THE MYTH OF SPORTS-LED ECONOMIC DEVELOPMENT

Brad R. Humphreys*

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New Evidence on the Economic Impact of Professional Sports Facilities: *Public subsidization of professional sports facilities has been prevalent for the past 40 years in the United States. These subsidies are allegedly justified by economic benefits flowing from sports facilities, including the creation of new jobs, new tax revenues and higher income. Recent research suggests that cities have not benefited economically from the boom in professional stadium and arena construction; cities that built new sports facilities over the period 1969-1997 have experienced lower inflation adjusted income per person than those where no new facilities were built. This research calls into question the justification for public subsidization of professional sports facilities.*

How do professional sports facilities and franchises affect local economies? This question lies at the heart of an important public policy debate that takes place each time a professional sports team wants a new facility built at public expense, or local officials want to build a new facility to attract a professional sports franchise to a city. Opinions about the answer to this question are sharply divided, with one side claiming large positive economic benefits and the other claiming at best no economic benefit and at worst a negative economic impact. Despite this disagreement, taxpayers continue to subsidize the construction of professional sports facilities, as shown on Table 1, and only a handful of projects around the U. S. have ever been denied public financing.

The proponents of public financing for professional sports facilities have succeeded in part because they have successfully propagated the myth that professional sports represents a viable local economic development strategy. The economic impact studies commissioned and paid for by the proponents of stadium or arena construction projects inevitably claim that the local economy will derive a number of economic benefits from the construction of a new facility: greater employment, earnings and tax revenues. These studies portray new sports facilities as a municipal investment that will produce a large return, in economic terms. On the opposite side of the debate, a great deal of economic research suggests that at best no economic benefits will be derived from these projects, and at worst residents will suffer in economic terms when a new stadium is built and a new team attracted. Unfortunately, the results of academic research published in scholarly journals seldom appear in newspaper articles, on rush hour radio news broadcasts, or in press conferences like the unveiling of the results in the typical economic impact study.

Economic Impact of Sports Facilities

My research falls squarely in the latter group. I am an economist who has spent a great deal of time examining the economic impact of professional sports facilities and franchises on local economies and writing a number of articles for peer-reviewed academic journals on the topic. Based on a careful reading of many economic impact studies, the existing academic literature on the topic, and my own research, I have come to the conclusion that professional sports does not represent a viable local economic development policy. At best, the economic impact studies used to justify these projects contain a number of serious methodological

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Table 1: New Professional Sports Facilities 1998-2002

City	TENANT(S)	OPENED	COST	PUBLIC SUBSIDY
Houston, TX	Houston Texans	2002	$367.0 m	$252.0 m
Seallle, WA	Seattle Seahawks	2002	$400.0 m	$100.0 m
Milwaukee, WI	Milwaukee Brewers	2001	$394.0 m	$304.0 m
Denver, CO	Denver Broncos	2001	$400.0 m	$300.0 m
Pittsburgh, PA	Pittsburgh Steelers	2001	$252.0 m	$175.5 m
Pittsburgh, PA	Pittsburgh Pirates	2001	$262.0 m	$222.0 m
San Francisco, CA	San Francisco Giants	2000	$330.0 m	$ 10.0 m
Cincinnati, OH	Cincinnati Bengals	2000	$450.0 m	$450.0 m
Minneapolis, MN	Minnesota Wild	2000	$130.0 m	$ 30.0 m
Denver, CO	Denver Nuggets, Colorado Avalanche	1999	$170.0 m	$ 8.8 m
Atlanta, GA	Atlanta Hawks, Thrashers	1999	$213.0 m	$ 62.5 m
Seattle, WA	Seattle Mariners	1999	$534,0 m	$372.0 m
Los Angeles, CA	Los Angeles Lakers, Clippers, Kings	1999	$375.0 m	$ 12.0 m
Baltimore, MD	Baltimore Ravens	1998	$223.0 m	$200.0 m
Tampa, FL	Tampa Bay Buccaneers	1998	$168.5 m	$168.5 m

flaws that give them limited use in this debate; at worst they are little more than propaganda in the battle for public opinion and the public purse strings. Residents of cities with professional sports franchises have likely paid a price to keep the home team, in terms of lower inflation adjusted income per person, whether or not they ever set foot in the sports facility paid for with their tax dollars.

