Economic Impact Studies: Instruments for Political Shenanigans?

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Most economic impact studies are commissioned to legitimize a political position rather than to search for economic truth. Often, this results in the use of mischievous procedures that produce large numbers that study sponsors seek to support a predetermined position. Examples are selected primarily from the reports of ostensibly expert consultants that illustrate 10 of these mischievous procedures: including local residents; inappropriate aggregation; inclusion of time-switchers and casuals; abuse of multipliers; ignoring costs borne by the local community; ignoring opportunity costs; ignoring displacement costs; expanding the project scope; exaggerating visitation numbers; and inclusion of consumer surplus. The political payoff of these shenanigans is discussed.

Keywords: *economic impact studies; errors; procedures; abuse*

The conceptual reasoning for commissioning economic-impact studies is illustrated in Figure 1. It shows that residents and visitors in a community give funds to the city council in the form of taxes. The city council uses a proportion of these funds to subsidize tourism events, promotions, activities, or facilities that attract out-of-town visitors who spend money in the local community. This new money from outside the community creates income and jobs for residents. This completes the virtuous cycle of economic development (Crompton 1995). Community residents, aided by visitors' bed and sales taxes, are responsible for providing the initial funds, and residents receive a return on their investment in the form of new jobs and more household income. It is the income that accrues to residents that provides the justification for a community's bearing the costs that are associated with tourism.

The purpose of economic impact analysis is to measure the broader economic benefits that accrue to a community. Sometimes, the cycle shown in Figure 1 is perceived to start and end with the city council. This leads to a narrow definition of economic impact that includes only the taxes and revenues collected by local government from the tourism event or facility. Such a narrow definition suggests the council should receive a satisfactory return on its investment from lease fees, rentals, admission revenues, increased sales-tax revenues, or whatever. However, this approach is flawed conceptually because the money invested does not belong to the council; rather, it belongs to the city's residents. *Economic impact* is defined as the net economic change in the incomes of host residents that results from spending attributed to tourists. It is the return that residents receive that is important, rather than only that proportion of the total return that filters back to the council.

Economic impact analyses have an obvious political mission. They invariably are commissioned by tourism entities and usually are driven by a desire to demonstrate their sponsors' positive contribution to the economic prosperity of the jurisdiction that subsidizes their programs or projects. The intent of a study is to position tourism in the minds of elected officials and taxpayers as being a key element in the community's economy. The effectiveness of this strategy is illustrated in the case study reported in Appendix A.

Another approach that used economic impact data to reposition a tourism investment is shown in Table 1. The city was considering termination of one of its festivals because its net cost to the city was $230,000. However, when this investment is reconceptualized as residents' money rather than the city's money, the key measure is revenue accruing to residents, not the city. This embraces expenditures by visitors both inside the festival gates and elsewhere in the community. When this income is aggregated, it suggests residents' return on investment is 28%.

There is a sound conceptual rationale for economic-impact studies, and they have a legitimate political role in informing both elected officials and taxpayers of the economic contributions of tourism to community residents' prosperity. However, this legitimacy is predicated on the studies' being undertaken with integrity. Because the motivation undergirding them usually is to prove the legitimacy of the sponsor's economic case, the temptation to engage in mischievous practices is substantial. In some cases, the practices are the result of ignorance and are inadvertent, but too often they are deliberate and enacted with intent to mislead and distort. The array of mischievous practices used that breach the requirement for integrity has been discussed elsewhere (Crompton 1995). The intent in this article is to illustrate a variety of forms in which deliberate malfeasance practices are manifested and to suggest the political motives and consequences of those procedural abuses.

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FIGURE 1
THE CONCEPTUAL RATIONALE FOR COMMISSIONING ECONOMIC IMPACT STUDIES

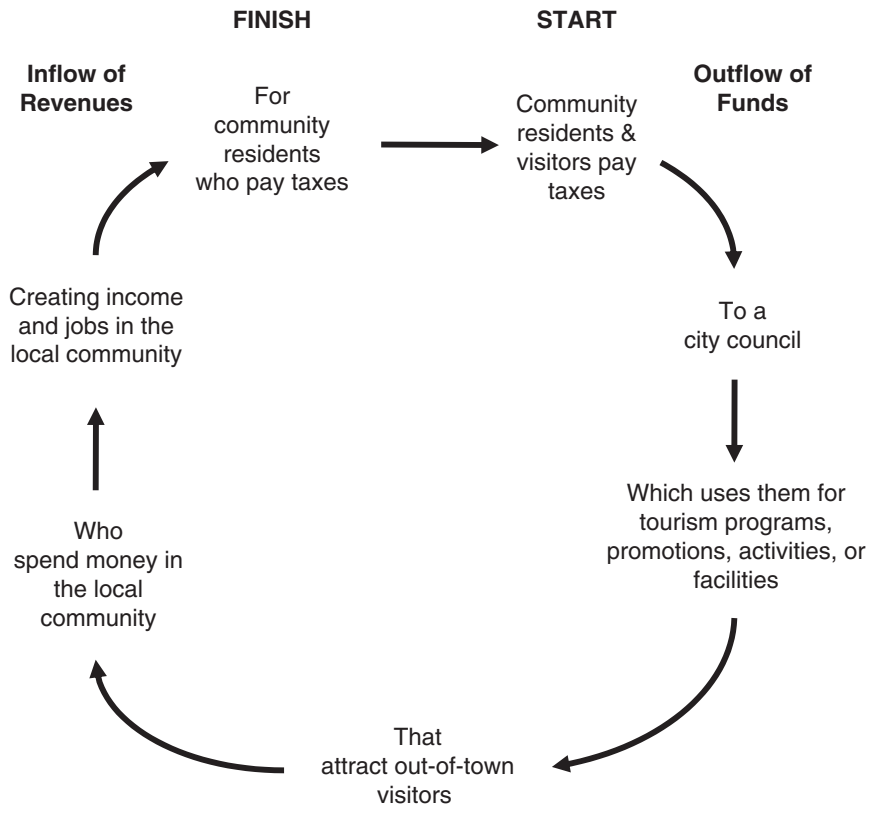


TABLE 1
ECONOMIC RETURN TO A COMMUNITY FROM A FESTIVAL

	$
Cost to the council of staging the festival:	$400,000
Income to the council from admission fees, vendor concessions, etc.:	170,000
Net loss to the city	230,000
Income accruing to city residents outside the festival gates from visitor spending in the community:	343,000
Net gain in income to community residents [($343,000 + $170,000) – $400,000]:	113,000
Return on investment to residents on their $400,000 investment:	28%

SPONSORS EXPECT TO GET WHAT THEY PAY FOR

The motives of a study's sponsor invariably dictate the study's outcome. The point was well illustrated in the contentious debate in the city of Arlington, Texas, concerning the investment of public funds for a new football stadium for the NFL Dallas Cowboys. Economic-impact studies were commissioned by four different factions in this debate. The four consulting entities hired to do the work all had a long track record of doing economic-impact studies and had substantial national visibility. The results are summarized below, with the sponsors and the report authors in parentheses:

1. "The stadium would generate $238 million a year in economic impact in Arlington and $416 million a year in Tarrant County." (City of Arlington, using 2010 as a sample year; Economic Research Associates 2005, p. 2)
2. "A new Cowboys Stadium would bring in $346 million a year to Dallas County." (A property-development company, cited in Dickson and Claunch 2004, p. 1)
3. "The City of Irving, if a new stadium were built, would see an annual economic impact of approximately $51 million." (City of Irving; Turnkey Sports 2004, p. 10)
4. "The best outcome Arlington can expect is that it will lose $290.5 million as a result of the building of a new stadium for the Cowboys . . . The loss for Arlington could be as high as $325.3 million." (Those opposed to public funding for the stadium; Rosentraub and Swindell 2004, p. 1)

The difference in estimates between Study 4 and the other three reports is substantially greater than it appears at first glance because Study 4 used as its timeframe the

TABLE 2

PROPROJECTED BENEFITS TO INTERESTED COMMUNITIES WITH ANNUAL AMOUNTS EXTRAPOLATED TO A 30-YEAR TIME FRAME USING NET PRESENT VALUE DISCOUNT RATES OF 5% AND 10%

	5%	10%
Study 1, $238 million per year in Arlington for 30 years	$3.7 billion	$2.2 billion
$416 million per year in Tarrant County for 30 years	$6.4 billion	$3.9 billion
Study 2, $346 million per year in Dallas County for 30 years	$5.3 billion	$3.3 billion
Study 3, $51 million per year in Irving for 30 years	$748 million	$481 million

projected 30-year life of the stadium, whereas the other three studies reported only an annual amount. If the annual amounts given in Studies 1, 2, and 3 are extrapolated to the same 30-year-life time frame using the same 5% and 10% discount rates to calculate net present value that were adopted in Study 4, the projected benefits to Arlington or Irving during the 30-year period would be as shown in Table 2.

