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Conducting Economic Impact Studies in Parks and Recreation

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Many interesting, fun and dynamic parks and recreation programs, events and activities are conducted frequently by the community's parks and recreation agency that make important and significant contributions to the quality of life of the citizen individually, the community populace as a whole and to visitors to the area. The range and diversity of these well planned experiences are almost limitless in design, intent and impact. It is common for professional parks and recreation agency personnel to evaluate the quality and dimension of the program offered, the impact on the citizens and visitors, their satisfaction and needs, and the interconnectedness of these events to the mission and purpose of the agency.

Frequently overlooked, but still critical, is the assessment of the economic impact that the parks and recreation event, program or activity makes on the sponsoring agency, local and state tax revenues and to various support entities within the community. Depending on the particular parks and recreation program offered, the economic impact generated will range from marginal to significant.

For example, the hosting of a regional sports tournament may bring in a substantial number of participants, spectators and visitors to the community with portions of each staying in hotels, eating at restaurants, using air and ground transportation, paying entry fees and purchasing products and services within the community. Depending on the size, duration and interest of the tournament very substantial economic activity may occur. Collecting and reporting this type of important information is interesting, may improve community support and establishes an added value for the effort required to produce such an event.

What is an Economic Impact Study?

The technical definition of an economic impact study is a little complicated, but the following may be helpful. An economic impact study is the assessment of the economic change that occurs in a community that produces a parks and recreation event, program or activity in which specific spending occurs that can be directly traced to that parks and recreation program. The economic change may be generated to the parks and recreation department in the area of entry fees, to the local and state governments in the form of new and increased tax revenues and more specifically to support vendors in the community; such as, hotels, restaurants, car rental agencies, airlines and other types of retail sales. Depending on the size and dynamics of the community, a phenomenon known as economic multiplication may also occur. This is the process of portions of the new dollars being re-spent in the community as necessary to support and supply the desired goods and services of the parks and recreation event participants, spectators and visitors. The critical components of the definition are: (1) the economic change that occurs in the community after the costs of producing the event have been removed; (2) the definition of the community changes as the size, duration and dynamics of the event change (the larger the event, the larger the size of the definition of the community will be); (3) economic changes that are due to the event that can be traced directly to the event and not to other attractions or combination of attractions; and (4) economic multiplication may also be a minimal to dramatic result.

What are the Purposes of an Economic Impact Study?

Each park and recreation agency that sponsors an economic impact study in an effort to monitor the economic flow generated by the event, program or activity will have special localized and important purposes for conducting such a study. Besides the localized reasons the following may be important to consider:

1. The study details, rather precisely, the amount of economy generated due to the agency sponsored parks and recreation program and what business and vendor sectors in the community (hotels, car rentals, retail sales, etc.) are most consistently receiving those newly created dollars.
2. The economic assessment, if carefully prepared, also serves as a patron market profile study and can assist the program producer with such information as who are the participants, spectators and associated visitors, the distance traveled by each and the geographic origin of the patron. In addition, location specific promotion and marketing target efforts can be traced for effectiveness.
3. If the event, in fact, generates significant and new local and state tax revenues, then scientifically collected and analyzed evidence can be provided and documented by such a report that can garner future tax support, elected and appointed official confidence and commitment to the parks and recreation project.

4. As the need to attract local, regional or even national co-sponsors for the parks and recreation program becomes important, the appropriate vendors can be approached in which specific economic impact measures can be shared that would more than likely establish vendor co-sponsor interest.
5. Besides the inherent leisure value of the parks and recreation program, event or activity and the associated patron satisfaction, the impact of a quality program can be felt across many dimensions of the community, and the parks and recreation department can be viewed as a significant participant in the community's economic well being.

Again, the parks and recreation agency that sponsors the program may have additional purposes for conducting such a study, but economic assessment, market profiles, documented tax impact, co-sponsor allegiance and economic contribution to the community are the primary purposes for conducting an economic impact study. Followed throughout the rest of this article is the process of conducting an economic impact study using the 2005 Palm Desert Senior Games as a case study. The 2005 Palm Desert Senior Games was managed by the Coachella Valley Recreation and Park District and provided twelve sport venues over a three day period attracting 891 patrons. There were multiple venue registrations by the seniors bringing the total entry count to 1358. About one half of the participants were non locals to the area and spent dollars at hotels, restaurants and purchased other goods and services directly tied to their involvement in the games. Note that the figures serve as examples of some of the points made in the article.

