



University of Kentucky
UKnowledge

MPA/MPP/MPFM Capstone Projects

James W. Martin School of Public Policy and
Administration

2014

Letting Teams Walk: Exploring the Economic Impact of Professional Sports Franchises Leaving Cities

Jesse Stephenson
University of Kentucky

Follow this and additional works at: https://uknowledge.uky.edu/mpampp_etds



Part of the [Economic Policy Commons](#), and the [Public Policy Commons](#)

[Right click to open a feedback form in a new tab to let us know how this document benefits you.](#)

Recommended Citation

Stephenson, Jesse, "Letting Teams Walk: Exploring the Economic Impact of Professional Sports Franchises Leaving Cities" (2014). *MPA/MPP/MPFM Capstone Projects*. 25.
https://uknowledge.uky.edu/mpampp_etds/25

This Graduate Capstone Project is brought to you for free and open access by the James W. Martin School of Public Policy and Administration at UKnowledge. It has been accepted for inclusion in MPA/MPP/MPFM Capstone Projects by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.

**Letting Teams Walk:
Exploring the Economic Impact of
Professional Sports Franchises
Leaving Cities**

Jesse Stephenson

Capstone Project

Martin School of Public Policy and Administration

University of Kentucky

Spring 2013

Letting Teams Walk

Table of Contents

Executive Summary 3

Introduction 4

Literature Review..... 5

Research Question 10

Research Design 11

Analysis and Findings..... 15

Discussion 17

Recommendations 21

References 23

Executive Summary

Cities often use public funding to help construct and renovate the facilities of large, private sports franchises. As the major sports leagues grow in popularity and revenue, cities have had to offer increasingly competitive incentive packages to owners in order to keep their team from relocating to more profitable markets or cities willing to issue public funding for new facilities. Much literature has been conducted on the economic impact of sports teams with a general consensus that there is usually no positive economic effect for cities that serve as homes for these teams from the largest leagues (NFL, MLB, and NBA). However, little research has been focused on whether there is an economic impact of a team leaving a city. This paper seeks to fill this research gap by analyzing the effects that team relocations have on per capita income and unemployment employing two different models. The first, a fixed treatment effect, shows a statistically significant, positive relationship between team relocations and per capita income, while no relationship was found between the move and unemployment. Subsequent analysis using a dummy shift technique clarifies that while there is an upward trend in per capita income over the six years studied for each city, this trend is not caused by the team relocating. Furthermore, the dummy shift confirms the initial results that franchise relocations had no observable effect on unemployment rates in the cities studied. Given the findings of no impact on either variable, the paper recommends policymakers not offer public funding packages for teams to remain in the area on the grounds of economic development.

Introduction

There has been a longstanding precedent for public funding of private sports facilities in the United States and Canada. The conventional wisdom regarding large, professional franchises is that having them located in a city will result in an increased level of economic development as people flock to the location allowing the surrounding businesses to flourish. The hope is that this economic growth will spread throughout the municipality, increasing incomes and meaningful employment levels for citizens, while poising the city for even greater growth (Owen, 2003). Given the finite number of professional teams, cities must make very attractive offers to persuade franchises to relocate to their city. These offers have included hundreds of millions of dollars in bond issues to finance the construction of state of the art facilities, large tax breaks for the ownership group, or new taxes earmarked for a sports venue. While attracting a franchise can be difficult for a city, another challenge is trying to keep teams from moving away. This is difficult because it can always threaten to relocate again if its demands for public funding for renovations or new facilities are not met. Policymakers are placed in a difficult position because there is often strong public pressure to keep teams in place. They must decide what the economic and social value of a franchise is to the city, and whether committing hundreds of millions of dollars in public funding to keep them in place is a worthwhile investment for the city.

Two examples illustrate some of the issues facing cities and the professional sports teams that call them home. The Carolina Panthers, located in Charlotte, North Carolina, approached Charlotte's government in 2012, and asked for almost \$200 million in public funding for renovations to their 18 year old stadium in order for the team to stay in the city. After initially rebuking their demands, the city eventually settled on a nearly \$90 million dollar publicly

financed renovation plan after the owner promised to keep the team in Charlotte another 6 years (Harrison, 2013). Owners often use this threat of relocation when negotiating with city leadership for additional funding. A recent example of this tactic at work can be observed with the new Marlins Park, which was 80% funded using the resources of Miami-Dade County. The owner had threatened to relocate to several other locations such as San Antonio, Las Vegas, or Portland if the city could not agree to finance a large portion of the new ballpark. The result of this leverage, is a \$500 million dollar publicly financed package for the new stadium that analysts of the bond sale estimated will increase to \$2 billion dollars once interest compounding for the 40 year bond sale has taken effect (Tomer, 2012).

