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# The Effect of Athletic Stadiums on Communities, with a Focus on Housing

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## With a Focus on Housing

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ABSTRACT

The Effect of Athletic Stadiums on Communities

With a Focus on Housing

Dominique Wilkins

The purpose of this research is to examine the role of athletic stadiums in the gentrification of minority neighborhoods. New athletic stadiums have increasingly been constructed in low- and moderate- income areas with high minority populations, and results in the displacement of that community's longstanding residents. This paper uses Census and American Community Survey (ACS) data as part of a case study of the Washington Nationals Stadium in Washington DC; the data shows that within a few years of construction, the community that previously boasted an affordable housing stock and a high low-income minority population is replaced with high-income, white professionals. This paper investigates what happens to the original population and, specifically, their housing when these stadiums are constructed, and makes development recommendations for ways to preserve neighborhoods.

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To Professors Tigan and Ross, who helped me finish this paper…

…seven years after I started it.

Thank you.

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## Chapter 1: Introduction

Gentrification is the "process of neighborhood change that results in the replacement of lower income residents with higher income ones" (Brookings Institute 2001, p. 1). The Brookings Institute (2001) has documented three waves of gentrification: "the federally sponsored urban renewal efforts in the '50s and '60s… the so-called 'back-to-the-city' movement of the late '70s and early 1980s," and today. Gentrification is marked by three features (Brookings Institute 2001): the involuntary displacement of lower-income residents by higher rents or property tax bills, the upgrading of the housing stock, and a change in the "social fabric" of the neighborhood (Brookings Institute 2001, p. 5).

The purpose of this research is to examine the effects of athletic stadiums on communities; lack of data and literature on this topic forced me to narrow my scope and focus on the impact of athletic stadiums on housing. Many new athletic stadiums have been constructed in low- and moderate-income areas with high minority populations; investors target these areas for the "potential to find bargain" prices on properties (Brookings Institute 2001, p. 11). Within a few years, the community that previously boasted multiple locally owned businesses, an affordable family housing stock, and a high low-income minority population is replaced with upper-middle class, single, young white professionals. This paper focuses on the numerous social and economic changes to these communities, with a specific focus on the replacement of single-family dwellings with higher-priced loft-style apartments. It also examines how athletic stadiums are used as catalysts for local economies categorized as impoverished by the cities, in which the

stadiums are located. Furthermore, this paper will address how athletic stadiums fuel gentrification, and the results of this gentrification on the housing cost provided to the communities displaced.

Gentrification conflicts arise from "competing beliefs in the preservation of poorer urban neighborhoods for the benefit of their present populations versus their redevelopment and upgrading to attract middle- and upper-class populations back to the city" (Berke et al 2006, p. 40), and failures of both the private and public sectors to ameliorate it. Though higher property values, increased walkability and access to amenities, and environmental benefits may be appealing to the white elite who are moving back to cities, these very same factors can exclude the poor minorities in the same areas. Today, planners must find a balance between all classes and races competing for space in our cities today as suburbs slowly become a thing of the past.

"Gentrification has a very clear racial component, as higher income white households replace lower income minority households, sometimes in the very same neighborhoods that experienced 'white flight' and traumatic urban renewal in the '50s and '60s" (Brookings Institute 2001, p. 5). Overt racist practices occur in the form of lawfully enforced segregation practices similar to the "separate but equal" laws of the Jim Crow Era. While these highly racist laws have long been outlawed, the birth and continued use of structural and institutionalized racist practices included in many redevelopment practices today have resulted in the gentrification of many inner-city urban communities.

## Chapter 2: Literature Review

Though the literature on the effects of athletic stadiums on housing is sparse, there is sufficient literature on the effects of athletic stadiums on various economic factors, such as employment rates, the impact of stadiums on the regional economy, and general standards of living. While Siegfried and Zimbalist (2000) write most of literature relevant to housing and stadiums, Baade, Baumann, Matheson (2008) provide the most information about the proposed economic benefits of stadiums. Many of the articles used in this literature review reveal that athletic stadiums are endeavors aimed to stimulate local and regional economies, however, this same literature provides facts and figures to disprove this hypothesis. While much of the literature does not directly address the question of housing impacts, the economic impacts discussed have a direct affect on the local populations and ultimately the housing stock. I address the gaps in current literature later in this paper.

### The Incentive to Build

The literature provides multiple examples of metropolises competing for athletic stadiums. Siegfried and Zimbalist (2000) found six main reasons cities compete for athletic stadiums. First and foremost is the proliferation of local politics; "constructing a facility may help to secure political support for the expenditure from local labor unions,

contractors, property owners, and other interested parties" (Siegfried and Zimbalist 2000, p. 100). Second, teams sign leases to the stadiums for terms averaging 20 to 30 years, signifying a long-term investment in the city. Third, the stadium provides a team with "potential" revenue. This potential revenue provides an incentive for the team to perform well because they would benefit from money made directly on ticket sales whereas "cash transfers from the city to the team would provide no incentive for team improvement" (Siegfried and Zimbalist 2000, p. 100). Fourth, loopholes in the 1986 Tax Reform Act have resulted in national government subsidies for stadium construction. The 1986 Tax Reform Act was created to prohibit the use of tax-exempt municipal bonds for the construction of "facilities [where] more than 10 percent of the facility's annual debt service is covered by facility-related revenues" (Siegfried and Zimbalist 2000, p. 100). Today, communities pay a greater share of the stadium costs to retain their eligibility for the tax-exempt bond funding, resulting in national taxpayers subsidizing the stadiums (Siegfried and Zimbalist 2000). Fifth, "if cities communicate the notion that subsidies come only in the form of sports facilities, then other potential subsidy recipients who do not need a stadium or arena for their business may be deterred from asking," thus eliminating their financial competition. Finally, direct cash subsidies awarded to wealthy team owners from the government in front of voters is detrimental to the campaigns of local politicians.