How is an Economic Impact Study Conducted?

As with other types of data gathering assessments, the economic impact study must be designed carefully, conducted precisely and conclusions drawn cautiously. There are a number of specific methodological concerns that the agency needs to be aware of when preparing and conducting a study of economic flow. Cautions will be addressed in the next section. Given those concerns, there are five steps that are considered standard and are required to successfully set up, perform and evaluate the economic impact of a parks and recreation program, event or activity. They are:

1. **Creation of the economic impact measuring instrument:** There are a number of measuring devices that can be used to collect the desired economic impact data. Each of these methods offer differing strengths and weaknesses. The most accurate but difficult to complete is the patron expenditure diary. The least effective but most broad based is the mail survey. The standard method used is the direct patron interview. The data gathering team interviews key patrons gathering critical data that is accurate. This information is then expanded to the total patron profile. The data gathering team uses the instrument to inquire about patron geographic origin, days of attendance, travel methods, housing accommodations and specific business sector spending patterns. (See Figure 1.)

CATEGORY	DOLLARS	PERCENT
Hotel	\$250.54	43%
Restaurant	\$126.96	22%
Retail Sales	\$65.17	11%
Entertainment	\$55.62	10%
Gasoline	\$64.59	11%
Groceries	\$18.09	3%
TOTAL	\$580.97	100%

Figure 1: Averaged expenditures spent per patron by category over the three day event period by non-locals.

2. Conducting the interview: A method must be selected to interview patrons that have some level of representativeness of all those in attendance. There are a number of patron selection models, but the most cost effective in these types of studies is the stratified sample. The researcher needs to know how many patrons are involved in the event as participants, as a spectator or as a visitor. The researcher also needs to know the time frame in which the participants, spectators and visitors are at the event site. If, for example, 20 percent of the participants are at the event on Monday from 7 p.m. to 10 p.m., then 20 percent of the total participants interviewed should come from that time period. If 50 percent of the spectators are on site on Saturday from 9 a.m. to 3 p.m., then 50 percent of the spectators should be interviewed during that time period. This model is followed throughout the time frame of the event. Now, the number of patrons to be interviewed during each time period is a function of the total number of patrons at the event. There are statistical tables that indicate how many subjects need to be in the study based on the total number of attendees. Usually this number is not very large. (See Figure 2.)

EVENT	# OF ENTRIES	% OF TOTAL	# SURVEYED
Golf	94	7%	20
Track/Field	290	21%	50
Softball	155	11%	25
Swimming	151	11%	25
Volleyball	154	11%	30
Tennis	127	10%	25
Soccer	41	3%	10
Race/Walk	69	5%	15
Bowling	68	5%	15
Basketball	138	10%	25
Racquetball	38	3%	10
5K/10K	33	3%	10
TOTAL	1358	100%	260

Figure 2: Number of entries surveyed was based on the number and percent of entries participating per athletic event venue.

3. The use of secondary sources: A vital tool for calculating accurate data is to have access to some business and vendor sources. This information is considered secondary as opposed to the data gathered by the research team which is deemed the primary source. For example, if a few hotels will share with the parks and recreation agency the number of program participants that stayed at their hotel, length of stay and charge per room, then that information can be compared to the figures discovered in the direct patron interviews. This internal audit check is helpful in determining the general and specific accuracy of the study. Unfortunately, few private businesses will share this type of information, but to the extent that data can be gathered and compared, accuracy in the study is heightened.

4. The calculation of direct economic impact: To determine the direct participant, spectator and visitor impact from their participation in the parks and recreation program, the data gathering team needs to summate the figures from those patrons interviewed in each category of expenditure (entry fees, hotel charges, ground transportation, etc.). The research team can then calculate the sample size average expenditure and apply those figures to the total patron attendance. A variety of sub-

calculations can also be made to detail various aspects of the event. Such data sets as average expenditure by distance traveled, by party size, length of stay and by various demographic characteristics of the population is possible. From these figures then local and state tax revenues can be calculated and separated out (See Figure 3.), as well as, return on investment if the producers of the parks and recreation event are so interested.

SOURCE	TAX RATE	DOLLARS
Hotel	9.00	\$8,640.00
Retail	7.75	\$12,595.00
TOTAL	--	\$21,235.00

Figure 3: Local and state taxes generated due to local and non-local athlete spending.

