

Public Funding of Sports Stadiums **Policy Brief: 04-30-08**

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Introduction

Since 2000, 28 new major league¹ stadiums have been built costing over \$9 billion dollars. More than half, over \$5 billion, of the costs of the new stadiums were funded using public dollars.² In Utah, 4 stadiums have been built since 1991 costing \$386 million in today's dollars; \$200 million (in today's dollars) of that total was paid out of the coffers of Utah cities, Salt Lake County and the State of Utah.³ Across the nation, franchises have argued that building a new stadium will lead to economic development in the form of increased incomes, jobs and tax revenues. However, the preponderance of academic research has disputed these claims. This article looks at the benefits and costs of building a stadium and discusses why the economic development argument has failed to stand up to academic scrutiny. Stadium-seeking franchises are now shying away from making economic development claims in light of the strong research findings. Franchises are able to make quality of life arguments and, given the monopoly power of the major sports leagues, cities are responding by competing for a limited number of franchises by offering to fund stadiums.

Public Ownership of Stadiums has increased over time

Since the 1970s changes in professional sports have led to an increase in publicly funded stadiums. Growing costs in the form of player free agency and changes in the tax code left team owners looking for ways to increase revenues in order to maintain the returns on their investments in professional sports team franchises.⁴ One of the most effective ways to increase revenues is to invest in a new grand stadium with luxury boxes and elaborate concessions. While in some leagues, teams share gate receipts and TV broadcasting revenues, revenues from luxury boxes, concession, parking and advertising increase the revenues of the individual team. During the same period, metropolitan areas grew, resulting in many new metro areas large enough to support a team competing for a finite or slowly growing number of professional franchises. For example, 20 years ago Charlotte, North Carolina was probably not considered a major city but it now hosts an NBA and NFL franchise. With demand for teams exceeding supply, owners gained bargaining power with the credible threat to move their franchises to new and growing metro areas. Now owners have the power to further increase their returns by sharing the expenses of the investment in a new stadium.

Benefits to a city of building a stadium have become almost synonymous with the benefits of having a sports team because, for most cities, the cost of not providing public funding for a new stadium is the threat of losing the team to another city. Because major sports leagues have limited the number of franchises, competition among cities large enough to support a

professional franchise has grown. Thus team owners can credibly threaten moving to another city, presumably one willing to publicly finance a stadium. Leagues began demanding that a city that wants an expansion team must provide the new franchise with a stadium.⁵ As a result, two thirds (66%) of teams in the NFL, NBA, MLB, NHL and MLS are playing in stadiums built or significantly renovated since 1990—with 28% built or significantly renovated since 2000 (see Table 1).

Table 1 - Decade Stadium was Built (or had Major Renovations)

	NFL	NBA	MLB	NHL	MLS*
Pre – 1980	10	1	9	5	15
1980-1989	3	5	3	1	3
1990-1999	9	19	9	19	5
2000-2008	9	5	9	5	15

Source: Sports Facility Reports – National Sports Law Institute
 * 5 MLS franchises had missing data, MLS is not typically included when discussing major sports league.

Sports Stadiums in Utah

Three sport stadiums have been built in the Salt Lake Metropolitan area since the 1990s and the Real Salt Lake (RSL) Stadium is currently under construction. Stadiums are typically built with a combination of private and public dollars. Municipalities generate dollars by issuing bonds that anticipate an increase in the future stream of tax revenues: property taxes from a redevelopment agency, transient room taxes, or general fund revenue from a variety of taxes.

Redevelopment agencies (RDA) can use future property taxes as collateral to issue bonds. Development of a new project will presumably generate additional property tax revenue. Under certain circumstances, an RDA can capture these additional revenues and use them as collateral to issue bonds to help build infrastructure for the project. RDA financing, also called tax increment financing, uses future revenues to build projects that will create that revenue.

