

## Homefield Economics: The Public Financing of Stadiums

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# HOMEFIELD ECONOMICS: THE PUBLIC FINANCING OF STADIUMS

*Christopher Diedrich*

*More and more professional sports teams are turning to their legislatures in order to secure funding for new stadiums. While previous analyses suggest that there is little economic argument for public dollars going toward such projects, Mr. Diedrich points out that there is more to the story than economics. Quality of life issues such as pride and sense of community, as well as a state or city's prestige on the national stage, should also be considered.*

A great deal of money is made in professional sports. Owners of teams in the four major United States leagues - the National Basketball Association (NBA), the National Football League (NFL), the National Hockey League (NHL), and Major League Baseball (MLB) - are some of the wealthiest members of society, and the teams they own tend to make them even wealthier. So, when Minnesota Twins owner Carl Pohlad, the second richest person in Minnesota,<sup>1</sup> asked the taxpayers of Minnesota for a helping hand to build a new ballpark, one can understand why those same taxpayers reacted with bafflement, anger, and a few choice words.

A new stadium increases a franchise's value regardless of whether it was built with public funds or private funds. While a team playing in its own stadium is generally worth more than a team playing in a public stadium, that difference is smaller than the average cost of constructing the stadium.<sup>2</sup> In light of this, team owners have proven exceptionally talented at finding someone else to pay for their playgrounds, and privately financed stadiums have become the rare exception. Owners are in the driver's seat thanks to an unbalanced economic system where leagues keep the number of teams below the number of cities that could support one; this drives up their prices and pits one city against one another for the privilege of hosting a team.

In response to the argument that public financing of stadiums is thinly disguised corporate welfare, owners generally contend that any public investment

will result in significant economic benefits, particularly new jobs and increased tax revenue, as well as quality of life benefits, such as prestige, civic pride, and plain old happiness. Drawing heavily on the ongoing debates over construction of a new Minnesota Twins stadium in downtown Minneapolis, this article examines owners' claims. It concludes that while economic benefits fall short of those promised by stadium proponents, quality of life benefits may be significant enough to justify public financing.

## Economic Arguments

Those seeking public financing for professional sports stadiums argue that a new stadium will stimulate economic growth in two primary ways. First, it creates new jobs. In the short term, building the ballpark means new construction jobs. In the long term, the new ballpark means the city gains or retains the franchise, so increased spending by fans and franchise employees due to that team's presence further expands local employment.<sup>3</sup> On top of this, the influx of capital attributable to the team's presence creates a "multiplier effect," where the new spending causes still more income and spending, which in turn results in more new jobs.<sup>4</sup> For example, when a wealthy player builds a new home, eats at expensive restaurants, and buys Italian suits, there is work for a construction worker, a server, and a tailor that was not previously there. Then, the newly minted construction worker spends his income in the community, further growing the economy and creating jobs.

Secondly, proponents argue, local governments benefit from increased tax revenue. Fan spending on concessions and tickets as well as on hotel rooms, parking, and meals is all subject to sales taxes. Therefore this new business results in an influx of capital that would otherwise be spent outside city limits.<sup>5</sup> Further, the team's presence improves the national perception of the city, and a well-perceived city has an easier time attracting companies and non-sports tourism.

If the above arguments had merit, then the economic case for public financing would be well nigh unimpeachable. They do not. While construction of a new stadium indeed creates a significant number of jobs, those jobs are temporary. Public financing proponents often focus on gross job creation, the number of jobs that can be fairly attributed to the presence of the team. However, this approach ignores that money being spent at sporting events is money that is not being spent at other leisure activities or in other sectors of the economy, namely movie theaters, parks, restaurants, and other entertainment venues. The decreased flow of money into those sectors results in fewer jobs in those areas. This is a "substitution" problem, where jobs that are created due to the team's presence merely come from other sectors of the economy that the team's presence has negatively impacted. Net job creation is the proper measure. Furthermore, the projected "multiplier effect," should be kept lower, as not all of the resulting new income is spent in the local area.

