Hamburgisches
WeltWirtschafts
Institut

Reihe Edition HWWI Band 3

Robert A. Baade and Victor A. Matheson

Professional Sports, Hurricane Katrina, and the Economic Redevelopment of New Orleans

in:

Zur Ökonomik von Spitzenleistungen im internationalen Sport

Herausgegeben von Martin-Peter Büch, Wolfgang Maennig und Hans-Jürgen Schulke

S. 123–146

Hamburg University Press
Verlag der Staats- und Universitätsbibliothek Hamburg
Carl von Ossietzky

Impressum

Bibliografische Information der Deutschen Nationalbibliothek
Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über http://dnb.d-nb.de abrufbar.

Die Online-Version dieser Publikation ist auf den Verlagswebseiten frei verfügbar *(open access)*. Die Deutsche Nationalbibliothek hat die Netzpublikation archiviert. Diese ist dauerhaft auf dem Archivserver der Deutschen Nationalbibliothek verfügbar.

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Hamburg University Press – http://hup.sub.uni-hamburg.de

PURL: http://hup.sub.uni-hamburg.de/HamburgUP/HWWI3_Oekonomik

Archivserver der Deutschen Nationalbibliothek – http://http://deposit.ddb.de/index.htm

ISBN 978-3-937816-87-6 (Printausgabe)

ISSN 1865-7974 (Printausgabe)

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Produktion: Elbe-Werkstätten GmbH, Hamburg, Deutschland

http://www.ew-gmbh.de

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Professional Sports, Hurricane Katrina, and the Economic Redevelopment of New Orleans[1]

Robert A. Baade and Victor A. Matheson

Introduction

Hurricane Katrina devastated New Orleans physically and economically after making landfall on August 29, 2005. Full recovery, which generally follows natural catastrophes in the United States given the inflow of funds for reconstruction, seems less certain in the Crescent City. Citizens and businesses that left New Orleans following the storm have exhibited a reluctance to return. The city's professional sports teams are included among those enterprises that departed New Orleans in the wake of Hurricane Katrina. The National Football League (NFL) Saints played home games in three different cities (San Antonio, Baton Rouge, and New York City) during 2005. The National Basketball Association (NBA) Hornets took up residence in Oklahoma City for 35 of their 41 home games during the 2005/06 season, returning to Louisiana (although playing in Baton Rouge and not New Orleans) for a largely symbolic six games. The Arena Football League's Voodoo abandoned their entire 2006 schedule. The University of New Orleans and Tulane, both National Collegiate Athletic Association (NCAA) Division 1 schools, either canceled entire seasons for individual sports or played "barnstorming" seasons with no home games.

What is the future of professional and spectator sports in New Orleans, and what roles do sports play in the economic redevelopment of the city? The purpose of this paper is to analyze the extent to which the city of New Orleans should direct its redevelopment dollars toward its sports infrastructure. Has New Orleans benefited economically from its role as host to major professional

[1] Reprinted with permission of the *Western Economic Association*. The paper originally appeared in Contemporary Economic Policy, Vol. 25, No. 4, pp. 591–603.

sports teams and a disproportionate number of mega-sports events given its size and demographics? Do commercial sports enable a rebuilding of New Orleans's storm-ravaged infrastructure or does it force civic trade-offs made even more painful by the storm?

Independent scholarship in general has not supported the thesis that professional sports induce significant increases in economic activity for host cities. New Orleans, however, may be different. The city is smaller and less affluent than other host cities in general, and it may be that the frequency with which large sports events are hosted by New Orleans makes the area an exception to the experience of most cities with regard to sports and economic development. The gravity of the city's economic situation in the wake of Katrina necessitates an individual and more complete appraisal as strategies for economic redevelopment are explored. Answers to the questions raised in this introduction require a review of, among other things, New Orleans' place in the national professional sports landscape, the extent of the damage Katrina wrought, the amount of redevelopment money the city must commit, and the evidence with regard to the impact sports has on host city economies with special attention to the circumstances that surround New Orleans in its rebuilding period.

New Orleans Prior to Katrina

While New Orleans hosts major league franchises in both the NFL and NBA, with a pre-Hurricane metropolitan area population of less than 1.5 million residents, the city was already a small market for any of the major sports leagues in the U.S. As shown in Table 1, New Orleans is the 41st largest metropolitan area in the United States by population, and is the 36th largest city out of the 40 hosting a team from one of the five large professional sports leagues in country. Furthermore, five cities in the country without any major sports franchises, Las Vegas, Virginia Beach/Norfolk, Providence, Greensboro, and Austin, are all larger than New Orleans. Another nine larger cities are without an NBA team, including several with strong ambitions to attract a franchise such as Kansas City and St. Louis. 14 cities without an NFL franchise have larger population bases than New Orleans, including Los Angeles, the nation's second largest market, and football hungry San Antonio, which played host to the New Orleans Saints for three of their "home" games during the 2005 season. Not only is New

Orleans small, but it is also relatively poor, ranking 45th in per capita personal income among the cities listed in Table 1 and 36th out of the 40 cities with major professional sports franchises.

Table 1: Summary Statistics for U.S. Metropolitan Areas (2004)

City	Population	Rank	Per Capita Income (in US-Dollar)	Rank	NFL	NBA	NHL	MLB	MLS	Total
New York City, NY	21,899,042	1	43,428	4	2	2	3	2	1	9
Los Angeles, CA	17,481,473	2	33,264	30	0	2	2	2	2	8
Chicago, IL	9,610,038	3	36,935	12	1	1	1	2	1	6
San Francisco-Bay Area, CA	7,148,000	4	46,926	2	2	1	1	2	0	6
Philadelphia, PA	5,949,976	5	38,475	10	1	1	1	1	0	4
Dallas-Fort Worth, TX	5,927,494	6	35,105	17	1	1	1	1	1	5
Boston, MA	5,802,063	7	43,664	3	1	1	1	1	1	5
Detroit, MI	5,424,253	8	35,955	15	1	1	1	1	0	4
Washington, DC	5,405,816	9	65,027	1	1	1	1	1	1	5
Miami-South Florida, FL	5,355,903	10	34,278	21	1	1	1	1	0	4
Houston, TX	5,277,455	11	36,529	13	1	1	0	1	1	4
Atlanta, GA	5,121,741	12	33,251	31	1	1	1	1	0	4
Seattle, WA	3,766,678	13	40,081	6	1	1	0	1	0	3
Phoenix, AZ	3,713,291	14	31,133	44	1	1	1	1	0	4
Minneapolis-St. Paul, MN	3,434,066	15	39,796	8	1	1	1	1	0	4
Cleveland, OH	2,938,607	16	33,522	28	1	1	0	1	0	3
San Diego, CA	2,935,190	17	37,965	11	1	0	0	1	0	2
St. Louis, MO	2,829,371	18	34,461	19	1	0	1	1	0	3
Baltimore, MD	2,644,744	19	38,813	9	1	0	0	1	0	2

