

# The Economic Impact of Sports Stadiums

*December 17, 2015*

Lyn Hussey, *Gail Werner-Robertson Fellow*  
Faculty Mentor: Dr. Diana Thomas

## **EXECUTIVE SUMMARY**

This paper examines the economic impact of building new sports stadiums. Political leaders argue for the construction of new stadiums using the claim that they stimulate economic growth. Despite this popular claim, there is little convincing empirical evidence that such economic benefits exist. This paper reviews this literature and looks for insight on the prospects of a new stadium in St. Louis.

St. Louis officials have worked to justify plans and expenditures for a new NFL stadium to replace the current Edward Jones Dome. With minimal private funding, the City of St. Louis is evaluating whether future tax revenue generated by a new stadium would generate a sufficient return on investment to service debt and justify opportunity costs. Economic literature on stadium projects mainly argue against government subsidized stadiums. Economists have evaluated the experiences of several cities, measuring the return on investment and overall impact of building new sport facilities.

Economists largely agree that there is no positive return on investment for publicly funded sports stadiums. Economic impact studies performed for cities considering building a new stadium often promise economic growth resulting from this major investment. However, independent research on the economic impact of sports stadiums has found that there is not a statistically significant positive correlation to support these claims. One major factor that is typically ignored in economic impact studies is opportunity costs, which adds to the case against public stadium financing. The rate of return a city receives from investments in sports stadiums is generally less than that of alternative projects.

The analysis concludes by evaluating possible mechanisms that would restrict the ability of professional sports franchises to leverage cities into subsidizing stadium financing. One solution is to promote government and community owned teams that focus on filling government subsidized stadiums. Another proposed solution suggests increasing the competitive dynamic of relocation strategies. This solution would create tiered and independently operated leagues to increase competition among both leagues and their franchises when they seek to relocate and pursue new markets. The idea is to eliminate the monopoly-like structure of professional sports leagues. This greater competition would give less power to one group when negotiating franchise relocation packages with cities. Further reforms might include removing tax breaks and restricting government representatives from participating in stadium financing agendas because of personal bias and conflicts of interest.

## **INTRODUCTION**

Throughout history, large-scale infrastructure projects, specifically the building of sports stadiums, have been viewed as a reflection of economic prosperity rather than an attempt to create an economic stimulus (Baade and Matheson, 2003). The Roman Colosseum, for example, is a true testament to the economic stability of the Roman empire and it was not designed to increase local incomes (Baade and Matheson, 2003). In recent years, this belief has flipped, and political leaders argue that building stadiums will stimulate economic growth. Despite popular claims that new sports facilities create jobs and stimulate new consumer spending at and around the stadium, little to no empirical evidence of such economic benefits exists. In 2015, St. Louis officials stated similar claims to justify plans and expenditures for a new NFL stadium to replace the current Edward Jones Dome. With minimal private funding for the proposed stadium in St. Louis, the big question is whether the future tax revenue generated by the stadium will be sufficient to cover the debt that would have to be incurred for its construction. At least 35 cities have faced similar decisions, and their experiences have been evaluated by economists and others interested in measuring the return these communities have seen on their spending when they replace current stadiums or refurbished existing stadiums.

This paper reviews this literature and focuses on the outcomes of comparable cities in order to explore the likely economic impact the current plan would have in St. Louis and surrounding communities. In doing so, it is possible to present the best evidence to policymakers, voters, and others considering similar projects in the future. The analysis proceeds as follows. Section two summarizes the case in St. Louis in more detail, and section three offers some insight from two comparison cases. Section four reviews the broader economic literature on the topic and presents arguments against government subsidized stadiums. The analysis concludes by evaluating possible solutions to this problem.

## **THE SITUATION IN ST. LOUIS**

At any particular time, there are always a few cities discussing breaking ground on a new stadium to either attract a professional sports team or convince one to stay. Currently, St. Louis is discussing building a new stadium to keep the Rams in town. In St. Louis, there are three professional sports teams. There are the St. Louis Cardinals (MLB), the pride and joy of the city, who last won a World Series Championship in 2011. The Cardinals play in the second Busch Stadium that opened in 2006 and cost \$427 million, most of which was privately funded. The Cardinals contributed \$90.1 million in cash and \$200.5 million in bonds paid by the team. Also, \$9.2 million came from interest earned on the construction fund that the Cardinals held. The public funding came from a \$45 million (12 percent of total cost) long-term loan from St. Louis County. The Cardinals bring in an average of \$11.7 million in city tax revenue and \$19.3 million in state tax revenue each year as well as additional funds in years when they make it to the playoffs. Busch Stadium also serves as a concert venue on some occasions and as a soccer stadium for the USA Men's National Team occasionally throughout the offseason months.

