AN ASSESSMENT OF THE ECONOMIC IMPACT OF THE AMERICAN FOOTBALL CHAMPIONSHIP, THE SUPER BOWL, ON HOST COMMUNITIES

by

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ABSTRACT

The National Football League (NFL) has encouraged league host cities to construct new stadiums. As an inducement, the NFL has offered some reluctant cities an opportunity to host the Super Bowl, the league championship game. Part of the NFL's apparatus of persuasion involves commissioned studies which assert a significant boost to metropolitan and regional economies from the Super Bowl. The latest NFL Super Bowl impact study estimates that taxable sales in South Florida increased by more than $670 million dollars from the Game. Are the economic impact estimates published by the NFL credible?

Our study indicates that the NFL has exaggerated the impact of the Super Bowl by a factor that in some instances could approximate ten. The economic hyperbole is explained by several factors. First, the studies in general fail to recognize that some of the spending that occurs in conjunction with the Game simply substitutes for spending that would occur in its absence. Second, the studies generally do not consider the leakages that are particularly acute for events provided by suppliers who are not residents of the metropolis in which the event is held. Third, the studies generally ignore how the Game affects the spending of the residents of the host community and contiguous communities.

Our study concludes that cities that currently host a NFL team should be wary of claims made by the league about the economic impact of the Super Bowl. The evidence does not suggest that the Super Bowl increases economic activity by an amount that would justify the hundreds of millions of dollars that stadiums typically cost.

Introduction

A joint study conducted by the National Football League (NFL) and the Sport Management Research Institute (SMRI) of Westin, Florida estimated an economic impact of $396 million from Super Bowl XXXIII on the South Florida economy (NFL, 1999). If those numbers are accurate, "Super" is an apt adjective for the event. Only the Summer Olympic Games can seriously propose an impact of such magnitude for a short-term sporting event. Reasons for skepticism, however, abound, and one may well need look no further than the NFL's motivation for making such lofty claims. Can a study either commissioned or performed by the NFL be objective if the NFL is using the promise of a future Super Bowl as an enticement for cities to build new stadiums? Modern sports facilities require some form of public funding, and the NFL at least indirectly rationalizes public financial support on the grounds that the economic impact from a single Super Bowl approximates the cost of building a new stadium. Coincidence? The purpose of this study is to estimate the economic impact of Super Bowls from 1973 through 1999. The results indicate that the economic impact of the Super Bowl is likely on average one-tenth or less the magnitude of the most recent NFL estimate.

Review of Super Bowl Economic Impact Studies

The economic impact estimates for the Super Bowl extend from one intellectual end zone to the other. The NFL-SMRI study is the most optimistic appraisal attributing a $670 million increase in taxable sales in South Florida (Miami-Dade, Broward, and Palm Beach counties) to the event (NFL, 1999). The NFL-commissioned study envisions a horde of affluent spendthrifts descending on the three-county area. Jim Steeg, the NFL's Vice President for special events since 1977, put the Super Bowl at the center of the mega-event universe.

> The Super Bowl is the most unique of all special events. Extensive studies by host cities, independent organizations and the NFL all try to predict the economic impact the big game will have on a community. They talk to tens of thousands of attendees, local businessmen, corporate planners, media and local fans -- looking to see how they are effected.
>
> These studies have provided irrefutable evidence that a Super Bowl is the most dramatic event in the U.S. Super Bowl patrons are significantly more affluent, spend more and have more spent on them, and influence future business in the community more than attendees of any other event or convention held in the U.S. (Steeg, 1999).

The NFL understands that it is competing for the sports entertainment dollar, and the League believes that stadiums factor prominently into consumer decisions relating to leisure spending. The NFL expects that 22 of their stadiums will be renovated or replaced during the 1992-2002 period (NFL, 1999). This substantial transformation of NFL infrastructure has been accomplished in part through league incentives to include hosting a Super Bowl in some cases and using League shared club seat revenues to help finance stadium construction.[1] In light of the NFL strategy, Steeg's claims warrant further scrutiny.