Robert Baade and Allen Sanderson examined ten major metropolitan areas with major sports franchises and found evidence of positive net job creation in only three of them.<sup>6</sup> Other economists place the number of net number of permanent jobs created somewhere between zero and 1,000.<sup>7</sup> Accounting for altered tax rates, property values, and wage increases, economists have estimated that the value of these jobs ranges from \$0 to \$1,500 per net job created.<sup>8</sup> Therefore, a fair estimate of the economic benefit of job creation is approximately \$375,000 per year, the product of the midpoint of the job creation and job value ranges.<sup>9</sup>

Similarly, the tax argument is not fully realized; increased sales tax revenue primarily benefits a local economy when it is paid by non-local residents visiting a city exclusively to attend the game. Taking

into account sports-related expenses by visiting fans and using a very high purely local sales tax rate of 5 percent,<sup>10</sup> economists estimate the annual sales tax benefit of a major league team ranging from \$696,000 (NHL) to approximately \$1.5 million (MLB).<sup>11</sup> If the municipality where the team plays has an income tax, then another \$1-2 million might flow into the city's coffers each year from the income taxes of players, coaches, and others only living or working in the area because of the team's presence.<sup>12</sup> Adding it all up, the total annual economic benefit of a new stadium is somewhere from \$1.1 million for a NBA/NHL arena with no local income tax to \$2.9 million for a MLB stadium in an area with a local income tax.<sup>13</sup>

While economists of every stripe agree that the economic benefits don't live up to proponents' claims, not all economists agree that constructing a new stadium will even result in the relatively modest economic benefits above. According to economists Dennis Coates and Brad Humphreys, the average impact of a professional sports franchise on a metropolitan area may actually even be negative.<sup>14</sup> Coates and Humphreys found that other economists may underestimate the severity of the "substitution" problem in both the public and private sectors. First, public funds used to subsidize construction are not going to other public uses, and in an age where tax increases are a non-starter, this means that those other public uses will be funded at a lesser level, decreasing the local economy's ability to be competitive in sectors other than sports. Second, the extent of leisure spending substitution discussed above may be greater than other economists think. Third, if benefits of job creation and tax revenue do exist, they may still fall short of the ever-increasing public expenditures to keep the team owners happy: approximately \$84 million for new NBA or NHL arenas and \$188 million for new MLB or NFL stadiums.

John Siegfried and Andrew Zimbalist said it best: "[F]ew fields of empirical 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."<sup>15</sup> Clearly, if public financing of stadiums is to be defended, it must be done on other grounds.

## Quality of Life Arguments

In his decision requiring the Minnesota Twins to play the 2002 season at Minneapolis's aging Hubert H. Humphrey Metrodome, instead of allowing Pohlad and MLB to conspire to eliminate the franchise for a healthy sum of money, Judge Harry S. Crump wrote:

Baseball is as American as turkey and apple pie. Baseball is a tradition that passes from generation to generation. Baseball crosses social barriers, creates community spirit, and is much more than a private enterprise . . . . Clearly, more than money is at stake. The welfare, recreation, prestige, prosperity, trade and commerce of the people and the community are at stake.<sup>16</sup>

A hard-luck lot, economists. All the statistics in the world pale in comparison with turkey and apple pie. In recognizing a social benefit of sports teams to communities beyond income taxes and new jobs, Judge Crump's decision is evidence that substantial emotional forces are at work. Nonetheless, it is extraordinarily sloppy public policy for policymakers to merely bow to such emotion. To see what weight to give these intangible quality of life benefits, it makes sense to cast them in economic terms.

Sports teams are quasi-public goods. They are non-rival in the sense that no matter how much one person follows a given sports team, another person's ability to follow or "consume" that team remains undiminished, and short of one person buying up all the tickets, they are non-excludable.<sup>17</sup> Entire sections of daily newspapers are devoted to covering sports, the sports network ESPN is available in approximately 90 million homes, and one cannot turn the radio station during rush hour without being bombarded by experts and non-experts alike heatedly debating the sports issues of the day.