In addition to the perceived economic benefits, proponents of stadium building believe that a new sports stadium will boost civic pride and promote a sense of community (Siegfried and Zimbalist 2000). Proponents claim that a new sports stadium will stimulate spending in the community by attracting businesses and tourists to the community, but

these are assumptions that have widely been disproved by the literature. In the following sections, I will provide data and information from sources that refute these assumptions.

**Economic Benefits**

Proponents for sports stadiums cite economic gains as the primary gain for the community the stadium will be located in (Baade, Baumann, Matheson 2008). "Promoters envision hoards of wealthy sports fans descending on a city's hotels, restaurants, and businesses" (Baade, Baumann, Matheson 2008, p. 794). A group aimed at bringing a major league baseball team to Portland, OR claims that a new stadium could bring between $70 and $300 million a year to the state (Baade, Baumann, Matheson 2008, p. 795). A Virginia based group advocating for a professional baseball stadium in northern Virginia believes that the stadium would bring in more than $8.6 billion into the Virginia economy over a 30 year span (Baade, Baumann, Matheson 2008, p. 795).

> *Sports stadium boosters "are often vague about exactly what is being measured in these claims of hundreds of millions of dollars of benefits...but the overall claims are clear: Professional sports provide huge economic windfalls for host cities" (Baade, Baumann, Matheson 2008, p. 795).*

League and franchise owners frequently highlight the economic benefits associated with new stadiums and teams, often to minimize their own required contribution to the funding of the stadium (Baade, Baumann, Matheson 2008). Promoters cite the Superbowl or All-Star Games as opportunities to cash in on fans who will support local restaurants and businesses.

Most boosters overestimate how many guests will visit the stadiums and how much they will spend while visiting. “In March 2005, Denver, Colorado, tourism officials predicted 100,000 visitors for the NBA All-Star game. Considering that the Pepsi Center, the game’s venue, only holds 20,000 fans, and taking into account that Denver has only about 6,000 hotel rooms, it is not clear exactly how such an influx of basketball fans would be possible” (Baade, Baumann, Matheson 2008, p. 796). Baade, Baumann, Matheson (2008) push that some economic factors are fabricated citing the 1997 and 1999 NCAA Women’s Basketball Final Four. In 1997, the tournament was estimated to generate $7 million for Cincinnati, Ohio, and somehow, 2 years later that same event was projected to generate $32 million for San Jose, California.

Contrary to the arguments made by sports franchise boosters, cities often end up paying for most of the new stadium and the expenses that run alongside. For the Olympics, security of the athletes is paramount and covered by local taxpayers. The 2002 Winter Olympics in Utah showed the event generating a profit for the city, however, the same documents failed to show the “millions of dollars of additional security provided by the U.S. Department of Defense at no cost to the local organizing committee” (Baade, Baumann, Matheson 2008, p. 795). The 2004 Summer games in Athens spent $1.5 billion on security alone (Baade, Baumann, Matheson 2008).

## Crowding Out

Many times, sports related activities dissuade local citizens from venturing to a city or businesses because of congestion, which further reduces the economic impact of stadiums. “Attractions such as Chicago’s Field Museum or Cleveland’s Rock and Roll Hall of Fame are located next door to NFL stadiums, and their attendance suffers during the Chicago Bears or Cleveland Browns home games” (Baade, Baumann, Matheson 2008, p. 797). Mega-events (like the Superbowl or the Olympics) also dissuade regular recreational and business visitors from coming to the city during that time. If a hotel is full of sports fans, vacationers or conventioneers are displaced. Hotels that raise prices to meet the demand of the sports enthusiasts exclude vacationers, and thus, displace other economic income that may have occurred (Baade, Baumann, Matheson 2008).

## The Substitution Effect

Siegfried and Zimbalist (2000) focus on the substitution effect and leakages while examining the effect of stadiums on local economies. The substitution effect is based on the presumption that the majority of consumers have a relatively inflexible leisure budget and that money is transferred from one establishment to another. In other words, every time you spend money in a sports stadium you are taking money from the local bowling alley you would usually visit, resulting in a net effect on spending in metropolitan areas very close to zero; sports teams rearrange money, but do not create it (Siegfried and

Zimbalist 2000). Many proponents of stadiums argue that out-of-state tourists contribute new money to the local economy. Noll and Zimbalist (1997 in Siegfried and Zimbalist 2000]) argue that most tourists do not come to town because of the game. Noll and Zimbalist believe that tourists visit the city for other reasons and that their attendance at the sports game is a secondary activity. "Hence, their disbursements in and around the ballpark substitute for other local spending. Further, they may be guests of a local business or family who pays for the tickets and concessions, in which case" there is no new money generated (Noll and Zimbalist 1997 in Siegfried and Zimbalist 2000, p. 106). Finally, national television contracts and funds to central league offices remove money from the local economy.