It seems likely that the motives of the study sponsors at least partially explain the results. The Arlington city council supported a public investment of $325 million, which was half of the stadium's projected cost. Supporters of the project spent $10 million on the referendum campaign, of which the Cowboys contributed $6 million, whereas the project's opponents raised just under $45,000 (Cohen 2005). A prominent feature of the brochure advocating support for the project, which was widely distributed to Arlington households, was the supposed high economic return. The brochure proclaimed, "The new Dallas Cowboys stadium is a big win for Arlington's economy," and touted that the stadium would generate "billions in economic impact" (Shah and Brown 2004, p. 2). In the nearby city of Irving, which is where the existing Cowboys stadium is located, a property-development company was interested in selling land to Irving for the stadium. Hence, the large economic-impact number emerging from Study 2 would be similarly advantageous to that company.

The City of Irving was in danger of losing the Cowboys, which, it was anticipated, would generate negative vibrations from at least some sections of the community toward elected officials. Thus, a relatively low figure would serve to minimize the negative political fallout. However, Irving still had aspirations to negotiate with the Cowboys and was willing to offer $80 million of public investment if Arlington voters rejected the referendum proposition. Thus, a level of economic impact that would justify the $80 million tax subsidy was desirable. The $51 million figure in Study 3 appears to offer a reasonable balance between those somewhat dichotomous scenarios.

Study 4 adopted procedures that would be supported by most economists. There is a substantial academic literature showing that professional sports teams generate relatively little tourism spending (this is reviewed in Rosentraub 1997 and in Howard and Crompton 2004). By commissioning as their consultants respected academics who feature prominently in that literature, those opposed to the study could anticipate receiving a low or negative economic-impact outcome.

Consultants supposedly are hired to provide independent evidence, but in many cases, that evidence is manipulated or selectively presented to tell clients what they want to hear, "and what they want to hear is that their event or team or whatever is going to generate a lot of money"(Dunnavant 1989, p. 3). A consulting organization that fails to deliver the economic-impact numbers that its client expects is unlikely to receive either repeat business from that client or new commissions from others. The motive of sponsors frequently is to seek proof to support an established position, and clients expect to get what they pay for!

Some of the consulting companies that are hired to do economic-impact studies are related to and share the names of firms with respected national and international reputations for their work as accountants in auditing organizations' accounts. By hiring consulting firms with nationally respected names, sponsors also are buying the aura of respect and integrity that accompanies the consultant's name, anticipating that this will enhance the credibility and public and political acceptance of the results and quell any questioning of the procedures used.

How might such consultants retain and protect their reputations when they use inappropriate procedures to give clients the large-dollar impact number that sponsors usually are seeking? Two strategies are used widely. First, extensive qualifiers are likely to be inserted into the report. Consider the following extract from a report undertaken by a major national consulting organization:

> We have not audited or verified any information provided to us and as such will take no responsibility for the accuracy of the information which was provided by third parties . . . Some assumptions inevitably will not materialize and unanticipated events and circumstances may occur; therefore actual results achieved during the analysis period may vary from those described in the report, and the variations may be material. (PricewaterhouseCoopers and CSL International 2000, p. 12)

Ostensibly, this is a reasonable caveat for any consultant to include, but unfortunately, it also provides license for thoroughly unreasonable assumptions and obviously biased analyses to be adopted. This seems especially likely to happen when the information is provided to the consultants by the study's sponsors, which, as in this case, frequently occurs. It is difficult to reconcile such uncritical acceptance of information and assumptions with typical claims that "the scope of services for this analysis entailed an independent evaluation of the economic and fiscal impacts" of a project (Economic Research Associates 2005, p. 8).

A second strategy for protecting consultants' reputations often is found in the cover letter accompanying a final report, as the following extract illustrates:

> It should be noted that the analysis utilizes assumptions that were developed based on our market analysis, surveys with comparable arenas, hypothetical lease

> terms, and *conditions and assumptions provided by the City and the developer*." (Deloitte and Touche 1997, emphasis added)

Thus, the consultants offer no critique of the legitimacy of the assumptions given to them by the project's strongest advocates but merely accept the assumptions as a given irrespective of how outrageous they may be.

These explicit and extensive qualifying statements invariably receive no visibility in the ensuing publicity announcing the report's results, as advocates tout only the outrageously high numbers that typically emerge. These qualifiers provide the loophole that enables consultants to make unreasonable assumptions, engage in doubtful procedures, and announce mischievous results. It was not surprising, then, that one investigator who tried to gain access to a threshold number of these economic-impact reports to evaluate their integrity reported that they were "cited time and again by the local media and the respective lobby groups keen to sway public opinion, and then they disappeared" (Hudson 2001, p. 22).

Ostensibly, the people hired to conduct economic impact studies appear to be both expert and neutral. However, "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" (Curtis 1993, p. 7). 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). This type of cynical comment about the integrity of economic studies is becoming increasingly pervasive. The cynicism is provoked by extravagant claims for the impact of visitor spending that many of these studies have made.

INCLUDING LOCAL RESIDENTS: THE MOST FREQUENT MISCHIEVOUS PROCEDURE

Economic impact attributable to a tourism attraction relates only to new money injected into an economy by visitors, media, vendors, exhibitors, volunteers, sponsors, external government entities, or banks and investors from outside the community. Only those visitors who reside outside the jurisdiction and whose primary motivation for visiting is to attend a tourism attraction or who stay longer and spend more time there because of it should be included in an economic impact study.

Expenditures by those who reside in the community do not contribute to an event's economic impact because these expenditures represent a recycling of money that already existed there. There is no new economic growth, only a transfer of resources between sectors of the local economy. It is probable that if local residents had not spent their money at the tourism attraction, 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 an attraction is likely to be 20 fewer dollars spent on movie tickets or other entertainment elsewhere in the community. Thus, expenditures associated with the attraction by local residents are likely merely to be switched spending, which offers no net economic stimulus to the community. Hence, these expenditures should not be included when estimating economic impact. Appendix B elaborates on this issue. Unfortunately, the widespread admonition from economists to disregard locals' expenditures is ignored frequently, because when expenditures by local residents are omitted, the economic-impact numbers often become too small to be politically useful.

A study commissioned to measure the economic impact of the proposed Miami–Dade County general obligation bond program took the total bond expenditures of $680.3 million for parks and recreation capital projects, inserted those expenditures into a multiplier model, and reported the economic impact from parks and recreation general obligation bond projects would be "$1.382.2 billion and result in an average of 1,176 employment positions being created annually" (Villamil and Cruz 2004, p. 3).

However, all of the tax funds used to service the bond debt were paid by Dade County residents. Hence, the $680.3 million and the large interest payments of more than $1 billion that will be paid to borrow the money for 30 years will come from residents' pockets, which means this is $680.3 million (plus interest) that those residents will not have available to spend in the local community; that is, there is no net gain. Indeed, there is a high probability that the bonds will be purchased by an investment organization from outside the community, so the substantial bond interest will leak out of the local economy immediately, resulting in the capital projects having a substantial net negative economic impact on the county. The predominant use of these facilities is likely to be by local residents, so there is likely to be little potential for attracting out-of-town spending that would offset some of these losses. The consultants conclude, "the end result of the GOB investments is . . . a noticeable boost to economic opportunities and jobs for Miami–Dade's residents" (Villamil and Cruz 2004, p. 1). They declare, "these estimates form a conservative **base** [bold in the original] (floor) of economic impacts" (p. 2), and they have the audacity to claim, "this study utilizes professionally accepted methodology" (p. 1)!