City	Population	Rank	Per Capita Income (in US-Dollar)	Rank	NFL	NBA	NHL	MLB	MLS	Total
Denver, CO	2,605,861	20	41,229	5	1	1	1	1	1	5
Tampa Bay, FL	2,586,417	21	31,677	43	1	0	1	1	0	3
Pittsburgh, PA	2,490,915	22	34,345	20	1	0	1	1	0	3
Sacramento, CA	2,157,974	23	33,567	27	0	1	0	0	0	1
Cincinnati, OH	2,099,045	24	34,221	22	1	0	0	1	0	2
Charlotte, NC	2,067,297	25	32,217	40	1	1	0	0	0	2
Portland, OR	2,062,109	26	33,875	26	0	1	0	0	0	1
Kansas City	1,994,720	27	34,207	23	1	0	0	1	1	3
Indianapolis, IN	1,934,621	28	34,186	24	1	1	0	0	0	2
Orlando, FL	1,923,655	29	29,256	51	0	1	0	0	0	1
Columbus, OH	1,917,450	30	33,109	32	0	0	1	0	1	2
San Antonio, TX	1,852,508	31	28,946	52	0	1	0	0	0	1
Milwaukee, WI	1,707,181	32	36,062	14	0	1	0	1	0	2
Las Vegas, NV	1,686,210	33	32,831	33	0	0	0	0	0	0
Virginia Beach-Norfolk, VA	1,641,671	34	31,811	42	0	0	0	0	0	0
Providence, RI	1,627,194	35	33,912	25	0	0	0	0	0	0
Salt Lake City, UT	1,559,957	36	29,775	48	0	1	0	0	1	2
Greensboro-Winston-Salem, NC	1,472,050	37	29,658	49	0	0	0	0	0	0
Nashville, TN	1,469,698	38	34,559	18	1	0	1	0	0	2
Raleigh-Durham, NC	1,466,593	39	33,292	29	0	0	1	0	0	1
Austin, TX	1,411,199	40	32,494	37	0	0	0	0	0	0
New Orleans, LA	1,362,086	41	30,693	45	1	1	0	0	0	2
Louisville, KY	1 332 300	42	32 543	35	0	0	0	0	0	0
Grand Rapids, MI	1 305 498	43	29 546	50	0	0	0	0	0	0
Hartford, CT	1 297 440	44	39 918	7	0	0	0	0	0	0

City	Population	Rank	Per Capita Income (in US-Dollar)	Rank	NFL	NBA	NHL	MLB	MLS	Total
Memphis, TN	1 248 492	45	32 741	34	0	1	0	0	0	1
Buffalo, NY	1,236,788	46	30,627	46	1	0	1	0	0	2
Jacksonville, FL	1,223,741	47	32,283	39	1	0	0	0	0	1
Oklahoma City, OK	1,210,109	48	30,033	47	0	0	0	0	0	0
Greenville, SC	1,172,838	49	27,207	53	0	0	0	0	0	0
Birmingham, AL	1,160,814	50	32,538	36	0	0	0	0	0	0
Richmond, VA	1,156,849	51	35,422	16	0	0	0	0	0	0
Albany, NY	1,140,770	52	32,298	38	0	0	0	0	0	0
Green Bay, WI	295,049	n. a.	31,925	41	1	0	0	0	0	1

Another strike against New Orleans is its business climate, as corporations play a major role in keeping a team financially competitive. It is one thing to provide highly profitable luxury seating; it is another to fill those seats. The city is home to just two Fortune 500 companies: Entergy, ranked 218th and Freeport McMoRan Copper and Gold, ranked 480th, and there is, therefore, not the market for loges and club seats that can be found in the other NBA and NFL cities with which New Orleans competes.[2] One writer somewhat whimsically stated the NFL financial equation in the following way:

> "Instead of fans, the NFL seeks corporations ... While the NBA and Major League Baseball have guaranteed contracts for their players, the NFL with its exorbitant TV rights deals and corporate backing has practically given their owners guaranteed dollars ..."
>
> "The way business is done now is the owner convinces his buddies who own the largest businesses in their respective cities to buy majority (sic) of the season tickets and luxury boxes. The result: a term exclusive to the NFL, the guaranteed sellout. Saints owner Tom Benson can't do that in New Orleans because there are no major corporations other than Entergy to back him."[3]

[2] Corbett (2006).

[3] Terrebonne Parrish Courier (2005).

The competition to host a professional sports team is often as fierce as the competition among athletes on game day, and the lack of population base and both personal and corporate wealth places New Orleans at a considerable disadvantage in supporting and, therefore, retaining either the Saints or the Hornets. Prior to Hurricane Katrina, in fact, New Orleans appeared to be on the verge of losing their NFL franchise. Tom Benson, the owner of the Saints, had reportedly rejected the state's final offer to keep the Saints in New Orleans in late April of 2005. The state's offer included not only public financing of over 75 % of a proposed 174 million US-Dollars Superdome renovation, but also direct cash payments to the Saints totaling 64 million US-Dollars through 2008 and 9.5 million US-Dollars per year after the completion of the renovations to the Superdome in 2008.[4] The state's offer to the Saints, including the annual cash subsidy, would have placed the team in the top half of the financial standings in the NFL.