RDA financing and the transient room tax were used to build the Real Salt Lake Stadium. A \$35 million bond for the land purchase and infrastructure surrounding the Real Salt Lake Stadium will be repaid with revenues from a Salt Lake County transient room tax. Annual bond payments will be \$2.3 million. The State of Utah has earmarked revenues from the transient room tax (a tax on hotel room stays) for tourism promotion and recreational facilities, stadiums and convention facilities. The Real Stadium deal diverts 15% of the transient room tax revenue to the Real Stadium bond repayment.⁶

In addition to special tax revenues to repay bonds for stadium projects, the government entity may simply use general fund revenue to pay back the bonds. A government's general fund is revenue from a variety of taxes (and other sources) that can be used at the government's discretion. Often called discretionary spending, the general fund is typically the source of funding for the majority of a government's services.

Table 2 includes information about the stadiums recently constructed in Utah (all in Salt Lake County).

Table 2: Utah Stadiums Built Since 1991

Franchise	Stadium Name	Location	Opened	Seating Capacity	Facility Cost in 2008 dollars^a	Percent of Cost Funded by Public Money	Public Funding Source
Utah Jazz (NBA)	Energy Solutions Arena (formerly Delta Center)	Salt Lake City	1991	20,400	\$157 million	25%	Salt Lake City RDA
Utah Grizzlies ("AA Hockey")	E-Center	West Valley City	1997	10,000	\$80.4 million	100%	West Valley City General Fund and RDA
Salt Lake Bees (Minor League Baseball)	Franklin Covey Field	Salt Lake City	1994	15,500	\$38.7 million	93%	Salt Lake City General Fund and RDA
Real Salt Lake (Major League Soccer)	Real Salt Lake Stadium	Sandy City	Estimated 2008	20,000	\$110 million	41%	Transient room tax, Sandy City RDA

Sources: Salt Lake City RDA, Salt Lake City, West Valley City, Stadium websites, Interview with Larry H. Miller

^a. Using the Bureau of Labor Statistics PPI for new construction.

Benefits of Public Funding of Sports Stadiums

The benefits of a new stadium can be divided into economic development benefits and quality of life benefits. Economic development benefits are measurable changes in economic outcomes: profits, jobs, income, etc. Quality of life benefits are intangible social benefits that affect how a community views itself, how community members get along, and the happiness of community members. Both economic development and quality of life benefits can be further classified as follows:

Economic Benefits

1. **Franchise Owners Profits.** Obviously, franchise owners will save if they do not have to finance the entire cost of the new stadium. Evidence suggests that individual sports franchises income will increase by \$10-40 million (\$13.5-54 million in 2008 dollars) with a new stadium.⁷
2. **Job Creation and Increased Incomes.** Jobs will be created in the construction of the stadium, in the operation of the stadium once completed, and in surrounding businesses. Local hotels and restaurants will see an increase in customers due to attendance at events at the stadium. Personal income of the community will increase because of the jobs created (including those of the athletes whose income is well above local averages).
3. **Tax Revenue Increases.** Sales and income tax revenues will increase because of the increased spending in and around the stadium and the increased personal income.

Quality of Life Benefits

1. **Consumer Surplus.** Attendance at sporting events can create what economists call consumer surplus⁸. Consumer surplus is the difference between what a fan is willing to pay for a seat at the game, and what they actually have to pay. A fan who was willing to pay \$800 to attend a playoff game but only had to pay \$50 for their ticket gained \$750 in consumer surplus. Measuring the surplus is difficult if not impossible.⁹
2. **Fan Happiness.** A local sports franchise may create benefits for fans who never attend a single game. Fans may follow the franchise in the media and discuss the franchise with friends, family and coworkers. More than half of the U.S. population lives in a metro area that hosts one or more franchises from the four major professional sports leagues (MLB, NBA, NFL, NHL).¹⁰ Again, this is a benefit that is difficult to quantify in standard economic terms.
3. **Civic Pride.** A local sports franchise will create civic pride, essentially putting the city “on the map.” Cities with a sports franchise may be viewed as “world class” or a “major” city.

Costs of Public Funding of Sports Stadiums

The tangible and intangible benefits of professional sports stadiums come with both economic and quality of life costs.