The available evidence suggests that not only is the substitution effect likely to result in no net economic gain when the impact of construction projects in a community is measured but, often, there will be no net economic gain even within the construction sector of the local economy. An economic gain would occur within that sector only if those workers employed on the capital projects would not have been otherwise employed. During the 1990s in St. Louis, two major athletic facilities were built: the Kiel Center ($171.5 million) and the Edward Jones Dome ($290 million). An analysis of overall employment in the construction sector of the St. Louis standard metropolitan statistical area concluded: "We find no evidence that construction industry employment in the St. Louis SMSA was higher in the periods during which the Kiel Center and the Edward Jones Dome were being constructed" (Miller 2002, p. 172).

Sometimes consultants acknowledge the inappropriateness of including local residents, then go on mischievously to provide a spurious rationale that they surely know is fallacious and appears to be designed to obfuscate and confuse the reader:

> Spending by both local area residents and travelers from outside the area are included in the measurement of

> economic impacts of visitors to Washington State Parks in this report. Thus, the focus of this research is broader than that found in studies of travel and tourism impacts, which exclude spending by local area residents . . . The primary reason for including all visitation to Washington State Parks is because the purpose of the State Parks is to provide recreational opportunities for local residents, as well as travelers from outside of the area. While spending by travelers from outside the area can be more significant economically because it represents the injection of "new dollars" into the local economy, spending by residents within their community is not insignificant. (Dean Runyan Associates 1999, p. Appendix VIII)

Another study completed by a well-known national firm rationalized its decision to incorporate local expenditures with this spurious rationale:

> The substitution effect refers to the economic phenomenon whereby new or additional spending leads to reduced spending *within other sectors* of that economy, immediately or over time . . . We are not aware of a reliable method for determining the amount and impact of the substitution effect resulting from various economic activities. Previous attempts to quantify the substitution effect have yielded unreliable results. The substitution effect is difficult to accurately quantify and has not been included in this analysis. (Deloitte and Touche 1997, p. 86)

This verbiage was adopted almost verbatim by another major consulting company commissioned to advise on a different project for a different client in the same geographic area:

> The substitution effect refers to the economic phenomenon whereby new or additional spending leads to reduced spending within other sectors of that economy over time . . . We are not aware of a reliable method for quantifying the amount of substitution resulting from various economic activities. Previous attempts to quantify the substitution effect have yielded unreliable results. Although the substitution effect is difficult to quantify, it is reasonable to assume that much of the economic activity generated by the proposed stadium and franchise would be *new* to the City of Arlington and to Tarrant County. (Economic Research Associates 2004, p. 15)

The following examples illustrate different contexts in which studies that mischievously claim to measure economic impact merely count public expenditures and then inappropriately apply a multiplier to them. If elected officials redirected these expenditures either by choosing not to tax local people for them so residents could spend the money themselves or by allocating the funds to another public service, such as roads or police, then, all else being equal, it is likely the economic health of the community would be unchanged.

> Data were collected in 33 cities from nonprofit art organizations (National Assembly of Local Arts Agencies 1994). The organizations reported their annual expenditures and estimated the proportions that were spent locally and outside the community. The local proportions (84% of the total) were entered into multiplier models to determine the economic impact of nonprofit organizations in each of these communities. The results were multiplied up to a population of 19,296 cities in the United States to determine the "national economic impact" (p. 6). This resulted in the conclusion that "the non-profit arts are a $36.8 billion industry in the United States" (p. 12). The authors mischievously conclude that data in their study "[lay] to rest a common misperception: that communities support the arts at the expense of local economic development" (p. 12).
>
> The authors of a study titled "Economic Impact of Park and Recreation Agencies across the State of Illinois" aggregated the operating and capital expenditures of all the local agencies, applied a multiplier to them, and concluded, "$3 billion in cumulative spending, earnings and other related economic activity, contributed to the statewide economy" (Economic Research Associates 2005, p. 3). The sponsoring organization subsequently widely distributed glossy brochures declaring "Public parks and recreation is a $3 billion industry in Illinois" (Illinois Association of Park Districts 2005).
>
> A study titled "Economic Impacts of 'Arts and Culture' in the Greater Edmonton Region" reported that locals and visitors spent $57.7 million on arts and culture, whereas the 101 organizations that constituted the operationalization of "arts and culture" spent $40.3 million. When a multiplier was applied, the "Edmonton impact" was $143.9 million. With a chutzpa that is too often characteristic of these mischievous studies, the authors declared, "the resulting impacts can safely be considered very conservative" (Economic Development Edmonton 2000, p. 7).

It was noted earlier in the article that *economic impact* refers to the net economic change in the income of host residents that results from spending by visitors from outside the community. Recognizing this, some agencies, organizations, and their consultants, who seek a high number for political purposes, have changed the terminology from *economic impact* to *economic activity* (cf., the Illinois study cited above), *total annual spending*, *gross economic impact*, *economic surge*, *gross economic output*, *gross economic value*, *total contribution to the economy*, *economic significance*, or some other analogous phrase that facilitates the incorporation of local residents' expenditures into their analyses. Noneconomists are unlikely to differentiate the nuances and to falsely consider these other phrases as synonyms of *economic impact*. When their procedures are challenged by economists, they might declare, "But we didn't measure economic impact, we measured economic activity (or whatever)." The following are indicative of the verbiage used in such studies:

> A study estimating the "contribution of the golf course industry to the state economy" concluded: "Our findings

> indicate that the state's golf courses and related activities (pro shops, restaurants and bars, and clubhouses) were estimated to contribute 16,334 full-time-equivalent jobs and $379.8 million in income. This indicates that the golf course industry is an important component of the state's tourism sector and a significant contributor to the state's economy" (Barkley, Henry, and Evatt 1995, p. 19).
>
> A study of the economic contribution of ATV-related activities in Maine concluded: "We estimate $156 million of net spending took place in Maine during the 2003–2004 season to purchase, register and operate ATVs. Approximately 5.9% of this spending comes from nonresident households." When multipliers were applied, "ATVs directly and indirectly contribute $200 million of economic activity to Maine's economy" (Morris, Allen, and Rubin 2005, p. ii). This study also reports: "A large portion of this spending, however, involves the purchase of goods that are not manufactured in this state. For example, 62.6% ($97.6 million) of total ATV spending goes to purchase new ATVs, tow vehicles and gasoline. None of these items are produced in Maine" (p. 37).

A political goal of this study probably was to encourage state government to invest in more ATV trails to encourage growth of this industry. However, given the small amount of out-of-state spending that occurs for ATVs and the large outflow of funds for purchasing ATV equipment reported above, a case could be made that ATVs have a negative economic impact on the state. Thus, if the state were to close down all ATV trails or ban ATVs, money currently flowing out of the state would be likely to remain in it, and the state's economy would be healthier!

> A study of the "economic value of Vermont state parks" included estimates of both residents' and nonresidents' expenditures on both nondurable and durable goods. For nondurable goods (those that are generally consumed during the course of the activity, such as food, gas, lodging, and rental fees), the estimate was $22.6 million. For durable goods (e.g., recreation vehicles, boats, camping trailers, and equipment), which referred to purchases "made in Vermont in the previous year and the percentage of those purchases which were attributable to visiting the Vermont state parks" (p. 18), the estimate was $36.3 million. When these are aggregated with a willingness to pay a measure of consumer surplus, a calculation is made of the "Gross value of Vermont State Parks" (Negra, Manning, and Gilbert 1994, p. 38).

Two Caveats

Conceptually, there are two types of situations in which it may be appropriate to include the expenditures of some or all local residents in an economic study. First, if there is evidence to suggest that a tourism event keeps some residents at home who would otherwise leave the area for a trip, these local expenditures legitimately could be considered an economic impact because money has been retained in the host community that otherwise would have been spent outside it. This may be termed *deflected impact*. It is deflected in the sense that instead of leaving town to go to a tourism event, these individuals now spend their money in the local community. An alternate form of deflected impact, which may offer a counterbalance to that described in the previous paragraph, is that some local residents may leave their host community if it is inundated with tourists and spend money elsewhere rather than in their hometown to avoid congestion.

