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Beyond Economic Impact: An Alternative Rationale for the Public Subsidy of Major League Sports Facilities

John Crompton
Texas A&M University

Government contributions to the funding of major league facilities *ipso facto* recognize that some portion of the benefits accruing from such facilities accrue to the public in general, rather than being captured exclusively by the franchise owner. The challenge for facility advocates is to demonstrate the return on investment to the taxpayer. This has been elusive. The canard that substantial returns accrue from the direct economic impact of visitors to games has been discredited. A taxonomy of four alternate sources of spillover benefits that are most frequently cited is proposed: increased community visibility; enhanced community image; stimulation of other development; and psychic income. Justifications using to the first three of these alternates are conceptualized as focusing on external audiences, with the intent of encouraging their investment of resources in the community. In some contexts, some economic benefits may accrue from these sources, but in most cases they cannot be demonstrated to be sufficient to justify the taxpayers' investment. It is argued that psychic income, which focuses internally on the benefits received by existing residents in the community, is likely to be key to justifying public subsidy of major league facilities. It is suggested that the contingency valuation method is an appropriate approach for measuring the psychic income provided by a professional sport franchise.

An examination of the sports facilities in which the franchises of Major League Baseball, the National Basketball, the National Football Association, and the National Hockey League currently play revealed that their aggregate cost, when expressed in 2003 dollars, was $23.8 billion (Crompton, Howard & Var, 2003). The public sector's share of this amount was approximately $15.2 billion, which represents 64% of the total.

Facility funding appears to have passed through four eras (Crompton, et al., 2003). In the 1961-1969 Gestation Era professional sport franchises were primarily confined to the Northeast and Upper Midwest and facilities were constructed

John Crompton is with the Department of Recreation, Park and Tourism Sciences,Texas A&M University, College Station, TX.

for them by government entities. Government entities continued to be the almost exclusive provider of facilities in the Public Subsidy Era (1970-1984) when professional sports franchises expanded to reach a national rather than a regional audience. The Transitional (Public-Private Partnership) Era from 1985-1994 was characterized by more complex financing arrangements for facilities to which franchises now contributed, and a transition from bland multipurpose facilities into elaborate, "fully loaded," single sport facilities. The contemporary Fully-Loaded (Private-Public Partnership) Era which started in 1995 has been characterized by an extraordinary proliferation of these facilities, a marked escalation in their cost, and a substantial increase in the proportion of funding contributed by the franchises for facility construction.

Table 1 shows that there has been a substantial shift over time in responsibility for funding these facilities, from the earlier eras during which the norm was for governments to pay the full cost, to the more recent eras in which there has been increased financial participation by the franchises. Prior to 1985, the government had been the exclusive provider of funds for arenas. In the current Fully-Loaded Era, only 39.4% of the $4.70 billion spent on arenas has come from the government. For stadiums, the government has contributed 62% of the $7.12 billion invested thus far in the current Fully-Loaded Era.

Although the proportion of cost contributed by public entities for stadiums in the current era is lower, however, the total dollar value of that lower percentage remains relatively unchanged, reflecting the much higher cost of more recent

Table 1 Proportion of Public and Private Sector Funding by Era

	Stadiums		Arenas		Totals	
Era	% Public	% Private	% Public	% Private	% Public	% Private
Gestation (1961-1969)	82%	18%	100%	0%	88%	12%
Public Subsidy (1970-1984)	89%	11%	100%	0%	93%	7%
Transitional (Public-Private Partnership) (1985-1994)	85%	15%	49%	51%	64%	36%
Fully-Loaded (Private-Public Partnership) (1995-2003)	62%	38%	39%	61%	51%	49%

facilities. For example, the average public subsidy of a stadium in the four funding eras in constant 2003 dollars was (Crompton, et al., 2003): Gestation Era (1961-1969) $147 million; Public Subsidy Era (1970-1984) $200 million; Transitional Era (1985-1994) $234 million; and Fully-Loaded Era (1995-2003) $210 million.

The public's view on the appropriateness of public subsidy for sports facilities is divided and the issue is invariably contentious. Between 1997 and 2001, almost 40% of the public referendum proposals to subsidize sports facilities were rejected. The converse of this is that over 60% were approved! The focus of the debate revolves around the level of economic return taxpayers are likely to receive on their money. This is dependent both on the revenue stream that accrues directly to the partnering government entities from a facility and on the broader economic benefits from the facility's presence that accrue to residents in the jurisdictions from which the taxes were derived.

The money invested in facilities by taxpayers is only one dimension of the complex financial relationship between cities and major league franchises. Other dimensions include the extent of in-kind contributions for which cities may take responsibility (e.g., provision of land, roads, utilities, etc.), and the terms of leases which embrace a wide array of issues including the distribution of revenue streams; maintenance and renovation of the facilities; and scheduling of the facilities for events unrelated to the team franchises.

Although the facilities now generate more and higher revenue streams than those of earlier generations, public sector entities often receive less income from these revenue streams than in earlier eras. Hence, even though Table 1 shows the proportionate investment of public resources into facilities may have declined, the net annual public subsidy to the franchises often has increased. Thus, advocates of government subsidy for these facilities have to justify the entity's return on the investment in terms of the broader benefits from the facility's presence that accrue to residents, rather than in terms of the income stream governments receive from the facility.

