

# Analysis of the Impacts of Spectator Sports and Performing Arts Activities in the Sacramento Region

Dr. Robert Fountain March 26, 2004

## Introduction and Methodology

The analysis provided in this brief study is designed to illustrate the total economic value of activities which might be generated by an arena located in the Sacramento region; to show the intra-regional distribution of the economic activities which are generated; and to illustrate the sectors of the economy which would receive the greatest generated benefit from the activities.

The approach used in this study is an industry analysis, not a consumption analysis or market analysis. The approach uses the economic activity created in the Spectator Sports and Performing Arts industries as the value generators to the regional economy. While the analysis is motivated in the context of sports arena decisions, the analysis is not focused on the sports arena itself, but the economic and tax benefits which are generated by spectator sports and performing arts activities which an arena may support. This approach views the Spectator Sports and Performing Arts industries much as any other industry, and measures the generation of indirect (supply sector) impacts on sectors which supply the goods and services and the generation of induced (consumption) activities related to the Spectator Sports and Performing Arts activities.

The analysis is a gross estimate, with no attempt to predict how much of the increased activity is attracted at the expense of existing venues such as the Arco Arena, the Community Center, the Metropolitan Auditorium, or the Mondalvi Center, among others.

The analysis does not include construction impacts of an arena, a rail yard development district, or other specific physical infrastructures. In this approach, an arena would be just one part of the business infrastructure normally required to produce the sports and performing arts activities. Obviously a venue would be required, but the value, cost, profitability, etc. of the arena would depend on the level and profitability of the primary industry, on the ability to attract patrons to the venue, on the cost and efficiency of the arena itself, and on the ability of the arena to help generate additional consumer activity for other businesses affected by the arena operation. .

The analysis uses three geographical measures of regional impact: the impact on the City of Sacramento if the Spectator Sports and Performing Arts Industry activities were located there; the affects on Sacramento County including the City (from which we can deduce the difference); and the entire 4-County Sacramento CMSA (El Dorado, Placer, Sacramento, and Yolo Counties). Note that the industry-based analysis is measuring where the business activity occurs, not where consumers live. The approach allows

unlimited amounts of consumers from outside the region, but essentially all of the business activity remains in the region.

## Assumptions about the Level of Spectator Sports and Performing Arts Activity

The level of activity which can be generated in the Spectator Sports and Performing Arts industries is not generated by the model, but is an external assumption. Some data on the existing levels of these activities in the Sacramento region and other regions of California are provided as a guide to making the assumption, but the real-world level will depend on the entrepreneurial skills of the sports and performing arts providers, the quality and capacity of the venues; consumer satisfaction with the overall entertainment package, including the urban location and its supporting environment; and of course on consumer preferences about these activities vs. other competing activities.

The level of Spectator Sports and Performing Arts activities used in this analysis is \$250 million per year in gross revenues from all activities. This amount is a significant part of the region's existing \$344 million total in these activities, but also includes presumptions of a significant increase in the region's level of sports and performing arts activities. The \$250 million level would approximately double the City's current level of activities in these industries, and would raise the City's total from its existing 30% share of the region's activities in these industries to about 50%, and would also increase the region's total level of these activities.

This assumption is much lower than the City's financial study which estimates \$383.82 million, but that included additional generation from a Railyards development.

The table below shows that the Sacramento region is actually already a high producer of these activities, producing about \$344.5 million per year. This gives a comparative level of about \$184 per capita, or 0.34% of total regional output, which is higher than either the 9-County San Francisco Region or the Los Angeles-Long Beach metropolitan area. One of the likely reasons for this is that Sacramento is producing these services for a widespread market area which extends outside the region into the Central Valley. It might also mean that the region really likes the Sacramento Kings, or has a demographic or historical preference for these types of entertainment..