**Leakages**

Perhaps the largest leakage of sports teams is in player salaries. "Approximately 55 to 60 percent of NHL, NBA, NFL, and MLB team revenues go to player compensation" with the remaining going to owners for stadium maintenance (Siegfried and Zimbalist 2000, p. 106). According to Siegfried and Zimbalist (2000) there are four main leakages attributed to sports stadiums. First, the higher your income the more taxes you must pay to the national government; "thus over 40 percent of their incremental income leaks directly from the local economy to Washington, D.C." (Siegfried and Zimbalist 2000, p. 106). Second, high wages lead to higher savings rates, especially to players who are seen as having transitory incomes, so most of the local money leaks into global money markets.

Third, most players and owners do not live year-round in the local community, so the majority of their spending is on travel to and maintenance of their multiple homes located elsewhere. Finally, concession sales must be divided amongst the corporate community that owns them which is, more often that not, located elsewhere.

**The Effect of Stadiums on Permanent Housing**

Carlino and Coulson (2004) concluded that athletic stadiums do not increase property values. Traffic congestion, air and noise pollution, and undesirable crowds cause property values to decline (Tu 2005). In his 2005 study of the FedEx Field, Tu found that before construction, properties in close proximity to the stadium have lower property values and increase in value as you move away from the stadium but only within a 2-3 mile buffer. After opening day, the price differential narrows as property values increase for residences closest to the stadium. "The results show that the value of a single family home located less than three miles but more than two miles from the FedEx Field is not significantly affected, whereas properties within a one mile radium of the stadium are priced approximately 10.06% lower than comparable units outside the impact area" (Tu 2005, p. 386). Tu also states that the lower property vales in the impact area may have been the cause and not the effect of the stadium and that the stadium was placed here because of the already low property values.

Tu (2005) found that the properties closest to the stadium experienced infrastructure and aesthetic improvements that helped raise the property value but it is

important to note that this increase in property value is not a direct result of the stadium. He concludes that the closer the property to the FedEx Field the greater the price improvement, and that the impact on properties more than 2.5 miles away is minimal. Tu believes that the stadium generated new low-wage employment opportunities that accurately matched the skills of the high-minority low-education level of the original population, provided a recreational outlet to foster a sense of community, and improved the local infrastructure which may not have happened without the stadium. Tu did find, however, that pre-development property values near the proposed stadium were lower than those located further away, but that "this gradient became less pronounced following the stadium's development" (Tu 2005 in Dehring et al 2007).

Dehring et al (2007) go one step further than Tu when studying the Dallas Cowboys stadium. They examine how the announcement of the new stadium affects the local residential area before construction on said stadium even begins. They also examine the changing housing stock, moving from an area predominated by single family homes to one and two bedroom condos and apartments and lofts. Their results show the stadium having a negative and statistically significant impact on the age of housing (new housing units were constructed), a positive and statistically significant effect on optional luxury features and amenities (for example swimming pools), and a negative and statistically significant effect on the number of stories of housing units (more apartments, lofts, studios). Dehring et al found that the announcement of the new stadium construction had a negative effect on residential property values within 20 miles of the proposed site. They conclude that

> "The aggregated impact of stadium announcements when stadiums are funded by municipal tax dollars is the combination of three distance elements: the tax burden, which causes a reduction in property values; the overall city amenity effect, which causes an increase in property values, and the proximity amenity effect, which has an ambiguous effect on residential property values" (Dehring et al 2007, p. 7).

Dehring et al state that the reduction in property value is not statistically significant and is barely distinguishable from zero, which is different from Tu's study when he found a positive amenity effect for properties around the Redskins stadium. The difference in their findings may belong to the role of taxes in each project; the Dallas stadium was funded by increases in local taxes but the Redskins stadium was not (Dehring et al 2007).

Carlino and Coulson (2004) measure the social benefits of NFL stadiums in the form of crime rates, measurable litter, utility costs, unemployment rates, etc. Currently, the NFL franchises receive more attention than any other sports franchises in the U.S. and as a result they are expanding. The placements of NFL franchises have "less to do with city-specific characteristics than in any other major sports league" (Carlino and Coulson 2004, p. 28). In central cities with NFL franchises, annual rents rise by 8 percent and approximately half that amount when the entire metropolitan area hosts the franchise (Carlino and Coulson 2004). In addition, wages in metropolitan areas with NFL teams decline by 2 percent. Carlino and Coulson (2004) go on to compare rents in select cities that did not have NFL teams in 1993 but did by 1999 and in every city, the rent increased.

Carlino and Coulson examine changes in the central city, the metropolitan statistical area (MSA), and the consolidated metropolitan statistical area (CMSA). In central cities, NFL franchises have a positive and statistically significant effect on rents

(rents go up), a negative and statistically significant effect on the number of rent controlled properties (less housing and neighborhood stability), a positive and significant effect on the presence of high-rise buildings (fewer single-family homes), a negative and significant effect on the presence of abandoned buildings in the neighborhood (fewer abandoned buildings), and a negative effect on the unemployment rate (fewer unemployed) (Carlino and Coulson 2004).

