

Public Funds for Professional Sports Arenas

Pete Groothuis and John Whitehead
Appalachian State University

Bruce Johnson
Centre College

The Sports Building Boom Continues

- 2000-2009--\$17 billion + of new major league stadium and arena construction in USA expected to be completed.
- Most of that in the US financed by taxpayers.
- Includes:

Lucas Oil Stadium Indianapolis



Nationals Park Washington, DC



Uneven Playing Field

- Given the nature of Professional Sports Leagues there are more cities who want teams than teams available.
 - Team owners have a credible threat.
 - Cities do not.
- Major sports leagues are monopolies. As a result, cities are thrust into competition with one another to procure or to retain teams. A bidding war results whereby cities pay their maximum willingness to pay for a team (Noll and Zimbalist 1997).
- So what determines the willingness to pay?

Theory of public funds

Public Choice Theory—

Large gains to a few, small costs to many.

Winner's Curse—

City who wins bid for team overestimates worth.

Public Funds are efficient—

Benefits to city from team outweighs cost of public funds.

One Justification for Public Funding

- Sports are said to produce tangible economic benefits for the community at large
 - More jobs
 - Higher incomes
 - Increased tax revenues

Economic Impact

- Does the sports team:
 - Promote the general economic development of a metropolitan area.
 - Significantly assist in maintaining the vitality of the central city
 - Stimulate micro-development in a small defined district within the city

BUT—They do not!

- Mountains of evidence that sports produce
 - Few new jobs
 - No rise in incomes—perhaps even a fall in incomes
 - Little new tax revenue

Another Justification for public Subsidy

- Sports are said to produce Intangible Benefits—civic pride, community spirit, etc.
- Paradox—the intangible benefits are highly visible, but their value is difficult to measure
- Teams cannot sell these intangible benefits—People do not have to pay for them

Economists Call these Intangible Benefits

- PUBLIC GOODS
- The problem with sports public goods—since the team cannot charge for them, the users of the public goods cannot be required to pay for the team or the stadium

Public Goods Enjoyed Mostly by Fans

- Reading about the team
- Discussing the team
- Listening to sports talk radio
- Game-day parties
- Fantasy leagues
- Betting on games

Sports Public Goods Everyone Enjoys

- Championship pride
- Civic pride in “major league” status
- Community harmony-
-“It’s what the janitor, valet parker, lawyer, and venture capitalist can all talk about when they are in an elevator together.”



Edmonton Oilers & Civic Pride

“[Cam Nichols] is the man who saved the Edmonton Oilers and with it, maybe a city. Certainly, a city’s identity.”—
Scott Burnside,
ESPN.com, June 9, 2006



Civic Pride and City identity

- Have influenced public policy explicitly in the case of the Pittsburgh Penguins.
- They declared bankruptcy 1998 and were on verge of being sold to out-of-town owners and being moved out of Pittsburgh

Importance of Sports Public goods

“The Penguins are as much a part of the warp and woof of this community as are its ...museums, parks, theaters and ethnic neighborhoods. As important as [the creditors’] interests are, they may have to give way when the interest of the community at large so dictates.” -- U.S. Bankruptcy Judge Bernard Markovitz, March 1999

But What is Civic Pride Worth?

- Judge Markovitz did not put a dollar value on it.
- Since no markets for civic pride, major league status, or community harmony exist, we don't know what people are willing to pay, how much they want, or what the goods are worth.

Contingent Valuation Method CVM

- Contingent Valuation Method (CVM) surveys allow this to be estimated.
- Developed by environmental economists.
- People are asked their willingness to pay for public goods contingent upon a hypothetical scenario described to them in the survey.

Articles

The Value of Public Goods Generated by a Major League Sports Team The CVM Approach

BRUCE K. JOHNSON

Centre College

PETER A. GROOTHUIS

Westminster College

JOHN C. WHITEHEAD

East Carolina University

This article reports an application of the contingent valuation method to measure the value of public goods generated by a professional sports team, the Pittsburgh Penguins of the National Hockey League. The data and analysis indicate that a major league sports team can produce widely consumed public goods such as civic pride and community spirit and that the value of those public goods may be substantial. However, in the case of the Penguins, the value of the public goods is far less than the cost of building a new arena. Although the analysis of public goods generated by other teams in other cities might lead to different results, the results of this article call into question the widespread practice of government funding of sports stadiums and arenas because it appears that the costs borne by taxpayers exceed the benefits received.

