To: Hon. Andrea Stewart-Cousins, New York State Senate Majority Leader
From: James F. Connolly, and Christopher Keller, MPA Candidates at Syracuse University
Date: 05/06/2022
Subject: Public Financing for Buffalo Bills Football Stadium

Executive Summary

If New York State and Erie County are to justify the $850 million public subsidy for the $1.4 billion Buffalo Bills Stadium, we recommend they commission a contingent valuation method survey (CVM) for an alternate evaluation of the impact of the Buffalo Bills stadium. Though the Bills have been a noteworthy fixture of professional football since the American Football League's inception in 1960, the relative economic decline of WNY has become a liability for the team and the NFL in general. The dynamics of NFL revenue sharing, as well as the Bills' local revenue weakness, has led to mounting speculation that the Buffalo Bills will change locations. Though Governor Hochul and the Bills have come to an agreement for a $1.4 billion stadium with $850 million in public funding, we advise that further study be undertaken before the stadium agreement is adopted. The economic literature surrounding public financing of stadiums casts great doubt on the notion that the Buffalo Bills stadium will provide significant economic benefits to the region. Any benefit to the region would likely come from the enhanced civic pride and visibility that comes with hosting an NFL team.

Economics of the NFL

Though previously considered a tax-exempt 501(c) organization, the National Football League is classified as a trade-association, with its leadership and organizational structure determined by its 32 franchises. NFL teams classify their revenue sources as either national (revenue earned collectively through media contracts and merchandising) or local (revenue earned by franchises through stadium ticket sales and local sponsorships) (Eckstein 2022). Sources with inside knowledge estimate that the NFL's TV deals currently total over $100 billion through 2033 (Eckstein 2022). In FY 2021, the NFL earned $9.8 billion in national revenue, distributed equally among the franchises (roughly $309 million each) (Eckstein 2022). As wide disparities in competitiveness exist between NFL teams, NFL teams that sell the most jerseys and draw the biggest audiences to prime-time television inevitably lose out in this revenue sharing agreement. Consider the revenue gap between the Dallas Cowboys and the Buffalo Bills, with the Cowboys earning over $800 million in revenue, compared to the Bills' paltry $340 million. Of the Bills operating revenue, only 9.1% ($31 million) comes from the team itself, compared to 61.4% for the Cowboys ($491 million) (Sports Money 2021). See Figure 3 for more comparisons between NFL teams. Given this revenue model, it is in the interest of the NFL that the Bills relocate to a larger market to increase the size of the pie that all thirty-two teams divide equally.

Economics of the Buffalo Bills

In addition to the national revenue conversation, the weak economic fundamentals of the Buffalo-Niagara region incentivize the Buffalo Bills to relocate. The Buffalo-Niagara region is the second smallest NFL market, as well as one of the poorest (US Census Bureau 2020). Indeed, in 2020, the Buffalo Bills were the lowest valued NFL team and had 8th highest operating loss in the league (despite being an established and competitive franchise) (Sports Money 2021). To summarize, the Buffalo Bills are one of the least valuable and least profitable franchises in the NFL, located in a metropolitan area lagging the nation's economic and population growth rates. The Buffalo Bills only earned $31 million in local revenue in FY 2021, one of the lowest amounts in the league. The Green Bay Packers, a comparable small-market team, made over $70 million in local revenue (Eckstein 2022). Money is increasingly made by NFL teams through the sale of luxury box seats and suites, rather than raw ticket sales. A new stadium would allow the Bills to sell more lucrative box seats and suites, while having more desirable stadium naming rights (Koba 2012). Pegula Sports and Entertainment, as well as the NFL writ large, have an incentive to move the Buffalo Bills if substantial public funding is not made available for a new stadium. As New York State considers the Buffalo Bills an asset, the State has attempted to retain the Bills through public funding for a new stadium in the FY 2023 NYS Budget.

Agreement

Perhaps sensing the ability of the Buffalo Bills to relocate, Governor Hochul has reached an agreement with the Buffalo Bills to include funding for a $1.4 billon stadium in the FY 2023 NYS Budget (Parker 2022). In exchange for a thirty-year lease agreement, New York State would provide $600 million in state funds for the construction of a new stadium while an additional $250 million would be provided by Erie County. The NFL would provide $200 million through a loan program designed to retain franchises, while the Bills would contribute $350 million (Parker 2022). The Buffalo Bills and NFL would be responsible for any cost over-runs. Cumulatively, the public share of the cost of the new stadium is 60.7%, far lower than the fully publicly financed Highmark Stadium. See Figure 1 for a graphical breakdown of the funding streams for the Buffalo Bills new stadium.