Next, there are the St. Louis Blues (NHL) who play at Scottrade Center. Scottrade Center opened in 1994 and cost \$215 million to build. This arena was publicly and privately funded, and the city contributed \$34.5 million (16 percent of total cost) for site preparation and garages. Twenty corporations provided \$30 million cash and guaranteed \$98 million in construction loans. Naming rights went to Savvis Communications from St. Louis County for \$70 million in

cash and stock for 20 years. However, the naming rights contract was cancelled in 2005. Scottrade also serves as a major concert venue and hosts events such as the Missouri Valley Conference Men's Basketball Tournament and some NBA preseason games. The Blues have had recent success, making it to the playoffs in in 2012-2015 seasons.

Finally, there are the St. Louis Rams (NFL) who have not had much success since the early 2000's. They currently play in The Edward Jones Dome which opened in 1995 and was funded mostly by the city in the form of Edward Jones Dome Bonds which are special obligations of the Regional Convention and Sports Complex Authority. The stadium cost \$433 million to build and was mostly publicly funded. Annual debt financing of \$6 million comes from St. Louis City tax revenue, \$12 million from the state of Missouri tax revenue, and \$6 million from a hotel and motel tax in the county of St. Louis.

The Edward Jones Dome is also used for major events and conferences because it is adjacent to the America Center, a convention center. The availability for conventions is currently limited to the offseason and away game weekends determined by the Rams' schedule. As the fight for a new stadium continues, it is important to look at the current revenue of the Rams in comparison to the conventions. Conventions that are held at the Edward Jones Dome this year are estimated to bring in \$23 million in total tax revenue while the Rams are estimated to bring in only \$4.2 million in city tax revenue. The taxes generated by the Rams will mostly come from ticket sales, payroll and concessions. Considering the fact that the city pays \$6 million annually to finance the debt of the stadium, the Rams only bring in enough to cover 70 percent of the debt covered by the city, not including the contributions from the state and county.

Despite the fact that the Rams do not bring in enough revenue to cover their current debt, they are threatening to leave the city of St. Louis unless they build them a new stadium. The proposed stadium is a \$985 million riverfront open-air stadium. One benefit to building a new stadium would be opening up the convention center to host more events throughout the year. Conventions already bring in \$13 million in city and county taxes with their restricted schedule and allowing for more conventions and events in the area will increase this specific revenue and bring in more people from outside the region. The proposed stadium plan includes other amenities such as a wall of public art, an observation deck, and a bike trail. The task force hopes that the ample green space in the plan can be used to host other events or concerts.

## **ECONOMIC IMPACT STUDIES**

Economists largely agree that there is no positive return on investment for publicly funded sports stadiums. Cities are promised that sports teams and facilities will create economic expansion and add new jobs to the economy, but this rarely proves to be the case (Baade, 1996). Economic impact studies performed for cities considering building a new stadium often promise economic growth resulting from this major investment. However, independent research on the economic impact of sports stadiums has found that there is not a statistically significant positive correlation between sports stadium construction and economic development (Siegfried and Zimbalist, 2000). Economists and development specialists who have evaluated such projects ex post have concluded that the rate of return a city receives from investments in sports stadiums is generally less than that of alternative projects (Zaretsky, 2001). When evaluating an economic investment, it is essential to look at the cost of the investment in comparison to the benefits from the investment. Existing economic research

does not support taxpayer subsidies for professional sports stadiums because the only clear beneficiaries of such subsidies are team owners and players (Keating, 1999).

Economic impact studies conducted ex ante that justify municipal funding of venues are often flawed. Many of the methods and assumptions used by those conducting economic impact studies are questioned by the majority of the academic economics profession. Specifically discussed within this paper are the issues of leaking, the failure to evaluate correctly the effects of substitution, misleading employment statistics, and government subsidies. Most of the tax revenue generated from the sales sport's stadiums generate, i.e. tickets and merchandise revenue, is not returned to the region. This is because most of the team's revenue goes to players and owners of the team and these individuals often do not live in the area (Zaretsky, 2001). Since these individuals are in a high-income bracket, over 40 percent of their incremental income goes to the federal government. Also, people with higher incomes typically have a higher savings rate. Therefore, more of the money leaks into the world's money markets (Siegfried and Zimbalist, 2000). Many times, the increase in revenue that the team experiences go towards a higher selling price for the team which turns into revenue for the owner (Zaretsky, 2001). Essentially, owners and players acquire much of the economic benefit from building a new stadium and since they rarely spend it in the region taxpayers, who usually shoulder the cost of new stadiums, are left without any return on their infrastructure investment (Baade, 1996).