Comparison of Regional Output for the Spectator Sports and Performing Arts Industry Sectors							
Region	Population	Total Output All Industries	Spectator Sports Industry Output	Performing Arts Industry Output	Total, Sports and Performing Arts	Sports and Performing Arts Industry Output Per Capita	Sports & Performing Arts as Percent of Total Output
<b>Los Angeles-Long Beach MSA</b>	9,637,494	\$ 647,015,551,000	\$ 695,474,000	\$ 911,917,000	\$ 1,607,391,000	\$ 166.79	0.25%
<b>San Francisco CMSA</b>	6,818,826	\$ 653,187,353,000	\$ 648,992,000	\$ 445,862,000	\$ 1,094,854,000	\$ 160.56	0.17%
<b>Sacramento CMSA</b>	1,874,683	\$ 100,330,077,000	\$ 115,955,000	\$ 228,581,000	\$ 344,536,000	\$ 183.78	0.34%
<b>City of Sacramento (1), (2)</b>	751,559	\$ 44,948,195,000	\$ 88,101,000	\$ 16,403,000	\$ 104,504,000	\$ 139.05	0.23%
<b>State of California</b>	34,501,128	\$ 2,232,765,900,000	\$ 2,212,235,000	\$ 1,828,610,000	\$ 4,040,845,000	\$ 117.12	0.18%

Source: IMPLAN model. Model parameters are for the year 2001, the latest available.

(1) The definition of the City of Sacramento is based on postal zip codes as used in the ES-202 industry data, and differs somewhat from the actual political boundaries. As a result, the population and the output of the City economy are somewhat overstated.

(2) The IMPLAN data, like all economic activity measures, understates the value of public sector employment because there is no market value data for the product. As a result, the total output of City and the region are probably understated, and as a result the roles of the sports and performing arts industries as a percentage of regional totals are probably overstated.

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The table below shows an economic analysis of the effects of \$250 million per year increase in the level of Spectator Sports and Performing Arts activities in a number of California urban market areas, and for the 3-level intra-regional analysis of the Sacramento region.

<b>Economic Impact Analysis for Spectator Sports and Performing Arts Activities</b>				
	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<b>City of Sacramento</b>				
Total Output	\$ 250,000,000	\$ 35,373,704	\$ 120,055,803	\$ 405,429,505
Value added	\$ 209,142,840	\$ 25,378,072	\$ 73,095,204	\$ 307,616,115
Employment Compensation	\$ 148,011,920	\$ 14,966,261	\$ 37,312,250	\$ 200,290,431
Employment	\$ 4,297	\$ 625	\$ 1,340	\$ 6,262
State & Local Tax Revenues				\$ 40,530,413
<b>County of Sacramento</b>				
Total Output	\$ 250,000,000	\$ 35,032,926	\$ 134,309,684	\$ 419,342,616
Value added	\$ 209,146,200	\$ 25,046,213	\$ 81,634,842	\$ 315,827,245
Employment Compensation	\$ 142,992,427	\$ 14,628,681	\$ 41,590,257	\$ 199,211,367
Employment	\$ 4,151	\$ 610	\$ 1,508	\$ 6,269
State & Local Tax Revenues				\$ 40,548,106
<b>Sacramento CMSA</b>				
Total Output	\$ 250,000,000	\$ 35,243,895	\$ 147,117,425	\$ 432,361,320
Value added	\$ 209,146,187	\$ 25,178,085	\$ 88,993,195	\$ 323,317,464
Employment Compensation	\$ 145,562,520	\$ 14,927,093	\$ 45,256,101	\$ 205,745,723
Employment	\$ 6,003	\$ 711	\$ 1,696	\$ 8,410
State & Local Tax Revenues				\$ 42,578,786
<b>Oakland</b>				
Total Output	\$ 250,000,000	\$ 35,128,934	\$ 145,745,924	\$ 430,874,854
Value added	\$ 209,146,173	\$ 25,805,100	\$ 87,345,967	\$ 322,297,238
Employment Compensation	\$ 144,481,480	\$ 14,287,554	\$ 45,818,849	\$ 204,587,880
Employment	\$ 5,224	\$ 670	\$ 1,417	\$ 7,312
State & Local Tax Revenues				\$ 40,713,593
<b>San Francisco County</b>				
Total Output	\$ 250,000,000	\$ 36,839,409	\$ 86,585,985	\$ 373,425,382
Value added	\$ 209,146,173	\$ 27,614,418	\$ 55,882,645	\$ 292,643,237
Employment Compensation	\$ 143,345,947	\$ 15,071,320	\$ 28,854,149	\$ 187,271,409
Employment	\$ 4,406	\$ 507	\$ 723	\$ 5,636
State & Local Tax Revenues				\$ 33,195,986
<b>Los Angeles County</b>				
Total Output	\$ 250,000,000	\$ 38,898,711	\$ 173,374,967	\$ 462,273,673
Value added	\$ 209,146,173	\$ 28,512,410	\$ 102,897,252	\$ 340,555,834
Employment Compensation	\$ 152,272,640	\$ 16,097,207	\$ 53,518,779	\$ 221,888,624
Employment	\$ 10,839	\$ 871	\$ 1,706	\$ 13,416
State & Local Tax Revenues				\$ 42,740,395

