

Why Do Some Stadium Redevelopment Projects Succeed Where Others Fail? An Analysis Using Macro-Level Trends in Stadium Building

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Literature suggests that only 8 of 55 stadiums that are currently in-use and were constructed with at least 25% public funding have succeeded in spurring economic development in their surrounding area. This paper examines trends in stadium building to highlight attributes of stadiums, in both structure and placement, which are integral to their ability to successfully create economic development. Results show that a downtown location is a necessary condition for a stadium to help revitalize an area, but that this alone is not sufficient. Other factors regarding location that play a role in the potential success of a stadium are how well the area scores on economic and demographic indicators, how walkable the surrounding area is, and how close public transportation is to the stadium is. Additionally, characteristics of the stadium itself such as quantities and pricing of premium seating and quantities of permanent concession stands likely play a role in the stadium's ability to be a tool for redevelopment.

Introduction

In an era where professional sports stadiums receiving public funding is a reality, and an expensive one, with the average MLB and NFL stadium constructed during the last ten years receiving \$337,667,160 (in real 2012 dollars) in public funding, up from \$269,687,694 (in real 2012 dollars) in the previous ten years, cities have turned to attempting to use stadiums as a tool to bring economic development to their city. However, literature suggests that only 8 of 55 stadiums that are currently in-use and were constructed with at least 25% public funding have succeeded in spurring economic development in their surrounding area.

This paper seeks to examine large scale trends in stadium building to highlight attributes of stadiums, in both structure and placement, which are integral to their ability to successfully create economic development. Subsidies are not going away, but it is up to the public to use them as strategic investments for redevelopment so they see a return on their investment.

There is a limited supply of professional sports teams and a great demand for them. Professional sports are the nation's legal monopoly (they are exempt from antitrust laws) because the barriers to enter the industry are so strong that the current state of affairs will only change if any of the major four sports leagues (NFL, MLB, NBA, NHL) expand on their own terms. Leagues are so wealthy and well entrenched with their multi-billion dollar television deals and market control that it truly has gotten to the point where there is no realistic scenario where another league could ever compete.

Since there exists such a high demand among cities for professional sports franchises, teams are willing and able to drive up the contributions of public funding for their new stadiums by threatening to move to another city that would be willing to pay more for their services. The problem is that the presence of most teams and professional sports stadiums, on their own, only generate a very low level, if any, of economic development, far below the hundreds of millions of dollars that has become the norm for the public to contribute to the building of a new stadium. This disparity has caused outrage among both scholars and taxpayers, who see it as the public being swindled into using tax dollars to make the rich owners of franchises even richer. Though one can find more than a handful of instances where it seems the latter is exactly what has happened, the economic reality is that subsidies for professional sports stadiums are going to continue on into the future. The public likes sports and doesn't want to see their hometown teams go elsewhere, politicians don't want to see a team leave on their watch, and teams, lobbyists, and supporters will always be more organized and better funded than opposition to the stadium.

It would be hard to argue that the presence of a team in a city is a bad thing. Professional sports are one of the biggest examples of a public good one can find as one could derive economic utility from being the fan of a team even without ever spending a dollar on the team. Additionally, from the city's perspective, having a team is almost a form of advertising, a way to put itself on the map as a "major league city" and brand itself among the elite cities of the nation (Noll and Zimbalist 1997).

It is hard to put a dollar value on economic utility and studies have tried to do this for the presence of a team and stadium with some success but little conclusiveness (Johnson et al 2000). Despite the large but uncertain public goods benefit, it is rather certain that in the realm of measurable economics, there is a sizeable opportunity cost to subsidies for stadiums, because the large sums of public funds that are diverted toward stadium building could likely generate more of a measurable impact to the city if they were put toward improving schooling, infrastructure, etc. Thus to maximize measurable economic return on public investment, the literature shows

that using a stadium for downtown redevelopment is likely the only way to see the public dollars invested in the stadium receive any real returns. Though stadiums on their own only have the potential to create a small amount of new spending that would not have otherwise occurred, they have the power to redistribute spending that would have occurred elsewhere to the area surrounding the stadium. Theoretically, by redistributing spending to a downtown area where there is a clustering of businesses and amenities, new growth can then occur because the surge of spending and improvement of the area can cause people to invest in the area that would not have otherwise done so. (Coates 2007)

This paper confirms this finding that the foremost necessity a stadium must have to succeed in creating any sort of economic development is being located in its city's downtown or the periphery of its downtown. Other factors regarding location that may also play a role in the potential success of a stadium are how well the area scores on economic and demographic indicators, how walkable the surrounding area is, and how close public transportation is to the stadium is. Additionally characteristics of the stadium itself such as quantities and pricing of premium seating and quantities of permanent concession stands likely play a role in the stadium's ability to be a tool for redevelopment.

Past Literature on Stadium Subsidies

One of the first notable appearances of the issue of stadium subsidies was in James Quirk and Rodney D. Fort's 1992 book *Paydirt: The Business of Professional Team Sports*, which provided data that the impact of sports franchises on local economies was rather insignificant. As the stadium-building boom of the mid 1990's and early 2000's took off, so did the issue of the subsidies that were in nearly every case a major contribution to the building of such stadiums. The literature on the issue took off in the late 90's with the release of three influential books, Mark Rosentraub's *Major League Losers* and Roger G. Noll and Andrew Zimbalist's *Sports, Jobs, and Taxes* in 1997, and Joanna Cagan and Neil DeMause's *Field of Schemes* in 1998. *Major League Losers* and *Field of Schemes* detailed how owners of major league franchises were in essence swindling municipalities into getting them to cover most of the cost of their new facilities, which resulted in great profits for teams and their owners but little if any benefit for cities who footed the bill. *Sports, Jobs, and Taxes* examined stadiums in many different cities and concluded that cities were either unaffected or negatively impacted by the presence of teams and stadiums.

In the early to mid-2000's, a lot of academic work on the issue of stadium subsidies focused less on simply bringing the issue to light and more and more turned to conducting economic analyses of the impact of professional sports stadiums. In a 2007 paper, Dennis Coates evaluated the multitude of such studies conducted on the issue. His analysis concluded that the studies conducted to that point had found that stadiums have the potentially to positively impact a downtown, though there is not conclusive evidence that such economic development is new growth and not merely redistribution of growth that would have otherwise occurred elsewhere. (Coates 2007)

Building on the work of Coates, Mark Rosentraub wrote *Major League Winners* in 2010. The book shows how Indianapolis, San Diego, Los Angeles, Columbus, Cleveland, and Reading (PA) have been successful in using professional sports stadiums to revitalize their struggling downtowns and created growth that Rosentraub argues would not have occurred otherwise or

elsewhere. Rosentraub convincingly shows that these cities succeeded where others failed by either limiting the amount of subsidies or guaranteeing that their contributions to stadiums would be matched by far greater private development in the surrounding area. Instead of just giving teams hundreds of millions of dollars in public funds with nothing expected in return other than the supposed economic development the new facility would bring to the area, the cities proactively worked to ensure that their investments would be just one part of a public/private partnership to revitalize downtown.

One strategy the cities used was to bring major employers to center themselves downtown. This not only caused an inflow of money into downtowns, but an increase in the amount of people choosing to reside in a downtown and spend their money there. Another strategy, as used in the case of San Diego, was to secure agreements from the private sector, in this case the team's owner, to build new real estate (or commercial) development around the stadium. Thus, the public could be guaranteed a certain level of return on their investment because there would be growth to downtown no matter what.

As has been previously described, pro sports have been shown to be just another way in which people spend their entertainment dollars, though a high-profile one. Cities are just as happy to see people spend on entertainment and in all of the cities looked at by Rosentraub, also invested in entertainment and cultural development, working to build things such as new theatres and museums that would provide an all-encompassing downtown experience.

Through all of these efforts, the overarching goal of all of these cities was to make their downtown a more desirable place to live and work. By changing the culture of their downtown and the negative associations people made with it prior, the private sector would be compelled to begin reinvesting in downtown. In all of these cases, the risk took on behalf of the cities was met with positive return from the private sector. For example, in Indianapolis, the city invested about \$2.52 billion and in turn secured \$5.79 billion from other sources. Though redeveloping Indianapolis' downtown took extensive public investment, it is hard to argue with the end result of a successful public-private partnership. (Rosentraub 2010)

Stadium Redevelopment Projects Established as Successful by Past Literature:

Before beginning the analysis of large scale trends in stadium building, this section will first serve to outline the 8 stadiums established as successful, which will be of use for examining such trends in light of stadiums that have succeeded versus those that did not.