The fact that Benson would reject such an offer, which included a direct cash subsidy to the team, speaks volumes about the financial realities of the NFL and the inordinate transfer of business risk from teams to their host cities. While the state struggled to meet its contractual cash payments to the team in the wake of reduced tax revenues following the terrorist attacks of September 11, 2001, the only significant financial risk facing Tom Benson was the 81 million US-Dollars he would have been required to pay (representing the subsidies that the Saints have received since 2001), if he had broken his Superdome contract, which he could have done following the 2006 season.[5] That risk pales in comparison to the 1 billion US-Dollars written offer Benson claims to have received for the team in 2005, a 1,400 % increase over the 70 million US-Dollars price Benson paid for the Saints in 1985.[6] The lucrative offer Benson received for the team reflects at least in part the money-making potential of NFL teams, which is explained in large part by the subsidies cities extend to attract a supply of teams that is limited by the NFL and its owners.

While recognizing New Orleans shortcomings as it relates to its ability to host professional sports, on the other side of the coin, the city caters to the tourist trade to an extent that distinguishes itself from almost every other American city. The infrastructure that New Orleans has created arguably

[4] Martell (2005).

[5] Konigsmark (2005).

[6] Robinson (2005).

provides a comparative advantage in hosting events to include commercial sports over most cities in the United States. The city's performance in attracting outside events supports the idea that it has exercised its comparative advantage. Even though New Orleans is a relatively small city, it ranked fifth in the United States in the number of conventions hosted.[7] Prior to the storm, New Orleans annually attracted more than ten million visitors who spent in excess of five billion US-Dollars per year according to the New Orleans Metropolitan and Tourism Bureau.

The information recorded in Table 2 in a general sense indicates the extent to which New Orleans is geared to tourism. The fraction of the New Orleans economy that was accounted for by "Accommodation and Food Service" (NAICS 72) in 2004 indicated that New Orleans had a significantly larger tourist component than did the United States overall and three other southern cities in the U.S. that hosted NBA and NFL teams. It is noteworthy that the New Orleans tourist sector as measured by employees and payroll in NAICS 72 is more than 25 % larger than that of Miami, Florida, which among the comparison group is generally regarded as the most tourist based.

Table 2: Aggregate Measures of the Fraction of the Economic Activity for Selected Cities and the United States Represented by the "Accommodation and Food Service Industry" (NAICS 72) for 2004[8]

Geographic Area/ Statistic	NAICS 72 Employees as a % of Total Area Employees	NAICS 72 Annual Payroll as a % of Total Area Payroll	NAICS 72 Establishments as a % of Total Area Establishments
United States	9.34	3.46	1.61
New Orleans	13.46	5.83	9.47
Atlanta	9.22	3.15	7.38
Houston	9.05	2.83	7.35
Miami	10.56	4.52	5.95

Commercial sport, of course, is one important aspect of the tourist/leisure industry, and it could play a role in the economic revitalization of New Orleans. Since opening in 1975, the Superdome has hosted numerous sporting events of

[7] Tennessean News Services (2005).

[8] Source: http://censtats.census.gov/cgi-bin/msanaic/msasect.pl.

national significance including the NFL's Super Bowl in 1978, 1981, 1986, 1990, 1997, and 2002, the National Intercollegiate Athletic Association Men's Basketball Final Four in 1982, 1987, 1993, and 2003. Furthermore, the Superdome annually hosts the Sugar Bowl, one of college football's top post-season matches and a game which has determined college football's national champion nine times since 1975.

Replacing the infrastructure for professional sports and mega-sports events can be justified if the benefits provided by the facilities exceed the costs incurred in the reconstruction. Both costs and benefits have to be measured over time since the facilities provided a stream of benefits as well as generating costs associated with operations and maintenance (O&M). Comprehensive economic analysis would include not only the explicit benefits but also the implicit benefits and costs, which are difficult not only to measure but in many cases to identify.

Data do exist for New Orleans for the number of establishments, annual payroll, and number of employees for a variety of entertainment related industries defined according to the North American Industrial Classification System (NAICS) and these data are recorded in Table 2.

All data point to the fact that the economic activity accounted for through the "Arts, Entertainment, and Recreation" industry (NAICS 71) for New Orleans is absolutely small, but large when compared to the United States overall. Census data, thus, supports the idea that New Orleans is a tourist-based economy that exhibits an arts-entertainment-recreation industry that is larger than that characterizing the United States as a whole.

The contribution of "Spectator Sports" (NAICS 7112), however, is less than 1 % by any of the measures identified in Table 3. Despite the high salaries paid professional athletes, the spectator sports industry typically accounts for less than 1 % of a city's payroll, and, by that measure, the industry is not economically vital to cities in the United States in general to include New Orleans.

Numerous studies of both professional sports franchises and stadiums as well as of mega-events, furthermore, lend support to the notion that sports have little impact on local economies. Analyses of the Super Bowl,[9] NCAA Final Four,[10] and mega-events in general,[11] for example, have all concluded that these big sporting events have no statistically significant impact on any number of

[9] Baade/Matheson (2006) and Porter (1999).

[10] Baade/Matheson (2004).

[11] Coates/Humphreys (2002) and Baade et al. (2008).

economic variables such as employment, per capita income, metropolitan area-wide gross domestic product, or taxable sales. Most recently, Coates and Depken indicated ambivalence about the economic contribution of sports mega-events.[12] Coates and Depken concluded: "The upshot is, therefore, that these mega-events are not necessarily the economic windfall that their proponents portray them to be." Stadiums and professional franchises similarly show little in the way of economic benefits for host cities.[13]

Given the economically tenuous state of professional sports in New Orleans prior to Hurricane Katrina, it is difficult to imagine that a disaster of its magnitude would improve to prospects for the industry in the city. The next section of the paper summarizes the extent of the damage with a particular emphasis on the demographic changes that may be sufficiently long-lived to adversely influence the prospects for supporting professional sports in New Orleans in the long term.