5. The calculation of indirect economic impact: As mentioned earlier, dollars spent at the community parks and recreation event are also likely to be re-spent in the community based on a number of highly localized economic flow factors. A number of local businesses will be the recipient of the new dollars expended in the community brought by the parks and recreation event. These local businesses then spend portions of these new dollars to properly provide their goods and services. For example, a local car rental agency will have received some dollars from patrons who attended the parks and recreation event. The car rental agency will, overtime, take a portion of those rental dollars and have the rental car maintained or repaired by a local auto shop. The local auto shop will take some of the dollars from the maintenance job and purchases necessary parts from another local parts store. This process continues for a period of time. This is known as economic multiplication, and the amount of re-spending is called the economic multiplier effect. It is different for each community. The local Chamber of Commerce will be able to share with the parks and recreation department the local economic multiplier factor for that community. (See Figure 4.)

Direct Spending	\$334,528
X Multiplier	1.6
Direct Total	\$551,244
Indirect (DT-DS)	\$206,716

Figure 4: Calculation of the indirect (multiplier) effect or re-circulation of spent dollars in the local community.

Cautions Concerning Economic Impact Studies

There are five possible errors sometimes made in the conducting of an economic impact study that are subtle in process but significant in calculating the final economic impact. It is not necessary to have these errors but noting them at the onset of the study is generally sufficient in controlling their influence. The concern areas are:

1. Over estimated multiplier effect: When calculating the indirect economic impact or the multiplier effect it is common to use an economic multiplier that is aggressive and perhaps not as accurate as possible. The tendency is to use slightly inflated multipliers because it enhances the overall economic impact of the event and makes the economic value more gracious than accurate. There are a number of economic multiplier models and the most accurate should be selected.
2. Leakage: This is an unusual economic term and refers to the amount of newly generated dollars from the parks and recreation event that leaks out of the community. Some reduction in the total economic impact occurs. The way leakage might occur is the parks and recreation event has contracted certain vendors to provide specialized services. The vendors are from outside of the community and those vendors leave the event site area, having completed their service, along with the appropriate money that they have received from the service. Local vendors would participate in the economic multiplication but out of community vendors would not. It is important to know if leakage is a significant factor in the calculation figures or if it is not an item of concern.
3. Non response bias: If the patrons that form the stratified sample selected for involvement in the study do not participate, then a certain amount of error may exist in the assessment. This particular type of concern is called non response bias. There are two remedies for this situation. The first is to organize the interview process in such a way that the correct patrons are, in fact, participating. The second solution is to determine if a small sample of non respondents have different expenditure patterns than the larger group. The data gathering team must find a few of the non responders and convince them to be interviewed. Then a comparison is made between the small sample and the larger patron pool. If the figures are about the same, then there is little to no non response bias. If the numbers are different, then the study has some compromises.
4. Recall and projection bias: It is not uncommon for individuals who are interviewed to be unable to recall or remember their past expenditures or to project or predict future spending. This is referred to as recall bias and projection bias respectfully. The solution is to use expenditure diaries, secondary sources or to enlarge the number of interviewees so that the patrons that can not accurately participate are replaced by other respondents.

5. Switching: When local community members come to the parks and recreation event, program or activity and spend money it is possible that those dollars would have been spent in the community otherwise. This is known as economic switching, which is spending money at the regional sports tournament rather than at the local movie theater. Therefore, the money spent is not new or additional spending in the community due to the parks and recreation event. The dollars would have been spent anyway. If switching is a significant factor, then the economic impact study will be inflating the economic impact of the event. The simplest way to control the counting of switched dollars is to ask the interviewee if the dollars would have been spent otherwise. If yes, then those figures need to be noted as switched.

Conclusions

Preparing and conducting an economic impact study for parks and recreation events, programs or activities can make a vital contribution to the understanding of the total value of the parks and recreation event. The assessment can help determine economic impact, the influence on taxes, create important co-sponsorships, understand the market profile of the participants, spectators, and visitors and assist local businesses in understanding the financial overflow of the event.

It is important to follow the proper and appropriate procedures for conducting such a study. The more control emphasized in the process will yield more accurate results and greater credibility for the provision of parks and recreation services. History has reminded researchers of common areas of concern and caution and must be rendered in both the gathering of the data and its interpretation.

This article is provided as a service to the parks and recreation profession by PlaySafe, LLC. For more information on how to properly conduct an economic impact study contact www.play-safe.com