Source: IMPLAN model based on \$250,000 in annual revenues.

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## City of Sacramento Impacts.

The first rows in the table show that the activity if located in the City would turn the \$250 million in direct activity to a total of \$405.4 million in total activity by adding a relatively small \$35.4 million in indirect (supplier) activity but a large \$120.1 million in induced (consumption) activity. That increment is the basis for most arena or stadium projects, the basis for the positive impacts on local businesses and local tax revenues. In this case, the economic multiplier is about  $\$405/\$250$ , or 1.62, or an added \$0.62 for every dollar spent in the primary sports and performing arts industry.

Other measures of economic impacts include the value added, which is the net business activity, a part of the City's \$29.4 billion annual Gross City Product. The total impact from the added sports and performing arts activity would increase this measure by \$307.6 million annually.

The added employment would total 6,262 new full-time-equivalent jobs with an annual employment compensation of about \$200.3 million.

The tax impacts are also shown, a total of \$40.5 million in new State and Local tax revenues generated as a result of the sports and performing arts activities. Please note that the tax revenues are estimated by the IMPLAN model based on prevailing tax payments in the model calibration year 2001, and are not a rigorous fiscal impact analysis based on current financial structures. The model does not attempt to disaggregate the parts of the tax revenues which are returned to the City, because the tax structure is currently in a rapid state of change.

## County of Sacramento Impacts

The second part of the table shows the impacts on Sacramento County including the City. This component of the table can be interpreted in two ways:

- (1) The impact of a venue located in the City on the combined City-County economy.
- (2) The impact of a venue located in the County on the combined City –County economy; in this case, the methodology used in this report cannot isolate the effect on the city of a venue located elsewhere in the County.

By comparing the City impacts with the combined City –County impacts, one can see that for a project located in the City, most of the impacts occur within the City, with the rest of the County receiving very little additional impact. (For some variables, the table actually shows a slightly lower value for the county than for the City alone, which is the result of minor mis-specification of the City boundaries from using zip code data.) The fact that there is little benefit which accrues to the rest of the County from a City project is a fairly important outcome of the analysis.

## Sacramento Region Impacts

The third component of the table shows the impacts for the entire 4-county Sacramento CMSA, which includes the City and County values previously presented. There is some increase in economic value for the CMSA above that of the City and County, but again the difference is fairly small. The region would receive about \$2.03 million more tax revenues than the City, and about 2,141 more jobs, but these are a small percentage of the City's level of economic benefit.

## Comparisons with Other Regions

The comparable data for other regions are presented in this analysis to show how the same level of industry activity in sports and performing arts would affect those regions.

Larger regions generally have higher multipliers and generate more economic benefits from a given level of direct activity because they capture more of the indirect (supplier) and induced (consumer) activity which is generated. The induced (consumer) activity is especially important in this respect. In the case of Los Angeles, for example, the same level of sports and performing arts activity generates \$173.4 million in induced activity, a difference of almost \$57 million more than the City of Sacramento's \$120 million. Oakland would generate \$25.4 million more per year than the City of Sacramento. Curiously, San Francisco would actually generate lower induced impacts than Sacramento, probably due to the fact that most of its consumers do not live in San Francisco, and some of their consumption occurs in their area of residence.

Region	Total Induced Activity
Los Angeles County	\$ 173,374,967
Sacramento CMSA	\$ 147,117,425
Oakland	\$ 145,745,924
City of Sacramento	\$ 120,055,803
San Francisco County	\$ 86,585,985

This indicates the importance of locating an activity where the consumer services are available to meet the demands of the consumers, and where these induced benefits can become part of the economic rewards to the activity which produces them. Failure to accomplish these two conditions will create a condition where (1) the total benefit to the region will be reduced, and (2) the benefits necessary to sustain the generating activity may not be enough to support the industry in the long run.