Evidence of deflected impact is very difficult to collect. In most cases, the evidence is likely to be tenuous, and the deflected impact is likely to be minimal, so the accepted convention by economists is to disregard it. However, consultants sometimes use the possibility of some deflected impact to inappropriately justify including all local residents' expenditures: "spending by local area residents represents money that stays within the community rather than being spent elsewhere" (Dean Runyan Associates 1999, Appendix VIII).

The second situation in which local residents' expenditures are included is when a study is intended to be a significance analysis rather than an economic impact analysis (Stynes 2001). A significance analysis is "a measure of the importance or significance of the project/program (rather than impacts) within the local economy which shows the size and nature of economic activity associated with recreation/tourism activity in the area" (Stynes 2001). Unlike a legitimate economic impact study, it offers no useful information that would inform the trade-offs involved in decisions regarding how best to invest public funds. Its only raison d'être appears to be to enhance the tourism sector's political profile.

A significance analysis is a legitimate economic procedure, but it becomes mischievous when the differences between it and an economic impact study are ignored, blurred, or not made explicit. A significance analysis offers a resolution to the conundrum confronting consultants with ethical reservations about bidding on mischievous economic-impact studies. They have to make a living, and if they do not bid on the study, it will still be commissioned from a competitor, so their acting with integrity does not change anything. A solution is to state explicitly, unambiguously, and prominently that the study is not an economic impact study but is a significance analysis. For example, the author of a study on the economic significance of amateur sport and active recreation in Edmonton, at the beginning of his report, prominently stated,

> A crucial distinction between an economic significance study and an economic-impact study is that the former does not attempt to determine what would happen if the amateur sport and active recreation sector of the economy were to disappear altogether. Instead the purpose is to calculate the "amateur sport and active recreation gross municipal product" within the city of Edmonton for a specified year. (Berrett 2001, p. 6)

The author's appropriate allusion is that if the sector he is measuring were to disappear, the impact on the city's economy may be minimal because people would spend their funds on substitute activities. The gross municipal product of this sector of the city's economy was estimated at $500 million, of which $125 million was government funding. These data offer no useful information for guiding policy.

Their only utility is to provide advocates with a large, albeit meaningless, number that can be used to raise the sector's political profile and to imply that more government investment in facilities for these activities is justified. However, the consultant was able to retain his integrity while accepting the commission.

INAPPROPRIATE AGGREGATION

When the geographical area of impact is changed, it changes the definition of which participants are visitors and which are locals. For example, the Florida state parks system commissioned a study of the economic impact of each state park on the county in which it was located. These were presented (inevitably using only a sales multiplier, and the limitations of this are discussed in a later section), but all of the individual park results were then summated so that the first paragraph of the executive summary reported,

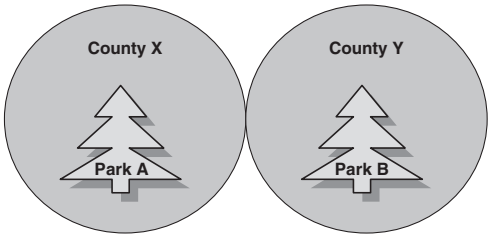
> The Florida state park system had an overall direct economic impact of nearly $273 million on local economies throughout the state; direct economic impact is defined as the amount of new dollars spent in the local economy by non-local park visitors and park operations. Approximately $16.3 million was contributed to the general fund in the form of state sales taxes. In addition, over 8,100 jobs were generated as a result of the state parks' operations. (Florida Department of Environmental Protection 1999, n.p.)

This conclusion, which was probably the only paragraph in the report that many elected officials at whom it was targeted would read, was mischievous. The scenario in Figure 2 shows parks A and B, located in counties X and Y, respectively, and concludes that the economic impact of parks A and B on their respective counties is $200,000 and $320,000. What is the combined impact of parks A and B on counties X and Y? The state parks study quoted above would conclude $520,000, but the correct response is $0. When the geographical unit of analysis is changed by measuring the impact of both parks on both counties, all expenditures become local because there are no visitors to the two parks from outside the two counties. Thus, when the state parks agency changes the unit of impact analysis from the individual county level to the state level, the only spending that qualifies for inclusion in an economic-impact analysis is that which is expended by visitors from outside the state.

INCLUSION OF TIME-SWITCHERS AND CASUALS

Expenditures from out-of-town visitors should be net of time-switchers and casuals. Some nonlocal visitors may have been planning a visit to the community for some time but changed the timing of their visit to coincide with a tourism event. For example, parents who live a long distance away from their children who are in college may elect to visit them on a weekend when an appealing cultural or sports event is being staged on the campus or in the community.

FIGURE 2
THE ECONOMIC IMPACT OF PARK A ON COUNTY X AND OF PARK B ON COUNTY Y



- Total visitation to Park A is 70,000, with 50,000 coming from County X and 20,000 from County Y. The 20,000 from County Y spend $10 each in County X, so the economic impact of Park A on County X is $200,000.
- Total visitation to Park B is 100,000, with 60,000 coming from County Y and 40,000 from County X. The 40,000 from County X spend $8 each in County Y, so the economic impact of Park B on County Y is $320,000.

The spending in the community of these time-switchers should not be attributed to the event because the spending likely would have occurred without the event, albeit at a different time of the year.

Casuals are visitors who were already in the community, attracted by other features, and who elected to go to a particular tourism attraction instead of doing something else. For example, San Antonio is a popular convention destination because of its climate and the ambiance of the River Walk, where the convention center and major hotels are located. The author's studies in that city have shown that approximately one-third of out-of-town visitors to its attractions are likely to be casuals. If conference-goers attend a festival or attraction in the city, their economic impact should not be attributable to the festival or attraction, because without it, the likely scenario is that these visitors would have spent a similar amount of money at, for example, a restaurant on the River Walk. The festival or attraction was not the reason that brought them to San Antonio.

ABUSE OF MULTIPLIERS

Multipliers are abused in myriad ways, and only the four most common are noted here: compounding the inclusion of local residents' errors, emphasizing sales multipliers, mischievous use of employment multipliers, and failure to include capture rates.

Compounding the Inclusion of Local Residents' Errors

First, the multiplier is only applicable when expenditures represent new money entering an economy from visitors. Many of the studies described earlier that mischievously included money spent by local residents compounded the magnitude of their mischief by then applying a multiplier to these local funds.

Emphasizing Sales Multipliers

The second abuse is the pervasive use of the sales, output, or transaction multiplier rather than an income multiplier. A sales or output measure reports the direct, indirect, and induced effect of an extra unit of visitor spending on economic activity within a host community. It relates visitor expenditures to the increase in business turnover that they create. Sales output is an esoteric measure with limited practical value. It may be of interest to some economists involved in researching industry interdependencies, to business proprietors interested in sales impacts, or to officials who are interested in approximating sales revenues that may accrue from injections of funds into particular sectors, but it does not offer insights that are useful for guiding elected officials in making tourism policy decisions.

The personal-income measure of economic impact reports the direct, indirect, and induced effect of an extra unit of visitor spending on the changes that result in level of personal income in the host community. In contrast to the sales-output indicator, the income measure has substantial practical implications for policy makers because it enables them to relate the economic benefits received by residents to the tax resources that residents invested.

The conceptual model shown in Figure 1, which illustrates the rationale for economic impact studies, specifies that their purpose is to compare how much money residents invest in a tourism project with how much income they receive from it. The notion of sales transactions does not appear anywhere in the model, and from the perspective of residents and elected officials, it is irrelevant to the analysis. Nevertheless, because sales measures of economic impact are generally two or more times larger than personal-income indicators, sponsors of economic-impact studies invariably report economic impact in terms of sales outputs rather than personal income. The higher numbers appear to justify better the public investment that is being advocated, but they are meaningless for this purpose and mislead rather than inform those charged with using this information to guide public policy. The use of sales rather than income multipliers probably means that inaccurate, exaggerated, spurious inferences will be drawn from the data, as stakeholders are uninformed as to the differences between sales and personal-income measures.

Mischievous Use of Employment Multipliers

The third common abuse of multipliers is the mischievous use of employment multipliers, which measure the effect of an extra unit of visitor spending on employment in the host community. Consider the following example:

> The state of Maryland committed $200 million for a stadium to attract the NFL Cleveland Browns to play in Baltimore and become the Baltimore Ravens. Findings from the economic impact study commissioned by the state were publicized widely to justify this investment of public funds. The study concluded that a Baltimore football team would bring the equivalent of 1,170 full-time jobs to the local economy, even though the team would have only 71 full-time employees, including the 50-man player roster (Morgan 1997).