These examples demonstrate the level of economic commitment cities must be willing to make in order to attract new teams, or even more commonly, convince the teams they currently have to remain in the city. This is a worthwhile research area because more and more municipalities are facing decisions about whether it is economically beneficial to fund new stadiums at the expense of other development ventures. Owners often claim in negotiating sessions with cities that their franchises provide gainful employment to thousands of residents and bring tens of millions of dollars of revenue into the city (Baade, 1996). For policymakers to make an informed decision about the commitment of potentially large sums of public funds, they need research on the area which explores the economic impacts that franchises have on cities.

Literature Review

Lertwachara and Cochran, attempted to determine the impact that a professional sports team from the NFL, NBA, MLB, or NHL has on the local economy. They began by explaining that the current process of a city courting a professional sports team all but required the

municipality being willing to fund a large portion of a new stadium or provide large tax breaks for teams. They claimed that since local taxpayers are usually required to fund these initiatives, it was a worthwhile endeavor to study whether or not it is prudent for cities to invest such large sums in privately operated sports ventures in the name of economic development. The researchers operationalized economic impact as per capita income and the rate of income growth for residents in metropolitan statistical areas (MSA's) across the country (Lertwachara, 2007).

The authors employed an event study approach which allowed them to include unique characteristics of the cities. They believed that aspects such as the overall US economy, local economic base (agriculture, manufacturing, etc.), and how long ago the professional sports team moved to the cities in question would affect the economic impact they were seeking to measure (Lertwachara). For their analysis, the authors choose to focus only on MSA's that received new or relocated professional sports teams between 1980 and 2000. Using these criteria, 9 MSA's received an NFL franchise, 7 from the NBA, 4 from the MLB, and a total of 13 from the NHL. The authors find that there is no statistical justification for the belief that professional sports teams have a positive economic impact on the area as measured by resident incomes. In fact, they claim that the per capita income in the MSA's with new teams is actually lower than would be expected in the absence of such teams. As a result of their findings, they argue it is not reasonable for cities to offer huge incentive packages and publically funding stadium deals to teams seeking to relocate due to the lack of economic growth they bring to per capita incomes in the area (Lertwachara).

Baade also sought to identify if there was an economic benefit from professional sports teams in a metropolitan areas. He detailed how the Jacksonville Jaguars NFL expansion ownership group argued that the city should help fund the venture because the team would bring

an estimated \$130 million into the city's economy each year and create 3,000 jobs (Baade).

These claims eventually lead the Jacksonville government to issue over \$200 million in public bonds to help fund the new stadium. To directly address these claims, Baade focuses his analysis on finding the economic impact professional sports have on job and income growth in metropolitan areas with new teams. To do this, he uses several regression models which compare the job and income growth between cities that did receive new franchises to similar cities that did not. By controlling for external factors such as the average metropolitan growth rates in certain regions, tax changes, and demographic patterns, the models reveal that there is generally no positive correlation between professional sports teams and economic growth in the form of more jobs and higher incomes for the area. In fact, Indianapolis was the only city of the 48 included in the analysis that experienced a statistically significant increase in jobs after receiving a sports team. The author hypothesized that this may be due to the fact that the Indianapolis leadership had established a multi-faceted approach to stimulating economic development in the area of which a sports team was only one piece (Baade).

Baade then provides several policy recommendations and warnings for policymakers considering the public funding of sports stadiums. First, Baade states that in order to maximize the potential economic impact from a team in a city, the owners and players would need to spend the vast majority of the revenues they received from the team's activities within the metropolitan area and not on housing and businesses outside of the city (Baade). He states that in the leakiest theoretical scenario, one in which the majority of the economic benefit of a team is funneled outside of the host city, a publicly funded stadium could have a negative economic impact on the area. The implications for this lead Baade to recommend policymakers be extremely wary of devoting a significant portions of their capital budgets to sports facilities unless there was some

mechanism to guarantee a significant portion of the team's revenues be spent on goods and services within the city (Baade).