Economic Costs

1. Opportunity Cost of Public Dollars. Spending dollars on a public stadium must be done by reducing investment in another area of government services. The criteria for evaluating a public investment on sports stadiums are the same as for other public investments. Does the return on investment on a sports stadium surpass the return from other possible uses of the public funds, including tax reduction? Efficient government policy allocates public dollars to the investment that yields the highest return whether measured by direct economic or quality of life benefits.
2. Substitution Effect. Assuming families have relatively fixed entertainment budgets that they split among many activities, increased spending at a new stadium will mean decreased spending at other entertainment facilities (movies, amusement parks, museums, etc.). Those who attend games may stop spending at other recreational activities.
3. Compensating Differentials. Residents of cities with a professional sports franchise will receive nonmonetary benefits from the proximity of the franchise and, therefore, will be willing to accept a lower income in return for living near the franchise. For example, a college graduate might be willing to accept a lower salary in a city with a professional sports franchise than they would be willing to accept in a city without a franchise.¹¹
4. Productivity Decline. While workers may enjoy the water cooler conversations about the local sports franchise, their employers may find it leads to decreased productivity as workers spend time on the job organizing office pools, rehashing the outcome of last night's game, etc.¹¹

Quality of Life Costs

1. Non-fan Inconvenience. Home games will cause traffic and congestion and television viewers may find schedule changes due to game broadcasts.¹⁰

Can the Costs and Benefits be Measured?

Often franchises or local chambers of commerce hire economic consulting firms to estimate the economic benefit to a metropolitan area. These studies tend to find positive benefits in terms of the jobs created: personal income increases and tax revenue growth associated with the construction and operation of the new stadium. Table 3 illustrates examples of the results of some pro-stadium economic analyses conducted since 1999.

Table 3 – Examples of Pro-Stadium Economic Development Studies

Year of Study	Metro area	Franchise (league)	Annual Economic Impact (\$mil)	Annual personal earnings (\$mil)	Permanent Jobs Created	State/local taxes (\$mil)
1999	Washington/Baltimore	Ravens (NFL)	202	96	2,772	11.6
1999	San Antonio	Spurs (NBA)	77	43	--	3.3*
2000	Green Bay	Packers (NFL)	144	89	1,620	9.6
2000	Houston	Rockets (NBA)	187	91	2,400	13.0
2001	Kansas City	Chiefs (NFL) & Royals (MLB)	328	218	4,418	19.8
2007	Salt Lake City	Real Salt Lake (MLS)	n/a	n/a	175	130 over 30 years

Source: Rappaport and Wilkerson 2001, Real Salt Lake 2007

* Local Tax Revenues Only

In response to the recent growth in public subsidies of sports stadiums, many independent, academic economists have also studied the effect on economic growth. The academic literature on the economic benefits of sports stadiums concludes that there is no economic growth associated with professional sports franchises and stadiums.^{5, 10-16}

Few fields of empirical economic research offer virtual unanimity of findings. Yet, independent work on the economic impact of stadiums and arenas has uniformly found that there is no statistically significant positive correlation between sports facility construction and economic development.⁸

Independent economists have measured the effect on growth of jobs, income and tax revenue in metro areas in two main ways. The first method is to compare growth rates of metro areas with and without professional sports franchises, controlling for city specific trends. For example, Coates and Humphreys examined 37 U.S. cities that had at least one professional football, basketball or baseball franchise between 1969 and 1996.¹¹ Controlling for city specific factors that effect income (e.g. decline of the rust belt), they found that the professional sports franchises had no impact on the growth rate of per capita income and had a negative impact on the level of per capita income.

A second method is to study how a new stadium or franchise entering a metropolitan area affects economic growth. For example, Baade, in a study of 32 metropolitan areas with a change in the

number of franchises, 30 showed no significant change in per capita personal income growth, one showed a positive change and one a negative change.¹⁷ In the 30 metro areas where there was a change in the number of stadiums, 27 areas showed no change in per capita personal income growth and three showed a negative change.