Given that the team plays only 10 home games a year, the contention that it would beget 1,170 full-time-equivalent jobs seems intuitively unreasonable. Part of this big number was attributable to the inclusion of locals, casuals, and time switchers in the calculation of monetary economic impact, but there are three other important caveats regarding estimates of employment that were ignored in the study and that always should be considered.

First, estimates invariably include full-time, part-time, and seasonal jobs and do not distinguish between them. The employment measure does not identify the number of hours worked in each job or the proportion of jobs that are full-time, part-time, or seasonal. However, it seems reasonable to posit that local businesses are unlikely to hire additional full-time employees in response to additional demands created by a tourism event, because the extra business demand is likely to be sporadic and last for only a short time period. In these situations, the number of employees is not likely to increase. Rather, it is the number of hours that existing employees work that is likely to increase. Existing employees are likely to be requested to work overtime or to be released from other duties to accommodate this temporary peak demand. At best, only a few short-term additional employees may be hired. Hence, it is improbable that anything like 1,170 full-time jobs would be created by the Baltimore Ravens NFL team. The few jobs that do emerge probably will be short-term, part-time jobs. However, since this caveat rarely is acknowledged or explained in economic impact reports, decision makers usually are misled mischievously into assuming these are permanent full-time positions.

These types of employment adjustments were reported by Arnold (1986) and Bishop and Hatch (1986) after their interviews with managers in transportation and restaurant businesses immediately after the Adelaide Grand Prix. They found that companies in both types of businesses accommodated their labor requirements by increasing the hours of existing employees, although some restaurant establishments indicated they hired casuals to supplement this action. Arnold 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).

A second caveat is that the employment estimates assume all existing employees are fully occupied, so an increase in external visitor spending will require an increase in level of employment within the jurisdiction. In the context of the front desk of a hotel, for example, the employment estimator assumes that the existing staff would be unable to handle additional guests checking in for overnight stays associated with a tourism event. However, in many cases, they are sufficiently underemployed to do this, so additional staff would not be needed. The implication of employment multipliers is that without the injected expenditures, these jobs would not exist. In these situations, the employment coefficient is exaggerated.

The third potentially misleading corollary of employment estimates is that they imply all new jobs will be filled by residents from within the community. However, it is possible that some proportion of them will be filled by commuters from outside the community. In these cases, it is

inappropriate to conclude that all the jobs benefit the community's residents.

The first and second caveats suggest that the employment multiplier coefficient is an inappropriate output measure for reporting the economic impact of short-term tourism events. It becomes appropriate only when the focus is on tourism facilities where a consistent flow of visitors from outside the area to the enterprise and community suggests that full-time jobs are likely to be created.

Failure to Use Capture Rates

When visitors purchase retail goods, their total expenditures typically are considered to be new money injected into the economy, and thus, they are entered into a multiplier model. However, if the goods were manufactured outside the community, their cost immediately leaks out of the local economy. Stynes (2001) explains, "The capture rate measures the portion of visitor spending that accrues to the region as final demand. Only the spending that is 'captured' by the local economy should be multiplied." Consider the following example:

> Suppose a tourist purchases a camera for $100 and the retail margin is 30%, or $30. If it is assumed that the wholesaler, shipper, and manufacturer all reside outside the local area, the final demand change in the local region is only $30, not $100. If an income multiplier of, say, .6 is applied, the impact on residents' income is $18, not $60. (adapted from Stynes 2001)

Thus, including all retail spending rather than only retail margins and omitting the cost of goods that are not made locally greatly exaggerates the economic impact: "Rarely will the gasoline that tourists purchase be locally refined and except for local arts and crafts and agricultural products, the souvenirs that tourists buy are imported from outside the region" (Stynes 2001).

IGNORING COSTS BORNE BY THE LOCAL COMMUNITY

If there is an increase in economic impact in a local economy, it is probable that there also will be an increase in costs associated with it. It has been pointed out that "one of the basic problems of economics is scarcity, and one can only expect that increased economic activity will create more demand for scarce inputs, thus driving up their prices" (Palmer 2002, p. 3). However, economic impact studies report only economic benefits, and monetary costs and nonmonetary negative impacts inflicted on a community are not considered. Clearly, if these costs exceed the benefits, then even if there is a relatively high gross economic impact, the investment in tourism may be counterproductive to the economic well-being of the community.

Incorporating costs into a study changes it from an economic-impact analysis to a benefit-cost analysis. However, there is often an inadvertent or mischievous blurring of these distinctions. Thus, with reference to the city's proposed $325 million investment on a new stadium for the Dallas Cowboys, the mayor of Arlington was quoted as saying the city "won't proceed unless an outside consultant's cost-benefit study affirms that a Cowboys stadium would be a municipal plus" (Shah and Brown 2004, p. 2). The phrase *cost-benefit analysis* was use consistently to describe the study in the local media. However, the consultants' study made no reference to costs, focusing only on purported economic and fiscal benefits (Economic Research Associates 2005).

Costs may be both on site and off site. On-site costs include the costs of additional equipment or supplies, the cost of additional labor contracted by an agency to assist with an event, and the cost of the time invested in a project by the agency's existing employees. Off-site social costs borne by a community may include such elements as traffic congestion, road accidents, vandalism, police and fire protection, environmental degradation, garbage collection, increased prices to local residents in retail and restaurant establishments, increased costs to other businesses seeking these new workers if there is a shortage of labor supply, loss of access, and disruption of residents' lifestyles. Translating some of these impacts into economic value is relatively easy (for example, costs of extra police or fire protection and off-site cleanup costs), but in other cases, it is difficult, which is one reason why these costs usually are ignored. If some of these costs cannot be translated into economic values, they at least should be described, qualitatively assessed, and included in a presentation to a legislative body so they are considered in an evaluation of an event's net benefits.

IGNORING OPPORTUNITY COSTS

Opportunity costs are the benefits that would be forthcoming if the public resources committed to a tourism project were (1) redirected to other public services or (2) retained by the taxpayer. Government investment in tourism projects and programs will have an economic impact, but the key question is, compared to what? Does government spending on tourism stimulate the economy more than other kinds of investment? "In other words, is it better than paying a crew to dig a hole and fill it back up again (which might have fewer negative social and environmental impacts than the new [tourism project])?" (Dittmar 1999, p. 1).

Almost 30 years ago, one of the pioneers of using economic-impact studies in tourism warned of the following:

> Any attempt to measure the benefits from particular economic activities requires some assessment of the real cost to society of devoting resources to that activity, and a comparison with the benefits to be obtained from the allocation of these resources to other activities. (Archer 1977, p. 46)

Conceptually, for an investment of public money to be justified, it must meet the criterion of *highest and best use*. That is, it should yield a return to residents that is at least equal to that which could be obtained from other ventures in which the government entity could invest. The issue of opportunity costs is the fundamental social issue associated with government investment in tourism. The key question is not whether an investment in tourism is likely to have a positive economic impact. Rather, it is whether more benefits would be generated from any number of alternate government

expenditures, such as investment in a local college, public schools, transportation infrastructure, health programs, or incentives to attract other kinds of businesses to locate in the community.

Thus, a positive economic impact does not mean that a tourism project or program should be supported, because the opportunity cost associated with this investment may be unacceptably high. Consider the following situation:

> Politicians in Denver did not exactly drop their jaws in shock when a Brown, Bortz and Coddington study projected a $16.5 million annual impact were the city to get a Major League Baseball team. It was more like a yawn. "It's nice, but I can't say we were all that impressed," said a mayoral assistant. "We just finished approving a convention center that's going to generate $200 million." (Dunnavant 1989, p. 32)

The difference in economic impacts of these two types of facilities is attributable to who uses them. Sports teams primarily entertain local residents, whereas convention centers attract nonresidents to the community. Ironically, it is the sports team that is likely to be more popular politically because its contribution to the host community's quality of life is likely to be more obvious to most residents. In the above example, the city invested in both enterprises. If resources had been available for only one of them and community politicians had selected the baseball option, the economic-impact analysis would have been positive, so the city probably would have supported the baseball opportunity. From an economic perspective, however, this would have been an unwise investment of public dollars that would have occurred because the opportunity cost of not being able to invest in the convention center was not considered.