Despite this evidence, some compelling reasons exist for the public subsidization of professional sports facilities. Residents of a city clearly derive important, although hard to measure, non-pecuniary benefits from professional sports teams. These teams provide residents with a sense of community, generate civic pride, and help to distinguish 11world class" cities from others-at least in the mind of newspaper editorialists-all of which are important elements of the urban experience in the United States today. These non-pecuniary benefits may be sufficient to justify public financing of professional sports stadiums and arenas.

But the evidence in the academic literature on the economic impact of professional sports on local economies clearly does not support the idea that the public subsidization of professional sports can be justified solely by their economic benefits. Professional sports are not viable economic development projects; they do not generate new jobs or raise incomes.

Economic impact studies are the primary source of evidence supporting claims that professional sports have a beneficial economic impact on metropolitan economies. These studies are typically commissioned by parties interested in securing public subsidies for the construction or renovation of a professional sports venue. They invariably conclude that the local economy will receive- a wide variety of substantial economic benefits. Projected income increases often run into the hundreds of millions of dollars and projected job creation into the tens of thousands. Unfortunately; most of these studies contain a number of serious methodological flaws that cast serious doubts on their claims regarding economic benefits flowing from professional sports facilities and franchises.

Flaws in Impact Studies

Economic impact studies frequently confuse costs and benefits in that they improperly include spending that should be considered costs among the benefits flowing from the proposed project. The most prominent of these are wages paid to construction workers building sports facilities. If these workers are hired away from other construction projects in the metropolitan area, then this outlay should be counted as part of the costs of the project, not as part of the benefits. Many, if not most of the construction workers would have been employed whether or not the facility was built. These expenditures could be counted as benefits only for the construction workers that would have been unemployed absent the construction project. This may be

the case for some of the workers, but not for many. Because labor costs are an important component of any construction project, this mistaken accounting can lead to a significant overstatement of the potential economic benefits.

Another common mistake in these studies is to treat spending by local spectators the same as spending by people who visit a city from out of town expressly to take in a ball game. Economists refer to this as the difference between net and gross spending. Spending by local spectators in or around a sports facility cannot be treated as a benefit because it does not represent new spending. This spending would have taken place even if a new facility were not built. Spending $200 on tickets to a ball game and dinner after by a local fan is simply substitution in spending. It is $200 that doesn't get spent at a movie theatre or restaurant in another neighborhood in the metropolitan area. $10 for a couple of beers in the ballpark is $10 that doesn't get spent at the carwash down the block next week. Unless you believe that local spectators are drawing down their retirement savings to pay for tickets, parking, food and drinks, only spending by visitors from out of town who visit a metropolitan area specifically to attend a game can be counted as an economic benefit.

Use of Multipliers

Multipliers are intended to capture the indirect economic benefits flowing from a professional sports facility or franchise. Each dollar spent directly on building a facility, or on tickets, parking, food and drink on game days, translates into $M in indirect economic benefits to the local economy, where $M is some multiple of one. Multipliers have not been used by the people who invented them – macroeconomists trying to understand the total impact of fiscal and monetary policy on the national economy-for well over 20 years. Why? Because research has shown that multipliers grossly overstate the overall economic impact and, worse, may actually change in direct response to the events they are supposed to reflect. Yet multipliers remain the foundation of most economic impact studies, because multipliers can generate a large indirect economic impact from relatively small amounts of direct spending, making them attractive tools for pumping up the total economic benefits flowing from professional sports.