Though the exact details of the lease have yet to be finalized, Governor Hochul announced that the 43% state portion of the spending would be paid for through "new and existing" appropriations in the capital budget. Of note, $418 million of the State's $600 million commitment will come from a settlement with the Seneca Nation (Cazentre 2022). County Executive Poloncarz has yet to indicate how Erie County will finance its 17.7% share but did indicate the borrowing through the issuance of municipal bonds would be likely. Erie County also may be able to recoup some of the $250 million through the sale of licenses to prospective season ticket owners (Hackford 2022). In her announcement of the deal, Governor Hochul cited the economic importance of the Buffalo Bills to Western NY, asserting that a new stadium would lead to regional economic development of up to $385 million yearly and public revenues of up to $27 million (see Figure 5). Governor Hochul repeatedly cited an analysis ("the report") conducted by Empire State Development (ESD) and AECOM International Development (AECOM) that details the mutual benefits to the State of New York and the Buffalo Bills (Preliminary Buffalo Bills Analysis 2021).

The AECOM Report

From the Buffalo Bills perspective, the AECOM report claims that the Buffalo Bills would be better able to garner local revenue through "new premium seating and sponsorship opportunities." That aligns with the general goal of NFL teams to maximize local revenue (as national revenue is divided equally). From the State's perspective, the report asserts that the Bills would generate $27 million yearly in state/local taxes and direct payments (Figure 5). For reference, the Buffalo Bills annual operating revenue is roughly $340 million (Sports Money 2021). AECOM and ESD calculate these figures through a process that surveys fans on their reasons for attending Bills games, typical spending habits, and spending at Buffalo Bills events. This methodology assures that the cited state/local taxes and direct payments would not exist if the Buffalo Bills were to move from the Buffalo-Niagara region (eliminating the "substitution effect"). Of the $27 million, New York State would collect $22.3 million (mostly through sales taxes, gasoline taxes, income tax, and rental car taxes), compared to Erie County's $4 million (sales tax, stadium rent, and hotel tax), and the City of Buffalo's $.33 million (sales tax). Notably, the report estimates that NY State would collect $19.5 million of its total $22.3 million (roughly 87%) through personal income taxes on the Buffalo Bills' payroll. Visiting players would not be charged income tax for any games they play in Buffalo (Preliminary Buffalo Bills Analysis 2021).

Comparative Case Studies

Several NFL teams (notably the Los Angeles Chargers and Los Angeles Rams) have recently built NFL stadiums without public money. Others, including the Minnesota Vikings, and the Las Vegas Raiders have recently built stadiums with significant public financing. The following case studies illustrate the uneven playing field facing cities hoping to attract or retain an NFL team. Through a summary of diverse American cities, a casual observer can see the perils faced by municipalities that decline to offer tax-payer dollars for NFL stadiums, as well as the potential rewards reaped by cities that do. See Figure 4 for a brief overview of the relative levels of public-private spending for each stadium.

The Los Angeles Chargers and Los Angeles Rams both play in SoFi Stadium, a stadium financed entirely by the owner of the Chargers (Stan Kroenke). Both franchises also recently relocated to Los Angeles following stints in San Diego and St. Louis, respectively. The St. Louis Rams moved to Los Angeles despite significant public financing for a stadium on the table, with the sheer market size of LA driving the decision (Fenno et al 2020). On the other hand, the Chargers deserted San Diego, despite its size and affluence, after voters rejected a publicly financed stadium. Due to NFL rules about moving markets, the Chargers had the opportunity to effectively rent SoFi Stadium from the Rams (Belson 2016). While the Charger's departure from San Diego seemed like a mutual breakup, the Rams settled with the City of St. Louis for roughly $800 million due to the long-term costs incurred by St. Louis on the Rams behalf (Associated Press 2021).

Las Vegas and Minnesota offered their respective NFL teams' significant financial packages to play in their cities. Las Vegas lured the Oakland Raiders with a $1.9 billion stadium,

$750 million of which was doled out by Clark County taxpayers. Clark County aims to pay debt service on bonds necessary to build the stadium through a hotel room tax. (NFL 2016). Oakland had attempted to retain the Raiders through a $1.3 billion stadium with $350 million in public finance (Beers 2016). Unfortunately, Las Vegas has experienced break-neck population and economic growth, while Oakland has relatively stagnated. Like St. Louis, Oakland sued its former tenant, alleging that it was left economically on the hook for the team's decision (Bonsignore 2021). On the other hand, the Minnesota Vikings financed the $1.06 billion US Bank Stadium with $498 million of public money. Minnesota utilized a variety of financing tools, notably gambling fees, tobacco taxes, and increased corporate taxation (Malanga 2018).

After examining the case studies, two things are apparent: (1) Buffalo has more in common with Oakland/St. Louis/Minnesota than it does with Los Angeles/Las Vegas, and (2) NFL teams, even with storied fan bases, will move from smaller markets to bigger markets. Though offering public funds for stadium construction is not a sure thing to keep a team (see Oakland and St. Louis), it is apparent that only massive local markets will generate enough revenue to attract an NFL team without it. The public share of the new Buffalo Bills Stadium (43%) is significantly more than the proposals offered by Las Vegas (39.5%), Oakland (27%), and St. Louis (roughly 15%) but less than Minnesota (47%). Ultimately, to say nothing of the economic consequences of their host cities, NFL teams will move if offered a better deal. The New York State Legislature must determine if New York's deal with the Buffalo Bills makes economic sense for the Buffalo-Niagara region and the state as a whole.