In addition to considering the opportunity cost of not investing government resources into other projects because these resources are being expanded for tourism, there are opportunity costs associated with taking taxes from residents and visitors, because it is likely that those funds would have been spent in the community if the government had not taken them. In essence, the government may be perceived as spending funds for residents, so the net gain to the community is zero. The taxing process merely substitutes public expenditures for private expenditures; there is no extra generation of income. Indeed, it may be argued that when residents are taxed for a tourism project, the negative multiplier effect of taxing residents may offset any positive multiplier: "Everybody who pays a dollar in taxes to support the facility [or event] must reduce his or her spending. The diminished spending goes around and round just like the positive multiplier effect" (Keating 1999, p. 18).

In a glossy brochure publicizing the results of the economic impact of park and recreation agencies in Illinois, a prominent headline proclaims, "73 cents of every dollar spent by park and recreation agencies stays in Illinois" (Illinois Association of Park Districts 2005). This could be interpreted to mean that if the residents of Illinois who were obligated to provide the taxes that are used to fund public park and recreation agencies had been permitted to keep that money and spend it themselves, and if more than 73% of their spending occurred within the state, then Illinois residents would be economically stronger if there were no park and recreation agencies!

The emphasis placed on multipliers in economic impact analyses dealing with tourism may lead the unwary to suppose that there is some unique property conferred on income and employment generation resulting from such events or facilities that is not shared by other sectors of the economy. The inclusion of opportunity cost in an analysis recognizes that this is not the case: "It is the comparative size of the multiplier that is important, not simply the fact that a multiplier exists" (Hughes 1982, p. 171). This commentator goes on to note that the empirical literature indicates visitor-expenditure multipliers "at best probably reflect an average value added compared with other sectors. References to the multiplier as a significant advantage need to be seen in this context" (p. 172).

Another dimension of opportunity cost relates to the distributional consequences of a public investment:

> Who benefits and who pays should be a standard part of any "impact" analysis . . . The "big number" buries all of the assumptions, and doesn't identify the winners and losers, "Everybody wins." In most cases, the winners are those who already have political or economic clout and the losers don't know the difference. (Stynes 2006, n.p.)

Perhaps nowhere is this better illustrated than in the public subsidies for professional sports stadiums and arenas, in which "forty-five individuals from the *Forbes* magazine list of the wealthiest 400 Americans (all with net assets exceeding $500 million) owned a direct interest in a team in one of the four major leagues" (Howard and Crompton 2004, p. 74). The transferring of money from middle-class and blue-collar workers to an immensely profitable entertainment business is regressive and works to the disadvantage of those groups.

IGNORING DISPLACEMENT COSTS

There is some likelihood that visitors from outside a community who are attracted by a major tourism 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.

Data for economic impact studies frequently are collected by surveying visitors who are in the area for the event. Thus, each of them is regarded as a source of new economic impact. However, if each of these visitors merely replaces another potential visitor who stayed away from the community because of the congestion associated with the tourism event, there is no new economic impact.

The NFL Super Bowl is promoted as a major tourism event with a commensurate large economic impact on the host community. Thus, studies sponsored by the NFL on the economic impact of the 1999 Miami and 2000 Atlanta Super Bowls reported economic impacts on Miami and Georgia of $396 million and $292 million, respectively (Williams 2001). However, a study that compared January spending in six Super Bowl host cities to spending in that month in those cities during a series of non–Super Bowl years before and after the event found no increase. The study's author concluded, "The net economic impact of a Super Bowl is virtually zero" (Williams 2001, p. 22).

Multiple reasons were suggested to explain these results, most of which have been discussed previously in this article. However, a primary reason not previously discussed was the displacement effect. The six Super Bowls that were studied were held in the cities of Tampa, Miami, and Phoenix. Hotel rooms in January in these three Sunbelt cities are close to being fully booked when there is no Super Bowl event (Porter 1999). Thus, if they were 80% occupied during a non–Super Bowl year by guests who were not associated with any conference or special event, then only the incremental net difference of 20% (and any increment of increase in the room rate) should be attributed to the economic impact of the Super Bowl. Further, in most cases, a minimum number of nights' stay is required by hotels during a Super Bowl period, and many guests do not stay for all the nights for which they are required to pay. Although the room is paid for, when a guest leaves early, it is empty. Consequently, there is no ancillary spending impact from restaurants, shopping, and so on. In contrast, if the Super Bowl were not there, the room would be filled with a guest spending at these other entities. If, however, those displaced were all associated with another event, it may be argued there is no displacement effect, because without recruiting an event, the rooms would be empty.

The displacement-cost principle was illustrated by events at the Atlanta Olympic Games:

> To the surprise of all, the masses never came. Further, those that came did not spend the money expected of them. The tour buses sat empty and the area's attractions remained relatively unseen. The Olympic consumer proved a very different marketing customer from the ordinary tourist or business traveler: an unpredictable hybrid—sports-mad, tight-fisted and uninterested in traditional tourist attractions. It has been estimated that on average, spectators at the Atlanta Games spent just $15 a day after accommodation and transport. Normal business travelers, by comparison, would spend $350 a day and ordinary tourists about $100 a day on a similar basis. (Ratnatunga and Muthaly 2000, p. 243)

Olympic guests had no interest in eating out, visiting attractions, or retail shopping because they spent so much time getting to venues and sitting through events that by the end of the day, they wanted to relax in front of the television. Consequently, they spent much less than the regular visitors to Atlanta, whom they displaced.

Another form of displacement should be mentioned. This occurs when an old facility is replaced by a new facility. For example, in the context of professional sports, economic-impact studies undertaken on new facilities typically attribute all economic gains to the new facility. However, most of these already were accruing to the community from the old facility. Only the incremental gains uniquely attributable to the new facility constitute new economic income to the community. The remaining element of economic gains merely is displaced impact from the original facility.

EXPANDING THE PROJECT SCOPE

Some tourism amenities receive support from government entities because they position themselves as catalysts for enhancing the tax base through stimulating regeneration of a dilapidated area or, in the case of green-fields sites, for encouraging ancillary development around them. This position then is used to justify studies that expand the project's scope to measure the economic impact associated with the whole area rather than being confined to the specific tourism project.

For example, a study titled "Evaluation of the Proposed Arena" was commissioned to assess the economic impact of a multipurpose downtown arena in Dallas. The city's voters were being asked to approve a $125 million investment in it. However, the report staked out a wider brief than the arena:

> In addition to the multi-purpose downtown arena previously described in this report, the developer has indicated that, subject to future market demand, they [sic] would develop a variety of real estate properties in the downtown Dallas area over a 15 year period. The project components are anticipated to include the following uses: office, retail (both specialty and entertainment), residential and hotel . . . For the purposes of this analysis, the economic and fiscal impacts have been based on stabilized operations of the *completed development*. (Deloitte and Touche 1997, pp. 80, 81)

The supposed "economic and fiscal impact study" metamorphosed in the narrative to a study of "gross economic output." It embraced the egregious practices of including locals' and casuals' expenditures, counting city investments in capital projects as new money, applying sales multipliers to these, and so on. However, in addition, it included the speculative other developments in the calculations. This enabled it to conclude,

> The total cumulative gross economic output generated within the City by the construction of the proposed project is estimated to be approximately $708.7 million. This economic activity supports a cumulative total of 8,078 gross FTE jobs and $288.6 million in employee compensation over the construction period. (Deloitte and Touche 1997, p. 88)

Of the $708.7 million, $210.7 million (30%) was attributable to the arena and $498 million (70%) to the "other developments." A similar strategy was used to derive annual impacts:

> The total gross economic output within the City generated by the operation of the proposed project is anticipated to be approximately $648.5 million annually. The economic activity supports a cumulative total of 8,089 gross FTE employment and $209.5 million in employee compensation. (Deloitte and Touche 1997, p. 94)

The arena accounted for $236 million (36%) and the "other developments" $412.4 million (64%). Hence, the influence of the inappropriate procedures used to derive the arena's "economic/fiscal impact analysis" (the description used by the consultants in the cover letter accompanying the report) was magnified considerably by the mischievous inclusion of the highly speculative "other developments." The voters

approved the city's investment of $125 million, and presumably, some of them were influenced by these misleading economic data. However, 7 years after the study was completed and 5 years after the arena opened, none of the other developments either had materialized or had been planned, causing the city's mayor at that time to observe angrily,

> They show all the pretty watercolors of the private development that they will build once the arena opens and then nothing ever happens. They tell us they're going to have stores, including a Wolford, where they sell French panty hose for fifty dollars a pair. Well, I talked to Wolford in New York, and you couldn't get a Wolford next door to a basketball arena at any price. The mixed use complex has never gotten off the drawing board. (Cartwright 2004, p. 105)

Nevertheless, the arena's advocates had achieved their goal.