Scholars not directly connected to the NFL disagree on the economic impact of the Super

[1] At the March 1999 NFL meetings, the teams agreed to allow teams to qualify for up-front loans in an amount equal to 34 to 50 percent of the private contributions for stadium projects. The specific amount would be determined by the size of the project and the market the stadium would serve.

Bowl. In assessing the impact of Super Bowl XXVIII on the City of Atlanta and the State of Georgia, Jeffrey H. Humphrey estimated that the event created 2,736 jobs and had an impact of $166 million on the Georgia economy (Humphreys, 1994). Of the $166 million, Humphreys estimated direct and indirect economic impact of $76 and $90 million, respectively. The direct impact was derived from estimating the number of "visitor days" (306,680) and multiplying that statistic by the average estimated per diem expenditures per visitor ($252). The indirect or induced economic impact was estimated using the Regional Input-Output System (RIMS II) model developed by the Bureau of Economic Analysis. A portion of the $230 million difference between the estimates for Super Bowls XXXIII and XXVIII is explained by price increases, but most of the difference is attributable to the number of visitors and the daily spending attributable to each of them.

On the other end of the scholarly debate, Phil Porter used regression analysis to determine that the economic impact of the Super Bowl was statistically insignificant, that is not measurably different from zero (Porter, 1999). After reviewing short-term data[2] on sales receipts for several Super Bowls, Porter concluded:

> Investigator bias, data measurement error, changing production relationships, diminishing returns to both scale and variable inputs, and capacity constraints anywhere along the chain of sales relations lead to lower multipliers. Crowding out and price increases by input suppliers in response to higher levels of demand and the tendency of suppliers to lower prices to stimulate sales when demand is weak lead to overestimates of net new sales due to the event. These characteristics alone would suggest that the

[2] Porter's use of monthly sales receipts is important. If the researcher can compress the time period, then it is less likely that the impact of the event will be obscured by the large, diverse economy within which it took place. The use of annual data has the potential to mask an event's impact through the sheer weight of activity that occurs in large economies over the course of a year unless steps are taken to isolate the event.

> estimated impact of the mega-sporting event will be lower than the impact analysis predicts. When there are perfect complements to the event, like hotel rooms for visitors, with capacity constraints reduced to zero (Porter, 1999).

Billions of dollars of public funds are being spent on professional sports infrastructure. The NFL has offered the Super Bowl as an inducement to convince otherwise reluctant cities that the construction of a new stadium makes economic sense. Some scholars have taken issue with the NFL claims, and their more sober appraisals are buttressed by elementary economic theory which is discussed in the next section of the paper.

Theoretical Issues

There are standard techniques for estimating economic impact that have evolved over time, but in general represent an application of basic macroeconomic theory from the point of view of a metropolis. Technically speaking, an expenditure or incomes approach could be used to estimate the economic impact. The expenditure approach requires as a first step estimates of direct expenditures attributable to the event or project. These first-round, or direct expenditure changes are then used to estimate indirect expenditures through "multiplier" analysis. Briefly, multipliers are based on the notion that one person's spending becomes income for others who in turn spend a portion of that new income creating income for still others. The indirect spending converges to some amount because only a fraction of any income increment received as a consequence of someone's spending is spent again. In other words, some of the money leaks from this system through savings, taxation, or money spent outside the host economy (imports). Using this technique, if a mistake is made in estimating direct expenditures, those errors are compounded in estimating indirect expenditures. The secret to generating credible economic impact estimates using the expenditure approach is to estimate precisely direct expenditures.

Precisely measuring changes in direct expenditures is fraught with difficulties. Most prominent among them is an assessment of the extent to which spending in conjunction with the event would have occurred in the absence of it. For example, if an estimate was sought on the impact of professional sport on a local economy, consideration would have to be given to the fact that spending on sports may well merely substitute for spending that would occur on something else in the absence of professional sport. Therefore, if the fans are primarily indigenous to the community, sport may simply yield a reallocation of leisure spending while leaving total spent intact. This distinction between gross and net spending has been cited by economists as a chief reason why professional sports does not seem to contribute as much to metropolitan economies as boosters claim (Baade, 1996).