It is important to note this study will only examine MLB and NFL stadiums as opposed to NBA and NHL arenas. Examining recent and future trends in the arenas of two leagues is less interesting because there is more similarity in the attributes of arenas and they are venues that continue to remain economically viable if they possess ample quantities of premium seating. There was building boom of arenas the 1990's following the success of the Palace at Auburn Hills, which opened in 1988 and experienced great economic success that could be attributed to higher levels of premium seating than had been seen before. All arenas constructed after 1990 thus were constructed with ample premium seating and continue to remain viable. As a result, there has been less turnover in arena construction and as smaller buildings, arenas generally cost less and need to be subsidized by fewer tax dollars. Still, the results of this study can be expanded to future NBA and NHL arena construction.

Many previous studies or articles have concentrated on evaluating the success or failure of specific stadiums from the perspective of their ability to spur economic development in the surrounding area. It is difficult to outright declare a stadium a “success” or “failure,” but perhaps easier to label the “successes” as there is literature substantial or definitive literature detailing the economic contributions on so few stadiums. It is important to note that these stadiums, depending on how one evaluates their ability to spur economic growth, may not be all the same level of “success,” but grouping them as such is a merely a tool for large scale analysis. However, the fact that the literature has classified six MLB stadiums as successful versus only two NFL stadiums will also be a major focus of analysis, in attempt to explain the disparity and propose solutions on how more NFL stadiums can be successful going forward.

Since so much of the literature on this issue is devoted to showing why public subsidies for sports stadiums are bad public investments, there are countless papers written showing why specific stadiums have contributed little. Still, literature tends to focus more on the high profile failures, such as Yankee Stadium and Cowboys Stadium, not less expensive, lower-profile stadiums. This makes it difficult to use literature to classify what stadiums are “failures” and which are not successes but not definitively failures. Thus, the only stadiums that will be grouped in this paper are the few stadiums on which there is literature supporting that they have successfully redeveloped a downtown or an area of a downtown. The rest of the stadiums (ones that have been at least 25% publicly funded) will be approached as simply “non-successful,” to compare what large scale trends suggest as to what determines what makes a stadium project a successful one or not.

Determining which stadiums are successful is meant solely to be a jumping point for the large scale analysis that is the focus of this paper. Thus, below is a brief summary of each successful stadium project, outlining why the literature holds them to be successes:

MLB:

Progressive Field (1994)

Progressive Field, the home of the Cleveland Indians, was identified as one of Rosentraub’s “major league winners” in his 2010 book, *Major League Winners*. Though Cleveland’s investment in Progressive Field was substantial, contributing \$180 million to the \$279 million stadium, Progressive Field has been a catalyst for economic development in the Gateway District of downtown Cleveland. (Rosentraub 2010)

With Cleveland’s economy and image on the decline in the early 1990’s due to racial tension, loss of jobs, and population outflow, city leaders decided something needed to be done to give the city a boost. They turned to sports and entertainment to try to reestablish downtown Cleveland as an attractive and exciting place to visit, contributing to the construction of downtown sports venues, new theatres, and other attractions, such as the Rock and Roll Hall of Fame. Though no private investment for new projects was pledged at the time of public investment in such attractions, it came in the following years, with the \$1.85 billion (in 2004 dollars) of private construction in Cleveland between 1980 and 1989, jumping to \$4.1 billion (in 2010 dollars) between 1995 and 2003. Though causality cannot be attributed, it is certainly very likely that it was as a result of Cleveland’s improved image and downtown scene. (Rosentraub 2010)

Coors Field (1995)

Economic development was already underway in Denver's LoDo (lower downtown) neighborhood before the presence of Coors Field, but studies indicate that Coors Field greatly quickened the pace of development and provided an additional boost to the neighborhood. LoDo was a low-income neighborhood that attracted little outside growth until the early to mid-1990's, when it began to become somewhat of a trendy art district, though still not an economically thriving one. (Buckman and Mack 2012)

Within in a year of Coors Field's opening in 1995, housing units in LoDo doubled and there was also a significant growth in area restaurants and retail stores, which many say Coors Field had a large part in. LoDo continues to be a thriving neighborhood to this day. (Buckman and Mack 2012)

AT&T Park (2000)

AT&T Park, home of the San Francisco Giants, is the only MLB stadium in the last 50 years to be entirely privately funded (though San Francisco did invest \$80 million for infrastructure improvements around the park) was built in the Mission Bay neighborhood of San Francisco that had long been little more than an abandoned industrial zone. Following the construction of the park, hailed as one the most beautiful in baseball, the neighborhood now contains 6,000 apartments and condominiums, 6 million square feet of office space, 40 acres of parks, a hospital, and a research campus for the University of California-San Francisco. Both developers behind such projects and San Francisco city officials directly cite AT&T Park as a very important reason development occurred in the Mission Bay neighborhood. (Swift 2007; Gordon 2004)

Petco Park (2004)

Petco Park, home of the San Diego Padres, was another of Rosentraub's "major league winners," in large part due to the ability of San Diego to get assurance of a large amount of private investment in return for their investment into the stadium. Building the new stadium became a necessity with the Padres' losing money due to their unfavorable revenue-sharing agreement with the San Diego Chargers, whom they shared Qualcomm Stadium with. In order to ensure that the Padres would not move elsewhere, the city of San Diego worked with the Padres to build Petco Park downtown in the East Village neighborhood, which had a small residential base but was far from economically thriving. (Rosentraub 2010)

San Diego invested \$303 million investment in the stadium, but that figure is dwarfed by the over \$1 billion of private sector investment that occurred in the newly created "Ballpark District" between the announcement of plans for the park and 2010. Much of the investment was guaranteed in the initial agreement, but hundreds of millions of dollars worth followed due to the success of the area. Rosentraub also states there is the potential for an additional \$1 billion of private investment in the Ballpark District in the coming years. (Rosentraub 2010)

Nationals Park (2008)

Nationals Park in Washington, D.C. was placed in a struggling, crime-riddled part of the city and wisely paired with plans for private real estate development around the park. As of 2011, very little had happened and many were convinced the planned office and apartment buildings were never going to be built. But as of this year, the developers, who said the recession had caused them to wait to build, have undertaken construction for the project and many other businesses have announced new plans to open around the park. Highlighting such construction is The Yards, a mega-development that will contain 1.8 million square feet of office space, 400,000 square feet of retail space and 2,700 rentals or for sale homes. Additionally, the business tax levied on the area's most wealthy businesses is generating far more revenue than expected and the 30-year bonds on the stadium are projected to be retired 12 years early. (O'Connell 2012; Benfield 2012)

Target Field (2010)

Though built in the same neighborhood of Minneapolis that the Metrodome, which failed to generate any sort of economic development, inhabits, Target Field has been a success story so far. Despite its more modest price tag compared to other newer MLB stadiums and the Twins' mixed success on the field, Target Field continues to draw huge crowds, which has generated an additional \$4 million a year in tax revenue for Minneapolis. Additionally, in the two years following the opening of Target Field, there were \$70 million of permits filed for proposed new building around the stadium as well as a \$30 million upgrade to the Ford Center, a vast yearly increase for the area. Existing area businesses have also reported a major spike in revenue following the stadium's opening. (Williams 2011)

NFL:

Cleveland Browns Stadium (1999)

As was previously described regarding Progressive Field in Cleveland, Cleveland was in a state of disarray by the early 1990's and turned to professional sports and entertainment to revitalize the city's image. An additional negative blow to Cleveland was the loss of the original Cleveland Browns, who left in 1995 for Baltimore, becoming the Baltimore Ravens. Thus, when the city was given the ultimatum, shortly after the loss of the Browns, that if they were to quickly mobilize and secure 70 percent of funding for a new stadium, they could receive an expansion team that would again be the Cleveland Browns. This prevented them from sustaining a major loss in image and growth that would have put a damper on the other redevelopment projects underway. (Rosentraub 2010)

The only space that they could quickly secure was the land on which the previous Browns stadium was located on, on the periphery of downtown Cleveland on the lake. Though the stadium opened in 1999, by the time at which a lot of the city's redevelopment projects were

already completed or in the advanced stages. In 2004 dollars, the value of private construction projects that had occurred in Cleveland between 1980 and 1989 was about \$1.85 billion. In the period between 1995 and 2003, the value of private construction in 2010 dollars was \$4.1 billion, meaning private investment in Cleveland in the latter period was about double of the first period. Cleveland Browns Stadium was an integral part of the overall redevelopment plan for Cleveland and helped maintain the high yearly private investment in Cleveland, which would have very likely suffered had the Browns never come back. (Rosentraub 2010)

Lucas Oil Stadium (2008)