Table 3: Aggregate Measures of the Fraction of New Orleans Economic Activity in Total Represented by Spectator Sports for 1997[14]

Ratio/NAICS Number	NAICS 71 Arts, Entertainment, and Recreation (U.S.)[15]	NAICS 711 Performing Arts, Spectator Sports, and Related Industries	NAICS 7112 Spectator Sports
Industry Employees/ New Orleans Total	4.07 % (1.61 %)	1.16 %	0.62 %
Annual Industry Payroll/ New Orleans Total	3.48 % (1.19 %)	1.39 %	0.34 %
Industry Establishments/ New Orleans Total	1.74 % (1.57 %)	0.94 %	0.20 %

[12] Coates/Depken (2006).

[13] Baade/Dye (1990), Coates/Humphreys (1999), and Baade et al. (2008).

[14] Specific data for New Orleans for two-digit NAICS 71 data and above for 1998 and beyond from the County Business Patterns website is not available. Archived data for NAICS and SIC data were used to calculate the percentages in the table. These percentages correspond to the higher end of the ranges identified in http://censtats.census.gov/cgi-bin/msanaic/msasect.pl. If an average of the value ranges identified were used, it would reduce the percentages and strengthen the arguments offered in the paper's text.

[15] Comparable Statistics for the United States are from the most recent County Business Patterns data for 2004. Source: http://censtats.census.gov/cgi-bin/msanaic/msasect.pl

Measuring Katrina's Devastation

Hurricane Katrina, which swept into New Orleans and the Gulf Coast on August 29, 2005, caused far and away the largest damages in real dollar terms of any hurricane in U.S. history, with uninsured losses topping 100 billion US-Dollars[16] and insured losses estimated at 34.4 billion US-Dollars[17]. Its final death toll of over 1,400 also places it among the worst natural disasters ever suffered by the United States. New Orleans was particularly hard hit by the storm, as flood waters remained for weeks after Katrina while levies were repaired, and rebuilding the city is an epic undertaking unmatched in scope and expense in recent U.S. history.

The cost of reconstructing New Orleans itself has been placed at more than 100 billion US-Dollars.[18] Approximately 80 % of New Orleans' 188,000 occupied housing units were severely damaged by the storm. Furthermore, more than half of the city's 100,000 owner-occupied homes were built before 1950, and their repair and replacement will require expensive modifications to meet modern building codes designed to prevent future hurricane damage.[19]

The damage to middle class neighborhoods has substantial implications for the redevelopment effort both as it relates to production and consumption. Without a middle class, New Orleans will not have the workers it needs to run the economy that existed prior to Katrina, and the spending necessary to restore the economy to pre-hurricane levels will be deficient. Katrina devastated the housing stock, schools, and other infrastructure vital to normal life for all socio-economic classes.

The extent of the damage to the social infrastructure must also be carefully assessed since the return of middle class workers and consumers is essential to the revitalization of the New Orleans economy. Even before Katrina, by nearly every measure of economic development, New Orleans lagged behind other large American cities. Labor force participation rates and employment to population ratios in New Orleans averaged 5 % to 10 % below national levels for most demographic groups.[20] Hurricane damaged areas in Louisiana had poverty rates above the national average (21.4 % vs. 12.4 %), and New Orleans resid-

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[16] Bloomberg News (2005).

[17] Powell (2005).

[18] Tennessean News Service (2005).

[19] Ibid.

[20] Gabe et al. (2005).

ents were less likely (55 % vs. 66 %) to live in owner-occupied housing than residents of other large cities.[21] Finally, the educational attainment of younger adults (age 18 to 34) for storm-damaged areas is generally below that for the rest of the nation. For example, 22.9 % of young adults in hurricane damaged areas had not completed a high school degree compared with 20.6 % nationwide, while only 22.5 % had completed a college degree compared with 29.3 % nationwide.[22]

These figures have several implications for the likelihood that people displaced will return. First, Katrina hit the economically disadvantaged hardest. Statistics indicate that other places in the nation to which they have relocated will improve their opportunities for employment. Second, significant portions of the middle class were displaced in the storm-ravaged area; 47.4 % of those displaced had education equivalent to some college or above.[23] Third, 45 % of those displaced did not live in homes that they owned indicating that a significant portion of the people displaced by Hurricane Katrina have weak financial ties to the communities they abandoned. A significant permanent displacement of the population affected by the storm will undermine or may substantially alter the socio-demographic character of neighborhoods mostly adversely affected by the storm. It should also be noted that virtually entire neighborhoods and parishes were wiped out by the storm, and devastation of that magnitude may well negate any pull that community loyalty and ties may exert in bringing people back. It has been estimated, for example, that Orleans Parish and St. Bernard Parish lost 65.9 and 89.8 % of their populations over the period October 2005 to January 2006.[24] Even if people were inclined to return, the infrastructure necessary to rebuild and sustain people has been eliminated. Government programs, furthermore, have been unable to compensate for lost private infrastructure to this point.

It is also important to note that the Superdome itself, which served an ill-fated role as a center for 30,000 refugees who were unable to escape the city prior to the storm, suffered extensive damage due to Katrina as did other sports facilities throughout the city.

[21] Gabe et al. (2005).

[22] Ibid.

[23] Ibid.

[24] Greater New Orleans Community Data Center (2005).

The Economy of New Orleans Post-Katrina and the Sports Industry

The New Orleans economy served the nation as a tourist center and transportation hub for water transport in particular as previously noted, and therefore, any economic redevelopment effort should focus on those industries, an opinion endorsed by members of an *ad hoc* committee of urban experts assembled under the auspices of the Urban Land Institute. The information in Table 4, to be specific, indicates that in July 2005, 32.9 % of the labor force in New Orleans was employed in the "Trade and Transportation" and "Leisure and Hospitality" sectors. The numbers recorded in Table 4 indicate several things worthy of note as it relates to characterizing the New Orleans economy pre- and post-Katrina. First, the transportation/trade and leisure/hospitality industries, the cornerstones of the New Orleans economy, are recovering, albeit slowly. The numbers employed in trade and leisure as of December 2006 remain down by 25.2 and 31.8 %, respectively, but are up from the July 2006 employment figures by modest amounts.