In addition to not correctly accounting for the effects of leakage, many economic impact studies also fail to evaluate correctly the effects of substitution. Sports stadiums often do not create new revenue in a metropolitan area because the revenues reported for sports stadiums are substitutes for the revenues that other entertainment activities would have created (Zaretsky, 2001). Most people's budget for leisure activities is inflexible, so money spent on sports is money that would have been spent elsewhere (Siegfried and Zimbalist, 2000). Professional sports realign economic activity within a city's leisure and entertainment industry rather than adding to it.

Many cities are promised an increase in employment as a result of an investment in a sports stadium (Baade, 1996). However, many of the jobs that are created by such projects are part-time, low wage, and seasonal (Baade, 1996). Stadiums and sports do not create more labor spending, but rather replace spending on labor relating to other leisure activities (Baade, 1996). The addition of a sports team or stadium does not increase a city's aggregate spending by an amount that leads to a noticeable increase in the city's share of employment in the amusement and recreation industry (Baade, 1996). In order for jobs to be created in a metropolitan area, professional sports have to either increase aggregate spending on goods and services or induce a spending shift toward industries that are more labor-intensive (Baade, 1996) In addition to jobs, economic impact studies promise economic stimulus in the surrounding areas. However, contemporary stadiums are now providing many of the goods previously provided by the surrounding neighborhoods. Some examples of these goods include the wide array of culinary options now available in every stadium, souvenirs and merchandise, and sometimes even child care (Baade, 1996).

Government subsidies for sports stadiums become even more controversial when one starts discussing the difference between those funding the project and those using the end product. At times, state and local officials use the promises of non-economic benefits to support the political decision to provide subsidies. However, the interest of the bonds used by governments to fund these projects is exempt from federal income tax and this decreases the income taxes

collected by the federal government (Keating, 1999). This has a negative effect on taxpayers across the country, who are not users of the end product and do not benefit from the aforementioned non-economic benefits. Furthermore, the funds used to build a stadium typically come from taxes, that may have regressive effects such as sales taxes, sin taxes, and lotteries (Siegfried and Zimbalist, 2000). Regressive taxes are more burdensome to lower income households, because they tend to increase the cost of goods and services that are primarily consumed by the poor. When the revenue from such taxes is used to finance government programs and services that are consumed by middle class or higher income households, they can have a regressive effect on the income distribution in a country. Because the users of sports stadiums are typically middle- and upper-class individuals and families, largescale subsidies to sports teams are potentially an example of a regressive policy. This discrepancy in funding and utilization raises many questions about the current methods for funding sports stadiums.

One major factor that is typically ignored in economic impact studies is opportunity cost. When determining the costs of building a stadium, one must evaluate the lost revenue of the next best alternative. Rather than asking if a stadium will have a positive net impact on a community, the question ought to be whether it has the largest impact on the area among the set of alternative projects. When considering opportunity costs, the total project costs of building the stadium may well exceed benefits (Baade, 1996). In almost every case evaluated, the next best alternative proved to be a better alternative (Zarestky, 2001). The money to fund these stadiums does not appear out of nowhere, rather it takes away from other potential projects. The funds typically come from a decrease in government services or an increase in taxes, both of which take a toll on the local economy (Siegfried and Zimbalist, 2000). The resulting lower government spending in other areas or lower disposable income decrease aggregate expenditures proportionally to the amount spent on the stadium. Also, most new stadiums are not subject to property taxes (Keating, 1999). Therefore, not only are funds not available for other expenditures, but the government may also be permanently losing a source of revenue.

If there are so many arguments against public funding for sports stadiums, why is it still happening? First, people may not be thinking rationally when it comes to home team passion. Change in this area is difficult because people do not want to lose their local teams (Keating, 1999). Despite evidence to the contrary, the false promise that professional sports increase income and create jobs in the metropolitan area surrounding the stadium continues to persuade people to fund these projects. Sports franchises remain a major factor in city pride, just as politicians continue to argue that new sports facilities will stimulate economic growth (Zaretsky, 2001). Since teams have created a monopoly, they can easily negotiate with area governments to gain public funding. Cities bid against each other for the scarce number of teams in the market through new facilities and lease deals, each one bigger and better than before (Baade, 1996). Also, leagues control the competition by requiring existing teams in the league to determine if another team can relocate (Siegfried and Zimbalist, 2000). Owners of other teams can help a fellow team owner negotiate a government subsidy in their current host city by threatening to approve their move to another city if the funds are not supplied. These threats can create a monopoly power for teams that are seeking public funding for a new stadium or refurbishment (Siegfried and Zimbalist, 2000).