Lucas Oil Stadium, home to the Indianapolis Colts, is the last of Rosentraub's "major league winners." Though Indianapolis' \$620 million contribution to the \$719.6 million Lucas Oil Stadium is very sizeable, one can convincingly argue that the public is seeing a high amount of return. As a small to mid-market, Indianapolis had already been in an arrangement where they were covering many upgrades to the outdated RCA Dome as well as covering some of the Colts' financial shortfalls to assure their continued presence in Indianapolis. By the early 2000's, Indianapolis was paying out well over \$10 million a year to the Colts in subsidies as part of the agreement and would have risen over \$20 million had the new stadium not been constructed. The new stadium already hosted the 2012 Super Bowl, the NCAA Men's Basketball Final Four in 2010 and is slated to again in 2015, and as of 2011 will host the Big Ten Football Championship annually. (Rosentraub 2010)

Though it is hard to attribute new construction directly to the presence of a stadium, it is hard to ignore the boost in new construction that occurred following the opening of Lucas Oil Stadium. In 2007, before the stadium opened, \$155.9 million of new construction projects were approved and in 2008, that number jumped slightly to \$173.9 million. However, by 2009, that number soared to \$459.2 million, which one must suspect is in large part due to the success and downtown location of Lucas Oil Stadium. (Rosentraub 2010)

SECTION 1: THE IMPORTANCE OF DOWNTOWN

TREND #1: Location, Location, Location

The location of a stadium however is nothing short of essential to its success. The only stadiums that have successfully economically revitalized an area have been located in the downtown or the periphery of downtown of a city.

To divide the location of stadiums into areas constituting being in city's downtown, on its periphery (near downtown and in the metro area but not actually in downtown), and neither, satellite images and neighborhood maps provided by Walk Score were analyzed and the placement of the stadium was categorized of one of the previous three. Below is the breakdown:

Downtown NFL Stadiums:

<i>Name of Stadium</i>	<i>City</i>	<i>Year Opened</i>
Mercedes-Benz Superdome	New Orleans, LA	1975
Hubert H. Humphrey Metrodome	Minneapolis, MN	1982
Georgia Dome	Atlanta, GA	1992
Edward Jones Dome	St. Louis, MO	1995
Bank of America Stadium	Charlotte, NC	1996
Ford Field	Detroit, MI	2002
Soldier Field	Chicago, IL	1924 (completely renovated in 2003)
Lucas Oil Stadium	Indianapolis, IL	2008

Downtown (periphery) stadiums:

<i>Name of Stadium</i>	<i>City</i>	<i>Year Opened</i>
M&T Bank Stadium	Baltimore, MD	1998
Cleveland Browns Stadium	Cleveland, OH	1999
LP Field	Nashville, TN	1999
Paul Brown Stadium	Cincinnati, OH	2000
Heinz Field	Pittsburgh, PA	2001
CenturyLink Field	Seattle, WA	2002

TOTAL DOWNTOWN NFL STADIUMS: 14/31 (45.2%)

Downtown MLB Stadiums:

<i>Name of Stadium</i>	<i>City</i>	<i>Year Opened</i>
Fenway Park	Boston, MA	1912
Wrigley Field	Chicago, IL	1914
Rogers Centre	Toronto, ON	1989
Oriole Park at Camden Yards	Baltimore, MD	1992
Progressive Field	Cleveland, OH	1994
Coors Field	Denver, CO	1995
Chase Field	Phoenix, AZ	1998
Comerica Park	Detroit, MI	2000
Minute Maid Park	Houston, TX	2000
Petco Park	San Diego, CA	2004
Busch Stadium	St. Louis, MO	2006

Yankee Stadium	Bronx, NY	2009
Target Field	Minneapolis, MN	2010

Downtown (periphery) MLB Stadiums:

<i>Name of Stadium</i>	<i>City</i>	<i>Year Opened</i>
U.S. Cellular Field	Chicago, IL	1991
Angel Stadium of Anaheim	Anaheim, CA	1966 (major renovations completed in 1996)
Turner Field	Atlanta, GA	1996
Safeco Field	Seattle, WA	1999
AT&T Park	San Francisco, CA	2000
Miller Park	Milwaukee, WI	2001
PNC Park	Pittsburgh, PA	2001
Great American Ballpark	Cincinnati, OH	2003
Nationals Park	Washington, D.C.	2008
Marlins Park	Miami, FL	2012

TOTAL DOWNTOWN MLB STADIUMS: 23/30 (76.7%)

It is on many levels a remarkable success to be able to put an 80,000 seat NFL stadium (approximately the average size) right in a downtown area or even its periphery. There are many challenges to doing so, such as finding useable real estate (that is often very expensive), ensuring there is ample parking and public transportation, and managing game-day traffic. (Property Counselors 2006) Additionally, many NFL stadiums need more space to accommodate expansive surface parking lots surrounding the stadium. Such surface parking lots allow the team to take in large levels of revenue through parking, but perhaps more importantly isolate itself from the surrounding area. On an economic level, a franchise will always have the economic incentive to separate itself from the surrounding area and businesses since that will force patrons to stay within their walls and spend their money at the stadium. Also, suburban or non-downtown stadiums that are located right off freeways make for much easier transport for fans, as they can drive in and park right at the stadium, and then easily leave at the conclusion of the game.

One related NFL trend worth noting is the prominence of all five remaining domed stadiums within the list of downtown stadiums. The five domes are more contained NFL stadiums relative to other stadiums, averaging about 200,000 square feet less than the average NFL stadium. The era of domes is likely over, as there has not been a domed stadium constructed since 2002, when Ford Field was constructed in Detroit, and the Metrodome is going to be replaced in 2016, with the Georgia Dome likely not far behind (Breer 2011). Prior to that, a dome had not been constructed since 1995 when the Edward Jones Dome opened in St. Louis. Domes have both gone out of fashion and have ceased to be functional necessities with the advent of the retractable roof. (Byrnes 2012) The death of the domed stadium is worth noting because it is a further challenge to building future NFL stadiums downtown.

Major League Baseball has not had the same struggles as the NFL in regards to building downtown. Where only 45.2% of NFL Stadiums are located in a city's downtown or on its periphery, in the MLB that figure is a much higher 76.7%. An easy explanation is that MLB stadiums are smaller at an average of about 1.1 million square feet compared to NFL stadiums which average 1.6 million square feet. In downtown's that do not have an abundance of vacant space, it is undoubtedly easier to construct a new major league baseball stadium than it is to construct a new NFL stadium. Additionally, NFL games, which occur less frequently but are attended by greater than double the number of people, are far more of "mega-events" than MLB games, making it harder for a downtown to accommodate the influx of people than a non-downtown location. (Property Counselors 2006)

As seen by the fact that only successful stadium redevelopment projects have occurred in downtown areas, it is imperative that cities work with MLB and NFL teams to see future publicly funded stadiums are built in downtown areas. Stadium redevelopment projects are only able to succeed in downtown because stadiums, on their own, only have the capacity to transfer spending from one location to another. By using a stadium to transfer spending downtown, where there is a clustering of business and residential development, the area can further grow from the influx of new spending. Non-downtown areas do not possess such a clustering of development that would allow an area to further grow to the desired levels from such an influx of new spending. (Rosentraub 2010)

The presence of a new MLB stadium in a city's downtown is far from enough to ensure redevelopment. The recent example of Marlins Park in Miami, FL, which opened earlier this year, is a prime example to illustrate this principle. The construction of the stadium was not paired with any sort of ground level economic initiatives, which were badly needed in the struggling Little Havana neighborhood. (Lewis 2012) Additionally, the location of the stadium was far away from public transit, making it a challenge for fans to get to the stadium. (Jaffe 2011) As a result, the stadium remains an isolated luxury buildings in an arena filled with low quality housing and vacant storefronts. (Lewis 2012)

Still, for a stadium to have a chance of being a tool for redevelopment, it must be located downtown. Going forward all data will be analyzed as successful stadiums, which are all located downtown, versus non-successful stadiums that are also located downtown, in an attempt to isolate other variables beyond downtown location that play a role in the ability of a stadium to successfully redevelop an area.