The most prominent type of economic impact presented by facility advocates invariably is the economic impact of money spent in the community by users of the facility—spectators, vendors, media, teams, etc. Economic impact is defined as the net economic change in a host community that results from spending attributed to the sports facility. The findings of those who have independently evaluated the economic impact resulting from large public subsidies by local communities for sports team facilities, free from the pressures of a commissioning sponsor, are not encouraging. A series of such studies conducted in a variety of contexts by different investigators in the past fifteen years report that there is no statistical relationship between sport facility construction and economic development (Baade, 1996; Baade & Dye, 1990; Coates & Humphreys, 1999; Crompton, 1995; Noll & Zimbalist, 1997; Rosentraub, 1994; Walden, 1997). These findings led a respected authority in this field to conclude: "The overwhelming consensus of opinion in these studies is that the local economic effect of a sports facility is between nonexistent and extremely modest. If stadiums do not contribute to any increase in local economic activity, they cannot cause a significant increase in revenues from local

taxes" (Baade, 1996, p. 15). Another analyst observed: "The statistical evidence indicates that professional sports as a golden goose ranks among the most enduring and greatest sports myths" (Morgan, 1997, p. 313).

Increased public skepticism with the contention that substantial economic impact accrues from investments in facilities for major league sports facilities does not necessarily mean subsidies should not be forthcoming. Rather, it means that proponents of public subsidies are required to demonstrate that there are alternate spillover benefits which are sufficiently large to justify subsidies. The question proponents have to answer is: "Can an annual subsidy of (say) $10 million for a facility be justified on grounds other than direct economic impact?" Four alternate sources of spillover benefits are most frequently proposed: increased community visibility; enhanced community image; stimulation of other development; and psychic income. Each of these alternate justifications is discussed in the paper. The first three of these spillover benefits are perceived by proponents to be precursors to enhancing a community's tax base by attracting both tourists for purposes unrelated to sports facilities, and new businesses to the area, while psychic income recognizes that sports teams and events often engender community pride which is an element in a community's quality of life.

Increased Community Visibility

A professional sports franchise guarantees a significant amount of media coverage for the city in which it is located. If a city has a major league franchise, then each day across the nation when fans read their sports pages, the city's name will be there. The city will likely hold an all-star game once every 15 years or so, and enjoy all of the national attention associated with it. Exposure will be further enhanced when a city's team makes the play-offs and especially when it appears in a championship final. In the case of these latter events, the exposure is accompanied by the luster of success (Rosentraub, 1997). One baseball owner noted, "Tonight, on every single television and radio station in the USA, Seattle will be mentioned because of the Mariners' game, and tomorrow night and the next night and so on. You'd pay millions in public relations fees for that" (Danielson 1997, p. 103). Further, sports teams can generate positive publicity by plugging otherwise-troubled cities into "the good news network...We're o.k. say the sports pages" (Danielson, 1997, p. 103).

The linkage between community exposure and team visibility is widely recognized. Proponents of public subsidies for sports facilities imply in their articulation of the relationship that it will aid recruitment of relocating businesses and, thus, lead to enhancement of a city's economic base. Thus, when Jacksonville was awarded an NFL franchise, one city leader commented, "T.V. sets in division rivals Cleveland, Pittsburgh and Cincinnati will be showing Jacksonville's sunshine in the dead of winter, luring future tourists" (Thurow, 1995, p. 138). However, there is no empirical evidence that media visibility *per se* results in this desired sequence of events. Opponents would argue that such arguments are false premises. Nevertheless, they would probably have to accept that the media visibility has some value.

Enhanced Community Image

It is conventional to refer to image as consisting of a mental reconstruction of a place in a person's mind. However, this traditional use of the term has been expanded to embrace a conceptualization of image as perceived reputation or character (White, 2001).

Many cities consciously engage in what has become known as place marketing, which involves striving to sell the image of a place so as to make it more attractive to businesses, tourists and inhabitants (Kotler, Haidler & Rein, 1993). The pervasive popularity of sport in the media has persuaded many cities that sport may be a useful vehicle through which to enhance their image. Thus, some believe that major sports events and teams are the new "Image Builders" for communities (Burns & Mules 1986). In the construction years after World War II, this role was performed by tall building tower skylines, large span bridges, or manufacturing industries (for example, Motor City or Steel City). Today, as the economy has switched to a service orientation, major sports events and teams capture the imagination and help establish a city's image in people's minds.