The civic pride, quality of life, and simple happiness this public good generates may be the salient considerations in our willingness to pay for stadiums. We want teams in our cities not because they make our city more prestigious or economically important,

but rather because they help make us proud to live where we do, and because they give us something to talk about with our neighbors and coworkers. We want sports teams because we love sports – our fandom helps us define ourselves as individuals and, taken collectively, our support of a team helps develop a communal identity.

At least three studies have attempted to place a value on these benefits. In 1996, Mark Rosentraub and David Swindell surveyed Indianapolis residents, asking them to rank the importance of a range of cultural attractions to their city. When asked about civic pride, respondents answered that the NBA's Indiana Pacers were as important as museums. Right behind them were the NFL's Indianapolis Colts, well ahead of the area's music and shopping.<sup>18</sup> When asked what defined the area's reputation, respondents answered auto racing first, followed by the Pacers and Colts, with museums falling to fourth.<sup>19</sup> Finally, when asked whether the loss of a particular community asset would hurt the reputation of the community, sports won again. Eighty-five percent of respondents believed that losing the Indianapolis 500 would hurt their reputation, followed by the Pacers at 81% and the Colts at 75%, with only 68% of respondents believing that the loss of their museums would harm the city's reputation.<sup>20</sup>

In early 2000, Bruce Johnson, Peter Groothuis, and John Whitehead asked the citizens of Pittsburgh how much they would be willing to pay in higher taxes to keep the NHL's Penguins from leaving town. The average response was \$5.57 per household per year. As there are approximately 960,000 households in the Pittsburgh area, that translates to an aggregate "quality of life" benefit of around \$5.2 million per year. Spread across thirty years, the average lifespan of a stadium, that annual benefit translates into a present-day value of \$66 million, approaching the average public contribution of \$84 million for a NHL/NBA arena.<sup>21</sup>

In 2003, Jerry Carlino and Ed Coulson used another method to measure the dollar value of the happiness that a team gives its city: how much people will pay to live there. Comparing 53 cities' average rents in 1993 to those in 1999 and controlling for other variables, Carlino and Coulson found that the

presence of an NFL team raised annual rents 8 percent.<sup>22</sup> Their cities included had an average monthly rent of \$500, making that 8 percent premium worth about \$480 per year in cities hosting NFL teams. Given that there are approximately 290,000 households in a typical city center, \$480 translates to an “aggregate amenity value” of approximately \$139 million per year. To put that into perspective, localities typically provide annual stadium subsidies in the range of \$22-29 million, far less than the enjoyment it creates.<sup>23</sup> By comparison, the annual value of one additional sunny day per person per year is estimated between \$7 and \$12.<sup>24</sup> In the Twin Cities, with about 3 million people, the benefit of a new NFL stadium might well equal approximately 4-7 days of sunshine a year.

None of this is to say that legislatures should be obligated to open the public treasury to owners. However, the quality of life benefits from hosting a professional sports team in a new stadium are likely significant enough to place it within the sphere of proper political debate and may provide independent justification for public financing.

### Political Realities

One of the common assumptions in the stadium debate is that politicians who vote for public financing will face electoral retribution if the citizens do not want it. In 1997, Minneapolis voted overwhelmingly to put a \$10 million limit on financial assistance the city might provide for a new Twins ballpark. Leading up to the Hennepin County Board vote to approve a countywide sales tax to help pay for the ballpark, surveys showed that sizeable majorities of residents were opposed to using any public money. By a 4-3 vote, however, the Board approved the deal in August 2006. As three of the four “yes” votes were up for re-election that fall, public financing opponents loudly promised that the political retribution would be severe. Despite that threat, all three board members won, receiving between 61% and 66% of the vote.<sup>25</sup> Thus, even if the majority of citizens in a given area are against public financing, the opposition is apparently of questionable strength.