## CONCLUSION - PROPOSED SOLUTIONS

As this problem continues to grow and sports stadiums get more and more expensive, many solutions have been proposed and evaluated. One solution would be for more government-owned and community-owned teams (e.g. the Green Bay Packers). This could be coupled with legislation by the federal government that forces leagues to fill publicly subsidized stadiums if a team chooses to move (Keating, 1999). Another proposed solution is to divide sports leagues into multiple, competing leagues. Currently, teams are divided into leagues within a professional sport but the league as a whole is controlled by one party. In order to create competition in the market, and eliminate this monopoly, one must divide the highest level of organization into competing leagues. This greater competition would give less power to one group when it comes to market entry by new teams and the process of franchise relocation. Also, policy makers might explore how they can prohibit existing leagues from exercising control over team relocations. These reforms would make the team owners and players worse off and would be difficult to implement without intervention by the federal government (Siegfried and Zimbalist, 2000). Another proposed solution is to rely on taxpayers to elect people that will make smart decisions about government subsidies for sports stadiums (Keating, 1999). However, there is no way to ensure that elected officials will vote the way they say they will, and there are many other more pressing issues that should influence voting for an individual (Keating, 1999).

The next proposed solution is to ensure that voters have a final say about the public investment portion of a new sports facility through a referendum (Keating, 1999). While this will not prevent all government subsidies, at least the voters, whose tax bills are at issue, will have a say in the matter (Keating, 1999). Another solution involves antitrust laws and their application to sports leagues. In 1999, Major League Baseball was the only league with an exemption from this legislation. Expanding this exemption to other leagues will restore the power over franchising and team locations back to the leagues (Keating, 1999). This proposal relies on the argument that each major league is a part of the larger entertainment industry rather than a monopoly in its own unique industry (Keating, 1999). The next proposed solution is to eliminate federal tax breaks on finances for sports stadiums. This will raise costs for cities and states and it might even kill some government subsidies. Given the lack of evidence for real returns being generated by these massive spending projects, it makes no sense to allow for special tax exemptions, especially those that offer no relationship to the nation's economic well-being. The final solution is a constitutional amendment prohibiting government officials from contributing finances to a sports facility. Despite the powerful logic behind these policy proposals, people's inability to think with regards to their sports loyalties acts as a serious barrier to the implementation of these solutions.

## REFERENCES

- Baade, Robert A. "Professional Sports As Catalysts For Metropolitan Economic Development." *Journal of Urban Affairs J Urban Affairs* 18.1 (1996): 1-17. Web.
- Baade, Robert A., and Victor A. Matheson. "Financing Professional Sports Facilities." *Financing Economic Development in the 21st Century*. By Sammis B. White, Richard D. Bingham, and Edward W. Hill. Armonk, NY: M.E. Sharpe, 2003. 323-38. Print.
- Bennett, Dashiell. "The Worst Stadium Financing Deal Ever Is Still Crippling Cincinnati's Taxpayers." *Business Insider*. Business Insider, Inc, 12 July 2011. Web. 28 Nov. 2015.
- Hunn, David. "Rams Don't Produce Enough Tax Revenue? Conventions Do, Commission Says: News." *Stltoday.com*. St. Louis Post-Dispatch, 14 July 2015. Web. 28 Nov. 2015.
- Jannene, Jeramey. "Miller Park vs Busch Stadium – Milwaukee vs St. Louis." *Urban Milwaukee Miller Park vs Busch Stadium Milwaukee vs St Louis Comments*. Urban Milwaukee, 28 May 2009. Web. 28 Nov. 2015.
- Keating, Raymond J. "Sports Pork: The Costly Relationship between Major League Sports and Government." *Cato Institute, Cato Policy Analysis* 339 (1999): n. pag. Web.
- Preston, Darrell, and Aaron Kuriloff. "Cincinnati Stadiums Bury County Government in Debt." *Bloomberg.com*. Bloomberg, 17 Dec. 2013. Web. 28 Nov. 2015.
- Siegfried, John, and Andrew Zimbalist. "The Economics of Sports Facilities and Their Communities." *Journal of Economic Perspectives* 14.3 (2000): 95-114. Web.
- Zaretsky, Adam M. "Should Cities Pay for Sports Facilities." *Federal Reserve Bank of St. Louis* Apr. 2001.