There is much public sympathy for the adage that no place really can be considered a "major league city" or "first tier city" if it does not have a major league sports team. The team is positioned as being symptomatic of a city's character, and as defining external perceptions of the city. Proponents of public subsidy for facilities frequently frame the issue in these terms. Consider the comments made by an advocate imploring voters to support a referendum requesting $125 million for a new arena in Dallas

> Do we want our community to be considered Major League or Minor League? Do we want to be a community of vision or a community that lacks vision? A great step toward becoming a visionary community would be the construction of a state-of-the-art arena and focusing on maintaining and enhancing our existing sports and entertainment infrastructure...Our greatest obstacle is our reputation as a "Can't Do Community" rather than a "Can Do Community"...In the past few years we have lost the World Special Olympic Games to Connecticut; major status and prestige for the Cotton Bowl; and bids for the Goodwill Games, U.S. Soccer Federation and Womens Sports Foundation headquarters. Our lack of vision and leadership have become the brunt of jokes and ridicule among many prominent sports leaders and organizations throughout the world. (Lavelle, 1995, p.J.1)

The legitimacy of the premise that major league team equates to a major league city, however, is challengeable. "Do people view Charlotte, Jacksonville and Nashville to be big-time locations and Los Angeles an also-ran place because the former have NFL teams, while the latter does not?" (Siegfried & Zimbalist, 2000, p. 103). Large cities receive constant media attention. Their size ensures that a disproportionate number of newsworthy events occur there, both positive and negative. Hence, their image is molded by a host of symbols, events, people and behaviors, so the incremental contribution of a sports event, facility or team to the

image of those cities is likely to be relatively small. Their contribution to the image of smaller cities is likely to be proportionately more substantial:

> While the largest cities viewed sports teams as an important piece of their overall cultural package, in many less populous cities the teams have become inextricably linked with the city's image. Cities such as Oakland, St. Louis, Kansas City and Cincinnati—none of them among the top 25 cities in population—all have proved to be great sports town; in many cases, their sports franchises constitute validation that these cities were in the "big leagues."
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> "Sports means more to Oakland" says the former city manager. It makes less of a difference to New York, San Francisco, or Chicago" (Fulton, 1988, p. 36).

People frequently make judgments about the competence of a city's administration and its quality of life by extrapolating from snippets of information or from symbols. A sports team is a highly visible symbol. Thus, another dimension of the image issue relates to perceptions of the level of competency of a community's governance. A sports franchise may be considered by some as a symbolic embodiment of the city as a whole (Euchner, 1993). Thus a successful franchise, or the acquisition of a new franchise after competition with other communities, may be portrayed as being symptomatic of a community's economic and social health. For example, a leader in the campaign to attract the NFL Colts to Indianapolis from Baltimore stated, "If Indianapolis lands the Colts or any NFL team, it's going to do some amazing things for the city in terms of prestige, economic development, and in terms of enticing companies to locate to Indianapolis" (Schimmel, 1995, p. 144). If a city successfully negotiates and implements a major sports event or franchise agreement, then the inherent complexity of the task and the extensive publicity these actions generate, are likely to convey an aura of high competency upon the city's leadership.

Conversely, if a city loses a sports franchise, it may create the impression that local businessmen and politicians are incompetent; that the community is declining or a "loser;" and that its residents lack civic pride. Indeed, it may be worse for a city's image to lose a major event or major league team than to never have had one at all. When the Colts left Baltimore, city officials stated it "inflicted a painful blow to the city's renaissance image that would slow economic development" (Schimmel, 1995, p. 144). A case could be made that Indianapolis absconded with Baltimore's "major league city" status along with its football team. There was concern at the time that the city may also lose the Orioles, who played in the same aging stadium that was a main reason for the Colts leaving. With that prospect, many suggested that Baltimore "was rapidly moving back to being recognized only as the toilet stop on the drive between Washington, DC and Philadelphia" (Shropshire, 1995, p. 50). This concern provided the urgent impetus to build two new stadiums, one for the Orioles and another to entice the new Baltimore Ravens NFL franchise to the city.

Those in leadership positions in cities where franchises leave, for example, the Raiders, Colts and Cardinals, may forever be stigmatized in the eyes of many, irrespective of the intrinsic merits of their decisions. This may account for the reaction of the governor of Illinois when the White Sox threatened to leave Chicago for St. Petersburg, who said, "I'll bleed and die before I let the Sox leave Chicago" (Shropshire, 1995, p. 11).

The powerful impact of franchise movements on image in some communities was described by an urban economist reporting on his experience at a radio call-in talk show. The caller wanted him to discuss the decline of St. Louis that took place after the Cardinals left for Arizona. The economist had analyzed the St. Louis economy and found it had not suffered, indeed it had improved, after the Cardinals left, but the caller had the distinct impression that the city was in decline. The economist went on to report:

> It was not only the caller who believed St. Louis's image had declined. When we interviewed civic officials in St. Louis regarding the investments they made to attract the Rams from Los Angeles to the new domed stadium, each told us they supported the concept because most people in America believed that "St. Louis's best days were behind her." So, image matters to people even if those of us who study the economic effects of stadia and teams conclude there is no real benefit from the presence of a team (Rosentraub, 1997, p. 205).

Stimulation of Other Development

The contention that a sports facility will stimulate additional development and thus contribute to expansion of a city's tax base, is at least in part a consequence of the increased visibility and enhanced image cities believe will accrue from their investment. There are two principles that appear crucial to the ability of major sports facilities to serve as the "glue" for anchoring a downtown economic redevelopment project and attracting additional development to it.