The public doesn't want to pay for professional sports stadiums, but that doesn't mean we're willing to let our favorite team leave town. Charles Mahtesian

notes that “[f]ew public officials are willing to interpret a public vote against taxpayer financing of a stadium as a willingness on the part of those taxpayers to see the team leave town.”<sup>26</sup> This suggests that the true value to Pittsburghers of keeping the Penguins may be higher than the quality of life figure above. Simply put, we don't know what we've got until it's gone. Mulugetta Birru, the former Executive Director of Pittsburgh's Urban Redevelopment Authority puts it more bluntly: “If the Steelers ever left town, elected officials would be hung.”<sup>27</sup>

Sometimes letting a team leave has been smart for a city. Denver managed to survive without its hockey team for 13 years before getting an existing franchise

in town, and is estimated to have spent less money in doing so than it would have spent on keeping the NHL's Rockies (now New Jersey Devils) in the Mile High City. This is more the exception than the rule, however. As former Pittsburgh city councilman and current Allegheny County Executive Dan Onorato succinctly put it, “there's a big difference between never having a team and losing one. So you grudgingly do this and hold your nose.”<sup>28</sup>

In many cases where cities have lost a team, the cost of attracting another one—at the citizens' behest—has exceeded the cost of retaining the old one. For instance, Minnesota let its hockey team, the North Stars, leave in 1993 when the state could have kept them for about \$17 million. Just six years later, the state spent \$130 million for an expansion franchise. While Minnesotans may have a greater emotional connection to hockey than do Coloradans, this pattern is present across the major leagues. When the Browns left Cleveland, the resulting “civic trauma” was so intense that the NFL gave the city an expansion franchise just three years later. The restored civic pride didn't come cheaply.

The public doesn't want to pay for professional sports stadiums, but that doesn't mean we're willing to let our favorite team leave town.

## Conclusion and Suggestions

Given the complicated and often conflicting arguments regarding stadium financing, the only advisable course of action for policymakers is to make the debate more open and honest. If legislators and county board members want a stadium because of increased civic pride and reputation, then they need to take off the rose-colored glasses and have the courage to say so. Obscuring an emotional argument with economic platitudes gets us nowhere. Each stadium proposal should be required to have an independent assessment of the relative economic value of the quality-of-life benefits. If the estimated quality-of-life benefits exceed the proposed public outlay, then from this perspective, the deal makes sense. If the projected benefits still fall short of the public outlay, then policymakers should stand firm and get a better deal.

Of course, these are not the only considerations. For example, it is undisputed that the economic benefits of a new stadium primarily accrue to wealthy players and even wealthier owners. Stadium opponents argue firmly that public funds should instead be directed toward education, health care, the environment, and effective job creation before we even start thinking about entertainment. Quality-of-life benefits do not necessarily trump all other considerations; however, they must be considered.

If a determination is made that a new stadium is in the best interests of the citizens, policymakers should also allocate the financial costs more equitably. Use taxes, such as ticket surcharges and municipal parking ramps, are one way of ensuring that those people who greatest feel the benefit of a team's presence (the fans) pay more for that benefit than those who derive no particular pleasure from a team's presence. On the other hand, a city's decision to offer public financing is a better deal if its share of the project comes in infrastructure improvements that benefit the entire populace, not just the fans. Agreements like this may make the entire project more palatable to citizens who might otherwise oppose funding sports entertainment.

Responsible policymakers must also remember to think long-term. In the short term, the public may well be fed up with millionaire players and billionaire owners reaping the benefits of public expenditures,

but today's stadium fatigue may be tomorrow's outrage at the lack of a major league team. By assessing the likelihood of a team's departure, the reaction of the public to that departure, and the cost of attracting a team in the future, policymakers can make more informed decisions. Since the public financing model shows no signs of disappearing any time soon, \$17 million now will likely be less painful than \$130 million in a few years. And if the requested public funds are smaller than the quality-of-life benefits, which the research suggests they may be, then it's still a good deal.