SECTION 2: CHARACTERISTICS OF DOWNTOWNS WHERE SUCCESSFUL STADIUM REDEVELOPMENT PROJECTS HAVE OCURRED

TREND #2: City Economic and Demographic Characteristics

Previous studies conducted have shown that stadiums have no effect on city-wide economic or demographic measurables and that their impact can only be seen on a smaller, neighborhood-scale level. These findings go along with other findings that suggest that stadiums only have the power to redirect spending, taking it from where it would have occurred elsewhere to the area surrounding the stadium. However, in the case of stadiums being intended to revitalize a downtown area, that is a positive because the intended goal is to concentrate spending in downtown to economically strengthen downtown. (Coates 2007)

Knowing that stadiums do not affect economic or demographic measurables, one cannot examine them in light of their change before or after the presence of a stadium. Instead, one can look at the reverse, their potential effect on the outcome of a stadium redevelopment project. Below is a breakdown of average economic and demographic characteristics for cities where successful stadium redevelopment projects occurred and for where non-successful stadium redevelopment projects occurred:

	Avg. Population	Avg. Median Household Income	Avg. Crime Index	Avg. % Below Poverty Line
Successful Downtown Stadiums (MLB and NFL)	662,289	\$46,445	515.98	22.03%
Non-Successful Downtown Stadiums (MLB and NFL)	806,598	\$41,781	530.19	22.03%

Source: citydata.com

As shown above, on average, in cities where successful stadium redevelopment projects have occurred: population is lower, average median household income is higher, crime index is lower, percent minority is lower, and percent below the poverty line is identical. These findings suggest that building a stadium in the downtown of a city that is better off relative to other comparable cities may more often lead to the outcome of the stadium redevelopment project being successful.

Intuitively this makes sense, as cities with residents that have higher incomes will have higher levels of disposable income which they can spend on items such as tickets for sporting events. Additionally, cities with lower crime rates will be more likely to draw in visitors from surrounding areas who will feel safer enjoying themselves in the city and doing things like taking their families to a sporting event.

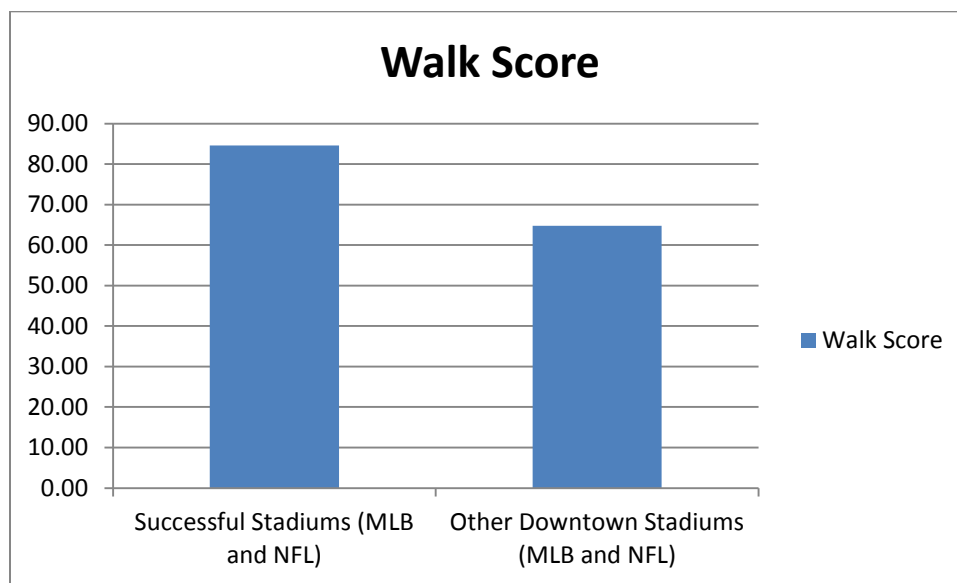
The fact that the average populations of cities in which successful stadium redevelopment projects have occurred may seem somewhat surprising. Certainly, in larger markets, there are more potential fans to attend sports games and frequent businesses in the area surrounding stadiums. However, what this may suggest is that population is not as big a factor as initially believed. Recent stadium redevelopment projects, such as Yankee Stadium in Bronx, NY, which has a population of 1,383,871, have not succeeded where other recent projects, such as Target Field in Minneapolis, MN, which has a population of 382,578, have succeeded. Though smaller markets face greater challenges on and off of the field, professional sports do have the ability to revitalize smaller markets. On the other hand, though it is easier for the Yankees to draw large crowds than the Twins, Yankee Stadium has brought little economic growth to the Bronx.

These economic and demographic trends suggest that stadiums built in cities that are better off than comparable cities may have a better chance of succeeding, though no causal association can be made.

TREND #3: Walkability – Good for the Earth and Economic Development

Earlier this year the Super Bowl was held in Indianapolis at Lucas Oil Stadium and proved by all accounts to be a success. Reporters who traveled to the city for the event remarked how great it was that the stadium was located in the city’s downtown and that walking to all the relevant destinations and attractions in downtown from the stadium was very easy. This makes sense given that the area around Lucas Oil Stadium is rated a “very walkable” Walk Score of 80 compared to other downtown stadiums such as Ford Field in Detroit, MI, which has a “car-dependent” score of 12. (Benfield 2012; Walk Score 2012)

Walk Score is an independent corporation that calculates the walkability of different urban neighborhoods throughout the United States by giving a rating out of 100 (higher being better). To assign a neighborhood a Walk Score by doing regression analysis of population density and neighborhood amenities, to determine how clustered a neighborhood’s population is around the buildings which they frequent. (Walk Score 2012) Below are the trends in Walk Score for the neighborhoods currently employed MLB and NFL stadiums are located in:



	Walk Score in Successful Stadiums	Walk Score in non-Successful Downtown Stadiums
MLB	85.83	69.14
NFL	80.00	70.00

As one can see above, successful MLB and NFL stadiums have significantly higher walk scores than non-successful downtown MLB and NFL stadiums. What is the big deal about being easily accessible by foot other than the environmental benefit that the use of fewer cars brings? For one, less traffic on game days means less impact on residents and business and also means more people will patronize the city that otherwise would have stayed away. (Property Counselors 2006) Also, the fact that more people will walk to the stadium will increase the foot traffic around the restaurants and businesses that are located near the stadium. The more car-dependent a stadium such as Ford Field is, the more fans will go right to the stadium and bypass opportunities to spend their money elsewhere. In addition, this effect might be doubled because businesses that may have had interest in developing around a stadium will be less likely to do so knowing that fans will not be spending much time in the surrounding area.

Perhaps surprisingly, there is little difference in walkability between downtown and downtown periphery stadiums. The 21 downtown MLB and NFL stadiums have an average of 78.4 (excluding Rogers Centre since non U.S. city data was not available), where the 16 downtown periphery stadiums have an average of 77.2. This illustrates that a strategically walkable location does not simply mean choosing the heart of a city's downtown, but an area that is either in or somewhere around that has the desired characteristic of clustered amenities. However the disparity between the average Walk Score of downtown or downtown periphery locations, 77.82 and the average Walk Score of non-downtown stadiums, 51.7 (for the 19 stadiums in urban but non-downtown areas that data was present for), is immense. (Walk Score 2012)

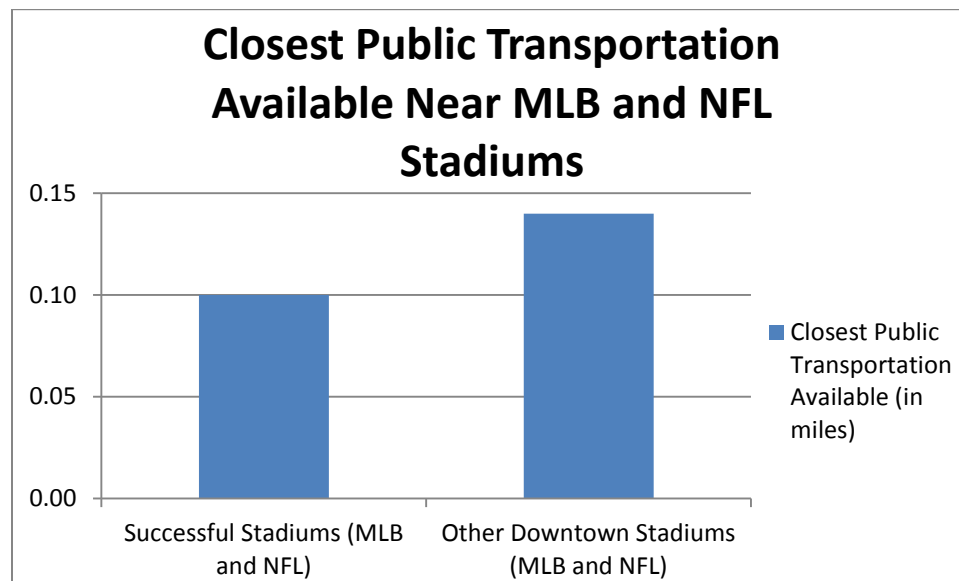
Though building a stadium downtown is a necessity if a stadium is going to have any effect of redeveloping the surrounding area, not all downtown stadiums are created equal. As the walkability data suggests, building the stadium in an area of downtown that is easy to walk likely improves the chances that stadium will spur development in the surrounding area.