In the MSA, there is a positive and statistically significant effect of NFL franchises on the presence of high-rise buildings (less single-family homes), a negative and statistically significant effect on the number of abandoned building (fewer abandoned buildings), a negative and statistically significant effect on the number of rent controlled properties (less housing and neighborhood stability), and a negative and statistically significant effect on the unemployment rate (fewer unemployed).

In the CMSA, there is a negative and statistically significant effect by the NFL team on the unemployment rate (fewer unemployed), a negative and statistically significant effect on the number of abandoned buildings in the community (fewer abandoned buildings), and a positive and statistically significant effect on the number of high-rise buildings (fewer single-family homes). For the population itself, there is a negative and statistically significant effect on the Black and Asian populations (more white people), and a positive and statistically significant on the number of residents possessing a college degree or better (higher educational obtainment). This data provided shows that athletic stadiums reduce the black and Asian population and increases the number of high-rise housing units.

The increase in single person occupancy housing units (high-rise housing units) replaces community that was full of working-class, majority-minority, single-family homes with a community of college-educated single people living alone in high-rise apartments. The decline of the unemployment rate in the central city, MSA, and CMSA, may be attributed to the new community members who might work outside the community. The increase in the amount of amenities (central air conditioning, garages, public sewers) also serves to increase the annual rents paid by the residential population.

There is overwhelming evidence in the literature that athletic stadiums do not stimulate local or regional economies. Baade (1994) found "no significant difference in personal income growth from 1958 to 1987 between 36 metropolitan areas that hosted a team in one of the four premier professional sport leagues and 12 otherwise comparable areas that did not (Baade in Siegfried and Zimbalist 2000, p. 104). Baade even goes so far as to state that "the presence of a major league sports team actually put a drag on the local economy" (Baade in Siegfried and Zimbalist 2000, p. 104). Proponents of athletic stadiums argue that the stadium will create new jobs as well as stimulate the local economy in the form of restaurants, hotels, and higher property values. Baade (in Siegfried and Zimbalist 2000) asserts that there is no evidence that a new sports stadium increase the per capita income in the host community. Coates and Humphreys (1999) find that new stadiums actually reduce per capita income in the host city. Siegfried and Zimbalist (2000) go on to discuss employment trends, with stadiums hiring most employees as day-of-game personnel who work in low-wage, unskilled, temporary part-time jobs. One NFL team provides day-of-game employment for the full-time equivalent of 20 to 30 year round jobs

with another 70 to 130 employed in the team's front offices (Siegfried and Zimbalist 2000).

According to Siegfried and Zimbalist (2000) there are cycles of building for new athletic stadiums, estimating that "more than $21.7 billion will be spent on these 95 new stadiums built or planned since 1990" (95). The sports facility construction cycle occurs in 30-year increments, with a new cycle likely to begin around 2020 (Siegfried and Zimbalist 2000). Stadiums are becoming more and more expensive too; "the average cost of facility construction in current dollars rose from $3.8 million in the 1950s, to $25 million in the 1960s, $71 million in the 1970s, $103 million in the 1980s, and to $200 million from 1990 through 1998" (Siegfried and Zimbalist 2000, p. 97).

**The Olympics**

When cities are marketing their Olympic bid to their citizens, promises are made in three ways: civic pride, economic growth, and modernization of the host city (Corrarino 2014). There has been a lot of debate surrounding the construction and development of stadiums for use in Olympic Games. Most recently, Los Angeles and Boston have been in the news as potential hosts for the 2024 Olympics. Opponents in Boston for the Boston 2024 Olympics have cited the profound negative social and economic impacts to communities of color as a reason not to host the Olympics, citing abandoned Olympic sites and increased spending. In 1990 after Atlanta was awarded the 1995 Olympics, development for city space halted and money that was previously spent on city renewal

and resources was funneled only to the Olympic venues themselves (Rutheiser 1997). The organization that promised to help with the redevelopment of downtown Atlanta and to revitalize a depressed commercial and residential area spent most of the its money on the Olympic venues themselves, new street lighting, pavement, and street furniture that was meant to stimulate pedestrian traffic both during and after the 1995 Olympics. "Many Atlantans, especially those in the poorer neighborhoods, were deeply disappointed by the modest and limited extent of…[the] urban redecorating plans" (Rutheiser 1997, p. 25)

As Brazil prepares to host the 2016 Summer Olympics, rampant development projects have gone underway. While we could predict that the poorest communities in Brazil are disproportionately affected by Olympic development, even the middle and upper classes in Rio de Janeiro are facing zero-day evictions (Corrarino 2014). Environmental analyses have been "ignored as the city speeds ahead with transportation projects that threated the environment around the city's world-famous beach dunes" (Corrarino 2014, p. 181). The decisions to move forward with these socially and economically disruptive decisions have been made without public input and behind closed doors. Corrarino notes that:

> *"mega-events create pretexts for the implementation of 'law-exclusion zones'-- spaces, both physical and metaphorical, in which normal legal processes are jettisoned and new, exceptional legal regimes take their place-- and...these regimes often undermine normal human rights protections, allowing a few to profit at the expense of the many" (2014, p.182).*

Boston's Olympic bid process comes under the same scrutiny. Boston's own pro-Olympic Campaign (Boston 2024) was scrutinized for its lack of transparency and tendency to say

"one thing behind closed doors, and an entirely different thing to Massachusetts taxpayers" (Bismark Tribune 2015).