Second, the unemployment rate in New Orleans as of December 2006 is below that for the United States. Prior to Katrina, the unemployment rate in New Orleans was above the rate for the country. The smaller labor force in New Orleans following Katrina, of course, obscures developments with respect to the unemployment rate, but the workers who remained in or returned to New Orleans are able to find work.

Third, all relevant statistics in Table 4 point to a contraction of the leisure industry following Hurricane Katrina. There continues to be fewer people flying into New Orleans in comparison to pre-Katrina levels, and a smaller number of establishments to accommodate them. Nearly one year after Katrina, the number of retail food establishments was 44 % of the level prior to the storm, and the number of hotels open remains below the pre-Katrina level.

Fourth, the government sector has expanded relative to the private sector, and the federal government's presence, while absolutely and relatively small, is approximately one-third larger as measured in terms of the percentage-of-labor-force employed by the federal government in December 2006 than it was pre-Katrina.

Table 4: Comparing the Pre- and Post-Katrina Economies for the New Orleans MSA[25]

Statistic/Date	July 2005	July 2006	December 2006
MSA Population	1,292,774	914,745[26]	
Unemployment Rate	[Louisiana = 5.6 %] New Orleans = 5.3 % (United States = 4.9 %)	[Louisiana = 2.9 %] New Orleans = 4.2 % (United States = 4.8 %)	[Louisiana = 4.3 %] New Orleans = 4.4 % (United States =4.5 %)
Labor Force Size	637,952	440,521 (Down 30.9 % from July 2005)	432,494 (Down 32.2 % from July 2005)
Population Employed in the Transportation and Trade Sector	123,200	89,700 (Down 27.2 % from July 2005)	92,100 (Down 25.2 % from July 2005)
Population Employed in the Hospitality and Leisure Sector	86,500	58,500 (Down 32.4 % from July 2005)	59,000 (Down 31.8 % from July 2005)
Public Transportation: % of the System Operational	100 %	17 %	17 %
Number of Workers Employed by Government	103,000 or 16.3 % of the labor force for government at all levels; 15,600 for the federal government or 2.0 %	90,500 or 20.7 % of the labor force for government at all levels; 13,700 for the federal government or 3.1 %	91,300 or 20.4 % of the labor force for government at all levels; 12,100 for the federal government or 2.7 %
Number of Open Hotels	142	116 (Down 18 % from July 2005)	127 (Down 11 % from Jul 2005)
Open Retail Food Establishments	100 %	44 %	Not Available
Number of Passengers Arriving at the New Orleans Airport	441,356	281,015 (Down 36 % from July 2005)	286,018 (Down 35 % from July 2005)

[25] Source: Greater New Orleans Community Data Center, *The Katrina Index,* February 15, 2007, www.gnocdc.org; accessed on March 3, 2007.

[26] Statistic from January 2006. Note the metropolitan population for New Orleans fell by 29.2 % from July 2005 to January 2006.

It cannot be predicted at this juncture if and when New Orleans will return to those population and economic-activity levels that existed prior to the storm. There is compelling scholarship by Davis and Weinstein to suggest that population and economic activity across cities and regions within a country are not random occurrences, but rather reflect "locational fundamentals," e.g., location on a coast or significant river (physical geography), and economies of scale emanating from "economic clustering".[27] The Davis and Weinstein study is based on 8,000 years of data on Japanese regions, and Japan's population is far more homogenous than that characterizing the United States. The population of New Orleans is particularly diverse.

Other scholarship supports the importance of locational fundamentals in explaining developments relating to population movements following catastrophic events. Evidence following the Chicago Fire of 1871, indicates that the City's recovery from that event depended on location fundamentals specific to neighborhoods.[28] More recently, economic recovery from the 1992 Rodney King riots in Los Angeles was notably slow as compared to Miami's experience following the devastation of Hurricane Andrew in the same year.[29] Taken together, these findings suggest that heterogeneity as it relates in part to ethnicity, shared values and culture, income and wealth, and education can retard redevelopment and efforts to resettle. Many New Orleans neighborhoods where redevelopment has been slow to occur exhibit marked variation in these characteristics and relatively low rates of home ownership as previously mentioned.

The extent of the devastation caused by Katrina coupled with the demographic character of New Orleans prior to the storm bears on the prospects that residents of the city will resettle. The likelihood that New Orleans will return to its pre-Katrina state, in turn, will affect the probability that professional sports teams will remain in the city. If the chances increase that pro-sport teams will eventually leave due to a lack of fan support that has implications for the efficacy of substantial public investments to replace or repair the professional sports infrastructure.

Paradoxically, the extent of the devastation and the significant pressure exerted on the public sector to demonstrate its resolve and ability to help the city recover enhances the prospects that those edifices most representative of

[27] Davis/Weinstein (2002).

[28] Macaulay (2005).

[29] Baade/Matheson (2004), and Baade et al. (2007).

the city to the outside world will be restored. Delaney and Eckstein identified the strength of "local growth coalitions" as vital to understanding public choices regarding the construction of sports infrastructure.[30] The public choice theory detailed by Delaney and Eckstein helps explain decision making in New Orleans with regard to the rapid reconstruction of the Superdome, and the successful floating of the 294 million US-Dollars bond issue that financed the repair. Not only was there a strong local growth coalition following Katrina, but that local effort was bolstered by a strong national sentiment for helping New Orleans get back on its feet. Ironically, the ineptitude that government displayed arguably at all levels immediately following the storm increased the pressure on government to correct the negative perceptions about its performance. Louisiana Governor Kathleen Babineaux Blanco in announcing the bond sale remarked that, "Rebuilding and reopening the Superdome were critical steps in Louisiana's recovery from hurricanes Katrina and Rita and this bond sale made them possible".[31] The Superdome as a symbol of the city's ability to survive and its struggle to recover achieved particular significance as Katrina's impact played out.

