact of the festival is likely to translate into commensurately less political and resource support for it from decision-makers, and perhaps, ultimately, even withdrawal of revenues from it. Acting ethically, when others do not, could critically damage the event's standing. Alternatively, it could be rationalized that it is equitable to use the same set of measures to compare the economic contributions of events, even though the results of all of them are grossly misleading. Hence, abuses incorporated into an eco-

nomic impact analysis are contagious because when precedent has been established in one study, some event organizers are likely to feel compelled to knowingly perpetuate the abuse by incorporating the misleading procedures into their own analyses.

Continued misapplications of the economic impact concept by advocates will inevitably lead to the technique being discounted by decision-makers. Smith (1989) reports:

> The inevitable result of the misuse of economic impact methodology has been the growth of a backlash against the idea that tourism has any role to play in local economic development. Although this cynicism is rarely published in industry journals, it is expressed frequently in private conversations and sometimes even public addresses by officials.

Typical of this backlash are the comments made by Hunter (1988), "Economic impact studies based on the multiplier are quite clearly an improper tool for legislative decision-making." He argues that the use of economic impact studies encourages government to invest taxpayers' money unwisely. The authors disagree with Hunter's unequivocal condemnation of the technique. We believe that despite its weaknesses and limitations, economic impact analysis is a powerful and valuable tool if it is implemented knowledgeably and with integrity. The only effective antidote to the backlash which Smith describes, and Hunter manifests, is to reject misleading, mischievous, unethical applications.

Acknowledgement

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