The first is the principle of a threshold level of cumulative attraction. This builds on the notion that a given number of entertainment attractions will do more business if they are located adjacent or in proximity to each other, than if they are widely dispersed. It states that in order to persuade people to go downtown there has to be a threshold number or critical mass of complementary attractions, such as hotels, restaurants, specially retailers, theaters, and other entertainment offerings. It is untenable that a facility, such as an MLB ballpark, could alone induce substantial associated economic development given that it operates only for three hours a day, a few days a week, between May and September. There must be other reasons to visit the area when games are not being played. This, for example was an explicit reason for selecting the Camden Yards site for the Orioles new baseball park: "The basic rationale for selecting the site was that the presence of multiple attractions would induce more attendance both at Orioles games and other downtown attractions than either could generate in the absence of the other" (Hamilton & Kahn, 1997, p. 255).

The second, and related, principle to stimulating other development is to ensure the facility is part of an integrated, coherent, master plan for downtown redevelopment, rather than an ad-hoc initiative which it is vaguely hoped may stimulate others to locate nearby:

> It matters if the city has developed a plan for integrating the stadium in its overall strategy for the downtown area or for the region. Too often there is virtually no planning but a good deal of hoping that the stadium or arena will "jump-start" the economy or region. By itself, a stadium or arena cannot jump-start even the small economy of a part of a downtown area. But as part of an overall plan or strategy, a stadium could be helpful and useful. Two questions to be answered are does such a plan exist, and what is expected or anticipated from the development of the stadium or arena? (Rosentraub, 1997, p. 205).

In the past, focus was on the building of a sports facility itself. Now the vision typically is broader, and the broader vision is likely to provide more justification for public subsidy if it can successfully facilitate additional urban redevelopment. This broader vision has design implications. A facility cannot be a catalyst for development if it is an island built in the middle of a sea of surrounding concrete car park (Baade & Dye, 1988). This isolates fans from other development, rather than integrating them. If the stadium is intended to stimulate other development, then fans should be channeled to it through carefully planned corridors to maximize secondary economic activity. Further, the design should build upon and assimilate the character of surrounding structures (e.g., Camden Yards in Baltimore), otherwise the facility becomes an ugly intrusion on the urban fabric instead of an indigenous component of it.

Many new stadiums do not foster surrounding development because they are not physically interwoven with other components of the urban fabric. Rather, these stadiums are designed for quick entry and exit of suburban fans with automobiles. Even though they are technically inner-city parks, often their urban integration is limited to supplying parking facilities close to the downtown business district. Examples include facilities such as Pittsburgh's Three Rivers Stadium and New York's Shea Stadium. A commentator on a proposed new stadium in Chicago observed: "Never have city and stadium been so detached from each other. The garages will attach to the park by elevated walkways, and thus fans who arrive by car will have the privilege of never actually setting foot on the South Side of Chicago" (Euchner, 1993, p. 70). The antithetical goals of team owners, and public officials who are seeking to use a new stadium to stimulate redevelopment of downtown areas were noted in the following observation:

> From the team's perspective the ideal location will be a site that is easily accessible, has visibility from major highways, and is compatible with the direction of existing and future population growth. It should not be surprising that the community goals of local officials often do not match the location criteria and business interests of team owners. As one interviewer commented, team owners are not in the urban redevelopment business (Johnson, 1991, p. 319).

The types of development that proponents envisage may be stimulated by large scale sports facilities can be classified under three headings: proximate development, complementary development, and general development.

Proximate Development. It was noted previously that sports facilities are increasingly conceptualized as being part of an integrated redevelopment package which includes substantial proximate development. These facilities do afford urban planners the opportunity to steer their development to a desired location, and to try and use them to "jump-start" economic development there.

The renaissance of downtown Indianapolis was stimulated by sports projects, and they do appear to have been a successful catalyst for subsequent development (Schimmel, 1995, 2001). From 1980 to 1984, the years when the initial major investment in sports facilities was committed in Indianapolis, sixteen new restaurants were added to the downtown, and in those years the city had the fastest population growth of any of the ten largest Midwest cities. The old deserted buildings were converted into condominiums and luxury apartments, and the upper-middle class residents who moved into them provided support for retail and service businesses that emerged.

Complementary Development. Complementary development refers to the upgrading or initiation of businesses as a result of the demand for their services which is directly created by a sport facility or event. In the case of most sports facilities, complementary development is likely to take the form of restaurants, bars and souvenir stores. Coors Field, the home of the Colorado Rockies is an example of this type of catalyst role (Greenberg & Gray, 1996). It is credited with helping the revitalization of Denver's Lower Downtown or "LoDo" district. Restaurants, sports bars, and sports memorabilia stores opened with Coors Field to serve the more than three million fans who attend Rockies games.

The potential number and range of ancillary businesses that can flourish in a parasitic relationship with facilities hosting major league sports franchises, however, is relatively small and is decreasing. The new generation of fully-loaded facilities is likely to capture much of the spending that used to occur in nearby restaurants, bars and sports merchandise stores. It has been suggested that these new facilities are analogous to European walled cities, seeking to enclose all commercial activity and revenue flows within their confines (Siegfried & Zimbalist, 2000).

General Development. It is sometimes suggested that views of a city and its skyline that appear on television as part of a sports program, or the presence of a major league franchise *per se* can aid in economic development. Thus, advocates for public subsidy of facilities are likely to state, "The team's presence on national television is the best advertising the city has. You never know who is watching an NFL game. Viewers may include convention planners, business CEOs, and relocation consultants, so the team's presence is a real benefit for the city." This type of optimistic statement exemplifies the belief that the "big-league" image will serve as a magnet and attract general development to the city which is neither complementary nor proximate.