Long tackles the issue by trying to identify what she refers to as the real public cost of sports facilities. She claims that the publicly reported costs associated with a new stadium is often grossly underreported because they only account for the amount of direct support in the form of issued bonds and do not incorporate other financial support such as the cost of foregone property taxes, the cost of municipal services to the facility, and even the ongoing cost of operations in some cases (Long, 2005). She also states that much of the literature focused on measuring the public costs of enticing sports teams often only incorporates the initial construction costs into their analysis, which sometimes results in a more optimistic picture than the municipalities face after it has been built. To this end, the author created a cost model for 99 major sports facilities using data from 2001, which included all the hidden costs that she believes are often forgotten when evaluating the merits of public funding for private sports teams (Long).

In her cost model, she starts with the present value of costs for each facility and then adds in three types of adjustments: public development costs, net annual public costs, and foregone property tax revenues (Long). The model revealed that the average public cost for a professional sports facility was underreported by \$50 million, which totaled \$5 billion for all 99 facilities combined. When discussing these findings, she stated that governments are often making decisions about the level of public financial support for such ventures using data that is inaccurate and therefore are vastly underestimating the financial commitment they are making for their city. These findings also shift the average cost burdens between the municipality and the ownership group for new facilities. Direct development costs place the average public financial burden for new facilities at 56%, however, after including the real public cost, this

shifts to a 79% public burden. She concludes by stating that she hopes her findings, and other research in the area, will help better inform policymakers who are trying to decide whether or not to fund such ventures by considering the generally heavier financial burden facing the public sector as opposed to the private ownership group (Long).

In contrast to the economic analysis approach, Owen tries to capture the intangible value that a franchise has in a city and attempts to determine if that social value has implications for public funding (Owen, 2003). The author spends a great deal of time debunking other attempts to capture the intangible value of a franchise through economic impact studies. He claims that some social value is not picked up through traditional measures such as ticket sales and general team revenues because individuals can draw pride and satisfaction by following the team through the media or firsthand accounts with other fans. To address this issue, he creates a model which includes the size of public stadium subsidies to help capture the social value. He argues that cities offering large subsidies for teams to remain have a high level of social value for the team. He finds that the larger cities do not derive as much social value from the franchises as small cities do this helps explain why larger cities generally offer smaller subsidies for the teams. He explains that this is because larger cities can be much more profitable for teams whereas the smaller markets will have less potential revenue to offer and will therefore need to offset this lost profit with subsidies. He concludes that the public benefit from professional sports teams will always leave open the possibility of public funding, even if there were many more franchises and less owner leverage. He states that it is not necessarily a bad decision for smaller cities to offer subsidies as a way to entice owners to remain within the municipality because there is intangible public benefit present. Policymakers just have to decide how much public funding they are

comfortable offering to a profitable, private venture for the social benefits of having a professional sports team in the community (Owen).

The literature reviewed provides a general consensus that sports teams do not have a significant economic impact on their home city, contrary to claims by franchise owners that the teams have a positive economic impact on the area. In addition, some even find that there is less growth for cities where teams are located when compared to the likely scenario in their absence (Baade).

Research Question

Much research has already been conducted on whether professional sports franchises generate positive economic benefits for the cities they are located in and the general consensus in the literature is that there is no statistically significant positive economic effect. While the existing research focuses on analyzing the impacts of active teams on their current cities, little focus has been given to analyzing the effects caused by teams leaving an area. Thus, the focus of this paper will be to determine if there is a statistically significant economic impact on cities that have experienced the loss of a major professional sports team.

Research Design

While there are numerous professional sports leagues of varying size and revenue in North America, this research paper will only focus on team relocations from the National Football League (NFL), Major League Baseball (MLB), and National Basketball Association (NBA). The reason for the focus on these three leagues is that previous research has asserted that they generate the largest revenues and therefore have the most economic impact on areas in

which they are located (Lertwachara). The reason the National Hockey League (NHL) was left out of the analysis was because the league is a distant fourth place in terms of economic impact and if a professional sports team relocation did have an impact on the city they left, it would almost certainly be captured by the NFL, MLB, or NBA. While teams from these three leagues have been relocating for over a century, this paper will only analyze moves that occurred within the last 40 years (1974 - 2014). This threshold was chosen because it included enough moves to create a credible analysis while remaining current enough that the findings of the analysis are generalizable so that concrete policy implications could be established.