In 1994, the city of Arlington paid $161 million of the $191 million total cost of the new Ballpark at Arlington to accommodate the Texas Rangers baseball team. Again, a major element contributing to the projected economic impact was to be the associated proximate development that the ballfield would stimulate. The synergy proved to be mythical. Ten years later, the mayor of Dallas observed,

> Walk over to the Ballpark and see there is nothing happening. The area just south of the Ballpark is a blighted neighborhood with the highest crime rate in the city. All the promised offices, high-rises and retail shops that were supposed to line a riverwalk and border a man-made lake never materialized. Similar promises were made to Irving when Texas Stadium was built with local sales tax revenue [The total cost of the stadium was met by the city]. What you see today is a parking lot that stretches to the horizon. (Cartwright 2004, p. 80)

EXAGGERATING VISITATION NUMBERS

Reasonably accurate measures of economic impact depend on reasonably accurate counts of visitors, because the impact estimates are derived by extrapolating from a sample or from secondary sources to a total visitation count. At gated tourist venues that charge an admission, accurate counts are likely to be available from ticket sales, turnstile counts, or highway counters. However, many tourism venues are not gated and/or do not charge admission. In these cases, attendance counts are frequently guesstimates made by the organizers, who sometimes are tempted to exaggerate them. Accuracy in doing economic impact analysis is of little use if the total attendance counts are inaccurate.

The Texas state parks division consistently reported 18 to 23 million annual day visits during the early 1990s, and its economic impact estimates were based on these data. The state's legislators were skeptical, and they ordered an independent verification. The visitation data were derived from traffic counters at each park entrance. A formula was applied to the axel counts that incorporated variables for nonvisitor official vehicles, number of people per vehicle, visitors who entered and exited a park on multiple occasions in one day, and access to a park through multiple entrances by the same visitor on the same day. The independent study found the formula's parameters were much too high. The revised formula resulted in a revised estimate of 10 to 11 million annual day visits. Thus, on average, the economic impact estimates of the parks was halved (Kaczynski, Crompton, and Emerson 2003).

The author of this article was asked to estimate the economic impact of the Mardi Gras festival in Galveston, Texas, which was spread over two weekends. After comparing it with data from similar events on the island, he estimated the impact to be approximately $2 million in income and $5.2 million in sales. Galveston is a barrier island, and the visitation numbers were derived by comparing average traffic counts on the causeway to the island on the weeks preceding and following the festival week to those of the festival week. The difference of approximately 80,000 visitors was assumed to be because of festivalgoers. Two months after the study had been presented to the client, friends on the island sent a copy of the local daily newspaper, which featured as its front-page major headline, "Mardi Gras: Impressive Cash Cow," reporting that "the overall economic impact exceeded $85 million" (Sieger 1992, p. 1). The client was dissatisfied with the original $2 million personal-income (or $5.2 million sales) estimate, so the newspaper reported that another consultant was hired and given the information that 800,000 visitors attended the festival. This number (10 times that of the original study!) was derived by assuming that every person who crossed the causeway during the period of Mardi Gras was going to the festival, even though a large majority of the vehicles constituted regular commuter traffic. The hyperbolic visitation and economic impact numbers were cited consistently in the island's media and publicity materials each year at the time of the festival for the next decade.

INCLUSION OF CONSUMER SURPLUS

There is an emerging trend to extend the traditional measure of economic impact expenditures by also capturing an estimate of consumers' surplus. It is argued that this is needed to reflect the actual economic value of tourism to an area. This extension requires visitors to estimate how much more they would be willing to pay before they would be deterred from taking the trip. For example, in a study of the impact of avitourism (birders) on Texas, the annual gross economic output of each individual birder (which included residents and casuals and used an arbitrary sales multiplier) was estimated at $4,904. This was supplemented with an estimate of an average per-birder annual consumer surplus of $767. The two estimates then were aggregated to derive a gross economic value of $5,671 (Fermata 1999).

Disregarding the mischievous use of *gross economic output*, there may be merit in estimating consumer surplus alongside traditional economic impact analyses. From a policy perspective, this may be useful information, offering insight into price elasticity of existing tourism amenities and into visitors' economic capacity to embrace additional tourism attractions that may be launched. Further, in contexts in which there is no admission charge or the charge is

subsidized heavily, consumer surplus offers an economic measure of the value of the experience to users of the resource. However, if this is done legitimately, the aggregation of the two estimates measures economic value to the *consumer* and *potential* economic impact on an area, *not* economic impact. If this distinction is not made clearly, incorporating an estimate of consumer surplus merely becomes another means of mischievously generating a large number.

THE POLITICAL PAYOFF

Do the shenanigans illustrated in this article pay off for their sponsors? Although it may confound one's value system to admit it, there is little doubt that the cheating pays a political dividend. Consider the Dallas Cowboys football stadium study described earlier in the article (Economic Research Associates 2005). The voters of Arlington approved the $325 million public-tax investment by a vote of 54% to 46%. Thus, the hyperbole of the economic impact study commissioned by the city (which incorporated 7 of the 10 mischievous procedures discussed in this article) had to exert a determinate favorable influence on only 5% of those who voted for its influence to be decisive.

The study described earlier of nonprofit art organizations in 33 cities received widespread national media coverage. Among the comments appearing in different press outlets were the following:

> "The arts are clearly a major industry, not only in our city but throughout the nation" (DeWitt 1994, p. 7).
> "The arts are a major economic force across the country" (DellaFlora 1994, p. 1).
> "When you provide $1 million for the arts, that supports jobs in the community—not just arts jobs, but people like bus drivers and hardware store owners" (King 1994, p. B1).
> "The reduction or closing down of the arts in this city would have the impact of a factory closing or relocating" (Quinlan 1994, p. 3).
> "Nonprofit arts bring 1,700 jobs to the area" (Fersat 1994, p. 8E).
> "Arts boost economies, study says" (Trescott 1994, p. 12).

The economic impact study that generated these headlines derived its conclusions by using questionable procedures, but these were not challenged by the media, which gullibly accepted them at face value. Thus, the sponsors achieved the political payoff they wanted from the study, because it effectively helped position the arts as an economic engine in communities.

The effectiveness of tourism agencies in the past couple of decades in positioning themselves as spark plugs of their community's economy is testimony to the effectiveness of economic impact studies. However, because so many of them are mischievous, one has to conclude that, at least in part, tourism has established this prominent position on a morally questionable foundation. What is disappointing from a conceptual perspective is that tourism has no need to engage in such shenanigans. A sound economic case could be made in most contexts without the mischievous hyperbole. Unfortunately, the pragmatics of the economic-impacts "arms race" makes cheating almost inevitable.

The influence of this arms race was illustrated vividly to the author more than a decade ago when he reported the results of an economic impact study of a festival incorporating more than 60 events during a 3-week period in a large city (Crompton and McKay 1994). This study estimated the economic impact on residents' incomes to be approximately $16 million. When this was reported to a meeting of the festival committee, some board members quickly challenged the results, arguing that they were much too low. The board members observed that 2 weeks previously, the city council had heard a similar presentation from the convention and visitors bureau relating to a professional rodeo event that the city hosted annually. The council had been informed that the economic impact of the 3-day professional rodeo event was almost $30 million. The conundrum confronting the festival board was posed in the following terms:

> How can we possibly accept that this festival lasting for 21 days and embracing more than 60 events had a smaller economic impact than a single 3-day rodeo event? The city council provides a substantially larger budget to the festival board to stage the festival than it allocates to the convention and visitors bureau to host the professional rodeo event. When they compare the festival economic-impact data that have been presented to us with those from the rodeo, there is a real possibility that the festival budget will be cut, because the festival costs much more to stage, and its economic impact on the city appears to be barely half that of the rodeo.