Economic growth has long been used as a tactic to entice citizens to support an Olympic bid. The promised development of new infrastructure aims to portray the host city as successful and, consequently, "without the homeless, public housing residents, and other low-income Atlantans who were also predominately racial minorities" (Gustafson 2013, p. 199). These residents were forcibly evicted from their homes and forced to move away from Olympic related development. There was intensification in the closure of public housing, homeless people were bussed out of the city, new anti-homelessness ordinances were created, and forced evictions and displacements followed the construction of Olympic infrastructure (Gustafson 2013).

**Gaps in Current Literature**

While the topic of where to build athletic stadiums is not a new one, there is very limited existing research available. The research available is largely completed by just a few scholars who cite each other in literature reviews and references. Most of said research is also now outdated, and there has been no supplemental subsequent research. While the effects of the gentrification of housing has been studied and dissected, it is most often related to the ebbs and flow of cities and development. The construction of athletic stadiums and gentrification has a cause and effect relationship; construction spurs new development, which results in the disruption and disintegration of the existing community.

The literature on athletic stadiums as it relates to the topic of this paper is largely related to jobs and the economy. When athletic stadiums are sold to communities, it is easy to document the promises made to host communities by the developers: more jobs, more tourists, and higher visibility. Because these promises are made public to communities, there has been research done refuting all claims made by the developer that the new athletic stadium will ultimately benefit the community. There has been less effect, however on the social implications of the new construction, probably because it is harder to quantify. What kinds of people will be working in the stadium? Where will they live in relation to the stadium? What will happen to the people whose property is taken to build the stadiums? Where will the people who are displaced by the stadium ultimately live? Current available literature focuses mostly on the quantitative value of people and space, and there is little to no research about the qualitative impact of athletic stadiums on communities.

In addition, the literature needs to make the link between race and stadium construction. New construction of athletic stadiums, more often than not, is happening in low-income, under-funded, majority-minority communities. That same community is then disrupted, displaced, and replaced by young, white, middle- and upper-middle class, child-less people.

## Chapter 4: Methodology

For this paper, available Census and American Community Survey (ACS) data can compare neighborhood characteristics on multiple levels including: income, racial composition, and housing stock. These dimensions will reflect the gentrification of the neighborhoods; gentrification is marked as a change in a neighborhood from being predominately low-income and minority families to being predominately young, college-educated, singles. Housing characteristics will be compared on multiple levels, including: occupancy rate, household size, and household type. These housing characteristics will show an increase in the supply of smaller housing units and structures and a decline in family housing structures to meet the demands of a younger, unmarried population. In the absence of all this necessary data for a side-by-side comparison of both neighborhoods, I will use the case study approach, influenced by Robert Yin (2013) in terms of organization and analysis of the data. The case study will focus on the construction of the Washington Nationals Stadium located in Southeast DC.

Census and American Community Survey data (ACS) will be available for Southeast DC. Data collection and analysis techniques for this paper will be similar to those employed by Tu (2005); the Nationals field impact zone will incorporate the entirety of southeast DC, identified by the zip code 20003. The impact zone for the Nationals field was chosen due to natural barriers that will most likely serve as barriers to development, including the Anacostia River to the south, the Southeast Highway/I-295 to the north and east, and South Capital Street to the west.

The use of this type of data is documented evidence, defined by Yin (2013) as stable (can be viewed repeatedly), unobtrusive (existed before and after the case study), and specific (examines income, race, and housing stock) (Yin 2013, p. 106). In addition, Census and ACS data does not reflect reporting bias, however, the lack of participants in the Census can lead to bias based on educational obtainment (correlated to income) or housing instability (if people are moving and miss the questionnaire they may be unaccounted for). "For many case studies, archival records [(public files)]...are relevant" (Yin 2013, p. 109).

Yin (2013) also suggests using multiple sources of evidence (Yin 2013). My decision to look at three sources of evidence (income, racial composition, and housing stock) allows me as the researcher to triangulate on my hypothesis; "any finding or conclusion is likely to be more convincing and accurate if it is based on several different sources of information" (Yin 2013, p. 120).

ACS data is available for the southeast region of DC; however, it incorporates an area larger than needed for this study. The use of GIS would help narrow this case study's impact area, but in its absence we will use the entire Census tract. In other words, the use of GIS will help us see the change in community directly surrounding the Nationals stadium.