To study the economic impacts of teams leaving on their former cities, data from six years have been collected for each city. Of each city's six years, three lead up to the relocation while the last three are those which occur after the move. Recent literature on the subject has relied on five year event studies to analyze economic impacts on MSA's so this data was increased to six years in order to ensure an equal number before and after the event (Agha, 2013). In order to capture as much of the economic impact created by franchises as possible, this paper will use the Metropolitan Statistical Area (MSA) boundary. This distinction includes the central city area as well as all the surrounding metro and suburban populations which offers a much broader city boundary. For the two Canadian teams included in the analysis, their Census Metropolitan Area was used which is a statistical boundary identical to the MSA used by the US Census Bureau.

There were 18 NFL, MLB, and NBA franchises that relocated during the established 40 year window, however, not all these observations could be included in the analysis for a variety of reasons. Two of the events involved the Nets who initially moved from New York to New Jersey in 1977 before moving again to Brooklyn in 2012. Even though the moves crossed state

lines, they never left the New York MSA so the effects are simply shifted within the district and cannot be analyzed with this model. Two other events that were removed from the model were the New Orleans Hornets moving to Oklahoma City in 2005 and then returning in 2007. The reason the initial move is not included in this analysis is because the move was spurred by the effects of Hurricane Katrina which devastated the New Orleans' economy (Hornets, 2005). Including this observation in the model would have greatly skewed the data so the decision was made to exclude it because the storm resulted in New Orleans' subsequent economic problems, not the relocation of their NBA team. Additionally, the Hornets leaving Oklahoma City to return to New Orleans could not be included in the data because one year later the former NBA team the Seattle SuperSonics moved to Oklahoma City as the Thunder. This left 14 different franchises in 13 cities due to the fact that Los Angeles lost two NFL teams during the time.

As mentioned before, previous research on the topic has focused primarily on measuring a franchise's impact on per capita income in cities so this analysis will employ a similar approach (Agha). Per capita income is often argued to be one of the goals of economic development initiatives so, if such development is the goal of public funding to keep teams in cities, it is reasonable to measure their effectiveness at producing income gains (Baade). An additional model using unemployment as the dependent variable will also be included to measure the accuracy of ownership claims that if their teams moved, thousands of people would lose their jobs. Independent variables included in the analysis are population, stadium capacity, the number of other professional franchises present in the city, as well as a dummy variable for whether or not the team was still present, a dummy for the years leading up to a move, and a dummy for the years after a move. Population is a key variable in all economic literature and is needed to determine the external validity of findings. Stadium capacity is included because of

the potential economic impact the literature states it could have on cities. For instance, an 80,000 seat stadium usually employs far more workers than a 15,000 seat arena so it is important to control for this variable to determine if larger sports facilities impact unemployment and per capita income statistics. Other professional franchises are also important to include because other studies have found that there is a diminishing return for cities with multiple professional teams (Baade). That is, the largest cities such as Los Angeles and New York, which have many teams, will experience less economic impact for each additional franchise that locates there. Including this could offer additional insight into the characteristics of cities which experience the most impact from a team leaving.

The information for the analysis was collected from a variety of sources and compiled into a panel dataset. The stadium capacity, number of other professional sports teams, and year of creation and relocation of franchises which moved before 1995 were gathered from Long. Information on the franchises that relocated after 1995, was gathered individually from each team's official website. The per capita income and population of all MSA's was taken from the website of the Bureau of Economic Analysis. The unemployment rates and inflation calculator used to convert per capita income to 2014 dollars was taken from the Bureau of Labor Statistics. Statistics from the Canadian cities included in the analysis was found via the Canadian Census.