### Endnotes

- 1 Miller, Matthew and Tatiana Serafin, *The 400 Richest Americans*, Forbes Magazine, Sept. 21, 2006
- 2 Miller, Phillip (2006). "Private Financing and Sports Franchise Values: The Case of Major League Baseball," forthcoming in the *Journal of Sports Economics*.
- 3 Noll, Roger G. and Andrew Zimbalist, "Sports, Jobs & Taxes: Are New Stadiums Worth the Cost," *The Brookings Review*, Summer 1997, Vol. 15, No. 3, pp. 35-39.
- 4 Rappaport, Jordan & Chad Wilkerson (2001). "What Are the Benefits of Hosting a Major League Sports Franchise?" *Economic Review*, Federal Reserve Bank of Kansas City. Issue Q I, pp. 55-86; page 63.
- 5 Coates, Dennis and Brad R. Humphreys. "The Growth Effects of Sport Franchises, Stadia, and Arenas." *Journal of Policy Analysis and Management*, Volume 19, Autumn 1999, pp. 601-24. For instance, only 13% of Minnesota Twins 2003 ticket sales came from zip codes outside the seven-county metropolitan area. Tellijohn, Andrew. *Minneapolis/St. Paul Business Journal*, Nov. 23, 2003, available at <<http://www.bizjournals.com/twincities/stories/2003/11/17/story4.html>>. Due to specific marketing efforts targeting greater Minnesota and its neighboring states, however, Twins Vice President of Marketing Patrick Klingler estimates that 25-30% of 2006 ticket sales for any given home game came from outside the metro area. Phone Interview with Patrick Klingler, March 26, 2007.
- 6 Baade, Robert A., and Allen R. Sanderson. 1997. "The Employment Effect of Teams and Sports Facilities," in Roger G. Noll and Andrew Zimbalist, eds, *Sports, Jobs, and Taxes: The Economic Impact of Sports Teams and Stadiums*. Washington: Brookings Institution Press.
- 7 Rappaport & Wilkerson (2001), p. 63.
- 8 *Id.*, at 64. Gyourko, Joseph, and Joseph Tracy. 1991. "The Structure of Local Public Finance and the Quality of Life," *Journal of Political Economy*, August. Hamilton, Bruce W., and Peter Kahn. 1997. "Baltimore's Camden Yards Ballparks," in Roger G. Noll and Andrew Zimbalist, eds., *Sports, Jobs & Taxes: The Economic Impact of Sports Teams and Stadiums*. Washington: Brookings Institution Press. Roback, Jennifer. 1982. "Wages, Rents, and the Quality of Life," *Journal of Political Economy*, December.