Economic Development Analysis

Fundamentally, stadiums are built for the stated goal of economic development. According to Swindell and Rosentraub, "Mayors and governors argue that teams and the facilities they use (1) generate economic growth through high levels of new spending in a region, (2) create a large number of jobs, (3) revitalize declining central business districts, and (4) change land-use patterns" (Swindell et al 1998). Indeed, as mentioned earlier, Governor Hochul asserted that a new Bills stadium would create thousands of jobs, create positive externalities, and raise the tax revenue to pay for itself. But does the economic literature bear out these claims?

As many local policymakers in America's cities run for office on a platform of economic development and jobs, it is unsurprising that teams and stadiums are frequently touted as prospective employers. In a simplified economic model, jobs created by economic development projects can be classified as "local" or "export" jobs (Yinger). Local jobs are jobs that serve the local community such as grocery stores, movie theaters etc. Exporting jobs create goods and services sold nationally, or potentially internationally in the case of Buffalo. Export jobs in Buffalo-Niagara could be thought of as jobs like chemical manufacturing, software development, or financial services. Economists argue that the location of firms can have a significant effect on the economy depending on the "multiplier effect" of the job. That is, some firms and the jobs they create have significant positive externalities on the economy. For example, if a factory opens in an otherwise sleepy town, a restaurant may open to feed the factory's workers at lunch. If the factory were not there, there would be no workers and consequently no restaurant. On the other side of the spectrum, some jobs "created" by economic development programs are simply consequences of inelastic spending that would happen with or without the project in question. For example, a subsidized theme park may simply draw dollars away from an extant water park. Most firms, including football teams, create some jobs and siphon some dollars from other firms through the substitution effect.

Economic Development in Buffalo

In the case of Buffalo, Gov. Hochul argues that the building of a new Buffalo Bills stadium will provide a litany of positive economic externalities, especially job creation. For example, Hochul argues that significant numbers of Canadians cross the border to attend every Bills home game. These people consume a variety of goods provided by local businesses in hospitality, food, and entertainment markets. The stadium turns local jobs into export jobs by encouraging international travelers to engage with the domestic market. However, the benefits created by the stadium will be limited to time periods around events at the stadium such as games or concerts, Since the NFL season is only 17 games long, the Bills will only host 8-9 games a season, limiting the effects of positive economic externalities to fewer than a dozen weekends a year. In addition, through an analysis of several sporting events, Coates and Humphrey's cast doubt on the notion that significant sporting events increase hotel occupancy (2003). Additionally, it is likely that any associated jobs are simply substitutes for other local jobs that would exist anyways without the stadium. After all, despite the small contingent of Canadian fans, most of the people that engage with the Bills stadium will be residents who may engage with other local businesses or hospitality services in lieu of a stadium. To boost the economy, Erie County and New York State need to generate export jobs; a stadium does not effectively generate export jobs in the same way as alternative public investments. Besides the dubious job creation potential of stadiums, there is also myriad evidence that stadium construction harms the economy of communities in which stadiums are built.

Potential Negative Effects of Stadiums

Stadiums may do more economic harm than good in the communities where they are built. In their exploration of the impact of stadiums on local per capita income levels, Coates and Humphreys find that the construction of a new baseball stadium decreases the per capita income of a city by around $10, while the construction of a new basketball arena decreases the per capita income of a city by $73 (Coates et al 1999). Coates and Humphrey's posit that the most likely reason for the negative economic impact of professional sports is that professional sports tend to have a lower multiplier effect. Because much of the spending on professional sports is thought to be due to the substitution effect, where household spending is transferred from local firms with higher multipliers to sports teams with lower multipliers. Coates and Humphreys theorize that money earned by professional sports teams tends not to circulate within the local economy (Coates et al 2003). Much of the money spent by the franchise goes towards player salaries, many of whom do not live in the city where they play. As players/managers tend to be wealthier, their marginal propensity to spend is also lower than owners of other small recreational facilities even if they do stay in Buffalo. In addition to steering money away from other more productive private sector activities, money used for stadiums may steer public dollars away from education, public safety, or infrastructure. The decreased investment in these public goods will lead to lower worker productivity and lower wages (Coates et al 1999).

Another interesting variable is that other stadium types, like baseball and basketball stadiums, host significantly more events than football stadiums. Baseball teams play 162 games a year while basketball teams play 82 games a year. That means that at minimum these other stadiums are open to fans for 81-41 days a year, respectively. In addition, basketball stadiums are typically indoors and thus can also host to hockey teams, concerts, charity galas and other types of events that could generate economic development for the host city. The multi-use nature of many other professional stadiums is compounded by the tendency to place them in urban centers. On the other hand, many football stadiums (though not exclusively) are built in low-density suburbs that are not conducive to economic development through externalities. For example, in Buffalo, plans to build the new Buffalo Bills Stadium downtown were passed over to build in suburban Orchard Park, NY. Yet, despite the massive hypothetical potential for economic engagement or development, both baseball and basketball stadiums have a negative impact upon per capita income. A football stadium that hosts far fewer events is liable to be even more destructive to a local community's economy as it soaks up consumer spending from other forms of recreation and fails to create plausible positive economic externalities.