Penguins Hypothetical Scenario

- Play in oldest arena in NHL
- Local owners might not have money to challenge for Stanley Cup
- Team might have to leave Pittsburgh
- Loss of Penguins would tarnish city image
- Never again would Pitt have Stanley Cup

How Much Would You Be Willing to Pay?

The survey offered an alternative scenario in which the Penguins would become publicly owned at a cost to taxpayers:

If the city of Pittsburgh were to buy the team, it would never leave Pittsburgh. But in order for the city to buy the team, pay off its debts, and challenge for the Stanley Cup, taxpayer money will be needed. One estimate is that each Pittsburgh household would have to pay \$TAX each year in higher city taxes.

The four \$TAX amounts (\$1, \$5, \$10, and \$25) were randomly assigned.

Then respondents were asked the discrete-choice willingness-to-pay question—“Would you be willing to pay \$TAX each year out of your own household budget in higher city taxes to help keep the Penguins in Pittsburgh?”—and were given three response categories: “Yes,” “No,” and “I don’t know.” All respondents were then asked the open-ended willingness-to-pay question: “What is the most you would be willing to pay out of your own household budget each year in higher city taxes to keep the Penguins in Pittsburgh?” They were presented with the following “payment card” categories to choose in response to the question: “Zero,” “Between \$0.01 and \$4.99,” “Between \$5 and \$14.99,” “Between \$15 and \$29.99,” “Between \$30 and \$49.99,” “Between \$50 and \$75,” and “More than \$75.” Debriefing questions followed, asking why they were willing or not to pay taxes to keep the Penguins from leaving.

Respondents asked about

- PRIVATE GOODS—how many games do you attend?
- PUBLIC GOODS:
 - Read
 - Discuss
 - Major league—on the map
 - Racial harmony
 - Celebrate Stanley Cup

Respondents also asked about

- Socioeconomic variables
 - Age
 - Sex
 - Income
 - Education
 - How long they have lived in town
 - Etc.
- These questions allow us to correlate WTP to consumption of public goods, private goods, and socioeconomic variables

Some interesting stats

- Many people read about, discuss, etc.
 - In other words—widespread consumption of sports public goods
- 74% think Jags make Jax “major league”
- 43% think Jags improve race relations

Perhaps Most Interesting of All

- Willing to pay > 0
 - 38% for NHL in Pittsburgh
 - 46% for NFL in Jacksonville
 - 38% for NBA in Jacksonville

What Determines WTP?

- Higher Income → higher likelihood of WTP
- The more they read about or discuss the team, the more likely to be WTP.
- Those who think team makes Jacksonville major league or who think it improves race relations are more likely to be WTP
- Those who attend games
- In Pittsburgh, people who experienced Stanley Cup were willing to pay more

TABLE 3: Willingness to Pay, Use Value, and Nonuse Value Estimates

<i>Variable</i>	<i>Mean</i>	<i>Standard Error</i>	<i>t-Ratio</i>	<i>95% Confidence Interval</i>	
				<i>Upper Bound</i>	<i>Lower Bound</i>
Willingness to pay	5.57	0.70	7.97	6.94	4.20
Nonuse value	4.08	0.77	5.33	5.58	2.58
Use value	1.49	0.47	3.18	2.40	0.57

TABLE 4: Aggregate Willingness to Pay, Use Value, and Nonuse Value Estimates

	<i>Annual Aggregate^a</i>		<i>8% Amortization Rate</i>	
	<i>Upper Bound</i>	<i>Lower Bound</i>	<i>Upper Bound</i>	<i>Lower Bound</i>
Willingness to pay	5,277,575	1,878,817	65,969,688	23,485,209
Nonuse value	3,865,800	1,376,225	48,322,500	17,202,810
Use value	1,411,775	502,592	17,647,188	6,282,399

a. 1997 estimated number of households was 947,500.

WTP for Sports Public Goods

Team (study year)	\$2006 millions
Pitt Penguins (2000)	\$57
Jax Jaguars (2002)	\$28
Jax NBA (2002)	\$21
Alberta Amateur Sports (2006)	\$189
Calgary Flames, Edmonton Oilers, Vancouver Olympics (forth.)	???
Portland MLB (2003)	\$60
London Olympics (2004)	\$3849

Implications

- The value of public goods for all of these projects is far below the subsidies paid
 - With the exception of Alberta Amateur Athletics
 - ... and possibly Vancouver Olympics