The method of statistical analysis chosen for this research is fixed effects because of its ability to capture unobserved characteristics which do not change over time. Cities are assumed to have certain, nonrandom characteristics which are constant over time so a fixed effects model captures these in order to measure the impact of certain explanatory variables which do change. In addition, several dummy variables were added to the data in order to help determine the difference between the years leading up to a franchise shift and the years immediately following

relocation. The first method for determining this difference was a fixed treatment effect which assumes that the impact would begin immediately and remain constant. This was estimated by creating a dummy variable in which the years leading up to a relocation were denoted with a 0 while the years after were a 1. While this shows the differences between the before and after periods in each city, it does not take into account whether there was already a trend taking place in either the per capita income or unemployment data. In order to control for any ongoing trends, a dummy shift was employed. Two additional variables were created, one for before a move in which the three years were given a -3, -2, and -1, with the three subsequent years being given a 0. The shift variable after a move gives all years prior a 0 while the ones after receive a 1, 2, and 3 in ascending order. This dummy shift is vital to the analysis because all cities experience trends in their economic variables so it is important to have a means of controlling for these fluctuations.

The equation used for the fixed effects analysis with fixed treatment effects is:

$$Y_{it} = \beta_1 X_{it} + \alpha_i + u_{it}$$

Where Y_{it} denotes the dependent variable (per capita income or unemployment) with i being the city and t being time, β_1 is the coefficient, X_{it} is a set of independent variables (population, stadium capacity, number of other professional franchises, the treatment effect dummy, and either per capita income or unemployment depending on which was the dependent variable), α_i represents the unknown fixed effect of each city, and u_{it} is the error term. The equation for the fixed effects analysis with the dummy shift is the exact same except there are two additional independent variables (X_{it}), one for the years before relocation and one for the years after.

The null hypothesis (H_0) for this analysis is that the relocation of a franchise from a city will have no observable economic impact on the MSA.

Results

The first analysis used the treatment effect model on per capita income and finds that only the fixed treatment effect and the constant were statistically significant. In this model and all subsequent models, the number of other NFL, NBA, and MLB teams in the city was missing from the output because it was so highly correlated with population that it was omitted from the results. This means that it was dropped into fixed effects and that it was so correlated with population that it did not serve as a valid explanatory variable for either per capita income or unemployment.

Effect of Team Relocation on Per Capita Income (Table 1)

Variable	Coefficient	Standard Error	P>t
Unemployment	-1000.383	1848.336	0.590
Population	.002	.001	0.058
Fixed Treatment Effect	1282.304	348.603	< .01
Stadium Capacity	-1561.952	339.050	.951
Constant	25548.520	5566.807	< .01
Observations	84		
R-squared	.051		

Effect of Team Relocation on Unemployment (Table 2)

Variable	Coefficient	Standard Error	P>t
Per Capita Income	-4.48e-06	8.39e-06	.595
Population	-5.61e-09	1.06e-07	.958
Fixed Treatment Effect	.0018341	.025613	.943
Stadium Capacity	-.0029148	.0501638	.954
Constant	.2836112	.6761091	.676
Observations	84		
R-squared	.0027		

Only the fixed treatment effect and constant term were statistically significant in the treatment effect model on per capita income while nothing was statistically significant in the unemployment model. The conclusion here might be that per capita income seems to rise after the franchise relocation, however this is misleading because growth or decline is almost always occurring in cities. It is clear from these data, that the per capita income of all the cities included tends to rise each year while the unemployment rates fluctuate. All this model reveals is that there is per capita income growth in the cities studied, it cannot be attributed to the franchise relocation because the fixed treatment effect does not control for the trends in the data before and after the event. Thus at this point it would not be appropriate to reject the null hypothesis (H_0) by claiming that there is an observable economic impact after a move on the MSA's.

Effect of Team Relocation on Per Capita Income with Trend Analysis (Table 3)

Variable	Coefficient	Standard Error	P>t
Population	.0006417	.0015817	0.686
Before Relocation	590.2409	236.5992	0.015
After Relocation	639.8967	242.3475	0.010
Fixed Treatment Effect	-862.7764	699.7588	0.222
Constant	35046.93	5866.803	< .01
Observations	84		
R-squared	.0676		

Effect of Team Relocation on Unemployment with Trend Analysis (Table 4)

Variable	Coefficient	Standard Error	P>t
Population	2.11e-08	1.12e-07	0.851
Before Relocation	.0001455	.0168187	0.993
After Relocation	-.0184191	.0172274	0.289
Fixed Treatment Effect	.0274275	.0497426	0.583
Constant	.0023549	.4170437	0.996
Observations	84		
R-squared	.0001		

The results of the dummy shift on per capita income indicate that dummies for the years before relocation and after are significant. The difference between the coefficients for the before and after relocation variables were found to be statistically negligible after running a test on them, meaning that franchise relocation has no effect on the normal growth rate of per capita income in the MSA's. For unemployment, none of the variables are statistically significant and there was no clear trend before or after the move and therefore, unemployment appears to not be affected at all by franchise shifts. Thus the null hypothesis (H_0) that there is no observable economic impact of a team moving is accepted.