## Anticipated Findings

Using GIS data to track the change in housing, I anticipate a graduated change in housing surrounding the projected athletic stadium. Pre-construction, I predict that the surrounding neighborhood will be mostly single family dwellings inhabited mostly by people of color. It will be an economically depressed area that has seen little to no new development projects in the past 10 years. During and after construction, I anticipate a spike in property values in the surrounding area. I anticipate the beginning of the displacement of the longstanding families, either through use of eminent domain, raised property taxes, or the relocation of rental families. Post-construction, I anticipate the continued construction of high-rise, single occupancy condominiums, and a largely young, white demographic. These anticipated findings will show that the construction of new athletic stadiums disproportionately affects families and communities of color, that developers choose these low-income, high-minority neighborhoods because property is cheap, and eventually turn the neighborhood into an area inhabited by and frequented by young, white professionals.

## A Case Study: Washington Nationals Stadium

### The Stadium

The Washington Nationals are the professional baseball team for Washington DC. The Washington Nationals stadium is located in Washington DC's Navy Yard, opened in

2008, and can hold 41,546 fans. The stadium cost more than $611 million and is a certified Green building- "the ballpark's design and construction exceeded the target of a 'certified' Green Building" and received the US Green Building Council's "Silver Status" (www.washingtonnationals.com: 2 Feb 2016).

The Washington Nationals stadium is located near where I grew up and where most of my family lives. While studying at American University in Washington DC during my undergraduate years, I participated in an American Cities and Development semester-long seminar. We walked past the stadium almost every day, which at the time was sitting idle due to what I can only assume to be slowed funding due to the recession. I was able to see first hand the change in housing: single-family homes with backyards and set-back sitting across the street from high-rise single-bedroom lofts. I became curious about the effects of athletic stadiums on communities, specifically regarding gentrification and the change in housing stock, and was able to use that curiosity to zoom in on that stadium for this case study.

**ACS and Census Data Findings**

Construction on the Nationals Stadium started in May 2006 and finished in 2008 for the 20003 zip code. Below is data taken directly from the 2000 Census, the 2000 American Community Survey (ACS), and the 2014 American Community Survey (ACS) for the 20003 zip code:

Income (2000 Census: Before Construction)

| Income | Number of Households | Percentage of 20003 Population |
|---|---|---|
| **Less than $10,000** | 1,621 | 15.9 |
| **$10,000 to $14,999** | 381 | 3.7 |
| **$15,000 to $24,999** | 772 | 7.6 |
| **$25,000 to $34,999** | 1,052 | 10.3 |
| **$35,000 to $49,999** | 1,172 | 11.5 |
| **$50,000 to $74,999** | 1,753 | 17.2 |
| **$75,000 to $99,999** | 1,266 | 12.4 |
| **$100,000 to $149,999** | 1,202 | 11.8 |
| **$150,000 to $199,999** | 450 | 4.4 |
| **$200,000 or more** | 502 | 4.9 |

Income (2010-2014 ACS Data: After Construction)

| Income | Number of Households | Percentage of 20003 Population |
|---|---|---|
| **Less than $10,000** | 662 | 5.7 |
| **$10,000 to $14,999** | 349 | 3.0 |
| **$15,000 to $24,999** | 421 | 3.6 |
| **$25,000 to $34,999** | 420 | 3.6 |
| **$35,000 to $49,999** | 747 | 6.4 |
| **$50,000 to $74,999** | 1,357 | 11.7 |
| **$75,000 to $99,999** | 1,301 | 11.2 |
| **$100,000 to $149,999** | 2,510 | 21.6 |
| **$150,000 to $199,999** | 1,587 | 13.7 |
| **$200,000 or more** | 2,251 | 19.4 |

Familial Income (2000 Census: Before Construction)

| Income | Number of Households | Percentage of 20003 Population |
|---|---|---|
| **Less than $10,000** | 627 | 15.4 |
| **$10,000 to $14,999** | 147 | 3.6 |
| **$15,000 to $24,999** | 295 | 7.2 |
| **$25,000 to $34,999** | 271 | 6.6 |
| **$35,000 to $49,999** | 379 | 9.3 |
| **$50,000 to $74,999** | 615 | 15.1 |
| **$75,000 to $99,999** | 484 | 11.9 |
| **$100,000 to $149,999** | 703 | 17.2 |
| **$150,000 to $199,999** | 273 | 6.7 |
| **$200,000 or more** | 288 | 7.1 |

Familial Income (2010-2014 ACS Data)

| Income | Number of Households | Percentage of 20003 Population |
|---|---|---|
| **Less than $10,000** | 190 | 4.0 |
| **$10,000 to $14,999** | 45 | 0.9 |
| **$15,000 to $24,999** | 153 | 3.2 |
| **$25,000 to $34,999** | 100 | 2.1 |
| **$35,000 to $49,999** | 256 | 5.3 |
| **$50,000 to $74,999** | 341 | 7.1 |
| **$75,000 to $99,999** | 351 | 7.3 |
| **$100,000 to $149,999** | 841 | 17.5 |
| **$150,000 to $199,999** | 849 | 17.7 |
| **$200,000 or more** | 1,676 | 34.9 |