The author requested a copy of the rodeo economic-impact study and found that it (1) included local residents, (2) included time-switchers and casuals, and (3) used sales output as the measure of economic impact. The author's response in his subsequent presentation to the city council was to replicate the presentation made to the festival board but then to extend it by referring to the rodeo study and showing that if the mischievous assumptions that were adopted in it were applied to the festival, the comparative number to the rodeo's almost $30 million was more than $321 million. This was almost a 2,000% increase on the legitimate $16 million estimate of economic impact (Crompton and McKay 1994)!

This illustration demonstrates the wide range of numbers that purport to measure economic impact that may be presented to stakeholders from the same set of primary data. If a press conference were held to report the festival's economic impact, the organizers could, at one extreme, announce that the *sales output* from *economic activity* or the *gross economic output* associated with the festival was more than $321 million. At the other extreme, they could announce that the *economic impact* of the festival on *personal income* was approximately $16 million.

The media, general public, city council, and other relevant publics are unlikely to be aware of the underlying assumptions, subtleties, and potential error sources associated with economic-impact studies. This lack of sophistication and the apparent objectivity conveyed by the numbers make it tempting for advocates to act unethically. Clearly, there is a dilemma. If the correct $16 million figure is presented, the

economic contribution of the festival is likely to appear relatively insignificant compared to that of other events that misleadingly announce the equivalent of the $321 million figure as their estimated economic impact. The relatively small impact of the festival is likely to be translated into commensurately less political and resource support for it from decision makers, and perhaps ultimately, even withdrawal of appropriations for it. Acting ethically when others do not could damage the festival's standing critically.

Alternatively, some may rationalize that it is equitable to use the same set of measures to compare the economic contributions of the festival, even though the results of all of them are grossly misleading. If such a position is accepted, then abuses incorporated into one economic impact analysis become contagious, because when precedent has been established in one study, others are likely to feel compelled to perpetuate the abuse knowingly by incorporating the misleading procedures into their own analyses. If they fail to do so, the economic impact attributed to their event or facility is perceived to be lower than that reported by others, and thus, less worthy of public investment.

The author adhered to legitimate principles in his presentation to the council, but at the same time, it was necessary to recognize the political reality of being compared to others who had reported misleading economic impacts to the city council. The conundrum was resolved during the presentation by identifying the erroneous assumptions that the rodeo event incorporated and demonstrating how the results of the festival study would be inflated if the same erroneous assumptions were incorporated into it.

CONCLUDING COMMENTS

Smith (1989) observed,

> 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 rarely is published in industry journals, it is expressed frequently in private conversation and sometimes even in public addresses by officials. (p. 271)

The backlash to which Smith referred 17 years ago may be present today among some experienced decision makers, but it does not appear to be widespread among them or among the media and general public, most of whom apparently remain gullible to the mischievous use of economic-impact studies. Reviewing the stream of mischievous studies masquerading under the rubric of economic impact, one is reminded of Macbeth's lament in Act V, Scene V: "It is a tale told by an idiot, full of sound and fury, signifying nothing" (Shakespeare 1959, p. 868). However, the tales are not told by idiots; they are, for the most part, told by knowledgeable people who recognize that the general public and elected officials (audiences they are targeting) are frequently hopelessly deficient in terms of their level of economic literacy.

The shenanigans associated with economic-impact studies raise ethical issues for which there may not be a unanimous resolution. In a commentary to the author on this article, a researcher with substantial experience of undertaking economic-impact studies made the following observations:

> While science prefers the cold, hard truth (if there is such a thing), research clients have a different agenda. We certainly should avoid presenting misleading or knowingly erroneous results. There are, however, many gray areas here. If the media or clients choose to misrepresent findings, is a researcher obligated to correct them? Publicly? While some of what you cite may be mischievous shenanigans, other examples may be reasonable compromises in serving both science and the client. Are the standards for consultants different from scientists? Some would argue that consultants, like lawyers, should represent the client and help him or her present findings in the best light, hopefully short of being overtly misleading. I'm generally tolerant of studies that state their assumptions clearly and present the facts in an objective manner. If I know the methods and data sources used, I can assess how much credence to give the study and interpret results accordingly. (Stynes 2006, n.p.)

Ultimately, doing ethical work is a personal rather than an institutional responsibility. Thus, it cannot effectively be legislated. The only practical countermeasure is to alert people to the unethical procedures that can be used in economic impact analyses and point out their potential substantial adverse implications on public policy decisions, and by so doing, hope to ferment a societal backlash against those who engage in such malfeasance, which will shame them into desisting. Perhaps this article has made a small contribution to that end.

APPENDIX A
USING ECONOMIC IMPACT STUDIES TO REPOSITION STATE PARKS AS ECONOMIC ENGINES IN TEXAS

The Texas state legislature meets from January through May every second year. When it assembled in January 2003, it was confronted with a projected budget deficit of $10 billion for the next biennium. Given that the discretionary components of the budget totaled $60 billion and that the political climate would not tolerate any tax increase, it was obvious that major cuts in state-agency budgets were inevitable.

State parks' supporters were aware in early 2002 that such a scenario was probable. To minimize the adverse impact, the Texas Coalition for Conservation commissioned economic impact studies to be undertaken at 37 state parks. Parks were selected that were located in the districts of key legislators. The intent was to demonstrate that state parks were economic engines, especially in rural areas, because they attracted visitors from outside the community who spent money in the local economy.

Almost all of the state's 100 or so parks have a net operating loss. Hence, the temptation was strong for legislators either to close some of them or to reduce their opening hours and services substantially. The purpose of the economic impact studies was to demonstrate that looking at net operating deficits was a myopic perspective, and the more important data were those showing the impact of the parks on the local economy.

For example, Bob Sandlin State Park's net operating loss was $97,000. However, the economic impact study revealed that visitors from outside the local county spend $1.01 million in the county,

which created $1.6 million in total sales, $690,000 in income for county residents, and 55 jobs. Those were substantial contributions to the economy of the relatively rural county. It was pointed out to the local legislator that the annual cost to the state of the 55 jobs was approximately $1,760 each ($97,000 ÷ 55). In the context of economic development, this is relatively inexpensive for producing jobs. Further, each $1 net investment in the park by the state generated $7 in income for local residents ($690,000 ÷ $97,000). These were impressive statistics.

Finally, the legislator was made aware of the analogy between a park and a retail store. Like a store, the park is merely a shell. The success of a store depends more on quality of the goods, amenities, and services within it than on its physical structure. Similarly, the higher the quality and greater the quantity of services and amenities included in the park, (1) the more people will be attracted, (2) the longer people will stay in the park, (3) the more money people will spend in the community, and (4) the more income and jobs people will create for county residents.

The economic case was convincing. The state parks budget was cut by 1% when most other agencies had to absorb reductions of 10% to 15%. State parks were repositioned effectively from a nice-to-have discretionary service to economic engines whose well-being was central to sustaining local economies.

APPENDIX B
ELABORATION OF THE CONCEPT OF SUBSTITUTE OR RECYCLED EXPENDITURES

How much food do people eat because of the presence of a festival? In other words, if a family eats dinner at the festival, where did they not eat their dinner that night? If they would have eaten at a restaurant near their home, then the consumption of the food as part of the festival is merely a transfer of expenditures from a restaurant near their home to the festival. This change of location for the expenditure certainly creates an impact in both areas—more spending at the festival and less in the neighborhood. But from the economy's perspective, there is no growth or increase in spending levels, merely a transfer. Further, if the family would have eaten at home instead of at a restaurant, then the transfer of expenditures takes place between the supermarket and the festival, with consumption declining at the supermarket while festival sales increase. Again, there is economic impact in the sense that the festival may gain while the supermarket suffers, but the overall change in the community or city is not one of growth but merely a transfer of activity from one vendor to another.

Source: Adapted from Rosentraub, M.S. (1997). *Major League Losers: The Real Cost of Sports and Who's Paying for It.* New York: Basic Books.

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