

## TEACHER EDITION

*Page One Economics*® is an informative accessible essay on timely economic issues. The Teacher Edition provides the essay; student questions with answers; and additional lesson ideas for classroom, extra credit, or make-up assignments.

The Student Edition includes the essay and student questions;  
[https://research.stlouisfed.org/publications/page1-econ/2017-05-01/the-economics-of-subsidizing-sports-stadiums\\_SE.pdf](https://research.stlouisfed.org/publications/page1-econ/2017-05-01/the-economics-of-subsidizing-sports-stadiums_SE.pdf).

National Common Core State Standards (see pages 7-8)



May 2017

## The Economics of Subsidizing Sports Stadiums

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### GLOSSARY

**Investment:** The purchase of physical capital goods (e.g., buildings, tools, and equipment) that are used to produce goods and services.

**Standard of living:** A measure of the goods and services available to each person in a country; a measure of economic well-being. Also known as per capita real GDP (gross domestic product).

**Gross domestic product (GDP):** The total market value, expressed in dollars, of all final goods and services produced in an economy in a given year.

**Productivity:** The ratio of output per worker per unit of time.

**Subsidy:** A payment made by government to support a business or market. No good or service is provided in return for the payment.

“The idea that sports is a catalyst for economic development just doesn’t hold water.”

—Robert Baade, sports economist

Professional sports give people pride and a sense of community. But who should pay for the stadiums? From 2008 to 2010, three NFL stadiums were built: the \$710 million Lucas Oil Stadium for the Indianapolis Colts, the \$1.1 billion AT&T Stadium for the Dallas Cowboys, and the \$1.6 billion MetLife Stadium for the New York Jets and Giants.<sup>1</sup> The newest NFL stadium is the \$1.1 billion U.S. Bank Stadium for the Minnesota Vikings (2016), of which \$498 million was paid for by the state and city governments.<sup>2</sup> Of course, the controversy rests on the fact that any government **subsidy** for building a new stadium is funded by taxpayers.

### It’s All About Spending

Proponents say that subsidizing sports stadiums is justified because of the economic impact it will have on the community. First, sports stadiums are huge construction projects. In fact, they are often compared to the medieval cathedral in their attempt to dominate the skyline and inspire civic pride.<sup>3</sup> And, like the cathedrals of old, they are expensive, massive building projects that require years of intensive labor. Proponents of a new stadium often laud the project’s ability to generate new construction jobs. For example, the proposed stadium for the Los Angeles Rams in Inglewood, California, was predicted to cost \$3 billion and add 22,000 construction jobs to the economy of Los Angeles, California.<sup>4</sup>

Although construction jobs eventually disappear once a stadium is built, once the games begin, so does consumer spending. For example, more than 3.5 million people<sup>5</sup> saw the St. Louis Cardinals play at Busch Stadium in 2015 (the second-highest home game attendance in Major League Baseball that year).<sup>6</sup> Baseball fans who attend games also pay for parking, eat in restaurants, and buy food and drink at the ballpark. All that spending generates revenue and jobs for the local community. And, as those parking attendants, restaurant workers, and stadium workers spend their earnings, the money circulates again through the economy. Economists

call this the multiplier effect, whereby one dollar of spending (by consumers, businesses, or government) creates more than one dollar in economic activity. The estimated economic impact of those millions of people who attended St. Louis Cardinals home games in 2015 was \$343.9 million.<sup>7</sup>

A potential new stadium also holds the promise of new development taking root nearby. Such development might include new restaurants and bars as well as condominium and office space. As interest in the area grows, the value of existing commercial and residential property is likely to improve. In a similar vein, stadium construction can be proposed as an economic-development initiative by choosing to build in a blighted or underdeveloped area. The hope is that the new economic activity and increased traffic will lead to revitalization of that area. In addition, all the extra spending and income gets taxed when it is spent and earned and respent again. The tax revenue then offsets at least some of the cost of the subsidy. Finally, proponents often suggest that professional sports and new stadiums help build civic pride and can be beneficial marketing tools for the city's image as people around the country (and the world) watch games televised from the new stadium. In fact, many consider the presence of a professional sports team to be a status symbol and essential to being considered a first-tier city.