One of the attributes of a mega-event is that gross and net spending changes induced by the event are more likely to converge. Spending at a mega-event is more likely to be categorized as export spending since most of it is thought to be undertaken by people from outside the community. Skilled researchers will often eliminate the spending undertaken by local residents at a mega-event because it is likely to be inconsequential relative to that consumption which is undertaken by those foreign to the host community (Humphreys, 1994).

Eliminating the spending by residents of the community would at first blush appear to eliminate a potentially significant source of bias in estimating direct expenditures. Surveys on expenditures by those attending the event, complete with a question on place of residence, would appear to be a straightforward way of estimating direct expenditures in a manner that is statistically acceptable. However, while surveys may well provide insight on spending behavior for those patronizing the event, such a technique offers no data on changes in spending by residents not attending the event. It is conceivable that some residents may dramatically change their spending during an event in order to avoid the congestion in the venue'ss environs. In general, a fundamental shortcoming of economic impact studies is not with information on spending for those who are included in a direct expenditure survey, but rather with the lack of information on the spending behavior for those who are not.

A second potentially significant source of bias in economic impact studies relates to leakages from the circular flow of spending. For example, if the host economy is at or very near full employment or if the work requires specialized skills, it may be that the labor essential to conducting the event resides in other communities where there is a labor surplus or unemployment overall or within a specific labor market. To the extent that this is true, then the indirect spending that constitutes the "multiplier effect" must be adjusted to reflect this leakage of income and subsequent spending.

Labor is not the only factor of production that may repatriate income. If hotels experience higher than normal occupancy rates during a mega-event, then the question must be raised about the fraction of increased earnings that remain in the community if the hotel is a nationally owned chain.[3] In short, to assess the impact of mega-events, a balance of payments approach must be utilized. Since the

[3] It is not altogether clear whether occupancy rates increase during mega-events. It may be that the most popular convention cities, those most likely to host the Super Bowl, would experience high occupancy even if they are not successful in hosting the event. Evidence, however, suggests that room rates increase substantially during the Super Bowl, but questions regarding the final destination of those additional earnings remain.

input-output models used in the most sophisticated *ex ante* analyses are based on fixed relationships between inputs and outputs, such models do not account for the subtleties of full employment and capital ownership noted here.

As an alternative to estimating the change in expenditures and associated changes in economic activity, those who provide goods and services directly in accommodating the event could be asked how their activity has been altered by the event. In summarizing the efficacy of this technique Davidson opined:

> The biggest problem with this producer approach is that these business managers must be able to estimate how much "extra" spending was caused by the sport event. This requires that each proprietor have a model of what would have happened during that time period had the sport event not taken place. This is an extreme requirement which severely limits this technique (Davidson, 1999).

An expenditure approach to projecting the economic impact of mega-events is likely to yield the most accurate estimates, and, and as a consequence we will be comparing results generated by our model to the estimates of others that were derived using an expenditure approach. In the next section of the paper, the model that is used to estimate the impact of the Super Bowl is detailed.

The Model

The economic activity generated by the Super Bowl is likely to be small relative to the overall economy, and isolating the event's impact, therefore, is not a trivial task. In constructing a model to estimate the impact an event has had on a city, several approaches are possible and suggested by past scholarly work. Previous models used to explain metropolitan economic growth have been summarized by Mills and McDonald (1992). They identified five theories: export base, neoclassical growth, product cycle, cumulative causation, and disequilibrium dynamic adjustment. Our task is not to replicate explanations of metropolitan economic growth, but to use past work to help identify how much growth in metropolitan employment is attributable to the Super Bowl. To this end we have selected explanatory variables from past models to help establish what employment would have been in the absence of the Super Bowl and then compare that estimate to actual employment levels to estimate the contribution of the Game. The success of this approach depends on our ability to identify those variables that explain the majority of observed variation in growth in employment in those cities that have hosted the Super Bowl.