The demand for the Saints, the primary tenant of the Superdome, has been given a boost by the increase in the political demand for the Superdome. The political resistance for public subsidies to keep the Saints from marching elsewhere has eased, and the successful sale of the bonds to repair and renovate the Superdome corroborates that assertion. The NFL, furthermore, has to temper Tom Benson's desire to move the franchise to keep the League's image from being tarnished further by widely criticized franchise moves from Los Angeles to St. Louis and Oakland and from Cleveland to Baltimore. The "good-cop" role played by the NFL in keeping the Saints in New Orleans may well facilitate financial transfers to Tom Benson from a grateful city. All in all, in a peculiar way, financial transfers to Tom Benson have been made easier as a consequence of the storm.

Once again the efficacy of those transfers depends on the prospects for redevelopment in New Orleans and that depends on the city's ability to restore its place as a leading transportation and leisure center. Much of the tourism industry in New Orleans is "high-ground" based in the French Quarter, the Centr-

[30] Delaney/Eckstein (2003).

[31] New Orleans City Business (2006).

al Business District (CBD), and the Garden District. The Urban Land Institute committee, which met on November 18, 2005 opined:

> "New Orleans should concentrate its rebuilding efforts on the sections of the city that occupy the high ground, while securing lower-lying areas for potential long-term rebirth … it's not practical to redevelop every acre of New Orleans in the short term, considering that 300,000 residents and 160,000 jobs have been lost. It's also not socially equitable to allow residents back into neighborhoods that do not have adequate levee protection and may be toxic …".[32]

The report of the Bring Back New Orleans Commission recommended that all of New Orleans not necessarily be rebuilt. If that recommendation is followed, the post-Katrina New Orleans will be smaller than the it was before the storm, and that has implications for the ability (or willingness) of sports to serve as a catalyst for economic redevelopment. Even if the metropolitan area shrinks by as few as 250,000 residents, still suggesting that over 80 % of the population would return to the area, New Orleans would become the second smallest "major-league" city in the country behind only Green Bay, Wisconsin, and would be smaller than such distinctly "non-major league" cities such as Albany, Richmond, Birmingham, and Grand Rapids, Michigan.

Tourists will not likely return to a city that cannot provide essential services, and in the absence of tourists, the New Orleans economy will struggle at least for a time. One part of the blueprint for restoration of the New Orleans economy will require restoration of housing and essential services for its middle class who provide the labor and entrepreneurial talent for the tourism industry, followed by a revitalization of those businesses that cater to tourists. The extent to which professional sports and mega-events contribute to the tourist trade must be assessed in determining the fraction of scarce capital resources that should be devoted to the restoration of the infrastructure necessary to accommodate professional sports and mega-sports events.

Following Katrina, plans for completely replacing the Superdome were scuttled, but as previously mentioned bonds were sold to renovate the Superdome. These funds were used to not only repair the Superdome but more than 50 million US-Dollars was spent to update the facility with new audio and visual equipment, more luxury seating, concession stands and wider con-

[32] Carr (2005).

courses so that it would be competitive with the newer structures that exist in the NFL. While the NFL as a league pledged 20 million US-Dollars towards these repairs, Saints owner Tom Benson, the primary tenant of the facility, paid nothing towards its reconstruction. Louisiana had only a 500 million US-Dollars insurance policy on state buildings along with 100 million US-Dollars in flood insurance, and the Superdome was just one of the many public buildings including schools damaged by the storm, so some have questioned the priority placed on this facility.[33]

Given the very small percentage of economic activity in New Orleans accounted for by the sports industry, it may not be prudent to devote a disproportionate share of scarce redevelopment funds to that sector. An even stronger argument can be made against refurbishing the Superdome to accommodate the financial needs of the NFL Saints since their owner has consistently sought economic concessions from a city and state that were financially stressed even prior to Katrina.

The economic incentive for the Saints owner to keep the team in New Orleans has been compromised by Katrina if the New Orleans economy cannot recover. Lacking the financial wherewithal to support professional sports following Katrina, it is not reasonable to expect that the team will make the financial sacrifices that are necessary as New Orleans attempts to rebuild. Furthermore, unlike the efforts made by large oil companies and small business alike to repair the capital intensive oil refineries as well as small restaurants and shops in and around the city, there exists little motivation for the Saints to recoup their small investment in infrastructure. This points to a larger problem with the financial structure of the professional sports industry throughout the United States: the existence of substantial subsidies for infrastructure undermines the team commitment to their host cities, and absent any meaningful risk to their own capital, what incentive do teams have to stay in a city that experiences a catastrophe on the scale of Hurricane Katrina if a portion of the team's investment in infrastructure is recoverable? There is little question that in the vast majority of cases, the financial risk accompanying hosting professional sports in the United States is disproportionately borne by the host community. Katrina provides striking testimony to the reality of how subsidies for sports infrastructure have contributed to that financial vulnerability.

[33] Corbett (2006).

While much of New Orleans' Lower 9th Ward remains a tangle of rubble and destroyed houses more than one year after Katrina, the Superdome reopened for the 2006 NFL season. The restoration of the Superdome and the return of the Saints has symbolic significance, but it does not necessarily serve to indicate that New Orleans is on the road to recovery. Those residents who have returned to the city have embraced the team by purchasing a record number of season tickets for the 2006 season. The fans' response, however, failed to impress the Saints owner who noted that, "You haven't seen the total commitment yet. No National Football League team can live on tickets alone ... The next big step is that the business community needs to step up."[34] Limited by the small number of large corporations in the city and the redevelopment priorities faced by the city's small businesses, 40 % of the Superdome's luxury suites remained unsold as of May 2006. As luxury suites are not part of the league's revenue sharing deal, they provide significant profits to a team's owner. The fact that Tom Benson was unsatisfied with the millions spent on stadium repairs and improvements entirely paid for by others and with record season ticket purchases by local residents bodes ill for the Saints' long-term future in New Orleans. The fact that the Saints played for the National Football Conference title in January of 2007 should create excitement about the team for the near future, but the team will have to sustain success to maintain the extraordinary level of fan interest necessary in very small markets. Relatively high revenues are the key to keeping teams, and as Tom Benson noted that requires more than ticket sales.