### The Economist's View

In spite of all of these economic arguments, economists generally oppose subsidizing professional sports stadiums. When surveyed, 86 percent of economists agreed that "local and state governments in the U.S. should eliminate subsidies to professional sports franchises."<sup>8</sup> Perhaps economists just do not like sports? Actually, many economists love professional sports—including former Federal Reserve Chair Ben Bernanke, an ardent Washington Nationals fan.<sup>9</sup> Rather, it is the provision of taxpayer money in the form of subsidies that economists generally oppose. In a 2017 poll, 83 percent of the economists surveyed agreed that "Providing state and local subsidies to build stadiums for professional sports teams is likely to cost the relevant taxpayers more than any local economic benefits that are generated."<sup>10</sup> In their book, *Sports, Jobs, and Taxes*, Roger Noll and Andrew Zimbalist present a comprehensive review of stadium investments. In all cases, they find a new sports facility to have extremely

small (or negative) effects on overall economic activity and employment. Furthermore, they were unable to find any facilities that had a reasonable return on investment.<sup>11</sup> Sports economist Michael Leeds suggests that professional sports have very little economic impact, noting that a baseball team (with 81 regular-season home games per year) "has about the same impact on a community as a midsize department store." His research suggests that if every professional sports team in Chicago (including the Cubs, White Sox, Bears, Bulls, and Blackhawks) were to suddenly disappear, the economic impact on Chicago would be a fraction of 1 percent.<sup>12</sup>

### Consider the Opportunity Costs

In their critique, most economists highlight an important pitfall when considering the economic impact of stadiums: the failure to include opportunity costs. The opportunity cost is the value of the next-best alternative when a decision is made; it is what is given up. In the case of sports stadiums, both "seen" and "unseen" economic activity should be considered. The unseen spending, however, tends to be overlooked. Consumer spending at a sports stadium is easy to see—it is obvious and measurable. What is unseen, however, is how consumers would spend their dollars otherwise. If they were not spending on sporting events, they would instead spend on museums, movies, concerts, theater, restaurants, and so on. Because consumers tend to have limited entertainment budgets, dollars spent at a new stadium would not be new spending but rather diverted spending.

Taxpayer money to subsidize a stadium also has opportunity costs. An economist might ask, "Of all the things my city could do with \$500 million, is a sports stadium subsidy my best option?" Government can choose to spend taxpayer money on a variety of things: roads, bridges, airports, police, education, environmental improvements, parks, and walking paths, just to name a few—all of which have benefits for society. Economists often suggest options that increase **productivity** and see this spending as **investment**. For example, government spending on infrastructure (e.g., airports, highways, and bridges) could increase productivity because it reduces the cost (in time and money) of transporting goods and people from one place to another.<sup>13</sup> Second, spending on education is seen as a form of human capital investment. Human capital is the knowledge and skills

that people obtain through education, experience, and training. The education that students receive in school and college (and further training and work experience) increases their productivity. Economists prefer these types of investment because increased productivity has the potential to increase the rate of economic growth and increase the **standard of living**.

## Conclusion

Building sports stadiums has an impact on local economies. For that reason, many people support the use of government subsidies to help pay for stadiums. However, economists generally oppose such subsidies. They often stress that estimations of the economic impact of sports stadiums are exaggerated because they fail to recognize opportunity costs. Consumers who spend money on sporting events would likely spend the money on other forms of entertainment, which has a similar economic impact. Rather than subsidizing sports stadiums, governments could finance other projects such as infrastructure or education that have the potential to increase productivity and promote economic growth. ■