Trend #4: Easy Access to Public Transportation

Having a stadium situated in a location with easy access to public transportation is something heavily tied in to walkability. As studies have stated, there is a greater likelihood for economic development around a stadium if there is greater foot traffic in the area as people walking directly through a neighborhood will be more likely to patronize its businesses. Though having an area that is easy to traverse by foot plays a direct part in increasing foot traffic, so does the availability of public transit. One should remember that it is unlikely that most patrons traveling to the stadium by foot will be walking the whole way as a great deal of fans attending any game will not be from a neighborhood very close to the stadium. Thus, such patrons will be inclined to take public transit, if it is easy to use and there is a stop somewhat near the stadium. This is especially the case in downtown stadiums in major markets, such as Boston, Chicago, or New York, where parking is limited and very expensive.

Encouraging public transportation is of merit from an environmental aspect, as it is a highly efficient way of transporting large numbers of people, and it is of merit from an economic level as well. A well-positioned stadium will have public transportation that takes fans very close to the stadium, with them needing to walk only a relatively short distance. However this foot traffic in the area directly around the stadium will allow the potential for businesses there to

thrive. It should thus come as no surprise that as shown below, successful stadiums have public transit that is available closer to the stadium:



Source: Walk Score. No data available for Lucas Oil Stadium, Mercedes-Benz Superdome, Georgia Dome, LP Field, Ford Field, Rogers Field, Turner Field, Chase Field, and Comerica Park.

	Closest Public Transportation Available (in miles) for Successful Stadiums	Closest Public Transportation Available (in miles) for non-Successful Downtown Stadiums
MLB	0.10	0.16
NFL	0.10	0.12

Source: Walk Score. No data available for Lucas Oil Stadium, Mercedes-Benz Superdome, Georgia Dome, LP Field, Ford Field, Rogers Field, Turner Field, Chase Field, and Comerica Park.

It is interesting to note that on average, the closest public transportation available for both successful MLB and NFL stadiums is 0.10 mi. Most data points fell between 0.05 mi and 0.2 mi, which makes 0.10 mi a relatively low number, but not extremely low. It may be beneficial that it is only relatively low in that causing fans to walk slightly further to the nearest public transportation may allow the area of businesses surrounding the stadium to be also slightly larger. In cases where public transportation was only 0.05 mi from the stadium, virtually right outside of the stadium, one could hypothesize the same effect occurs as seen with stadiums that have very high levels of parking right at the stadium. As is seen with the latter, allowing fans to too easily get right to the stadium and then leave will cause them to bypass businesses in the surrounding area.

Certainly having public transportation a little further away makes sense only to a point, as after a certain point fans who do not live within walking distance of the stadium will choose to drive directly to the stadium and pay to park, or may simply choose to stay at home. This has

been seen to be the case in Marlins Park, in Miami, FL which opened earlier this year. The park is far removed from the nearest metro station, which is almost a mile away, and fans have expressed major discontent with its poor location in relation to public transportation stops. (Jaffe 2011) Perhaps, as seen in this data, having public transportation available 0.10 mi away is the perfect balance of close, but not too close.

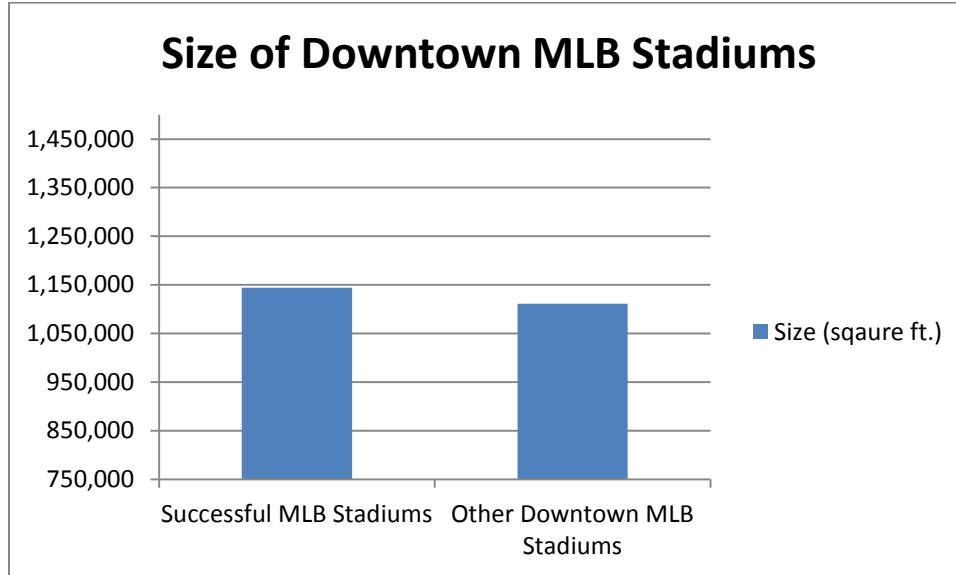
SECTION 3: HOW TO BUILD THE STADIUM

TREND #5: Size Matters: Well, Sort Of

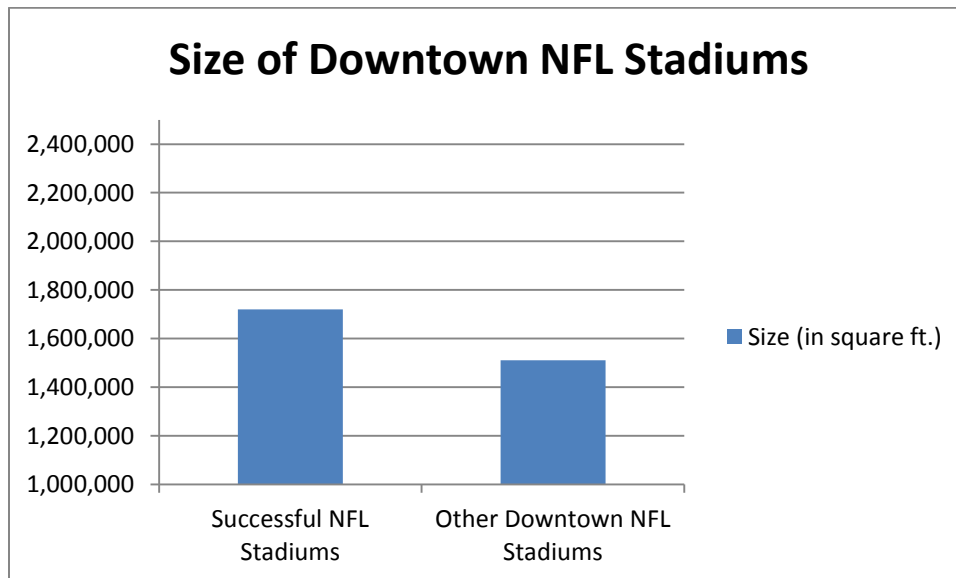
A growing fear in the opponents of stadium subsidies is that newer stadiums, which are thought in some cases to be almost “self-contained cities,” due to both the vast size and amenities newer stadiums possess will deter fans from patronizing businesses around the stadium because everything they could want is contained within the stadium. From the perspective of the team, such an arrangement would be ideal because it would allow the team to keep the most revenue, as opposed to it going to businesses not owned by the team in the surrounding area.

The next three trends explored, the size of stadiums, the amounts and pricing of premium seating they possess, and the amount of concession stands they possess, will assess the degree to which these variables play a role in the success of a stadium redevelopment project.

The physical size of a stadium can be an important variable for two reasons. Firstly, the larger the stadium is, the greater of a challenge it is to integrate it into a neighborhood. Secondly, the larger the size of a stadium is, the greater the potential is for more amenities to be contained within the stadium (which will be explored in the following the two trends). Hypothetically, these two effects would combine to cause there to be less economic activity in the surrounding area and thus make it less likely for a stadium redevelopment project to succeed. Below are the trends in size for both MLB and NFL stadiums, shown separately due to the fact that most NFL stadiums are significantly larger than MLB stadiums:



Data obtained from individual MLB team official websites. No data present for Rogers Centre, Camden Yards, Progressive Field, Angel Stadium of Anaheim, and Turner Field.



Data obtained from individual NFL team official websites.

As seen above, the hypothesis that successful stadiums would be smaller than non-successful downtown stadiums is false. This likely reinforces that the size of the stadium means very little in comparison to what is actually contained within the stadium.

What is the case is that building a sports stadium downtown is a spatial challenge. Downtown NFL stadiums average 1,542,514 square feet, compared to non-downtown NFL stadiums, which average 1,685,684 square feet and downtown MLB stadiums average 1,112,165

square feet, compared to non-downtown MLB stadiums which average 1,270,00 square feet. This reinforces that it is a greater spatial challenge to fit a stadium into a downtown, which often lack large parcels of open space to build, forcing a city in some cases to use its power of eminent domain to claim land from land owners, which is complicated and costly process.