Poverty (2000 Census: Before Construction)

| | Number of Households | Percentage of 20003 Population |
|---|---|---|
| **Families** | 774 | (X) |
| **Percent below poverty level** | (X) | 19.0 |
| **With related children under 18 years** | 563 | (X) |
| **Percent below poverty level** | (X) | 29.3 |
| **With related children under 5 years** | 257 | (X) |
| **Percent below poverty level** | (X) | 31.5 |
| **Families with female householder, no husband present** | 625 | (X) |
| **Percent below poverty level** | (X) | 40.5 |
| **With related children under 18 years** | 499 | (X) |
| **Percent below poverty level** | (X) | 48.2 |

| | Number of Households | Percentage of 20003 Population |
|---|---|---|
| **Individuals** | 4,307 | (X) |
| **Percent below poverty level** | (X) | 21.1 |
| **18 years and over** | 2,889 | (X) |
| **Percent below poverty level** | (X) | 16.9 |
| **65 years and over** | 571 | (X) |
| **Percent below poverty level** | (X) | 27.2 |
| **Related children under 18 years** | 1,393 | (X) |
| **Percent below poverty level** | (X) | 42.3 |
| **Related children 5 to 17 years** | 1,045 | (X) |
| **Percent below poverty level** | (X) | 44.8 |
| **Unrelated individuals 15 years and over** | 1,587 | (X) |
| **Percent below poverty level** | (X) | 18.3 |

Living in Poverty (2010-2014 ACS Data: After Construction)

| | Percentage of 20003 Population |
|---|---|
| **Families** | 7.4 |
| **With related children under 18 years** | 13.7 |
| **With related children under 5 years** | 0.0 |
| **Families with female householder, no husband present** | 24.3 |
| **With related children under 18 years** | 37.7 |
| **With related children under 5 years only** | 0.0 |

| | Number of Households | Percentage of 20003 Population |
|---|---|---|
| **Individuals** | | |
| **Percent below poverty level** | (X) | 12.7 |
| **18 years and over** | | |
| **Percent below poverty level** | (X) | 11.3 |
| **65 years and over** | | |
| **Percent below poverty level** | (X) | 11.9 |
| **Related children under 18 years** | | |
| **Percent below poverty level** | (X) | 22.0 |
| **Related children 5 to 17 years** | | |
| **Percent below poverty level** | (X) | 34.8 |
| **Unrelated individuals 15 years and over** | | |
| **Percent below poverty level** | (X) | 14.8 |

Housing Stock (2000 Census: Before Construction)

| | Percentage of 20003 Population |
|---|---|
| **Owner Occupied** | 45.2 |
| **Renter Occupied** | 54.8 |
| | |
| **Family Households** | 39.5 |
| **Nonfamily Households** | 60.5 |
| **Average household size** | 1.99 |
| **Average family size** | 2.88 |

Housing Stock (2010-2014 ACS Data: After Construction)

| | Percentage of 20003 Population |
|---|---|
| **Owner Occupied** | 48.6 |
| **Renter Occupied** | 51.4 |
| | |
| **Family Households** | N/A |
| **Nonfamily Households** | N/A |
| | |
| **Average household size** | N/A |
| **Average family size** | N/A |

Race (2000 ACS: Before Construction)

| Race | Percentage of 20003 Population |
|---|---|
| **White** | 40.5 |
| **Black or African American** | 54.7 |
| **American Indian and Alaska Native** | 0.3 |
| **Native Hawaiian and Other Pacific islander** | 0.1 |
| **Asian** | 1.7 |
| **Two or more races** | 1.7 |

Race (2010-2014 ACS Data: After Construction)

| Race | Percentage of 20003 Population |
|---|---|
| **White** | 59.6 |
| **Black or African American** | 34.0.7 |
| **American Indian and Alaska Native** | 0.3 |
| **Native Hawaiian and Other Pacific islander** | 0.0 |
| **Asian** | 2.4 |
| **Two or more races** | 2.5 |

**Analysis of Data**

With the data obtained from the Census and American Communities Survey (ACS), it can been seen that there is a strong correlation with the development of the athletic stadium and the change in housing stock, racial composition of the neighborhood, and income changes in the neighborhood. Eight years before the stadium was built, the 20003 zip code that includes the waterfront and Navy Yard was a majority low- and middle-income, African-American neighborhood. There were just as many households living in poverty as there were making $50,000 a year. Six years after the construction of the stadium is complete, the neighborhood has changed: it is overwhelmingly white and the majority of households earn $200,000 a year or more. Owner occupied and renter occupied housing ratios have stayed just about the same, and in the absence of data on familial and household size, it cannot be determined just how many people are raising their families here or are just roommates living together to save on housing costs.

While this paper attributes neighborhood changes in the 20003 zip code to the new construction of the athletic stadium, it is important to note that there may have been other factors influencing community change.

## Chapter 5: Implications and Conclusions

As the case study above shows, the construction of athletic stadiums results in the displacement of that community's original population. These neighborhoods start as low-income, mostly minority neighborhoods and change to middle and high income mostly

white neighborhoods. Cities who are eager to reap the projected benefits of new stadiums should work with developers to find responsible housing options for residents.

In the literature review, Carlino and Coulson (2004), and Dehring et al (2007) conclude that athletic stadiums do not increase property values. Carlino and Coulson site social effects of the NFL, countering that the increase in air and noise pollution and traffic deter new residents from settling near stadiums; stadiums actually bring down property values. Dehring et al conclude that there is a net zero effect of athletic stadiums (2007), but recognize that Tu (2005) contradicts this finding in his study. Tu's 2005 study and the case study for this paper of the Washington Nationals stadium cite increases in property values.