Civic Pride as Alternative Economic Analysis

Perhaps the strongest argument in favor of the new Bills Stadium agreement is that the presence of sports teams in each community generates a large amount of civic pride that functions as a public good. It is hypothetically possible that the size of the public good generated by the presence of a sports team is large enough to justify the public financing of a massive new stadium that guarantees the long-term presence of a sports team. However, the literature makes this possibility unlikely. By using contingent valuation method (CVM) surveys, teams of experts have explored the impact of sports teams on civic pride in a variety of communities as it relates to stadium deals. CVM surveys explore an alternate path to the justification of building stadiums, focusing on how members of the community view professional sports teams in their area. CVM surveys measure the value of professional sports along "use" and "non-use" parameters. "Use" questions refer to behavior and spending undertaken by respondents who directly attend games, buy merchandise, or watch games on television. "Non-use" refers to respondents' perception of the effect of the sports team on their own lives, as well as in the community, as a public good (Johnson et al 2000). These questions center on whether respondents read about the team in question, discuss the team in question, or see economic development related to the team. Through these questions, the survey attempts to ascertain whether support for a new stadium is correlated with individuals' private desires to attend a game, or because of a genuine belief that a new stadium would increase economic activity and/or the status of the city (a positive externality).

Some recent CVM surveys related to the construction of sports stadiums are detailed by Johnson, Groothuis, and Whitehead. Johnson et al found that despite the massive civic pride felt by the residents of Pittsburgh because of the Pittsburgh Penguins, the value of the public good provided by the presence of the Penguins could not justify the cost of constructing the new stadium (Johnson et al 2003). This is a notable finding as the Penguins are one of the NHL's premier franchises, with a notoriously rabid fan base and several championships. Similarly, Johnson and Whitehead also explored the construction of new stadiums for a minor league baseball team and the University of Kentucky (UK) basketball team. For the UK basketball team, they found that the value of the public good was far outweighed by the cost of stadium construction (Johnson et al 2000). Only 36.6 % of respondents wished to pay higher taxes to finance a new stadium, with 33% of respondents being individuals who planned to attend games regardless of a new stadium (Johnson et al 2000). Only 26% of respondents responded affirmatively to non-use questions focusing on whether a new UK stadium would increase civic pride in Kentucky or increase their consumption of media regarding UK basketball (Johnson et al 2000). However, it is possible that the Buffalo Bills function as a unique case study regarding the value of civic pride as a public good.

Civic Pride in Buffalo

Fan engagement with the Buffalo Bills is so extreme that a new CVM study of Western New York residents' willingness to pay for a new stadium may show that the public good provided by the continued presence of the Buffalo Bills may outweigh the public cost of new stadium construction. There are a few signs that indicate that the Buffalo Bills may be a unique case study. For example, while the Bills are the second-smallest TV market in the NFL, they generated a local television rating of 47.16 during the 2021 season, the highest in the league by far. For comparison, the Cincinnati Bengals generated a local television rating of 28.86 while the Los Angeles Rams generated a rating of 10.52. This indicates that a high percentage of households consume media related to the Buffalo Bills. In addition, Bills ticket sales remain among the highest in the league by number or percentage of tickets sold, regardless of how the team is performing on the field. "Between 2015-19, when the Bills had a 40-40 record and two playoff berths, they sold 89% of Highmark's seating capacity. In 2021, the team sold 60,000 season tickets – their entire allotment" (O'Shei 2022). Thus, many Buffalo Bills fans may answer in the affirmatively on "use" questions of the CVM survey, potentially even more than in Kentucky.

The trickier part of the CVM survey for the Buffalo Bills lies in the "non-use" section of the survey. The construction of a new Buffalo Bills stadium would likely need to garner increased interest in the team (potentially through increased competitiveness) to increase media coverage and its prominence among residents of the Buffalo-Niagara area. For example, looking back at the UK example, the construction of a new basketball arena for UK was estimated to add between $300,000 and $600,000 through a public good to the Lexington area. Through time-value of money calculations, the authors concluded that the public good produced by the UK's proposed new stadium would be only between $1 and $2 million. Given the astronomical cost of the Bills new stadium, a CVM survey would have to capture radically higher numbers for "non-use" engagement than in Kentucky. For example, 72 % of Lexingon residents admitted to reading about Kentucky basketball weekly. The Buffalo Bills would have to top that enthusiasm gap immensely to justify the County and State's spending on the new stadium.