Putting aside the question of how appropriate a tool multipliers are for capturing indirect economic benefits, many economic impact studies use very large spending multipliers when compared to the standard multipliers developed by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce for use in urban areas of the United States. A majority of the BEA multipliers fall into the range of 0.4 to 0.8, meaning that each $100 in direct spending translates into a $40 to $80 in additional indirect economic activity in the surrounding community. Economic impact studies of professional sports projects often use multipliers over one, and many use multipliers as high as two or three. This implies that each $100 spent inside a sports facility, or building that facility, translates into two to three hundred dollars of additional spending throughout the rest of the metropolitan economy according to these studies. Economic impact studies largely ignore the opportunity costs associated with professional sports facility projects. Economists define opportunity cost as the cost of a foregone alternative. Most people have a good intuitive grasp of opportunity costs. If you lie on the couch all afternoon watching a game on TV, the grass doesn't get cut. If you take a two-week vacation to the Bahamas, you can't by a new set of graphite shaft irons. Government dollars used to subsidize professional sports also have an opportunity cost. It is not easy to put a dollar value on this opportunity cost, but it is still there and just because it's hard to value doesn't mean it should be left out of economic impact studies. Any public investment, including financing the construction of a sports facility, should be considered relative to the next best alternative use for those public funds.

Economic impact studies often treat stadium construction projects as costless enterprizes. However, the construction and use of a sports facility carries with it a number of important costs. Traffic congestion will increase on game day in the area around the facility. If this congestion is bad enough, then local residents may face diminished access to key parts of the city on as many as 40 to 80 days each year, a significant disruption of these residents' life-styles. Residents may also face higher prices at local retail and service establishments as a result of sports events. Finally, the crowds drawn to a ball game require additional police, fire and rescue resources on game day. Very few economic impact studies account for external costs, leading them to overstate the total economic benefits.

Many other potential problems with economic impact studies have been discussed in the academic literature. The problems discussed here represent a sampling of the most important ones. Yet the methodology

has remained essentially unchanged for some time and these studies are infrequently subject to any critical analysis. An alternative to economic impact studies, that forecast future economic benefits flowing from a proposed sports project, is to examine carefully what actually happened in cities that built new sports facilities and attracted professional sports franchises. This has been the focus of my research on the economic impact of professional sports. This approach can be thought of as a follow-up study on the claims made in economic impact studies, which are almost never evaluated after a new sports facility has been built. If past stadium construction and attraction of professional sports teams had a beneficial effect on local economies, then a careful and comprehensive look at what actually happened to these local economies should uncover evidence that they were better off in economic terms.

Academic research on the economic impact of professional sports differs from prospective economic impact studies in several other important ways. These academic studies are performed by researchers with no pecuniary interest in the outcome of the study. Academic studies are also subject to "peer review" – anonymous review by other recognized experts in the field who critically evaluate the assumptions, methodology, data and conclusions and prevent sloppy or incorrect studies from being published. Economic impact studies are not subject to this kind of rigorous, anonymous, professional scrutiny.

My early research, carried out with my former colleague Dennis Coates, focused on outcomes in the economies in all 37 Standard Statistical Metropolitan Areas (SMSAs) – geographic areas defined by the U.S. Bureau of the Census to contain both the urban core and suburban areas of the largest cities in the United States – that had either a professional football, basketball or baseball franchise over the period 1969 through the 1990s. This research analyzed what actually happened to the local economy in these cities, in terms of objective and commonly used measures of economic well being like income per person, earnings and employment in various sectors of the economy. How did professional sports, as well as other key economic factors, affect local economies over this period?

Measurement of Sport in Empirical Research

Because a single quantifiable measure of professional sports in a city is difficult to construct, a large part of this research involved developing and collecting a wide variety of variables that capture the overall "Sports environment" in a city. This set of variables accounts for the presence of each of the three types of franchises, their movement between cities, stadium and arena construction and size, and other variables reflecting strikes, stadium location and renovation.

These variables, along with variables capturing other important economic determinants of income, were included in a statistical model of the determination of income per person in a metropolitan area. The statistical methodology also controls for the effect of any unobservable or unmeasurable city-specific factors on inflation adjusted income per person. Such factors include climate or location as well as long-term demographic trends like the migration of households from rust-belt cities in the northeast and mid west to sun-belt cities in the south, southwest and west, on per capita income. These sports variables have also been included in statistical models of the determination of employment and earnings in disaggregated sectors of local economies like the retail, services, and recreation sectors.