## Intra-Regional Conclusions

1. Within the Sacramento Region, the Indirect (supplier) impacts occur mostly within the City of Sacramento. The suppliers of goods and services to the sports and performing arts activities provide about \$35 million of added business activity and about 625 jobs.

2. The Induced (consumption) activities are where the intra-regional variations occur. This increases from \$120 million in the City to \$134 million in the County to \$147 million in the region. While the additional amounts generated in the County and elsewhere in the region are large amounts, they are relatively small percentages of the amount generated
3. There is also little distribution in the state & local taxes generated. Most of the tax revenues occur in the City of Sacramento (about \$40.5 million) while the entire Region collects only \$42.7 million, a very small addition occurring outside the City.

## Inter-Regional Conclusions.

Comparing the Sacramento impacts to the same project located in Oakland (Alameda County), San Francisco, or Los Angeles County, the following conclusions are evident:

1. There are only small inter-regional differences in the Indirect (supplier sectors) impacts, indicating that the arena will consume the same goods and services for its operations wherever it locates. The biggest difference would occur for a location in Los Angeles, where there would be higher dollar revenues and employment levels in the indirect activities.
2. The same can be said of the state & local tax revenues. There is only a small percentage difference between the \$40.5 million for the City of Sacramento and the \$42.7 million for Los Angeles County.
3. The most significant inter-regional difference is in the Induced (consumer) activities. The table shows that the \$120 million of induced activity in the City of Sacramento is much lower than the same sports and performing arts activity would produce in Los Angeles (\$173 million) or Oakland (\$145.7 million) but, surprisingly, higher than would be produced in San Francisco (\$86.6 million). A probable reason for this result is that most attendees at entertainment venues in San Francisco reside outside the jurisdiction, and some of their consumption related to sports and arts activities occurs in their home areas. The Sacramento Region is just below Los Angeles County because, like LA County, it contains the residence locations of most of those affected by the Arena.

## Specific Application to the Sacramento Arena Decision

The analysis has shown a number of key findings which affect the Sacramento Arena discussion.

1. The region has a high level of activity generation in the sports and arts activities, indicating that the industries are achieving high attendance and sales in relation to the population and overall economic activity of the region. There is strong industry and consumer support for these activities.
2. The region is not presently receiving a very high level of economic benefits from its existing high levels of participation in spectator sports and performing arts activities. The critical induced (consumer) impacts are lower than their potential.

There are two reasons this might be so:

- a. The levels of additional consumer services which consumers prefer to consume in conjunction with the sports and arts activities are not available at convenient locations, or are not desired by Sacramento participants in these activities. It is possible that the location of the Arco Arena, distant from the restaurant, bars, retail, and other consumer activities which attendees might enjoy after the events, may be a contributor to this outcome.

To remedy this problem, it will be necessary to assure that the sports and arts venues are co-located and integrally connected to the consumption activity providers, either by taking the sports and arts venues to locations where a full spectrum of before-and-after event activities are available, or by creating the before-and-after event activities adjacent to the sports and arts venues.

- b. The existing sports and arts facilities are not located in the same local jurisdictions as the activities which receive the consumption expenditures. In this case, the opportunity for the sports and arts venues to internalize the expenditures of attendees, and the opportunity to use indirect expenditure revenues to support the sports and arts activities, is significantly reduced, and the region will not achieve the desired higher level of investment and business activity related to the sports and arts venues.

The same solutions described in (a), above, also work for this problem, but there is another possibility: multi-jurisdictional agreements to allow the external benefits generated by the sports and arts activities to be channeled into the infrastructure and other requirements to support the venues.

3. As the region now exists, location of a new sports and performing arts venue within the City of Sacramento at a downtown location would allow the City to essentially internalize the economic benefits of the venue, and would generate very small benefits for other local government entities. If the City of Sacramento were to create significant additional levels of housing within its boundaries, and if the current level of housing construction in North Natomas were to continue, the City would be able to capture even more of the economic benefit.