While the Hornets' future has received somewhat less press, in part because the team is relatively new to the city, that team's long-term future in the city appears equally shaky. The team has been officially renamed the Oklahoma City/New Orleans Hornets, and they will play only six of 41 home games in New Orleans during the 2006/07 season.

Consumer spending on major league professional sports by local residents probably also serves to slow down the recovery of the local economy. The money spent on attending a sports event by residents of the home-team community necessarily precludes them from spending that money on other locally owned and operated entertainment. Furthermore, local expenditures on professional sports may actually reduce total spending in the economy as opposed to simply reallocating money among competing ends. Professional sports,

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[34] Ibid.

which use national resource markets as opposed to locally owned and operated resources for alternative entertainment or recreational activities, may foster a net outflow of money. Most of the money spent on a night at a professional sports event goes to the athletes and owners of the team who may not live in the community in which they play. Siegfried and Zimbalist note that while 93 % of average employees live in the area where they work, only 29 % of NBA players do the same (and the figures are likely to be similar in the NFL and other major leagues).[35] Given the generally poor condition of the city following Katrina, it is even less likely that millionaire athletes, and those with the financial wherewithal to live elsewhere, will choose to reside in the Big Easy, and certainly owner Tom Benson, who has business interests in San Antonio, has shown little interest in spending money in the city.

Furthermore, the devastation of the middle and lower classes in New Orleans has eliminated not just the customers, but also the labor upon which professional sports relies. Each large event at the Superdome requires approximately 2,500 part-time workers. Unfortunately, the lack of housing in New Orleans means that no such pool of potential part-time workers is readily available in the city. Indeed, a good fraction of the workers at the facility will very likely have to come from outside the city. The leakage of money from New Orleans through athletes repatriating their incomes to their primary residences would further be enhanced by ordinary workers doing the same thing in some appreciable amount because of a lack of housing in many New Orleans neighborhoods. Post-Katrina, it is even less likely that income generated through commercial sports activities would remain in the city.

This is not to say that there are not any investments in sports infrastructure that can promote redevelopment. Tulane University, for example, engaged in a significant reconstruction program for its athletic complexes as part of its 250 million US-Dollars campus-wide rehabilitation effort following the hurricane.[36] Tulane, unlike the Saints, has a huge financial commitment in its campus, and it is motivated to recoup its past investment. Division 1 intercollegiate sports serve as a recruitment tool for both athletes and prospective students as the school attempts to rebuild its student body.

[35] Siegfried/Zimbalist (2002).

[36] Henderson (2006).

Conclusions and Policy Implications

Hurricane Katrina induced a massive outflow of residents and businesses from the city of New Orleans. The city's two major professional sports teams, the NFL Saints and NBA Hornets are included among the businesses that had to leave due to the extensive damage to their infrastructure. The capital costs and other financial commitments necessary to encourage the return of the Saints and the Hornets for the long term are substantial. The images of the NFL and NBA will be damaged if the Saints and Hornets do not at least make cameo appearances, but in the longer term, the teams and their leagues will demand greater revenue streams than can be generated in their current facilities even if New Orleans recovers to pre-Katrina levels. The fact that New Orleans and the State of Louisiana were directly subsidizing the teams indicates that pre-Katrina the teams were not generating revenues in their venues that allowed them to be financially competitive in their leagues. This paper has concluded that it may be financially ill-advised in the post-Katrina world to direct substantial funds at refurbishing and upgrading the Superdome and New Orleans arena or to continue to directly subsidize the franchises specifically to make the teams financially competitive.

Capital expenditures on the Superdome supplant capital expenditures on housing, schooling, and other middle class amenities that will bring the middle class back, and the reconstruction of the Superdome in the short run should have been undertaken only after spending on housing and other infrastructure repairs. Furthermore, restoration efforts for the Superdome and New Orleans Arena should not necessarily be directed towards amenities that provide the highest revenues for sports franchises, but instead providing a multipurpose facility for the general tourist trade. Providing physical accommodation for professional sports teams does not advance the economic interests of New Orleans in the short term. Doing so would exacerbate the economic problems that currently exist.

One odd consequence of Katrina is that it may well have made it virtually impossible for the Saints to leave New Orleans in the short term, while at the same time requiring substantial public investment to provide accommodations for the team for what may be a short-lived stay. The opportunity costs for the funds necessary to rebuild the sports infrastructure have never been higher, but the political demand for a demonstrable recovery from Katrina and Rita to include the highly symbolic reconstruction of sports facilities has sharply shifted the demand for their restoration to the right. The fact that a year after the storm, a bond issue for 294 million US-Dollars to refurbish the Superdome was sold with relatively little resistance provides striking testimony to this assertion. Tom Benson and the Saints have benefited from financial transfers from the City of New Orleans and the NFL. These transfers very likely would have been strongly contested and may not have occurred at all in the absence of the storm.

Cities in general should be mindful of the fact that subsidies for professional sports teams eliminate the financial incentives teams would have to remain in the community following a natural or man-made disaster. Businesses that have risked their own capital and built infrastructure have a financial stake in their host community, but the Saints and Hornets, as well as most professional sports teams in the United States, have few such ties to their local communities. Paradoxically, cities have contributed in a very substantial way to the incentive for teams to abandon a city in the face of a disaster on the scale of Katrina. The owner of the New Orleans Saints was making his way out of New Orleans before Katrina, and the storm probably has increased his perception of risk and diminished his long-term financial prospects in New Orleans to a point that it is not in his financial interest to stay there.

New Orleans will be rebuilt at the grassroots home by home and business by business. Locational fundamentals may well lead to the restoration of New Orleans long term. The rate at which the city is resettled and restored will bear on the ability of the NFL Saints and NBA Hornets to generate revenues that will encourage them to remain in the community. The Saints and the Hornets have invested little in infrastructure, and are motivated in large part by the size of future revenue streams in New Orleans relative to other cities that would like to host them. The city of New Orleans, on the other hand, has invested substantially in infrastructure for the teams, and, as a first step found it necessary to invest further in that infrastructure necessary to encourage the teams to stay. That stay will be short-lived in the absence of the return of the middle class so necessary to support the team and give the city any chance to recoup its infrastructure investment. To achieve this end, the order of capital expenditures in New Orleans should be levees, housing, middle class amenities, infrastructure for nonresident businesses, and lastly those industries that cater to the entertainment needs of the middle class.