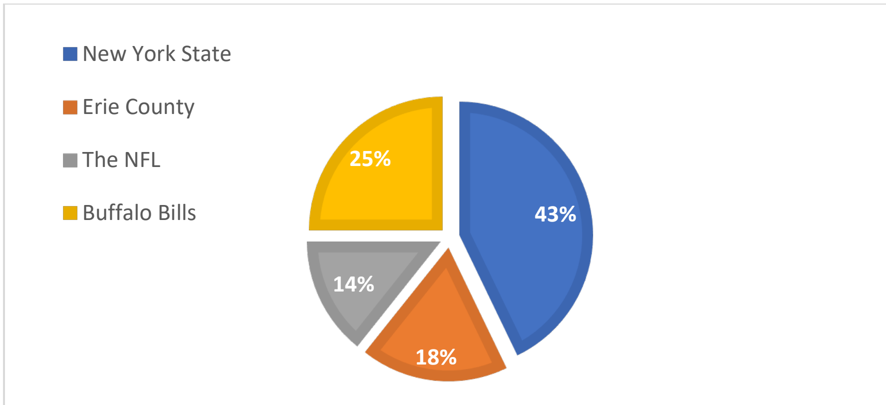
Recommendations

Our recommendation is that New York State commission a CVM survey to gauge Western New York's willingness to pay for a stadium. This information will help policymakers determine whether the civic pride public good generated by the Buffalo Bills' continued presence in Buffalo outweighs the cost of stadium construction. If the survey reveals that Western New York derives a greater benefit from the continued presence of the Bills than the cost to the local community of building the stadium, then there is an argument to be made that the deal is acceptable. Of course, the state's contribution also includes funding generated by taxing downstate residents which leads to a separate consideration of whether New York City derives any benefit from the construction at all. It is important to note however, that New York City and New York State have previously funded/built other professional sports venues (see Figure 2).

In addition, one should note that New York State will not be issuing bonds to pay for the project, as it did to finance Yankee Stadium in 2009. New York State will pay through "new and existing capital allocations," no doubt augmented by the $12.75 billion it received through the American Rescue Plan (NYS Initial Plan 2021). Erie County has yet to finalize its portion of the financing but will likely be through some combination of bond issuance, licensing fees, and capital funding. Both the State and Erie County have significant surpluses due to the American Rescue Plan (Hackford 2022). These non-recurring surpluses may supplement the case for the Bills stadium because it will not be seen as a strain on a tight budget, coming at the expense of social services or public safety. If the CVM survey does not reveal a large enough willingness to pay, then the state should consider renegotiating the deal.

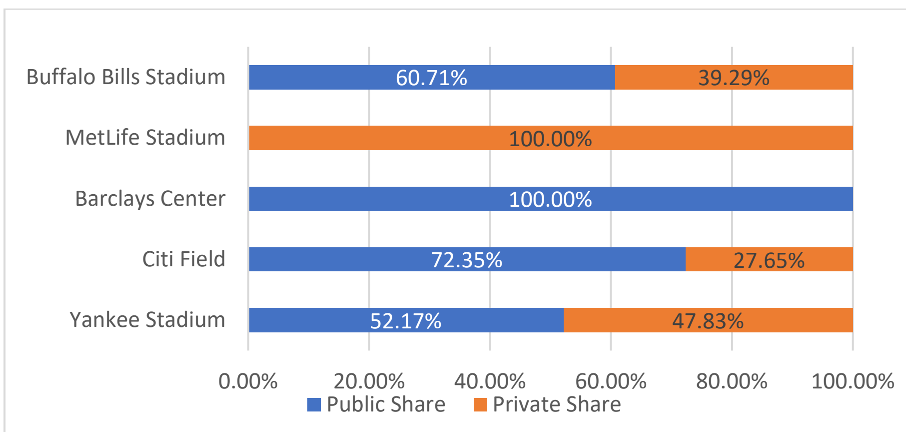
Figures

Figure 1: Buffalo Bills Stadium Financing



Source: Parker, Brian. "Governor Hochul Announces Joint Public-Private Agreement to Ensure the Buffalo Bills Remain in New York State." Governor Kathy Hochul. Accessed April 3, 2022. https://www.governor.ny.gov/news/governor-hochul-announces-joint-public-private-agreement-ensure-buffalo-bills-remain-new-york.

Figure 2: Recent NY Sporting Facilities



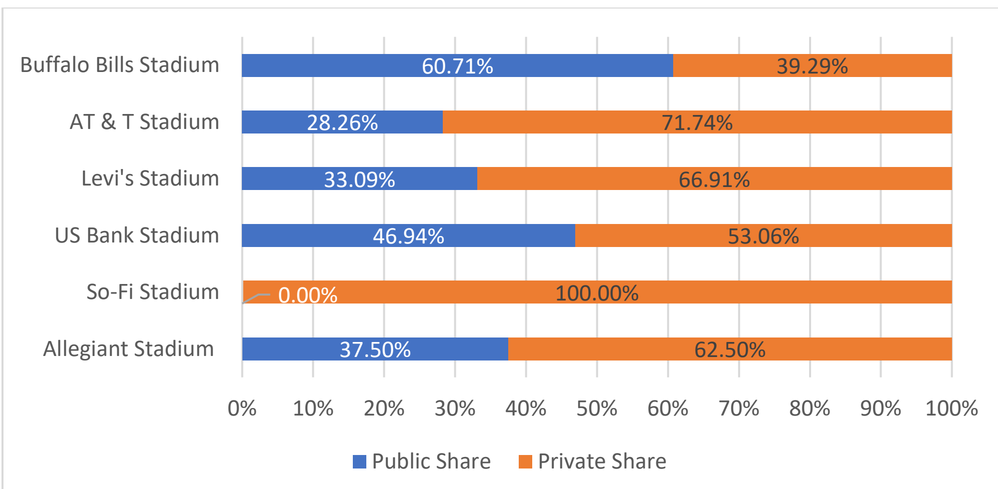
Source: Sharp, Ryan. 2019. "Who Paid for Your Stadium?" Global Sports Matters. Last Modified May 22, 2019. https://globalsportmatters.com/business/2019/05/22/who-paid-for-your-stadium/