To isolate the Game's impact, both external and internal factors need to be considered. External factors might include, for example, a relocation of people and economic activity from the "rust/frost belt" to the "sun belt," changes in the disposition of the federal government toward revenue sharing, and changes in the demographic character of urban America. Internal factors might include a change in the attitude of local politicians toward fiscal intervention, a natural disaster, or unusual demographic changes. One technique would be to carefully review the history of cities in general and particular and incorporate each potentially significant change into a model. An alternative is to represent a statistic for a city for a particular year as a deviation from the average value for that statistic for cohort cities for that year. Such a representation over time will in effect "factor out" general urban trends and developments. For example, if we identify a particular city's growth in employment as 10 percent over time, but cities in general are growing by 5 percent, then we would conclude that this city's pattern deviates from the norm by 5 percent. It is the 5 percent deviation that requires explanation and not the whole 10 percent for our purposes in this study.[4]

In modeling those factors that are unique to individual cities, it is helpful to identify some conceptual deficiencies characterizing the demand side of *ex ante* and *ex post* models that exaggerated economic impact estimates. Many prospective economic impact studies fail to make a distinction between gross and net spending changes that occur as a consequence of hosting a mega-event. In *ex post* studies, failure to factor out the city's own secular growth path could embellish an estimate of the contribution of the Super Bowl. *Ex ante* studies even in very sophisticated forms are based usually on the premise that important economic relationships remain unchanged. It is, after all, historical experiences that defines the statistics upon which prospective impact estimates are based. However, if the event is significant in a statistical sense, will not the event modify historical experience? We cannot claim a significant impact, and at the same time claim that history will be unaltered. Our model, therefore, in various ways "factors out" the city's historical experience. To continue with our example from above, if history tells us that a city that experiences a growth in employment that is 5 percent above the national average, before and after a mega-event, then it would be misguided to attribute that additional 5 percent to the mega-event. If after the Game, the city continued to exhibit employment increases 5 percent above the national norm, the logical conclusion is that the Super Bowl simply

[4] It should be remembered that our intent here is not to focus on what accounts for all growth in cities. Rather our task is to determine how much the Super Bowl contributes to a city's economy. It is true that trend-adjusting does not provide any economic insight about those factors responsible for metropolitan growth, but adjusting for trends enables us to focus attention on a smaller component of growth for a city which the Super Bowl may help explain.

supplanted other economic developments that contributed to the city's above-average rate of growth.

The alternative to the technique outlined to this point, would be to carefully review the history of cities in general and particular, and explicitly incorporate each potentially significant change into the model. This technique has practical limitations to which past studies attest. Economists who have sought to explain growth using this technique have followed traditional prescriptions, and have developed demand- or supply-centered models through which to explain growth.[5] Some scholars have combined both demand and supply arguments.[6] Both supply and demand models have strong theoretical underpinnings. Those who utilize a demand approach with some version of employment as the independent variable base their theory on the notion that the demand for labor is ultimately derived from the demand for goods and services. Those who favor a supply approach would argue that cost factors are the most critical in explaining employment in a metropolitan statistical area (MSA) or region.

Given the number and variety of variables found in regional growth models and the inconsistency of findings with regard to coefficient size and significance, criticisms of any single model could logically focus on the problems posed by omitted variables. Any critic, of course, can claim that a particular regression suffers from omitted-variable bias, it is far more challenging to address the problems posed by not including key variables in the analysis. In explaining regional or metropolitan growth patterns, at least some of the omitted variable problem can be addressed through a careful specification of the

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[5] To assess the relationships between costs and growth see: Mills and Lubuele (1995), Terkla and Doeringer (1991), and Goss and Phillips (1994).

[6] See, for example, Duffy (1994) and Wasylenko (1985).

dependent and independent variables. As noted above, representing relevant variables as deviations from city norms, leaves the scholar a more manageable task, namely that of identifying those factors that explain city growth after accounting for the impact of those forces that generally have affected regional or MSA growth. For example, a variable is not needed to represent the implications of federal revenue sharing, if such a change affected cities in ways proportionate to changes in demographic characteristics, e.g. population, used to calibrate the size of the revenue change for any particular city. Of course instead of representing the MSA dependent variable as a deviation from a national mean and its own secular growth path, a national mean and the MSA's growth path can be represented as independent variables. In fact, we chose to represent the mean rate of employment growth for MSAs and the city's growth path for employment for the previous three years as independent variables.