Such a positive outcome seems improbable since the publicity or the "winning image" of a team does not change any of the cost and market factors that influence business relocation decisions, and economic development and growth (Rosentraub, 1997). Nevertheless, after Jacksonville was awarded the thirtieth NFL team franchise, the city dubbed itself "The Expansion City." It launched a campaign featuring a Jaguars helmet and the slogan, "Get inside the NFL's head," and it claimed that more than 150 inquiries were received from companies asking about relocation possibilities (Thurow, 1995).

Psychic Income

In each of the previous four external benefits that have been discussed—economic impact, community visibility, community image, and stimulation of other development—the focus has been on using sports to reach *external* audiences, with the intent of encouraging their investment of resources in the community. In contrast, psychic income focuses *internally* on a community's existing residents. Psychic income is the emotional and psychological benefit residents perceive they receive, even though they do not physically attend sports events, and are not involved in organizing them.

People may avidly follow "their" team through the media and engage in animated conversations with others about the team, but never attend a game. A commentary on the Baltimore Orioles observed:

> The identification of a sports team like the Orioles with a city surely generates some pleasure for its citizens beyond that reflected in ticket sales. In this respect the economics of sports is much different from the economics of, say, apples. A fan can derive substantial pleasure from the Orioles and identify with them as "his" team without ever attending a game, but he gets no such pleasure from knowing that somebody is eating apples in Baltimore (Hamilton & Kahn, 1997, p. 269).

If a new IBM plant opens in a city, elected officials and business leaders may get excited, but ordinary residents do not because the economic benefits appear intangible and impersonal to them. When a sports team comes to a city, a much broader segment of the population becomes excited and identifies with it. A sports team is an investment in the emotional infrastructure of a community. Sports has been eloquently described as "the magic elixir that feeds personal identity while it nourishes the bonds of communal solidarity" (Lipsky, 1981, p. 5).

Sports teams provide a tangible focus for building community consciousness and social bonding. They are an important part of the collective experience of urban dwellers since they tie them together regardless of race, gender or economic standing. They are one of the few vehicles available for developing a sense of community. "Fans who chant 'we're number one' are trumpeting the superiority of both their team and their town. In rallying around the home team, people identify more closely with a broader civic framework in the spatially, socially and politically fragmented metropolis" (Danielson, 1997, p. 9).

Sports are not like other businesses. They are about, "triumphs of the human spirit, community bonding, and family memories. They're about taking a break from the pettiness that divides us. They're about celebrating some of the things that make society whole: competition, victory, redemption" (Morgan, 1997, p. 309). Society has an emotional attachment to sports and receives a psychic income from them. The emotional involvement transposes some people from the dreary routines of their lives to a mode of escapism that enables them to identify with a team, personalize its success, and feel better about themselves. Life is about experiences, and sports teams help create them—albeit vicariously in most cases.

Sports teams are a medium through which cities and their residents express their personality, enhance their status and promote their quality of life to a national audience. Major league sports teams are much more than enterprises with economic benefits and costs:

> They are first and foremost cultural assets, like art museums and symphony orchestras. Baltimore is a better place to live because of the Orioles and Ravens. Cleveland is a better place to live because of the Browns, Indians, and Cavaliers. Hosting a World Series is no substitute for operating a successful school system or fielding an effective police force, but it shouldn't have to be. A major league sports team, even a losing one, can be a wonderful community enhancement, like a bustling waterfront or a historic site (Morgan, 1997, p. 315).

The relationship between sports teams and their fans often is referred to as "a love affair" (Schimmel, 2001). When a team leaves a community, it is the end of a "marriage." These are nuptial-like analogies. The pervasive influence of sports is exemplified by the extensive use of sports metaphors in everyday life. Knowing how to keep a straight bat; respond to a googly; bat on a sticky wicket; keep your end up; avoid being stumped; or duck a bouncer, are cricketing metaphors that are endemic in the English language of most of the countries which play that game. Indeed, it has been suggested that "the language of sports is the symbolic glue that holds the entire social life world" (Lipsky, 1979, p. 67). This might be hyperbole, but sport is a central topic of conversation in many social contexts.

Sports is a theater where Kipling's twin imposters of triumph and disaster run side-by-side and impact large numbers of people. It provides a spectrum of emotions to fantasize about and to casually share (Weiner, 1999). When a team or event is successful, benefits often accrue to the collective morale of all residents. A substantial proportion of a community emotionally identifies with "their" team or event, and feels elation, anxiety, despondency, optimism, and an array of other emotions according to how the team performs. Some of these people may not understand the nature of the event or how the activity is performed. Nevertheless, the team constitutes "a common identification symbol, something that brings the citizens of the city together, especially during those exhilarating times when the city has a World Series champion, or a Super Bowl winner" (Quirk & Fort, 1992, p. 176).

When Jacksonville was awarded a franchise to become the NFL's thirtieth team, it became a catalyst for unifying diverse groups in the city: "linked by a mighty passion for football, the citizenry overcame the town's diverse history and pulled together—white bankers and black preachers on the same team—to sell out the 73,000 seat stadium in record time and grab the NFL's admiration" (Thurow, 1995, p. 138). However, the momentum created by this catalytic event needed to be sustained if Jacksonville was to shed its remnants of the Old South.