Figure 3: Comparative NFL Team Revenue

NFL Team Revenues			
Team	Local Revenue	National Revenue	Total Revenue
Buffalo Bills	9.12%	90.88%	$340,000,000.00
Cincinnati Bengals	11.21%	88.79%	$348,000,000.00
Detroit Lions	6.36%	93.64%	$330,000,000.00
Cleveland Browns	17.60%	82.40%	$375,000,000.00
Minnesota Vikings	15.34%	84.66%	$365,000,000.00
Dallas Cowboys	61.38%	38.63%	$800,000,000.00
New England Patriots	35.36%	64.64%	$478,000,000.00
Los Angeles Rams	26.78%	73.22%	$422,000,000.00

Source: "Sports Money: 2021 NFL Valuations." Forbes. Forbes Magazine. Last modified April 3, 2022. https://www.forbes.com/nfl-valuations/list/#tab:overall.

Figure 4: Recent NFL Stadium Financing



Source: "Sports Money: 2021 NFL Valuations." Forbes. Forbes Magazine. Last modified April 3, 2022. https://www.forbes.com/nfl-valuations/list/#tab:overall.

Figure 5: AECOM Revenue Analysis

	City of Buffalo	Erie County	State of New York	Total
Revenue Streams				
Sales and Use (a)	$328,000	$2,534,000	$2,274,000	**$5,136,000**
Hotel Occupancy		609,000		**609,000**
Team Rent		862,000		**862,000**
Gasoline			535,000	**535,000**
Personal Income			19,482,000	**19,482,000**
Rental Car			51,000	**51,000**
Total	**$328,000**	**$4,005,000**	**$22,342,000**	**$26,675,000**

Source: 2021. Preliminary Buffalo Bills Stadium Analysis. Chicago, IL: AECOM. https://www.governor.ny.gov/news/governor-hochul-announces-joint-public-private-agreement-ensure-buffalo-bills-remain-new-york.

Annotated References

Beers, Brian. 2016. “Oakland Approves Preliminary $1.3 Billion Raiders Stadium Plan to Head off Sin City Move.” CNBC. December 14, 2016. https://www.cnbc.com/2016/12/14/oakland-approves-new-raiders-stadium-plan.html.

This is a web article published by CNBC that details a public vote by the City of Oakland City Council. CNBC, an affiliate of NBC, is a member of the legacy media and can be trusted to report publicly verifiable legislative information, such as a vote. We will use this source to inform our discussion of comparative case studies of public financing for NFL stadiums.

Belson, Ken. 2016. “San Diego Voters Reject Funding of New Chargers Stadium.” The New York Times. Last modified November 9, 2016. https://www.nytimes.com/2016/11/10/sports/football/san-diego-rejects-chargers-stadium.html.

We utilize this source to provide a comparison case to the Buffalo Bills stadium proposal. The article also delves into some of the economics and decision-making facing municipalities with NFL teams (or aspirations). The New York Times is one of the papers of record (alongside WSJ, WP, and LA Times).

Bonsignore, Vincent. 2021. “Circuit Court Upholds Dismissal of Oakland Lawsuit against Raiders.” *Las Vegas Review-Journal,* December 3, 2021. https://www.reviewjournal.com/sports/raiders/circuit-court- upholds-dismissal-of-oakland-lawsuit-against-raiders-2489751/.

We utilize this source to provide information on comparative case studies of publicly financed NFL stadiums and their consequences. The Las Vegas Review-Journal appears to be the paper of record in Las Vegas and of generally good repute. We don’t use this source for its authors analysis, solely the basic details of the lawsuit in question.

Breech, John. 2021. “Bills Future in Buffalo Uncertain After 2022: Team Won't Renew Lease in City Without New Stadium Deal in Place.” *CBS News*, September 3, 2021. https://www.cbssports.com/nfl/news/bills-future-in-buffalo-uncertain-after-2022-team-wont-renew-lease-in-city-without-new-stadium-deal-in-place/.

This is a news article written for the NFL section of CBS’ national website. The article summarizes the comments of an executive for the Buffalo Bills in a recent interview. In addition, it contextualizes his comments with a brief discussion about public financing for NFL stadiums.