Discussion

The results of this analysis demonstrate that MSA's naturally experience economic growth over the time examined. However, once a model is put into place which controls for this upward trend, a franchise moving out of the MSA does not have a statistically significant effect on that growth. In terms of unemployment, the rates fluctuated before and after the move took place, so even controlling for existing trends there was no relationship between the variable and the franchise moving. The conclusion of this analysis is that a professional sports team leaving an area has no observed positive or negative effects on the local economy when measuring per capita income and unemployment.

The existing literature on the topic provides reasons as to why no effect was found in the analysis. It argues that while franchises do generate some incredibly high income jobs such as the players themselves, owners, and team executives, very few of them live within the MSA in which the team is located. Even using the MSA classification with the hopes of capturing as much economic impact as possible, many high income employees live far outside the boundaries

of the cities in which they work. Additionally, many of the athletes, and even some of the owners, have ties elsewhere. As soon as the season is over they go to their primary home which may be across the country where their family lives and where they spend the majority of their income. Siegfried and Zimbalist state that only 29% of NBA players reside in the city where they play and this low amount is typical with the other major sports leagues (Siegfried). This would help explain why the per capita income, which would be skewed upwards with the addition of millionaire athletes and billionaire owners, remains on a constant trend regardless of the team leaving. The majority of those high income employees were never within the MSA to begin with.

In terms of unemployment, one might expect that in addition to some very high income individuals, a sports team would also employ either directly or indirectly, a large number of lower income workers. These jobs, such as vendors at the stadiums, would be directly affected by the move and one might speculate that this may be evident in the unemployment figures after the relocation. Clearly in this analysis, this assumption was not supported as the team shift had no effect on the erratic unemployment rates. The literature once again has an answer for this question because those who lost their jobs as a result of a move typically find other low income jobs fairly quickly. In addition, the jobs provided by teams are often part time work that only occurs several months during the year so many people working there have other full or part time jobs and simply use the venues as a temporary revenue source to supplement their existing income (Owen). As a result, the workers who already have jobs and work at the stadiums in their free time will not show up in the unemployment numbers because they have only lost some supplemental income, not their primary revenue stream.

As for the businesses located near the facilities that benefit from the crowds attending games, existing literature provides an explanation for why they did not create a negative economic impact. Siegfried and Zimbalist explain that the majority of consumers have an inflexible budget for leisure activities so choosing to attend sporting events and spending money downtown is a simple substitution away from other local activities. They argue that much of the revenue for sports teams is money substituted away from other local businesses so once a team leaves, that money is simply rearranged within the community. Instead of attracting lots of new money into a city, the sports teams are just drawing spending that would have gone to concerts, restaurants, etc in their absence (Siegfried). Thus, once a team left, consumers in the area spread out their leisure budget so while certain businesses that benefited from the team's presence may see a revenue drop, others enjoy more business.

Another note about the employment of professional teams is that they do create some full time, middle and upper class jobs for residents of the cities in which they operate. These people typically work in the front office of the organization and fill roles such as marketing, sales, and public relations. However, when a team moves out of a city, they typically bring a large percentage of their full time workforce with them. Trying to rehire all the front office jobs in the new location would be time consuming and expensive for the team's owners so they typically try to convince these workers to follow the team to their new destination (Baade). Those who have good jobs with the team are likely to follow them, which explains why they would not show up in the unemployment data either.

When arguing in favor of continued public investment in their franchises, owners have often pointed to data which shows increases in economic indicators such as per capita income and employment rates after a team has been in a city (Baade). This is a perfect example of the

misapplication of results taken from standard treatment effect analysis. The results from the treatment analysis of per capita income in this study showed a constant growth over the six year period, so an owner may claim this positive effect was attributable to their team's presence. However, such a causal claim cannot be made until the dummy shift approach is taken into account so that all of the trends, in this case before a team arriving and after, are included in the analysis. The literature states that once this has been taken into account, the vast majority of franchises demonstrate little or no positive economic impact on their cities.