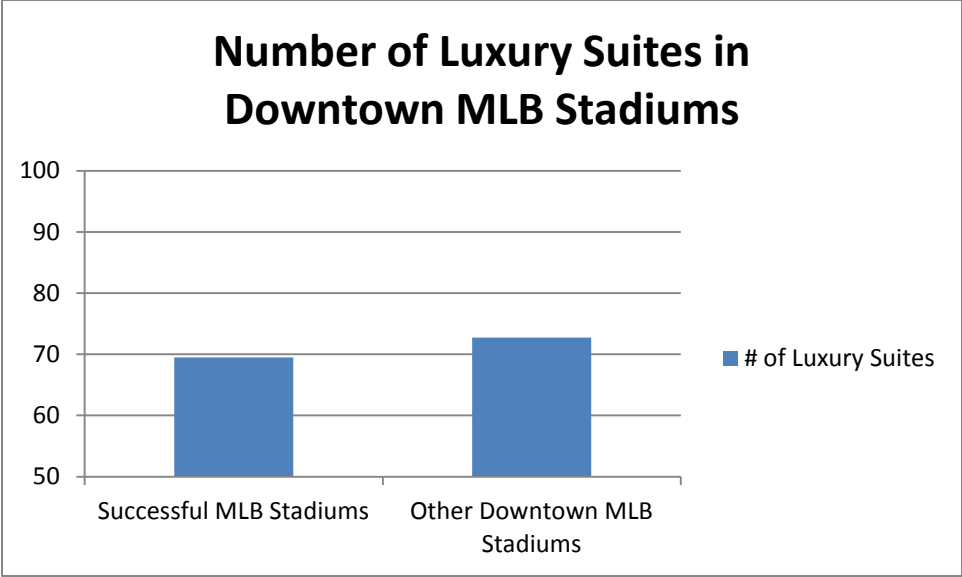
What can be concluded from this data is that stadiums of any size can succeed downtown and that larger size is not an impediment to success. As will be revealed in the following two trends, what is actually contained within the stadium is a much better indicator to the likelihood of success than is the physical size of a stadium.

Trend #6: Premium Seating Trends – Quantity and Pricing

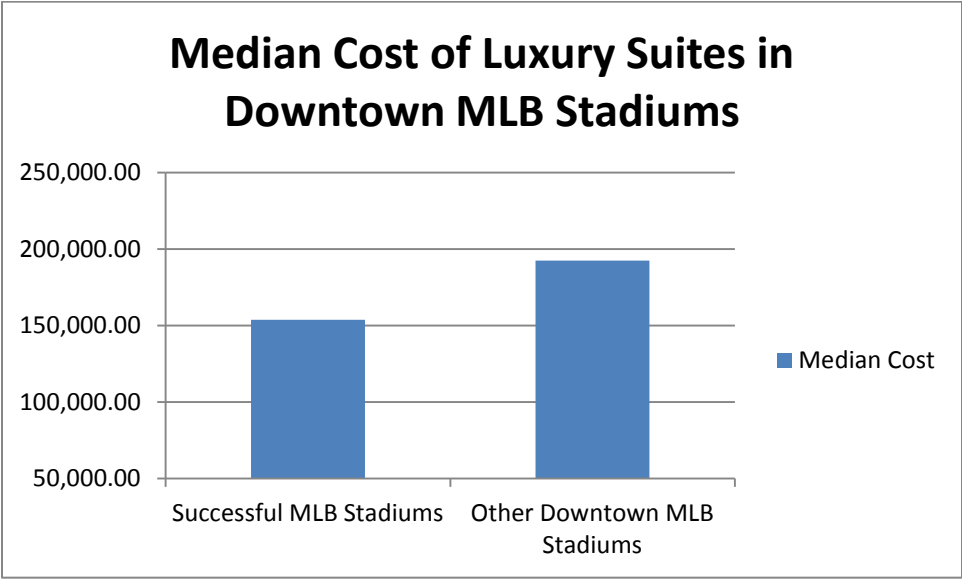
Following the opening and success of NFL's Miami Dolphins' Sun Life Stadium in 1987 and the NBA's Detroit Pistons' The Palace at Auburn Hills in 1989, the first two venues that incorporated large numbers of luxury suites and club seats, other owners began to realize how such premium seating was where new future revenues lied. Owners saw these two venues generated around \$20 million annually from the sale of yearly rights to suites and clubs seats that would be purchased in large part by corporations to entertain clients, thus allowing them to write the purchase off as a business expense. It was these big ticket seating options that they could make the most profit from, not the average fan sitting in the cheap seats. Teams who didn't have stadiums equipped with luxury suites and club seats became vocal about how they were rapidly losing money and weren't able to compete with other teams whose venue boasted them. As a result stadiums built in this time frame all boasted large numbers of luxury suites, whereas the stadiums they inhabited, many of which had been built before 1970, typically possessed few if any luxury suites and club seats (Mason and Howard 2008).

To get a sense of how the premium seating a stadium possesses may affect its ability to spur development in the surrounding area, it is important to first get a sense of what is included in premium seating options. Club seats are individual seats in a reserved section that typically include access to private clubs, which offer high-end food and drink options, as well as in-seat wait service. Luxury suites are a step up, both in luxury and size, usually servicing groups to 12 to 14 people. Suites are in large part catered towards corporations who are willing to pay top dollar them to entertain clients. Luxury suites typically include a private box with couches, televisions, a wet bar, food and drink, a wait staff and various other amenities. (Mason and Howard 2008)

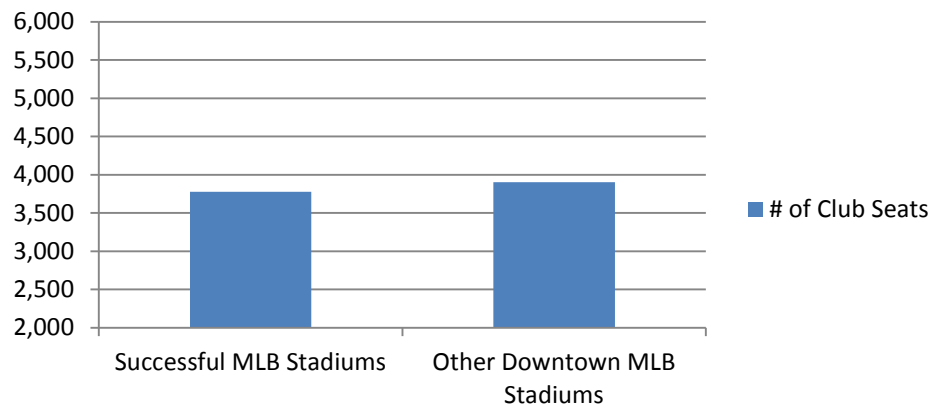
Why the trends of quantity and pricing of premium seating in successful and non-successful downtown stadiums are relevant because fans that opt for premium seating packages will have little need to go elsewhere for things such as entertainment, food, or drinks. Thus, one can hypothesize that the more premium seating a stadium has and the higher it is priced, likely meaning that it comes with more amenities, the less likely a stadium is to be able to spur economic development in the surrounding area. Below are the trends for the quantity and pricing of premium seating options in downtown MLB and NFL stadiums:



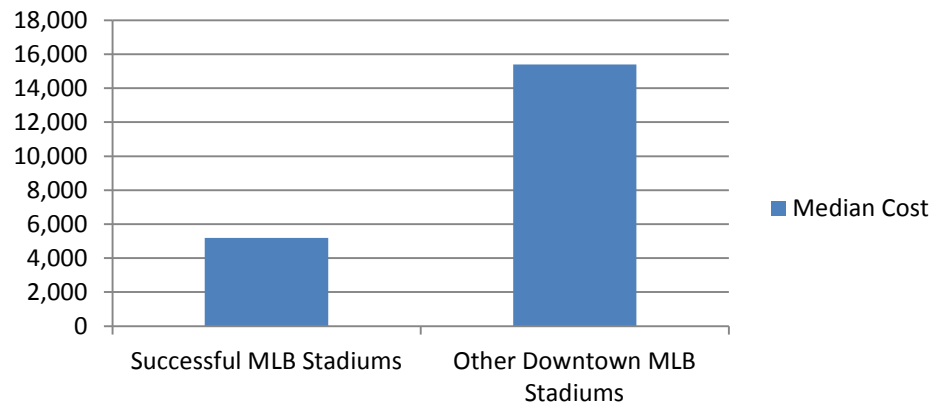
All data on the pricing and quantities of luxury suites and club seats obtained from Revenues from Sports Venues 2012.