Cazentre, Don. 2022. “Seneca Nation Blasts Hochul’s ‘Hostile’ Plan to Pay for Buffalo Bills Stadium with Casino Money.” *Syracuse.com*, March 30th, 2022. https://www.syracuse.com/buffalo-bills/2022/03/seneca-nation-blasts-hochuls-hostile-plan-to-pay-for-buffalo-bills-stadium-with-casino-money.html

This is a news article from Syracuse.com, also known as/formerly known as the Post-Standard. Syracuse.com is considered the news paper of record in Central New York and has relatively unbiased coverage. We use this article for details about Governor Hochul's use of money from the Seneca Nation for the Buffalo Bills Stadium.

Coates, Dennis, and Brad R. Humphreys. "The Growth Effects of Sport Franchises, Stadia, and Arenas." *Journal of Policy Analysis and Management* 18, no. 4 (1999): 601–24. http://www.jstor.org/stable/3325757.

We use this article to cite various econometric estimations of the impact of professional sports on local economies. This is an academic journal article written in the Journal of Policy Analysis and Management (JPAM). JPAM is published by Wiley and is highly reputable in the fields of public policy and public administration.

Coates, Dennis & Humphreys, Brad. (2003). "Professional Sports Facilities, Franchises and Urban Economic Development." *Public Finance and Management* 3. https://www.researchgate.net/publication/23693796_Professional_Sports_Facilities_Franchises_and_Urban_Economic_Development

We use this journal article to explain some of the micro-economic rationale behind the counter-intuitive finding that professional sports may have a negative effect on the economy. Public Finance and Management is a Gale-Cengage academic product and is peer-reviewed.

Eckstein, Jakob. 2022. "How the NFL Makes Money: TV Is King, Streaming and Gambling on Horizon." Investopedia. Last modified January 30, 2022. https://www.investopedia.com/articles/personal-finance/062515/how-nfl-makes-money.asp#toc-what-nfl-team-is-worth-the-smallest-amount-of-money.

This article, written on the financial information website Investopedia, is part of a series of "company profiles." The article explains how the NFL makes money at the local and national levels. Investopedia is a well-respected website, known for analysis of business and finance. The article is well-sourced, making use of many news articles, as well as analysis of the Green Bay Packers financial disclosures. As a non-profit entity, the only one in the NFL, the Packers are required to disclose many of their business practices, as well as financial information.

Fenno, Nathan, and Sam Farmer. 2020. "How Stan Kroenke and NFL Turned SOFI Stadium into $5-Billion Reality." Los Angeles Times. Last modified September 4, 2020. https://www.latimes.com/sports/story/2020-09-04/stan-kroenke-nfl-owners-coronavirus-workers-sofi-stadium-rams-chargers.

We utilize this article to provide information on the public financing of the LA Chargers and LA Rams current stadium. So-Fi Stadium provides a contemporary example to compare the Bills deal to, as well as additional information about the economics of the NFL. The LA Times is one of the most respected newspapers in the country and this story is heavily sourced.

Hackford, Rob. 2022. "Legislature Peppers Buffalo Bills, Poloncarz on Bills Stadium Deal." WGRZ. Last modified April 29, 2022. https://www.wgrz.com/article/sports/nfl/future-of-the-bills/erie-county-legislators- pepper-buffalo-bills-executive-poloncarz-with-questions-about-stadium-deal/71-6cece122-488a-4ed9 9e2b-5398cb3ee38a

We utilize this source to provide detail on the funding sources being pursued by the Erie County Legislature. The article relies on transcripts/live observation of a "working session" of the Erie County Legislature. There is no opinion projected by the Buffalo-based TV station (WGRZ), an NBC affiliate.

Johnson, Bruce K., Peter A. Groothuis, and John C. Whitehead. "The Value of Public Goods Generated by a Major League Sports Team: The CVM Approach." Journal of Sports Economics 2, no. 1 (February 2001): 6–21. https://doi.org/10.1177/152700250100200102.

We utilize this article to introduce the concept of CVM, an alternative survey-based economic assessment of consumer spending. This piece was peer-reviewed and published in the Journal of Sports Economics, a Sage publication.

Johnson, Bruce K., and John C. Whitehead (2000) Value of Public Goods from Sport Stadiums: The CVM Approach, Contemporary Economic Policy 18, no. 1: 48-58. (Jan 2000) Published by the Western Economic Association (ISSN:1074-3529).

We utilize this article to discuss CVM further, as well as to describe examples of how economists measure the value of public goods created by sports teams. This piece was peer-reviewed and published in Contemporary Economic Policy, a Wiley-Blackwell publication.

Koba, Mark. 2012. "Luxury Suites Rule in Professional Sports Revenue." CNBC, November 28, 2012. https://www.cnbc.com/id/45960973

We utilize this article to explain the economics behind NFL stadiums, specifically the importance of luxury or box seats. This helps us explain why a new NFL stadium for the Bills would be advantageous because it would allow them to build more luxury seats. This news article is from CNBC, the respected business news arm of the legacy media conglomerate NBC.

Malanga, Steven. 2018. "Minnesota, Plundered by Vikings." City Journal, January 29, 2018. https://www.city-journal.org/html/minnesota-plundered-vikings-15693.html.