Following the same logic, other independent variables should also be normalized, that is represented as a deviation from an average value for MSAs or as a fraction of the MSA average. It is important, for example, to model the fact that relocating a business could occur as a consequence of wages increasing in the MSA under study or a slower rate of wage growth in other MSAs. What matters is not the absolute level of wages in city i, but city i's wage relative to those of all cities with whom it competes for labor and other resources. What we propose, therefore, is an equation for explaining metropolitan employment growth which incorporates those variables that the literature identifies as important, but specified in such a way that those factors common to MSAs are implicitly included.

Everything discussed in this section of the paper to this point is intended to define the regression analysis that will be used to assess changes in employment attributable to the Super Bowl in host cities between 1973 and 1997. Equation (1) represents the model used to predict changes in employment for host cities.

$$\partial N_t^i = \beta_0 + \beta_1 \sum_{i=1}^{n} \frac{\partial N_t^i}{n_t} + \beta_2 \partial N_{t-1}^i + \beta_3 \partial N_{t-2}^i + \beta_4 \partial N_{t-3}^i + \beta_5 Pop_t^i + \beta_6 y_t^i + \beta_7 W_t^i$$
$$+ \beta_8 T_t^i + \beta_5 OB_t^i + \beta_5 REG_t^i + \beta_5 SOG_t^i + \beta_5 MSA_t^i + \beta_5 TR_t^i + \epsilon$$

(1)

where for each time period t,

MN_t^i	= % change in employment in the ith metropolitan statistical area (MSA),
n_t	= number of cities in the sample,
Pop_t^i	= log of the population of the ith MSA,
y_t^i	= real per capita personal income in the ith MSA as a percentage of the average for all cities in the sample,
W_t^i	= nominal wages in the ith MSA as a percentage of the average for all cities in the sample,
T_t^i	= state and local taxes in the ith MSA as a percentage of the average for all cities in the sample,
OB_t^i	= a dummy variable for oil boom and bust cycles for selected cities and years,
REG_t^i	= dummy variables for eight geographical regions within the United States,
SOG_t^i	= dummy variable for the Summer Olympic Games,
MSA_t^i	= dummy variable for ith MSA,
TR_t^i	= annual trend,
e	= stochastic error.

For the purposes of our analysis the variables are specified as percentage changes unless otherwise indicated, and the functional form is linear in all the variables included in Equation (1).

As mentioned previously, rather than specifying all the variables that may explain metropolitan growth, we attempted to simplify the task by including independent variables that are common to cities in general and the ith MSA in particular. In effect we have devised a structure that attempts to identify the extent to which the deviations from the growth path of cities in general ($\Sigma MN_t^i / n_t$) and city i's secular growth path (MN^i_{t-1}, MN^i_{t-2}, and MN^i_{t-3})[7] are attributable to deviations in certain costs of production (wages and taxes), demand related factors (population, real per capita personal income), and dummy variables for the oil bust and region in which the MSA is located. Equation (1) was used to predict the growth path for employment, and this predicted value was compared to the actual growth in employment to formulate a conclusion with regard to the effect the Super Bowl had on employment in Super Bowl host cities between 1973 and 1997. Of course, the credibility of this procedure depends on a robust equation for predicting employment growth.

Relative values of population, real per capita personal income, wages, and tax burdens are all expected to help explain a city's growth rate in employment as it deviates from the national norm and its own secular growth path. As mentioned above, past research has not produced consistency with respect to the signs and significance of these independent variables. We do not have as a consequence *a priori* expectations with regard to the signs of the coefficients. That should not be construed as an absence of theory about key economic relationships. As noted earlier, we included those variables that previous scholarly work found important.

[7] Growth rates for employment in the three previous years were used to account for estimation problems created by a single aberrant year that could occur for a variety of reasons to include a natural disaster or a change in political parties with accompanying changes in fiscal strategies. Technically speaking the model was most robust with this specification, and the values for the cross correlation coefficients did not suggest a multicolinearity problem.

The Results

Fifty-seven cities constituted our sample, representing all MSAs that were among the fifty largest by population in the United States in either 1969 to 1997.[8] The results for a regression for the city of New Orleans using equation 1 are represented in Table 1. While each Super Bowl city will have slightly different regression results, New Orleans was used for illustrative purposes as the 1997 Super Bowl in New Orleans in 1997 was the last Super Bowl for which we had a complete data set.