The implications for development of new athletic stadiums directly mirror uneven development recommendations. While the list of policy recommendations to prevent gentrification and uneven development is extensive, specific recommendations related to preservation of housing would have the largest impact on communities.

**Displacement and Housing**

Displacement of people and communities is the largest factor that fuels gentrification and is the most visible effect on the community (Kennedy and Leonard, 2001). Renters who live in cities are at risk for being pushed out as landlord raise rents;

> *"Displacement begins as landlords take advantage of rising market values and evict long-time residents in order to rent or sell to the more affluent. Increasingly, newcomers are more likely to be homeowners, and the rising property values cause down payment requirements to increase" (Rose 2002, p. 6)*

As new, higher-income tenants move into an area, new services catering to this demographic appear. The new, high-income tenants reject services offered to low-income tenants, such as social service facilities for the homeless, industrial services, or other things they deem undesirable (Rose 2002). The community's longest residents and their services (faith-based, industries, cultural, commercial) are subsequently forced out of the neighborhood.

Renters are most vulnerable for displacement because they cannot afford increased rent prices and are less willing to combat their landlords, especially if they do not speak English or have a questionable immigration status. Property owners have more flexibility in their options because they can elect to sell their property at a profit. This can still, however, contribute to gentrification; owners must now choose whether or not they want to sell their property with a substantial profit or stay and in their neighborhood (Kennedy and Leonard 2001).

Funding for The U.S. Department of Housing and Urban Development (HUD) and low-income housing has been shrinking in past years, resulting in a concentration of low-income housing in underserved communities (Rose 2002). "The federal investment in HUD and low-income housing programs has declined as much as 60% over the last quarter century" (Rose 2002, p. 5). Between 1997 and 1999, more than 300,000 affordable housing units (for low-income households) were lost and not replaced (Rose 2002). In 1999, 14 million people (owners and renters) spent more than half of their income on housing (Rose 2002). Currently, not all cities and towns have affordable housing policies in place, which puts more pressure on existing affordable housing units. Zoning practices

make it increasingly difficult to create more low-income options so there are often more households in need of low-income housing than are currently available.

**Preserving Housing and Communities**

Rose (2002) outlines 4 steps to expand affordable housing, thus contributing to the stabilization of communities. First, do a community assessment. How many renters are in your neighborhood? How many property owners? What amenities does your community already have? What services and resources are necessary for the community? Second, stabilize the communities' renters. Create emergency funds for rental assistance. Investigate and remove any discriminatory rental barriers, including rent increase schedules and limits. Develop housing cooperatives that empower residents in their own communities by providing them with a voice. Cooperatives can acquire land and accrue assets that can help to preserve their communities. Third, control land for community development. Allowing nonprofits to own land and property ensures long-term affordability because it is a public, rather than private, investment. Decide as a community if current zoning ordinances contribute to your communities goals. "This will include promoting inclusionary zoning ordinances, mixed-use and transit-oriented development and density provisions" (Rose 2002, p. 7), all of which encourage affordable and mixed-income development.

Community Land Trusts (CLTs) ensure long-term affordability for renters, low-income homeowners, and nonprofits by removing real estate from the market and keeping

it centered on community-based organizations. Housing Trust Funds create a cycle of revenue stream by diverting funds to affordable housing. (Rose 2002). These tools, in combination with Community Development Block Grants (CDBG) and federal money can help maintain and create new affordable housing opportunities for households.

## Conclusion

Developers today must be socially conscious when redeveloping inhabited cities. The previously racially exclusive redevelopment practices have received much more publicity in recent years. We need more advocacy planners who will give more power to the previously disenfranchised groups that have been subject to any and every whim of profit-driven planners and developers. I believe that the lack of minorities from the planning field has left no voice for the communities selected to be redeveloped. Heightened awareness about socially disruptive planning practices combined with the absence of any community voices has warranted more socially conscious redevelopment patterns that help to expand existing blighted cities without replacing the communities who are already there. While we as planners, and civil human beings, would like to believe that we live in a nation free of social prejudices and racism, I must ask why our current planning practices continue to disrupt communities of only non-whites? We must examine the corrupt and racist planning practices that have already left poor minorities alone and isolated in inner-cities. It is time to create a system that is fair and just for all especially when addressing one of humankind's most basic needs: shelter.

The construction of athletic stadiums has a clear, documented effect on the community. Athletic stadiums are most often constructed in low-income majority-minority areas because of the low cost of property. Over time, the neighborhood changes to house mostly upper-class, single, young white professionals. In addition, the housing stock changes from mostly single-family homes to single-occupancy homes. The promises of developers most often prove to be empty, and any gains for the community are felt not by the community they were promised to, but by the community that replaces them.

Poor residents are disproportionately affected by the construction of new athletic stadiums; inequitable and uneven planning practices have a negative impact on low-income communities of color. In addition, having your city and developers invest money into your own community for future residents rather than current ones can also impact a community's self-esteem and sense of value. Future developers of athletic stadiums should work directly with communities to combat the mass displacement of communities. When developers work together to ensure equitable redevelopment, long-standing communities can stay intact, there will be more mixed-income housing, and all can benefit from reinvestment.

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