We utilize this article to provide information and analysis on the NFL stadium deal completed between the Minnesota Vikings and the State of Minnesota. City Journal is an admittedly conservative source (though not strictly partisan), long affiliated with the Manhattan Institute. That said, its analysis is robust and cannot be discounted simply because of the papers conservative tilt.

"NYS Initial Plan for American Rescue Plan State and Local Fiscal Recovery Funds." Division of the Budget. New York State. 2021. https://www.budget.ny.gov/pubs/press/2021/slfrf/slfrf-recovery-plan.html.

We use this source to help understand the amount of American Rescue Plan funds available to New York State for FY 2022-23. This comes directly from the Division of the Budget, a highly respected State agency.

O'Shei, Tim. 2022. "Why the Bills Can Dominate the Buffalo Market, but Not the NFL." KTVZ, February 14, 2022. https://ktvz.com/cnn-regional/2022/02/14/why-the-bills-can-dominate-the-buffalo-market-but-not-the-nfl/

We utilize this article for some very basic facts on the ratings the Bills receive on television. KTVZ is an affiliate of NBC media, a generally reliable source.

Sharp, Ryan. 2019. "Who Paid for Your Stadium?" Global Sports Matters. Last Modified May 22, 2019. https://globalsportmatters.com/business/2019/05/22/who-paid-for-your-stadium/

We utilize this article primarily for our Figures section. It provides comprehensive data on the financing of every major professional sports stadium/arena in North America. Global Sports Matters is a well-respected website that provides content related to the business and logistics of professional sports.

"Sports Money: 2021 NFL Valuations." Forbes. Forbes Magazine. Last modified April 3, 2022. https://www.forbes.com/nfl-valuations/list/#tab:overall.

This web page is a ranking of each NFL team by revenue, player expenses, gate receipts, revenue per fan, and several other metrics. Forbes Magazine is a respected name in business, finance, and economic commentary.

"Stadium Plan to Lure Raiders to Las Vegas Passes Vote." NFL.com. NFL, September 15, 2016. https://www.nfl.com/news/stadium-plan-to-lure-raiders-to-las-vegas- passes-vote-0ap3000000703280.

This is a news article released by the NFL following an internal approval of Las Vegas' plan to provide public financing to the then Oakland Raiders. We don't use this source for its own analysis, rather just as a citation of the details of the incentives offered by Las Vegas. NFL.com is hardly an unbiased source but can be trusted to report matters of public record, such as public offers of financing and internal decisions.

Swindell, David, and Mark S. Rosentraub. 1998. "Who Benefits from the Presence of Professional Sports Teams? the Implications for Public Funding of Stadiums and Arenas." Public Administration Review 58, no. 1 (1998): 11. https://doi.org/10.2307/976884.

We utilize this article to explore the distributional aspects of professional sports teams on the local economy. In addition, this article is useful because it gives a concise summary of the arguments for and against professional sports teams as economic development. It was published

in Public Administration Review, a Wiley publication, and the official journal for the American Society for Public Administration.

Parker, Brian. "Governor Hochul Announces Joint Public-Private Agreement to Ensure the Buffalo Bills Remain in New York State." Governor Kathy Hochul. Accessed April 3, 2022. https://www.governor.ny.gov/news/governor-hochul-announces-joint-public-private-agreement-ensure-buffalo-bills-remain-new-york.

This a press release issued by the office of New York State Governor Kathy Hochul. We utilize this source for details surrounding the Buffalo Bills prospective stadium deal, as well as preliminary data on economic development. We do examine the underlying reports cited in this press release and do not necessarily take these numbers on face value.

2021. *Preliminary Buffalo Bills Stadium Analysis.* Chicago, IL: AECOM. https://www.governor.ny.gov/news/governor-hochul-announces-joint-public-private-agreement-ensure-buffalo-bills-remain-new-york.

This is a report prepared by AECOM, a respected multi-national engineering consultancy. The report appears to have been done independently but was commissioned by Empire State Development (ESD). ESD is the economic development arm of New York State government, thus may have a vested interest in seeing a favorable report. AECOM does recommend any particular plan, however. We use this report to try to fit the particular economic environment in Buffalo to the broader economic framework surrounding economic development.

"U.S. Census Bureau Quickfacts: San Diego County, California." 2020. QuickFacts. US Census Bureau. https://www.census.gov/quickfacts/fact/table/sandiegocountycalifornia/PST045221.

This web page is a user interface designed by the US Census Bureau to aid individuals in querying information about geographic locations. We used this tool to compare the demographics of various NFL markets. The US Census Bureau is a trusted source of demographic and economic statistics.

Yinger, John. Lectures 15-16. https://joyinger.expressions.syr.edu/pai-735-ecn-635-class-slides-spring-2022/

We utilize this source to define some formal concepts necessary for an economic analysis of the Buffalo Bills Stadium deal. Though we have details from New York State and their consultants, these lectures (and Professor Yinger's teaching in-class) allow us to critically evaluate public information. Professor Yinger is a Trustee Professor in the Public Administration and International Affairs Department at the Maxwell School at Syracuse University.