## Notes

- <sup>1</sup> Hare, Erik. "Stadium Frenzy Ignores Economics." *MintPress News*, May 8, 2014; <http://www.mintpressnews.com/stadium-frenzy-ignores-economics/190351/>.
- <sup>2</sup> Roper, Eric. "Taxes to Pay for Now-Open U.S. Bank Stadium Rebound, Thanks to Gamblers." *Star Tribune*, July 22, 2016; <http://www.startribune.com/taxes-to-pay-for-u-s-bank-stadium-rebound/387999002/>.
- <sup>3</sup> Schalter, Ty. "Why NFL Stadiums Are the Modern Day Cathedral." *Bleacher Report*, April 26, 2012. <http://bleacherreport.com/articles/1159057-why-nfl-stadiums-are-the-modern-day-cathedral>. See also the following: Geisendorfer-Lindgren, Peter. "Stadiums, Cathedrals: Marks of Their Eras." *Star Tribune*, September 2, 2016; <http://www.startribune.com/stadiums-cathedrals-marks-of-their-eras/392207411/>. McKenzie, Sheena. "Sports Stadium Architecture: Welcome the New Temples of Pleasure." *CNN*, January 20, 2015. [http://www.cnn.com/2014/12/15/sport/sport-stadium-architecture/index.html?hpt=hp\\_c5](http://www.cnn.com/2014/12/15/sport/sport-stadium-architecture/index.html?hpt=hp_c5).
- <sup>4</sup> Slowey, Kim. "Inglewood Mayor: Near-\$3B Rams Stadium to Add 22K New Construction Jobs." *Construction Dive*, January 15, 2016; <http://www.constructiondive.com/news/inglewood-mayor-near-3b-rams-stadium-to-add-22k-new-construction-jobs/412203/>.
- <sup>5</sup> Cumulative attendance.
- <sup>6</sup> Kirn, Jacob. "Cardinals Playoff Games to Have Big Impact on Economy." *St. Louis Business Journal*, October 5, 2015. <http://www.bizjournals.com/stlouis/blog/2015/10/cardinals-playoff-games-to-have-big-impact-on.html>.
- <sup>7</sup> See footnote 6.
- <sup>8</sup> Whaples, Robert. "Do Economists Agree on Anything? Yes!" *Economists' Voice*, 2006, 3(9), pp. 1-6.
- <sup>9</sup> Steinberg, Dan. "Ben Bernanke Is a Huge Nats Fan." *Washington Post*, September 27, 2012; [https://www.washingtonpost.com/blogs/dc-sports-bog/post/ben-bernanke-is-a-huge-nats-fan/2012/09/27/964d483c-08ba-11e2-9eea-333857f6a7bd\\_blog.html?utm\\_term=.3c929678c51d](https://www.washingtonpost.com/blogs/dc-sports-bog/post/ben-bernanke-is-a-huge-nats-fan/2012/09/27/964d483c-08ba-11e2-9eea-333857f6a7bd_blog.html?utm_term=.3c929678c51d).
- <sup>10</sup> Responses are weighted by each expert's confidence. See IGM Forum. "Sports Stadiums." January 31, 2017; <http://www.igmchicago.org/surveys/sports-stadiums>.
- <sup>11</sup> Noll, Roger G. and Zimbalist, Andrew, eds. *Sports, Jobs, and Taxes: The Economic Impact of Sports Teams and Stadiums*. Brookings Institution Press, 1997.
- <sup>12</sup> Bergman, Ben. "The NFL in L.A.? Get Ready for Near Zero Economic Impact." KQED News, February 27, 2015; <https://www.kqed.org/news/2015/02/27/new-nfl-team-unlikely-to-have-big-economic-impact-in-southern-california/>.
- <sup>13</sup> Miller, Matt and Bullard, James. "Bullard: Infrastructure Plan Could Boost Productivity" (video). Bloomberg.com, November 18, 2016; <http://www.bloomberg.com/news/videos/2016-11-18/bullard-infrastructure-plan-could-boost-productivity>.

Name \_\_\_\_\_ Period \_\_\_\_\_

Federal Reserve Bank of St. Louis *Page One Economics*®:  
**“The Economics of Subsidizing Sports Stadiums”**

After reading the article, complete the following:

1. Explain how the multiplier effect increases the total level of spending.
2. Why do most economists oppose subsidizing sports stadiums?
3. Most of us overlook the things that fail to happen. Explain why consumer spending would not necessarily just disappear in the absence of a stadium and professional sports.
4. Explain the opportunity cost of government subsidy of a stadium.
5. What options do economists often see as a more beneficial use of government funding? Why?

## Teacher's Guide

Federal Reserve Bank of St. Louis *Page One Economics*®:  
**"The Economics of Subsidizing Sports Stadiums"**

**After reading the article, complete the following:**

1. Explain how the multiplier effect increases the total level of spending.  
Spending by consumers, businesses, and government becomes income for others and is respent. In this way, a dollar of spending creates more than one dollar in economic activity.
2. Why do most economists oppose subsidizing sports stadiums?  
Economists oppose the provision of taxpayer money in the form of subsidies because of opportunity costs. There are often other equal or better ways the money could be spent.
3. Most of us overlook the things that fail to happen. Explain why consumer spending would not necessarily just disappear in the absence of a stadium and professional sports.  
If consumers were not spending on professional sporting events, they would instead spend on museums, movies, concerts, theater, restaurants, and so on.
4. Explain the opportunity cost of government subsidy of a stadium.  
The opportunity cost is the next-best thing that could have been purchased with the subsidy instead. Rather than spending on a stadium, government could choose to spend taxpayer money on a variety of things: roads, bridges, airports, police, education, environmental improvements, parks, and walking paths, just to name a few—all of which have benefits for society.
5. What options do economists often see as a more beneficial use of government funding? Why?  
Economists often suggest spending on things that increase productivity, for example on infrastructure or education, because these are investments with the potential to increase the rate of economic growth and the standard of living.