- 9 Rappaport & Wilkerson (2001), p. 65.
- 10 Sales Tax Clearinghouse, <<http://www.thestc.com/>>.
- 11 Rappaport & Wilkerson (2001), p. 66. Professional athletes generally pay taxes in every city in which they play.
- 12 Professional athletes generally have a complicated tax payment structure, in which they pay income taxes for the prorated amount earned in each state. For example, Detroit levies a local income tax of 2.5% against Detroit residents and 1.5% against non-residents. As each MLB stadium hosts 81 games of the 162-game season, Detroit Tigers baseball players would pay .75% (1/2 of 1.5%) of their income to the City of Detroit under that system, presuming they don't live within city limits.
- 13 *Id.*, at p. 69.
- 14 Coates, Dennis and Brad R. Humphreys. 2003. "The Stadium Gambit and Local Economic Development," Regulation, Volume 23, No. 2
- 15 Siegfried, John and Andrew Zimbalist. "The Economics of Sports Facilities and Their Communities," Journal of Economic Perspectives, Vol. 14, Summer 2000, pp. 95-114.
- 16 Metropolitan Sports Facilities Comm'n v. Minnesota Twins Partnership, 2001 WL 1511601 (Minn. Dist. Ct. Nov. 16, 2001) (Ct. No. 01-16998), affirmed, 638 N.W.2d 214 (Minn. Ct. App. Jan. 22, 2002).
- 17 Admittedly, tickets to professional sporting events can be very expensive, creating a barrier for fans of lower means. Many teams, however, offer free and discounted tickets to certain games to serve lower-income fans. Professional sports teams are certainly not purely public goods, especially if games are broadcast on cable television which is not available to all citizens. I use these terms merely to demonstrate that professional sports teams create public externalities and benefits far beyond those of other private enterprise.
- 18 Rosentraub, Mark S., and David Swindell. "Who Benefits from the Presence of Professional Sports Teams?: The Implications for Public Funding of Stadiums and Arenas," Public Administration Review. January/February 1998, Volume 58, No. 1, pp. 11-20. On a scale of 1-5, respondents measured museums at 4.27, the Pacers at 4.26, and the Colts at 4.07. The survey was conducted at the close of the Pacers' 1996 season, which may result in a higher total than might otherwise occur.
- 19 *Id.*, at 15. The National Reputation responses were also measured on a 1-5 scale. Auto racing scored 4.49, the Pacers scored 4.47, the Colts scored 4.33, and the area's museums scored 4.29.
- 20 *Id.*, at 15.
- 21 Johnson, Bruce, Peter Groothuis, and John Whitehead. "The Value of Public Goods Generated by a Major League Sports Team: The CVM Approach," Journal of Sports Economics, Volume 2. 2001. pp. 6-21. There are reasons to believe that the quality of life benefit for the Penguins is far lower than for other major league teams. First, the Penguins were in financial troubles at that time. Second, the Pittsburgh area already had MLB's Pirates and the NFL's Steelers, so losing the Penguins would be less of a hit to civic pride than in other cities. Third, they play in the oldest arena in the NHL. Fourth, the Pittsburgh market is relatively small. Fifth, the NHL has the smallest fan base of the four major sports, having the lowest ratings and not always having a local television contract. Considering the Penguins were relatively unsuccessful at that point, it may also be the case that a present survey would result in higher numbers, as two of the NHL's most talented and marketable young players, Sidney Crosby and Evgeni Malkin, now play for the Penguins.
- 22 Carlino, Gerald A., and N. Edward Colson (2004). "Should Cities Be Ready for Some Football?: Assessing the Social Benefits of Hosting an NFL Team," Business Review, Federal Reserve Bank of Philadelphia, Issue Q2, pp. 7-17.
- 23 Alexander, Donald, William Kern, and Jon Neill. "Valuing the Consumption Benefits from Professional Sports Franchises," Journal of Urban Economics, 48, 2000, pp. 321-37. James Quirk and Rodney Fort determined the annual subsidy to professional sports teams averaged \$27 million in 1999 dollars. Quirk, James and Rodney Fort. Pay Dirt: The Business of Professional Sports Teams. Princeton: Princeton University Press, 1992.
- 24 Blomquist, Glen, Mark Berger, and John Hoehn (1988). "New Estimates of the Quality of Life in Urban Areas," American Economic Review, Volume 78, pp. 89-107.
- 25 Election Results, Minnesota Secretary of State's Office, available at <http://electionresults.sos.state.mn.us/20061107/>. Peter McLaughlin's share of the vote dropped from 77.5% to 66.34%, though his raw vote total increased by 344 votes. Mike Opat's share of the vote dropped from 76.1% to 61.1%, with a raw vote drop of 9,587 votes. Mark Stenglein's share of the vote increased from 56.8% to 62.2% with a raw vote increase of 555 votes. The lone stadium opponent up for re-election in 2006, Gail Dorfman, ran unopposed and won, as she did in 2004. The other three members of the Board are up for re-election in 2008. Interestingly, the four men on the Board voted in favor of the Twins proposal, while the three women on the board opposed it.
- 26 Mahtesian, Charles. "The Stadium Trap," Governing, May 1998. Congressional Quarterly, pp. 22-26.
- 27 *Id.*, at 26.
- 28 *Id.*, at 26.