These results are distinctly different from the studies done by economic consultants hired by sports franchises or local chambers of commerce. Why do we find such different results in the two bodies of literature? Several flaws in the franchise consultant analysis have been identified. Not all analyses have all the mentioned flaws, but most have at least one that leads to the overestimating of the impact of sports stadiums.

- Author biases. Economic consulting firms hired by franchises obviously have an incentive to find positive results. Academics may have bias as well, although there is no reason to assume that all academics would be biased against stadium construction. Yet all of their findings have been that stadiums do not create economic growth.
- Method. Franchise consultants create estimates based on assumptions about projected future economic activity for one metro area. Academic economists are analyzing past economic activity.⁸ Academic studies look at multiple metropolitan areas and analyze economic activity controlling for other factors that will likely affect economic growth.⁸
- Ignoring the substitution effect. Franchise consultants often anticipate spending that would happen in and around the new stadium without taking into account spending that may be reduced in other recreational activities as fans divert their spending.¹¹ Assuming families have relatively fixed entertainment budgets that they split among many activities, increased spending at a new stadium will mean decreased spending at other entertainment facilities (movies, amusement parks, museums, etc.). Thus, we can expect little economic growth from local families redistributing their entertainment budgets. Some economic growth can come from those outside the metro area choosing to spend their money at the sports stadium rather than spending near their home.
- Ignoring visit motivation. Franchise consultants count every dollar spent by out-of-town fans as dollars brought in by the stadium. However, many out-of-town fans attend games, but would have visited the metro area without the stadium. Many attend games while being in town for a conference, a wedding, to see an art exhibit, etc. Their spending on hotels, restaurants, etc. should not be included in stadium benefits if the motive for their trip was not the stadium.¹⁰
- Overstating the multiplier. Franchise consultants have used multipliers to estimate economic benefits such as job creation as high as 2.5.¹⁰ That is, one job created by the stadium directly leads to 2.5 jobs being created indirectly. Academic studies have found that a more reasonable multiplier would be 1.25.¹⁸ The lower multiplier is justified because a large portion of spending goes to purchase goods produced outside the metro area and the athletes typically live outside the metro area (at least during the off season).
- Focusing on gross rather than net jobs. Jobs lost are often not included in the analysis done by franchise consultants. While the new stadium may employ 1000 people, if the old stadium employed 900, net jobs increased 100.¹⁰
- Overstating the importance of the stadium in the local economy. Sports stadiums positive impacts are often small relative to the economy of a metro area. In fact a sports franchise has about the same scale of economic effect as a large grocery store.¹⁹ A civic leader in

Sacramento claimed, “The Raiders coming to Sacramento would be an event the magnitude of the Gold Rush.”¹⁹ During the Gold Rush 300,000 people moved to California in the six years following the 1848 discovery of gold in Sacramento. The Raiders would have played 8 home games a year there.⁵ Many find it surprising that a sports stadium does not generate more economic development however; sports franchises are really small businesses. The Jazz generates about \$10 million dollars²⁰ - that is 0.029 percent of the Salt Lake economy which generated \$33.6 billion dollars in personal income in 2005.²¹ Real Salt Lake will generate create 175 jobs²² or 0.027 percent of jobs in a metropolitan area that has 625,800 nonfarm employees.²³

Because of the preponderance of evidence against the economic development justifications, more recent stadium requests by franchises have focused on quality of life arguments to justify public expenditure.⁵ The quality of life justifications have not been subject to academic scrutiny, likely because they are extremely difficult to measure. Therefore, it is difficult to know if the quality of life improvements are large enough to justify the public expenditure.

Conclusion

In the last 20 years, billions of public and private dollars have been spent building sports stadiums across the United States. Proponents of a new stadium often cite economic development benefits that will be associated with the new stadium. Academic economists have not found statistically significant relationships between various measures of economic growth and stadium construction. The academic studies probably better capture the effects of a stadium because they are not subject to a number of errors that often occur in the economic development assessments done by pro-stadium advocates. However, throwing out the economic development argument does not necessarily lead to rejecting public spending on stadiums. Quality of life arguments may justify public subsidizing a sports facility.

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