One of the limitations of this study is that by using MSAs, the amount of potential variables that could be included in the analysis drops dramatically when compared to the narrower urban boundaries of the cities. This is because not all economic statistics are available as far back as 1974 for MSA's. Many of the variables used by other studies, such as new construction and business creation, are not available pre-1990 for MSAs so per capita income and unemployment served as the focus of this analysis. Other studies which use a more expansive set of variables either use the strictly urban city distinction which fails to capture as much economic impact as possible, or they focus on the impacts of current teams using relatively recent data. Due to the fact that this study stretches back 40 years and attempts to capture as much economic impact as possible with the MSA's, many variables could not be included and were thus not factored into the analysis.

Recommendations

Although the characteristics of this study constrained the number of economic variables that could be considered, the recommendations based on the conclusions of this study are not limited. This is because the dependent variables focused on, unemployment and per capita

income, are among the most important to policymakers when they are considering economic development initiatives in their cities. Teams argue to city leadership that public financial support of their franchise is acceptable because of the claimed positive economic impacts they have for the city. As such, it is fair to make policy recommendations based on the extent to which the teams generate positive impacts for their host city. If franchises generally created a positive effect on the area, then their removal would coincide with an observed negative impact on the city in terms of per capita income or unemployment. This is not the case as the analysis reveals no statistically significant effects caused by the relocation. As such, it is the recommendation of this study that policymakers not use public funds to entice teams to remain in their city on the basis of economic development. If policymakers wish to offer public funding for teams to stay, they should do so for social reasons such as maintaining quality of life or civic pride, not under the guise of economic development.

References

Alexander, Donald, and William Kern. "The Economic Determinants of Professional Sports Franchise Values." *Journal of Sports Economics*. 5.1 (2004): 51-66. Web. 31 Mar. 2014. <<http://jse.sagepub.com/content/5/1/51.full.pdf>>.

Agha, Nola. "The Economic Impact of Stadiums and Teams: The Case of Minor League Baseball." *Journal of Sports Economics*. 14.3 (2013): 227-252. Web. 31 Mar. 2014. <<http://jse.sagepub.com/content/14/3/227.full.pdf>>.

Baade, Robert. "Professional Sports as Catalysts for ." *Journal of Urban Affairs*. 18.1 (1996): 1-17. Web. <<http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9906.1996.tb00361.x/abstract>>.

Harrison, Steve. "City OKs \$87.5M Panthers Stadium Deal." *Charlotte Observer*. 23 04 2013: n. page. Web. <<http://www.charlotteobserver.com/2013/04/23/3998127/city-oks-875m-panthers-stadium.html>>.

Lertwachara, Kaveepong, and James Cochran. "An Event Study of the Economic Impact of Professional Sport Franchises on Local U.S. Economies." *Journal of Sports Economics*. 8.3 (2007): 244-254. Web. <<http://jse.sagepub.com/content/8/3/244.full.pdf>>.

Long, Judith. "Full Count: The Real Cost of Public Funding for Major League Sports Facilities." *Journal of Sports Economics*. 6.2 (2005): 119-143. Web. <<http://jse.sagepub.com/content/6/2/119.full.pdf>>.

Owen, Jeffrey. "Journal of Sports Economics." *Stadium Game: Cities Versus Teams*. 4.3 (2003): 183-202. Web. <<http://jse.sagepub.com/content/4/3/183.full.pdf.html>>.

Siegfried, John, and Andrew Zimbalist. "A Note on the Local Economic Impact of Sports Expenditures." *Journal of Sports Economics*. 3.4 (2002): 361-366. Web. 31 Mar. 2014. <<http://jse.sagepub.com/content/3/4/361.full.pdf>>.

Tomer, Adie, and Siddharth Kulkarni. "Marlins deal should end era of publicly-funded stadiums." *Sun Sentinel*. 17 12 2012: n. page. Web. <http://articles.sun-sentinel.com/2012-12-17/news/fl-readers-view-marlins-20121217_1_stadiums-end-era-fire-sale>.

"Hornets to Play in Oklahoma City." *nba.com*. NBA, 21 Sep 2005. Web. <http://www.nba.com/pelicans/multimedia/ok_city_050921.html>.