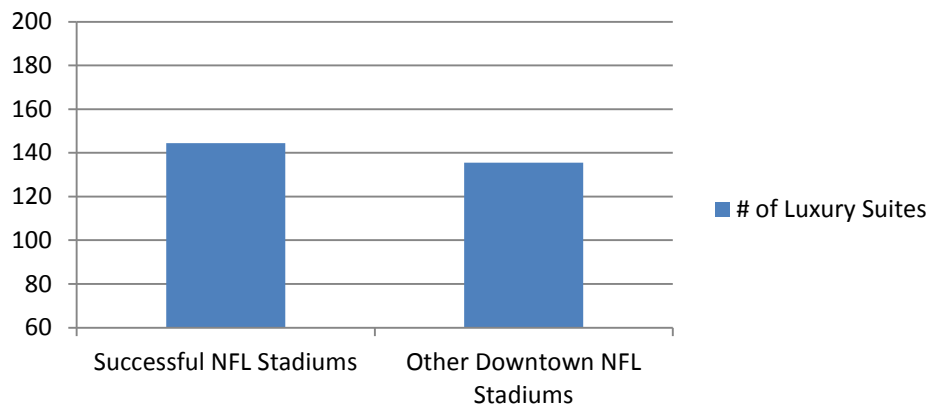
Number of Club Seats in Downtown MLB Stadiums



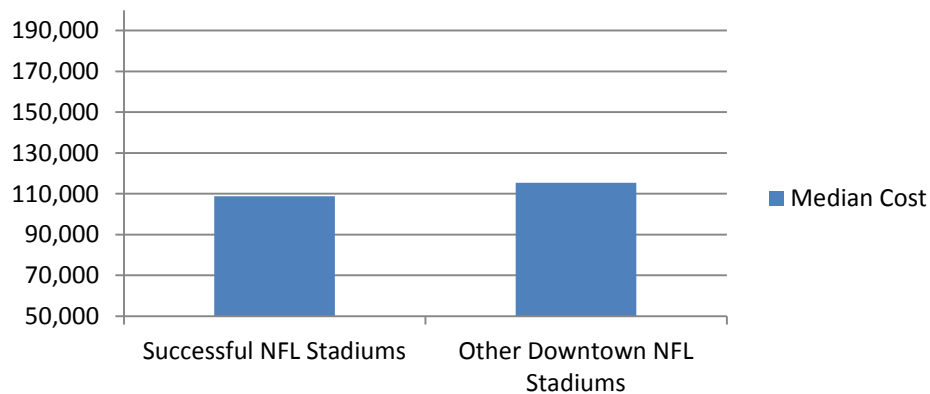
Median Cost of Club Seats in Downtown MLB Stadiums

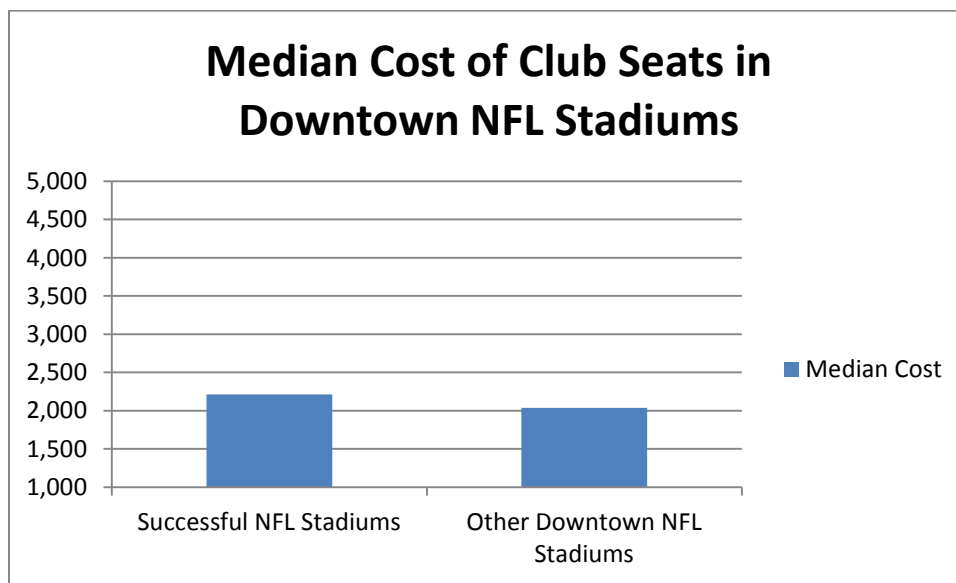
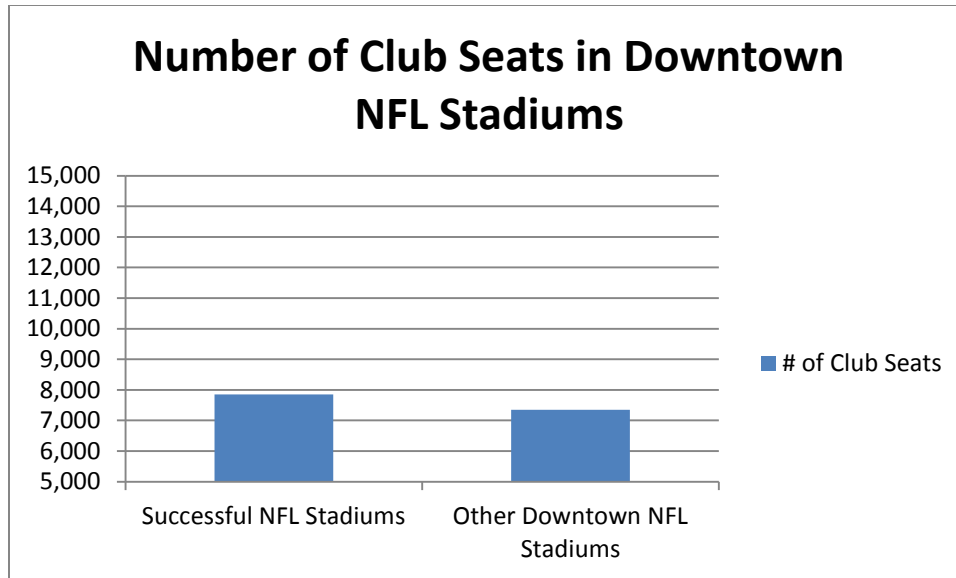


Number of Luxury Suites in Downtown NFL Stadiums



Median Cost of Luxury Suites in Downtown NFL Stadiums





These trends reveal a definite difference between MLB and NFL stadiums. In MLB stadiums, the amount of premium seating in successful and non-successful downtown stadiums is quite close, but the pricing of premium seating in non-successful downtown stadiums is much higher. In NFL stadiums, both the quantity and pricing of premium seating in successful and non-successful downtown stadiums are very close.

What this suggests is that these particular trends might not play a major role in the success of a stadium's redevelopment potential. The one expected result was that pricing for premium seating in non-successful MLB stadiums was significantly higher than it was in successful MLB stadiums. This makes intuitive sense because fans who purchase higher-priced premium seating that most likely comes with greater amenities than less expensive premium seating will both have less in their budgets to spend elsewhere and a reduced desire to spend

money on items such as food and drink which their premium seating package provides for. So though there is no real difference in the levels of premium seating between successful and non-successful downtown MLB stadiums, the fact that pricing of premium seating in the latter is significantly higher could be one factor that prevents from its success.

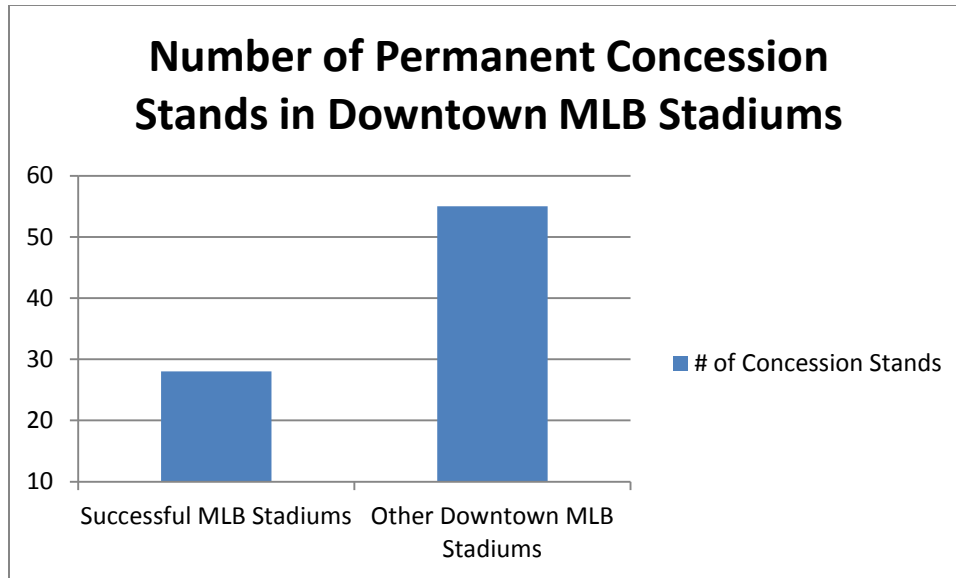
In the NFL, there is no real difference between amounts and pricing of premium seating in stadiums that are successful or non-successful. This result perhaps can be interpreted as premium seating being a variable that plays little role in the success of an NFL stadium's redevelopment potential, likely due to the fact that the nature of MLB and NFL games is different. NFL games occur in a city only 8 times a year (plus any playoff games) and are attended by an average of about 67,357 people, compared to MLB games, which occur in a city 81 times a year (plus any playoff games) and are only attended by an average of 30,346 people. (*Revenues from Sports Venues 2012*) This makes an NFL game far closer to a "mega-event," an infrequent but massively attended event, where MLB games are much more ingrained in daily city life, occurring frequently and being attended by about half as many people.