It has long been recognized that the emotional identification with sports teams has an extraordinary impact on the morale of many people. In recent years a biological explanation for this has emerged (James, 1997). Winning and losing have a direct effect on the chemical composition of our brains, particularly on levels of a neurotransmitter called serotonin. The social environment, not heredity, has been shown to be the critical determinant in serotonin levels. Winning raises levels and losing lowers them. This at least partially explains the observation, "Every time we win, we're like a different country. Everybody's happy. Football (soccer) can bring peace" (Price, 2001, p. 66). People with low levels are more depressed and aggressive than people with high levels. When individuals identify with the fortunes of their team and it loses an important game, unconsciously, they lose. They are more likely to feel depressed or become violent afterwards because their serotonin levels dropped. Anti-depressant drugs, such as Prozac, work by raising serotonin levels. The collective effect of this repeatedly has been demonstrated by polls showing that politicians can probably aid their re-election chances if they can arrange for the election to coincide with an important sporting success with which their constituents identify, because the raised serotonin levels of constituents is likely to create a "feel-good" factor (Dauncey & Hare, 1999; Lang 1998).

In Europe, the integration of nations into the European Common Market is eroding national boundaries, but sport remains a central pillar around which national psyches are constructed. In 1998, France won the soccer World Cup which they hosted in that year. The impact on the people of France was remarkable (Dauncey & Hare, 1999; Lang, 1998; Lichfield, 1998; MacIntyre, 1998; White, 1998). In recent years, racial conflict in France has been more prominent than probably in any other European country, as relatively large numbers of immigrants from the former French colonies of Algeria, Morocco and elsewhere entered the country. The 1998 stars of the French team were their darkest skinned players, but in the euphoria of victory these prejudices were cast aside as all France erupted with joy. There are clear similarities between this situation and those which exist in many professional teams and their host communities in the U.S.

Measuring Psychic Income. Elected officials recognize the legitimacy and potential importance of psychic income, but have no scientific basis or framework to use to determine the magnitude of subsidy which would appropriately reflect it. The question to be assessed is, "How much should teams and/or facilities be subsidized by public funds to compensate them for the positive experiences they offer to residents in a host community who otherwise pay nothing for that experience?"

Economists have a technical term for psychic income—they call it "consumer surplus." In this context, consumer surplus refers to the surplus benefit that accrues to individuals in the form of externalities which are not captured in ticket-revenues by the team. These individuals are free riders, meaning that sports teams produce a service for which some beneficiaries pay nothing. The challenge is to identify how much these benefits are worth to free riders and to remove their free rider status by incorporating this amount into the tax structure.

For many decades, a number of techniques have been proposed for measuring consumer surplus. This work has been spearheaded by resource economists who seek to establish an economic value for natural amenities such as parks, open space, wetlands, wildlife preserves, wilderness areas, and coastal habitats. Many taxpayers may never visit such resources but, nevertheless, derive satisfaction from knowing they exist and, thus, are supportive of expending tax dollars on them.

The preferred approach for measuring consumer surplus is the contingent valuation method (CVM). CVM places dollar values on goods and services not exchanged in the marketplace (Loomis & Walsh, 1997). There is an emerging awareness that CVM is potentially a useful tool for measuring consumer surplus associated with sports teams and events. It is a survey-based approach to eliciting the level of subsidy that individuals would be prepared to pay to support a new facility for a sports team. A useful overview of the strengths, limitations and contextual applications of CVM is provided in the compendium edited by Peterson, Driver and Gregory (1988).

The reliability of CVM in some contexts has been challenged because there is concern that hypothetical questions produce hypothetical answers (Fisher, McClelland & Schulze, 1988). However, in estimating residents' willingness to pay for professional sport facilities, the context often will be tangible, real and "live," so concern about this issue is likely to be lower. Other concerns that have been expressed about the reliability of CVM include: (i) Is the question framed in such a way that respondents understand the information and are not biased in the way it is presented; (ii) Does the question cause a bias because it suggests a reference range for the appropriate value? and (iii) Do respondents respond strategically, hoping to influence the outcome to be based on the survey results but not expecting to bear the full consequences of their own bids? (Mitchell & Carson, 1985). However, many of these problems can be minimized by careful questionnaire design and conduct of the survey itself (Fisher, McClelland & Schulze, 1988).

To obtain valid and reliable results, the implementation of CVM requires technical expertise. However, the basic question posed to a representative sample of residents is straightforward. For example, "What is the largest sum of money you would be prepared to pay in taxes each year, rather than have the Kamikaze Klutz MLB team leave town?" The total consumer surplus (psychic income) is obtained by multiplying the consumer surplus of the average individual in a sample by the total number of taxpayers in the city. The following case illustrates this approach.

CVM was used to identify the level of subsidy that would be acceptable to residents of Lexington, Kentucky, to support a new $100 million basketball arena for the University of Kentucky team, and a $10-$12 million baseball stadium which was intended to attract a minor league team to the community.