4. If a location elsewhere in the region is considered, the key element to optimizing the region's benefit would be the creation of an adjacent or extremely accessible district with the full range of before-and-after event activities desired by consumers of the sports and arts activities. In that case, the full costs of infrastructure and other costs of providing the support services need to be viewed as part of the venue package, and a part of the revenues from those consumer activities should become available to support the sports and arts venues and activities if the region is to get its full measure.

## Industry Distribution of the Indirect Economic Impacts.

A wide range of professional, legal, and other services providers will benefit from the sports and performing arts activities, listed in the table below. This table shows the industry sectors which will supply the goods and services to the sports and performing arts providers, and shows that the biggest beneficiaries include events promoters, real estate firms, financial firms, media providers, and many others. The table is truncated for brevity at a level of about \$225,000 per year in additional revenues.

<b>Expenditures for Supplies and Services Created by Sports and Performing Arts Activities</b>	
<b>Industry</b>	<b>Indirect Revenues</b>
Total	\$ 35,373,704
Promoters of performing arts and sports and agents	\$ 4,014,690
Real estate	\$ 1,497,593
Lessors of nonfinancial intangible assets	\$ 1,398,560
Nondepository credit intermediation	\$ 784,572
Employment services	\$ 595,740
Other support services	\$ 563,825
Legal services	\$ 531,152
Cable networks and program distribution	\$ 525,047
Maintenance and repair of nonresidential buildings	\$ 502,740
Wholesale trade	\$ 496,726
Telecommunications	\$ 493,199
State and local government electric utilities	\$ 483,213
Advertising and related services	\$ 477,640
Radio and television broadcasting	\$ 477,609
Monetary authorities and depository credit	\$ 450,175
Management of companies and enterprises	\$ 353,839
Management consulting services	\$ 312,438
Accounting and bookkeeping services	\$ 301,163
Veterinary services	\$ 281,833
Newspaper publishers	\$ 273,910
Automotive repair and maintenance	\$ 248,622
Office administrative services	\$ 242,203
Food services and drinking places	\$ 238,338

Source: Implan model outputs for \$250

Table is truncated at \$225,000 in annual revenues.

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## Industry Distribution of the Induced Economic Impacts

The greatest beneficiaries of the sports and performing arts activities will be the providers of consumer services, listed in the table below. The total added revenues for consumer services firms will total \$120.1 million annually. The greatest impacts will be on housing, wholesale trade, medical services, and food services. The table is truncated at a level of about one million dollars in annual revenues related to the sports and performing arts.

<b>Expenditures on Consumption Activities Created by Sports and Performing Arts Activities</b>	
<b>Industry Sector</b>	<b>Induced Revenues</b>
<b>Total</b>	<b>\$ 120,055,803</b>
Owner-occupied dwellings	\$ 10,060,739
Wholesale trade	\$ 7,998,007
Hospitals	\$ 7,589,443
Food services and drinking places	\$ 7,069,838
Offices of physicians- dentists	\$ 7,004,073
Real estate	\$ 6,122,193
Monetary authorities and depository credit	\$ 4,714,137
Automotive repair and maintenance	\$ 3,827,542
Insurance carriers	\$ 3,245,993
Motor vehicle and parts dealers	\$ 3,105,033
Food and beverage stores	\$ 2,603,231
Telecommunications	\$ 2,539,505
Other ambulatory health care services	\$ 2,487,275
State and local government electric utilities	\$ 2,310,751
Legal services	\$ 2,138,052
Other State and local government enterprises	\$ 1,783,312
General merchandise stores	\$ 1,752,562
Nursing and residential care facilities	\$ 1,618,586
Funds- trusts- and other financial vehicles	\$ 1,289,590
Building material and garden supply stores	\$ 1,234,118
Miscellaneous store retailers	\$ 1,233,808
Truck transportation	\$ 1,210,172
Clothing and clothing accessories stores	\$ 1,175,065
Nondepository credit intermediation	\$ 1,150,081
Management of companies and enterprises	\$ 1,105,187

Source: Implan model outputs for \$250million annual revenues for spectator sports.

Table truncated at approximately \$1 million in annual revenues.

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