## Additional Resources

Econ Lowdown® of the Federal Reserve Bank of St. Louis provides numerous economic education resources for teachers to use with their students. These include lesson plans, online modules, interactive whiteboard lessons, podcasts, and videos. These free resources are available at <https://www.stlouisfed.org/education>.

Use the Econ Lowdown classroom resources listed below to help teach about topics related to this issue of *Page One Economics*.

### **The Productivity Puzzle (Page One Economics Classroom Edition)**

Are many products made in the United States anymore? As it turns out, yes. In fact, U.S. manufacturing output is near its highest level ever—and with fewer workers. How is that possible? Productivity growth. The March 2017 issue of *Page One Economics*® describes what affects productivity, why economists are concerned about its recent slowdown, and what can be done about it.

<https://www.stlouisfed.org/education/page-one-economics-classroom-edition/the-productivity-puzzle>

### **What Are the “Ingredients” for Economic Growth? (Page One Economics Classroom Edition)**

Is there a recipe for economic growth? Perhaps some Miracle-Gro® for the economy? If only it were that easy. While the exact recipe is a mystery, economists have identified some of the key ingredients. This issue discusses the role that economic institutions play in fostering long-term economic growth.

<https://www.stlouisfed.org/education/page-one-economics-classroom-edition/what-are-the-ingredients-for-economic-growth>

### **Public Goods—The Economic Lowdown Podcast Series, Episode 17**

Is public transportation a public good? How about national defense? Knowing the characteristics of public goods will help students understand why private firms excel at producing private goods, but they have little incentive to produce public goods. Rather, if society wants public goods, government must produce them. This episode defines the characteristics of private and public goods and explains why these characteristics help determine who is best positioned to produce each.

<https://www.stlouisfed.org/education/economic-lowdown-podcast-series/episode-17-public-goods>

### **The Production Possibilities Frontier—The Economic Lowdown Video Series, Episode 8**

Have you been to a frontier lately? Whether you realize it or not, the economy has a frontier—it has an outer limit of economic production. This video explains how the production possibilities frontier (PPF) illustrates some very important economic concepts.

<https://www.stlouisfed.org/education/economic-lowdown-video-series/episode-8-production-possibilities-frontier>

## National Standards

### Common Core State Standards

#### English Language Arts Standards

##### Reading Informational Text

- **Key Ideas and Details**

RI.9-10.2: Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.

RI.11-12.1: Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.

##### Grades 6-12 Literacy in History/Social Studies, Science, and Technical Subjects

##### History/Social Studies

- **Key Ideas and Details**

RH.11-12.1: Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

RH.11-12.2: Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

- **Integration of Knowledge and Ideas**

RH.11-12.7: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.

##### Writing

- **Research to Build and Present Knowledge**

WHST.11-12.7: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

## Voluntary National Content Standards

### Standard 1: Scarcity

Productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others.

- **Benchmarks: Grade 8**

2. Making good choices should involve trading off the expected value of one opportunity against the expected value of its best alternative.

3. The choices people make have both present and future consequences.

### Standard 15: Economic Growth

Investment in factories, machinery, new technology, and in the health, education, and training of people stimulates economic growth and can raise future standards of living.

- **Benchmarks: Grade 8**

1. Standards of living increase as the productivity of labor improves.

2. Productivity is measured by dividing output (goods and services) by the number of inputs used to produce the output. A change in productivity is a change in output relative to input.
  4. Increases in productivity can result from advances in technology or increases in physical or human capital.
- **Benchmarks: Grade 12**
    1. Economic growth is a sustained rise in a nation's production of goods and services. Long term growth in output results from improvements in labor productivity and increases in employment. It varies across countries because of differences in investments in human and physical capital, research and development, technological change, and from alternative institutional arrangements and incentives.
    2. Historically, economic growth that raises per capita output has been a vehicle for alleviating poverty and raising standards of living.
    3. Investing in new physical or human capital can increase future productivity and consumption, but such investments require the sacrifice of current consumption and entail economic risks.