With NFL games occurring far less frequently than MLB games, it can be hypothesized that the cumulative effect of NFL game days on surrounding businesses, such as restaurants, is less than MLB games. Studies have indicated that on game days, restaurants are the businesses that benefit most from the influx of fans that come to attend games. (Property Counselors 2006) This may cause levels of premium seating in NFL stadiums to be a less relevant factor to creating development around the stadium than in MLB stadiums due to their potential to decrease attendees' patronage of outside businesses and restaurants.

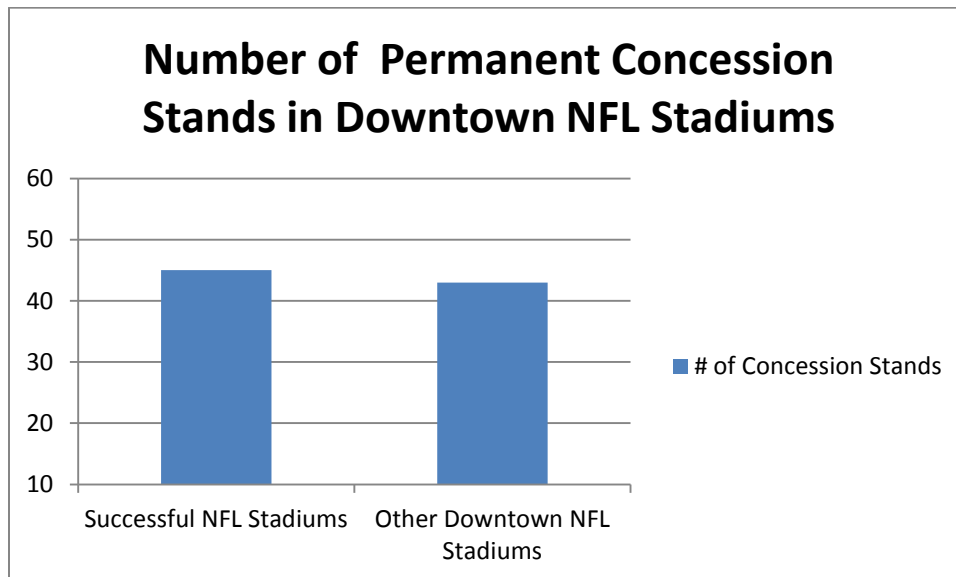
Trend #7: Concession Stand Trends

Examining the number of concession stands a stadium has allows one to examine the effect of having more or less dining options inside of the stadium has on the success of its redevelopment efforts, which undoubtedly would include restaurants in the area surrounding the stadium. An important distinction to first make is between a permanent concession stand and other concession vendors. Permanent concession stands are dining options that are built into the stadium, have enclosed working spaces and a window and counter where customers place their orders and receive their food. All other concession vendors are simply stands or kiosks that can be varied and added or taken away at a given time. Such vendors also do far less business than permanent concession stands, making permanent stands a much more accurate measure of the dining options a stadium possesses. (*Revenues from Sports Venues 2012*)

One would hypothesize the greater the number of permanent concession stands a stadium possesses, the less likely fans would be to patronize restaurants outside of the stadium, which are the businesses most directly impacted by game days. This would make intuitive sense because greater dining options in most cases means greater variety, shorter lines, and greater ease of access, all factors that make dining in the stadium more desirable. On the other hand, if a stadium had less dining options, it would seem to make sense that it would be more likely to dine outside of the stadium for the opposite reasons. The following are the trends in permanent concession stands for successful and non-successful downtown stadiums:



Source for all concession stand data for MLB and NFL stadiums: Revenues from Sports Venues 2012.



The hypothesis holds for MLB stadiums, where non-successful downtown stadiums possess nearly double the amount of permanent concession stands than do successful stadiums. The same is not present however for NFL stadiums, where the amount of permanent concession stands is almost exactly the same for both successful and non-successful downtown stadiums.

If there are ample dining options within a stadium, fans may just choose the convenience of eating within the stadium instead of patronizing a restaurant outside of the stadium. This may explain why there are about half as many permanent concession stands within successful MLB stadiums compared to non-successful stadiums. Surely, a stadium strives to give fans the best experience possible so they will keep coming back and spending their money. Still, just as there likely is a point where convenience undermines benefit to the area in terms of how close public

transportation is to the stadium, the same may hold for concession stands. A stadium project might have the best chance to succeed where there are enough dining options in the stadium to the point where fans are satisfied, but not an excessive amount that would start detracting from restaurants in the surrounding area. Perhaps a number closer to 28 permanent concession stands, the average for successful MLB stadiums, rather than 55, the average for non-successful downtown MLB stadiums, is part of the solution.

This difference between the data for MLB and NFL stadiums may again be as a result of the fact that NFL games are far less frequent occurrences than MLB games. Since restaurants are the businesses that benefit most from game-day crowds, they are more likely to be sustained by MLB games which happen about ten times more frequently than NFL games. Thus, if fans attending MLB games have a great deal of in-stadium dining options and choose not to dine outside of the stadium, surrounding restaurants would suffer greatly, which perhaps explains why successful MLB stadiums possess half the number of permanent concession stands compared to non-successful stadiums. On the other hand, since an NFL team hosts so few games a year, restaurants are surely less reliant on income from fans attending NFL games, making the levels of dining options inside the stadium a less pertinent variable.

Though the viability of surrounding restaurants may seem to be only a minor issue, studies have shown that many restaurants have opened around stadiums based on the crowds they draw from sporting events. Though stadiums are not always the direct impetus behind a residential building projects surrounding them, the same study revealed that many developers decided to develop in the area around a stadium directly due to the large numbers of restaurants in the area, who again directly cited a stadium as their reason for opening. (Property Counselors 2006)

Conclusions

To have any chance of creating economic development and revitalizing an area, a stadium must be located downtown. However, locating a stadium downtown far from guarantees its ability to spur development in an area. Stadiums in downtowns that rate better in various economic and demographic indicators, such as median household income and crime rate, are associated with more successful outcomes. Another important characteristic of a downtown that is associated with successful stadium development projects is walkability. Stadiums that have been successful have much higher walkability ratings than non-successful stadiums. Lastly, another factor regarding the surrounding area that may impact a stadium's chances at success is how easily available public transportation is around the stadium. Stadiums that have succeeded are have on average public transportation that is about 29% closer to the stadium than that of stadiums that have not succeeded.

Though characteristics regarding the actual area a stadium is placed in are important, characteristics regarding aspects of the stadium itself may play a part in the outcome of a stadium redevelopment project. In most cases, it is more difficult to build a large stadium in a downtown location than a non-downtown location and the average size of downtown stadiums is smaller than the average size of non-downtown stadiums. However, the actual size of downtown stadiums does not appear to play a role in the success of a stadium redevelopment project, despite the fact that larger stadiums have the potential to possess more amenities that would lessen the need to patronize businesses surrounding the stadium.

As for such amenities, non-successful downtown MLB stadiums have comparable levels of premium seating to successful stadiums, but at much higher prices. This is not the case with NFL stadiums, where levels and pricing of premium seating options are comparable across both successful and non-successful downtown stadiums. Additionally, successful MLB stadiums have about half the number of permanent concession stands compared to non-successful downtown MLB stadiums, where levels of permanent concession stands in successful and non-successful downtown NFL stadiums are nearly identical. All of such trends can perhaps be explained by the fact that differences in the frequency of NFL and MLB games, as an NFL team only hosts 8 regular season games compared to 81 for an MLB team. This may very well make high-levels of amenities in an NFL stadium less of a detractor than amenities in an MLB stadium because surrounding businesses are likely far less dependent on game-day income from NFL games than MLB games.

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