The role of sports in the economic recovery of the city is dubious aside from serving as a symbol that the city remains vital. The repair of the Superdome and the New Orleans Arena is an expensive tease in that regard. The investment in infrastructure does little to provide what is needed for the community to recover from the storm. Sports and the hosting of mega-events may actually undermine longer term recovery through deflecting capital spending from where it is needed most and crowding out those workers and residents who are involved in the essential rebuilding process. Sports may provide a pleasant recreational amenity to returning residents, but at this juncture hedonic value and the economic interests of the sport elites should, out of financial and developmental necessity, take a seat on the bench in the interest of the greater good.

References

Baade, R. A., Dye, R. F. (1990): The Impact of Stadiums and Professional Sports on Metropolitan Area Development, Growth and Change, Vol. 21, No. 2, pp. 1–14.

Baade, R. A., Baumann, R. W., Matheson, V. A. (2007): Selling the Game: Measuring the Economic Impact of Professional Sports through Taxable Sales, Southern Economic Journal, Vol. 74, No. 2, pp. 794–810.

Baade, R. A., Baumann, R. W., Matheson, V. A. (2007): Estimating the Economic Impact of Natural and Social Disasters with an Application to Hurricane Katrina, Urban Studies, Vol. 44, No. 11, pp. 2061–2076.

Baade, R. A., Matheson, V. A. (2004): Race and Riots: A Note on the Economic Impact of the Rodney King Riots, Urban Studies, Vol. 41, No. 13, pp. 2691–2696.

Baade, R. A., Matheson, V. A. (2004): An Economic Slam Dunk or March Madness? – Assessing the Economic Impact of the NCAA Basketball Tournament, in: J. Fizel, R. D. Fort (eds.): Economics of College Sports, Praeger Publishers, Westport, pp. 111–133.

Baade, R. A., Matheson, V. A. (2006): Padding Required: Assessing the Economic Impact of the Super Bowl, European Sports Management Quarterly, Vol. 6, No. 4, pp. 353–374.

Bloomberg News (2005): Katrina cost: $100 billion, in: Chicago Tribune, October 1, 2005.

Carr, M. (2005): Rebuilding Should Begin on High Ground, Group Says, in: The Times-Picayune, November 19, 2005.

Corbett, J. (2006): Saints' March Back to New Orleans Still Tempered by Katrina's Harsh Realities, in: USA Today, July 2, 2006.

County Business Patterns (2003): NAICS, http://censtats.census.gov/cgi bin/cbpnaic/cbpdeti.pl, accessed January 31, 2006.

Coates, D., Humphreys, B. R. (1999): The Growth Effects of Sports Franchises, Stadia and Arenas, Journal of Policy Analysis and Management, Vol. 14, No. 4, pp. 601–624.

Coates, D., Humphreys, B. R. (2002): The Economic Impact of Post-Season Play in Professional Sports, Journal of Sports Economics, Vol. 3, No. 3, pp. 291–299.

Coates, D., Depken, C. (2006): Mega-Events: Is the Texas-Baylor game to Waco what the Super Bowl is to Houston?, International Association of Sports Economists Working Paper Series, No. 06-06.

Davis, D., Weinstein, D. (2002): Bones, Bombs, and Break Points: The Geography of Economic Activity, American Economic Review, Vol. 92, No. 5, pp. 1269–1289.

Delaney, K., Eckstein, R. (2003): Public Dollars, Private Stadiums, Rutgers University Press, New Brunswick.

Gabe, T., Falk, G., McCarty, M., Mason, V. (2005): Hurricane Katrina: Social-Demographic Characteristics of Impacted Areas, CRS Report for Congress, November 4, 2005.

Greater New Orleans Community Data Center (2005): Post-Disaster Population Estimates, Post-Katrina Estimates and Impact Data, URL: http://www.gnocdc.org.

Greater New Orleans Community Data Center, (2007): Post-Disaster Population Estimates, Post-Katrina Estimates and Impact Data, URL: http://www.gnocdc.org.

Henderson, J. (2006): A Year After Katrina: Tulane, in: Denver Post, August 26, 2006.

Konigsmark, A. (2005): Superdome Major Part of New Orleans Comeback, in: USA Today, December 29, 2005.

Martel, B. (2005): Coulon: Saints Rejected the State's "Final and Best Offer", in: USA Today, URL: http://www.usatoday.com/sports/football/nfl/saints/2005-04-29-stadium-issues_x.htm?POE=SPOISVA.

New Orleans City Staff Report (2006): New Orleans City Business, November 14, New Orleans.

Porter, P. (1999): Mega-Sports Events as Municipal Investments: A Critique of Impact Analysis, in: J, Fizel, E. Gustafson, L. Hadley (eds.): Sports Economics: Current Research, Praeger Publishers, Westport, pp. 61–74.

Powell, E. (2005): Survey Foresees $34.4 B in Katrina Claims, in: Associated Press, October 4, 2005.

Robinson, C. (2005): Saints on the March?, in: Yahoo! Sports, URL: http://sports.yahoo.com/nfl/news?slug=crowners052405&prov=yhoo&type=lgns, May 24, 2005.

Siegfried, J., Zimbalist, A. (2002): Note on the Local Economic Impact of Sports Expenditures, Journal of Sports Economics, Vol. 3, No. 4, pp. 361–366.

Tennessean News Services, (2005): Rebuilding of New Orleans Incredibly Big, Far From Easy: Massive Job Will Take Billions of Dollars and Tons of National Resolve, in: Nashville Tennessean, September 5, 2005.

Terrebonne Parrish Courier, (2005): Accessed May 16, 2005, http://www.houmatoday.com/apps/pbcs.dll/articleAID=/20050515/SPORTS/505150331/1034/SPORTS02.