This research reveals that, after accounting for other important economic factors that affect the economies in cities, the professional sports environment in each metropolitan area had a small but statistically significant and negative impact on inflation adjusted per-capita income over the period 1969-1997. The overall effect was small, on the order of $40-$60 per person per year; but applies to every man, woman and child living in the metropolitan area, whether or not they attended a single sporting event. A followup analysis using more disaggregated data, based on employment and earnings in specific economic sectors, uncovered a small positive effect on earnings by workers in one specific sector-the Amusements and Recreation sector, where a professional sports team's players, executives, and other employees would be counted-along with a corresponding decrease in earnings and employment in other related sectors like Retail Sales, Services, and Lodging. These results suggest that professional sports facilities and franchises are not engines of economic growth. Although a small sector of the local economy may have benefited, the overall impact of the professional sports environment on local economies over this 30 year period was negative; residents of these 37 cities paid a price above and beyond the tax dollars used to construct the stadiums and arenas, and the face value of tickets, peanuts and crackerjacks bought.

Economically Worse Off?

How can professional sports make the residents of metropolitan areas economically worse oft? There are several plausible explanations. The first is substitution in private spending. Spending by local residents in the ballpark represents reduced spending on other leisure activities in the metropolitan area. Spending at games has an opportunity cost like a meal at a suburban restaurant or a drink at the corner bar in a neighborhood far from the ballpark. This forgone leisure spending may create more economic benefits for the local economy than professional sports. For example, a $75 tab and tip at a suburban restaurant may circulate more widely through the local economy than $75 spent on tickets to a baseball game.

A closely related explanation for this negative economic impact is what I call the "WalMart Effet" What happens when a new WalMart opens in a city? It often puts other smaller competitors-drug stores, hardware stores, supermarkets-out of business. The same thing may happen when a professional sports franchise moves into a publicly financed stadium in a city. The spending on a new sports team puts competing establishments in the entertainment business – neighborhood bars, restaurants, bowling alleys and movie theatres – in other parts of the city out of business. The owners and employees of these businesses may move out of the area, or take lower paying jobs in other sectors of the economy. The result is an overall economic loss to the local economy.

A third explanation is that tax dollars spent on professional sports might have been spent more productively on other public investment projects. Like the substitution in private spending story mentioned here, opportunity costs are at the heart of this explanation. Local governments have many demands on their resources and tax dollars-like primary and secondary education, public health and safety, public infrastructure like highways and bridges, and public transportation. Each dollar spent on a new sports facility could have gone to teacher salaries, road improvements, or any number of alternative projects. Over a 30-year period, reduced spending on these alternative uses can have an important impact on local economies.

Finally, professional sports leagues are monopolies that operate outside the regulatory constraints placed on businesses in other industries. Economic theory predicts that monopolies will generate rents – economic profits above what firms operating in a competitive industry would be able to earn-from their market power. The economic rents captured by monopoly sports franchises may simply be transferred to the owners and players, leaving the local economy entirely. Many professional athletes and team owners do not live in the cities where the teams play.

Conclusion

Cities receive benefits from having professional sports teams, but job creation, higher earnings and additional tax revenues are not among these benefits. These benefits are non-monetary. They affect a city's image, civic pride, sense of community, and perhaps the popularity of local elected officials. Newspaper editorials often claim that a new facility for a professional sports team will enhance the reputation of a city, making it "world class." Politicians can point to their key role in preventing the local team from leaving when running for re-election.

These factors are important, but hard to value in monetary terms. Economists call these factors "consumption benefits." Based on the evidence from the existing academic literature on the economic impact of professional sports facilities and franchises, the decision to publicly finance the construction of a professional sports facility should depend solely on the value that taxpayers place on the consumption benefits flowing from professional sports. Unfortunately, many taxpayers and other local stakeholders hear only the rosy forecasts generated by economic impact studies. Only when taxpayers, other stakeholders and decision makers are fully informed about all of the evidence on the economic impact of professional sports on local economies can the debate on public financing of sports facility construction be fully informed