8 We will provide a list of the cities that constituted our sample upon request.

TABLE 1

Regression Results for Pooled MSA Data for A New Orleans Super Bowl

Statistic/Value[a]	Coefficient Values and (t-statistics)
b_0 (constant)	-.436 (-3.91)*
b_1 (MN_t^i /$MS\,MN_t^i$ /n_t)	.884 (32.75)*
b_2 (MN_t^i /MMN^i_{t-1})	.381 (17.69)*
b_3 (MN_t^i /MMN^i_{t-2})	-.113 (-4.84)*
b_4 (MN_t^i /MMN^i_{t-3})	.128 (6.82)*
b_5 (MN_t^i /$MPop_t^i$)	-.0084 (-5.03)*
b_6 (MN_t^i /My_t^i)	-.00001 (.00)
b_7 (MN_t^i /MW_t^i)	-.0076 (-1.97)**
b_8 (MN_t^i /MT_t^i)	.0048 (1.40)
b_9 (MN_t^i /MOB_t^i)	.0185 (8.33)*
b_{10} (MN_t^i /$MREG_t^i$)[a]	-.005 (-3.24)*
b_{12} (MN_t^i /MNew Orleans)	.0075(2.38)*
b_{13} (MN_t^i /MTR_t^i)	.00025 (4.39)*
R^2	.706
Adjusted R^2	.702
F-statistic	184.37*

* Result was significant at the 99% level.
** Result was significant at the 95% level.

We examined the economic impact of twenty-five Super Bowls over the period 1973 through 1997. In only three years (New Orleans, 1975; Detroit, 1982; and San Jose 1985) did the Super Bowl emerge as a statistically significant event, and only in the case of New Orleans in 1975 was the sign for the host city dummy variable positive. The signs for the coefficients for the host city dummy variable were approximately evenly divided between positive (12) and negative (13).

The key statistic for our purposes, the difference between the actual growth in jobs and that predicted for the city hosting the Super Bowl, showed a net gain of 537 jobs on average. Therefore, while the Super Bowl did contribute jobs to the local economy, job creation attributable to the Game fell considerably short of that predicted in studies commissioned by the NFL. In 1999, the average job in the United States paid $40,000 in wages and fringe benefits on an annual basis (Department of Commerce, 1999). If we multiply our average estimated jobs created (537) by the average annual compensation for each job ($40,000), we obtain a figure of $21.48 million. Since labor income accounts for approximately two-thirds of earned income, and if we add another third to $21.48 million, then the Super Bowl contributes on average $32.1 million to the host city's economy. This represents approximately 8 percent of the $396 million dollar impact the NFL estimated Super Bowl XXXIII exerted on the South Florida economy.

There are taxable sales data that permits further scrutiny of the NFL claims with regard to the impact Super Bowl XXXIII had on the South Florida economy. Indeed, the NFL reported:

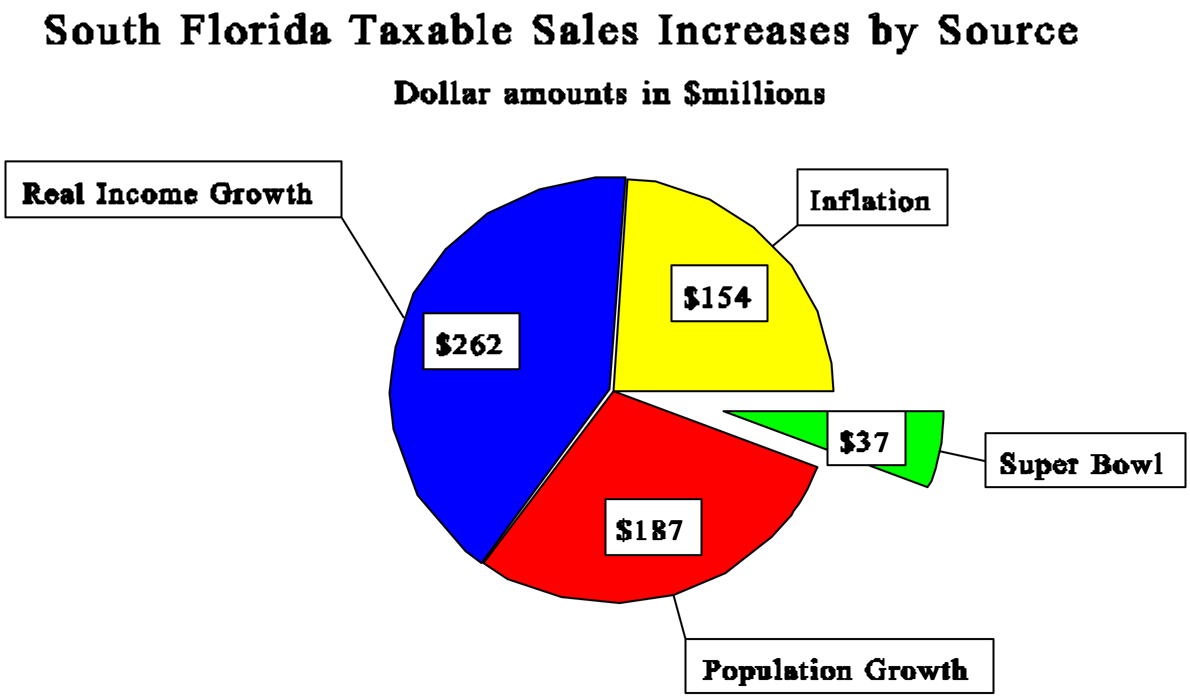
> Thanks to Super Bowl XXXIII, there was a $670 million increase in taxable sales in South Florida compared to the equivalent January-February period in 1998 (NFL Report, 1999).

Consider Graph 1 below for the growth in taxable sales for the three-county area that is identified as South Florida (including Broward, Dade, and Palm Beach counties) in January-February 1999 compared to the same period in 1998. Absent the impact of a mega-event such as the Super Bowl, one would expect taxable sales in the South Florida region to increase naturally due to inflation, population growth, and increases in real income associated with economic conditions besides the presence of the Super Bowl. Assuming inflation in South Florida matched that of the rest of the United States in between January 1998 and January 1999, inflation should have caused taxable sales to increase by $154 million. Population growth in the area should have added another $187 million in taxable sales while real income growth attributable to favorable economic conditions that existed nationwide in 1998 would be responsible for another $262 million in taxable sales.

If after accounting for the impact of inflation, population growth, and real income, all remaining taxable sales increases were attributable to the Super Bowl, then South Florida experienced at most, a $36.9 million impact from Super Bowl XXXIII. In terms of magnitude, this is in keeping with our estimate of an economic impact on average for Super Bowls in the neighborhood of $30 million, about one-tenth the impact the NFL attributes to the Game. (Note the discrepancy in totals is due to the fact that the Florida Department of Revenue reported that taxable sales increased by only $640 million in the three county region, not the $670 million reported by the NFL.)

Of additional interest is that fact that if taxable sales are further broken down by county, both Broward and Palm Beach counties actually experienced lower than expected taxable sales in 1999 (by $14 and $16 million respectively) despite the presence of the Super Bowl. Only Dade county (the actual location of the Super Bowl) experienced an increase in taxable sales (of $67 million) beyond expectations. This is further evidence that mega-events merely tend to shift resources from one area to another rather than generating new economic activity.

Graph 1



Conclusions and Policy Implications

The National Football League has have used the promise of hosting a league championship as an incentive for cities to construct new stadiums at considerable public expense. Recent NFL studies have estimated that Super Bowls increase economic activity by hundreds of millions of dollars in cities fortunate enough to host them. Our analysis fails to support NFL claims. Our detailed regression analysis revealed that over the period 1973 to 1997, on average Super Bowls created 537 jobs and accounted for approximately $32 million in increased economic activity at best.

In analyzing the impact of the most recent Super Bowl, a simple comparison of taxable sales data for South Florida for January/February 1998 and reveals that Super Bowl XXXIII could not have contributed, by any reasonable standard, more than $37 million to the South Florida economy. This represents approximately 5 percent the impact the NFL attributed to the Game.

Cities would be wise to view with caution Super Bowl economic impact estimates provided by the NFL. It would appear that padding is an essential element of the game both on and off the field.

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