A survey was mailed to a random sample of households in Lexington. It showed respondents had a relatively high level of enthusiasm for the basketball team, but that this did not translate into support for a large subsidy. The data suggested Lexington residents would support a subsidy of between $311,000 and $610,000 a year, which would service a capital cost of between $3.71 million and $7.28 million—far below the envisaged $100 million cost. The community's subsidy tolerance for the stadium was between $302,000 and $592,000, which would service a capital cost between $3.6 million and $7.06 million. Again, this was much lower than the $10 - $12 million projected cost of the stadium (Johnson & Whitehead, 2000).

A similar study was undertaken to evaluate the worth of the Pittsburgh Penguins NHL team to the residents of Pittsburgh in 1998 when they were at risk of moving to another city or being disbanded by the NHL. The results suggested that residents were prepared to pay between $1.9 and $5.3 million per year. When this was capitalized by using present discounted values, Pittsburgh residents valued the team at between $17.2 and $48.3 million (Johnson, Groothuis & Whitehead, 2001).

Conclusion

The prevailing contemporary financing model of facilities for professional sports teams is that their construction should be a private-public partnership. Conceptually, facilities should be subsidized to the extent that benefits to the whole community are perceived to accrue. These spill-over benefits have been classified and discussed in five categories: (1) direct economic impact; (2) increased community visibility; (3) enhanced community image; (4) stimulation of other development; and (5) psychic income.

To this point, justifications for public subsidy have been almost exclusively external. That is, they have focused on the direct and indirect influence that facilities have on encouraging individuals or entities from outside a community to invest in it. The emphasis has been on their contribution to economic development. The first four of these five categories encapsulated this thrust. The prevailing paradigm is illustrated in Figure 1.

Figure 1 indicates that economic development may be fostered by the spending of visitors to a community whose reason for being there is directly related to the games played in the facility. However, it was noted earlier in this paper that economic impacts associated with major league teams are likely to be small. The notion that economic development will result from increased community visibility and enhanced community image may be intuitively appealing, but it is a superficial nexus with scant empirical evidence to support it. Visibility that increases

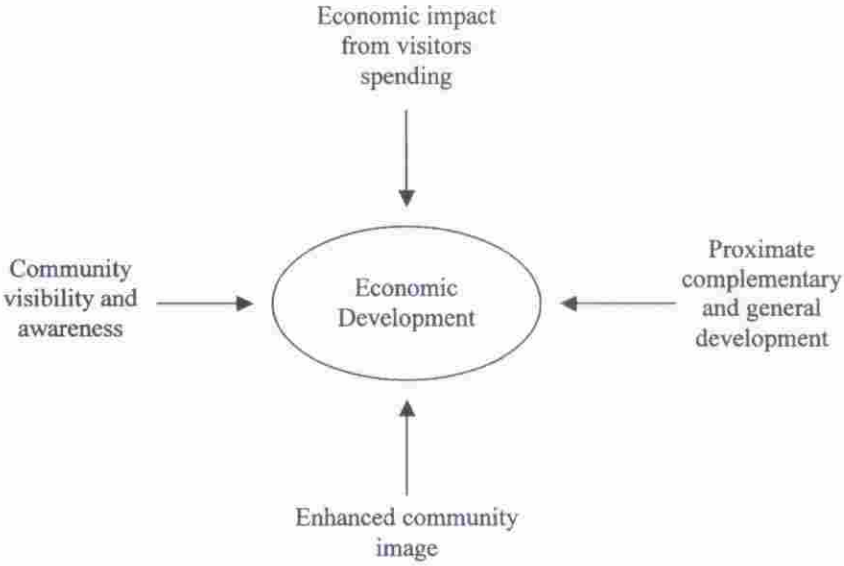

Figure 1 — The Economic Development Paradigm.

external awareness and positive image are both necessary preliminary stages of a purchase or location decision, but there are a large number of other factors that enter into it. Neither of these attributes change the underlying cost, labor, transportation, incentive, quality of life and market factors that influence business location decisions. Any relationship between visibility and image, and economic development appears to be tenuous at best.

The argument that major facilities stimulate other development is convincing in only a very few cases (e.g., downtown redevelopment in Indianapolis and Cleveland). In these rare instances of perceived success, the sports facilities have been only one part of a comprehensive plan. The sports facilities themselves were not sufficient to stimulate a level of proximate, complementary or general development that justified the magnitude of public subsidy invested in them.

Many studies have been reported which empirically explored the relationship between sports facility construction and economic development (Baade, 1996; Baade & Dye, 1990; Coates & Humphreys, 1999; Noll & Zimbalist, 1997; Rosentraub, 1994; Walden, 1997). Their findings are remarkably consistent. None have found any statistically positive correlation between them (Siegfried & Zimbalist, 2000). Indeed, the most recent of these studies reported that new stadiums and sports teams actually reduced per capita income in the host communities (Coates & Humphries, 1999). The explanation for this was that the leisure expenditures captured by the stadium/team were not new, they merely displaced previous leisure expenditures those individuals made in the community. Since many

team players and owners do not live in the community, there is substantial leakage, whereas the earlier leisure expenditures were at businesses where the leakage was much smaller. In general, sports are too small a component of any economy to lead economic changes or to propel large-scale redevelopment efforts (Rosentraub, 1997).

Justifications for public subsidy which rely on the emergence of economic development as the source of reasonable return for the public investment usually are unconvincing. Evidence in this paper suggests that all types of spillovers may generate some benefits in some contexts, for example, if a facility is well integrated into a strategic economic development, it may facilitate economic benefits. However, the prevailing evidence is that substantial measurable economic impact from a facility has rarely been demonstrated. Hence, in the context of facilities for professional sports facilities, the paradigm illustrated in Figure 1 generally has been found to be incomplete.

This is causing the focus of the argument for public subsidy to be redefined, away from economic impacts and economic development towards psychic income benefits. This is the new frontier. This redefinition enables decision makers to retain their integrity while supporting public subsidy of a facility. It is an alternative to the contorted and embarrassing shenanigans to which many of them have resorted to this point. Instead of relying on the wistful "spin" that external sources will invest in the community as a justification for public subsidy of facilities, emphasis is shifting to measuring the benefits that accrue to existing residents living within it. By shamelessly using flawed economic rationales to justify subsidies of major facilities, elected officials and other community elites are characterized as untrustworthy, manipulative, charlatans with an agenda to sell. If a new psychic income paradigm for justification and scientific measurement is used to appraise the value of the psychic income and, hence, the subsidy invested, then these proponents could reposition themselves as responsible keepers of the public trust (Hamilton & Kahn, 1997).

The new psychic income paradigm is shown in Figure 2. Instead of focusing on visitors' economic impacts, this suggests that their important contribution is to generate an increase in the "excitement quotient" in a host community (or area of it) that occurs when a large influx of visitors comes to it. Sometimes an ambiance of vibrance and vitality is created by a temporary influx of sports fans excitedly anticipating a game. This may be contagious and temporarily transferred to locals.

Increased community visibility may be a source of pride to residents who derive satisfaction from their community's name being widely disseminated across the nation. It reinforces their belief, and the belief of others, that they live in a community of stature. Similar emotions may be forthcoming from residents' perceptions of enhanced image stemming from being a "major league" or "first tier" city, and from living in a city that demonstrates to the rest of the world a positive "can-do" attitude towards major projects. Psychic income also may be derived from a community's effort to resuscitate a deteriorating area. The notion that "something is being done" may alleviate the collective community conscience, irrespective of the degree to which the outcome is successful.

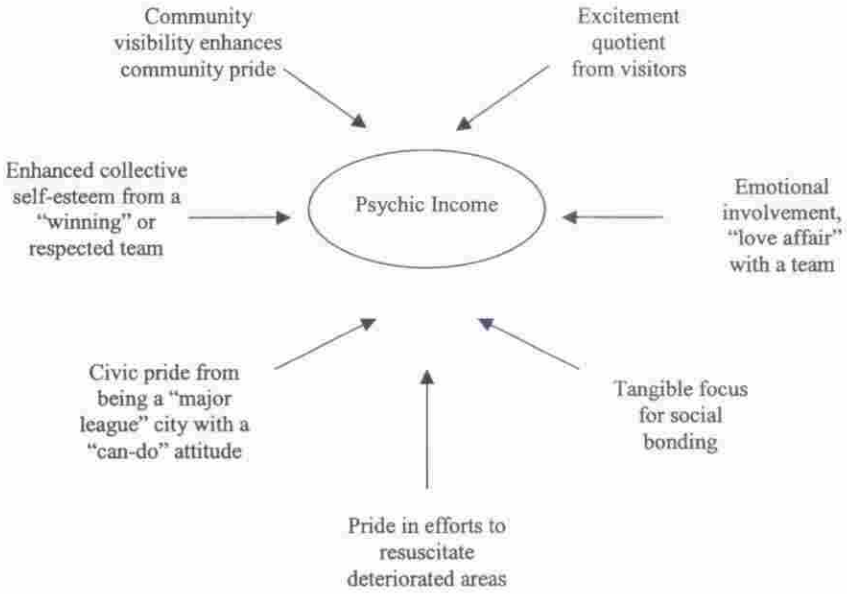

Figure 2 — The Psychic Income Paradigm.

Finally, there are the more obvious intrinsic dimensions of psychic income discussed in the previous section of this paper. Sports franchises offer a forum for community excitement that expands to a sort of mass community ecstasy when they are successful. Emotional excitement stems from "the love affair" with the team; the tangible focus it offers for social bonding; and the enhanced collective self-esteem emanating from a winning or widely respected team.

This shift in paradigms leads to the conclusion that instead of investing funds in commissioning flawed economic impact studies, proponents of public subsidies for major league sports facilities would be better advised to commission studies that measure the psychic income which residents ascribe to a sports team or event. This is likely to be substantial and to provide a more legitimate underpinning for subsidy of a sports facility. Consider the following example:

> For a stadium that receives a subsidy of $250 million in a metropolitan area with a population of five million, per capita costs are $50, and the per capita annualized cost of servicing the debt (interest, plus principal) to finance the stadium is $5. It does not vastly stretch credibility to argue that more than 50% of residents perceive they receive $5 worth of psychic income from the presence of a team. In such a scenario, it seems likely that a majority of citizens would vote in support of this subsidy in a referendum (Noll & Zimbalist, 1997).

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