SPECIAL EVENTS SUBSIDIES AND THE URBAN ECONOMY

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ABSTRACT

Community leaders and civic groups promote and justify special events from minor sporting events and music festivals to major activities such as the Olympics and the Super Bowl as a tool of economic development. This justification itself though raises questions regarding the effectiveness of these strategies and investments in sports and tourism infrastructure for economic development and urban redevelopment. Preliminary econometric analysis of regional time series and panel data for Atlanta, Georgia, and Los Angeles, California, indicates that Olympic host cities experience a very limited economic response to these activities.

INTRODUCTION

The sponsors of special events, from local athletic competitions to national and international events like the Summer and Winter Olympics typically seek and justify public subsidization and support on the basis of a broad spectrum of benefits accruing to the community from these activities. Amongst the many benefits stressed by supporters are the positive economic externalities such as the generation of additional employment from activities associated with the event including construction, provision of services, and increased tourism, to acting as a catalyst for community economic development.

Aid for special events can be viewed within the same framework as that used for professional sports, cultural and performing arts, and business relocation incentives. For the case of profit-oriented firms, the fundamental concern of the location decision would be input costs, resource availability, and market considerations. With special events such as the Summer or Winter Olympics and other premier sports competitions, the profit motivation is not as evident. Instead, the primary considerations for these events may be the provision of appropriate venues for presentation and public performance, transportation links and facilities, as well as security, support facilities and amenities for tourists, and marketing.

Regardless of their economic effectiveness, city after city finds itself in competition to attract or retain firms, sports franchises, and special events such as a World's Fair or the Olympics. While economists tend to view subsidies with skepticism, business and civic groups, policy-makers, and regional planners may take a broader view of these incentives as a means to achieve policy goals, such as urban development, redevelopment, and as a tool to galvanize civic pride and lure new businesses to the region or to direct growth towards a desired goal.

THE PERCEIVED BENEFITS FROM SPECIAL EVENTS

Subsidies for special events represent a departure from ordinary business location incentives. Business relocation subsidies are typically offered to firms under the premise of long term and continuous stimulation to job creation, economic development, and urban redevelopment. This rationale is very often extended to include subsidizing activities from manufacturing facilities to stadium construction for sports franchises. Special events activities are more transient, operating in the extreme as a one-time occurrence, to an occasional or sporadic event such as once or twice a year in the case of county and state fairs, or local festivals, to once every few years in the case of events like the Super Bowl and major conventions.

Public subsidization in stadiums and sports related activities is predicated on four principal arguments; the ability of the activity to attract business to the community, intangible benefits such as galvanizing civic pride and generating media attention to the host community, multiplier benefits, and profitability and revenue generating capacity of the activity [1, 2, 15]. Waitt [17], in his analysis of the bid and preparations for the 2000 Sydney Olympics, places this activity squarely within this framework of establishing a promotional and marketing presence for Sydney, Australia, at a global level for investment and business location choices. Special or "hallmark" events are supposed to provide a stimulus for economic development through the whole host of related activities from the initial bid preparation to construction, infrastructure development, increased tourism, and the event itself [17].

Siegfried and Zimbalist [15], and Noll and Zimbalist [10, 11] view the subsidization of these activities with deep suspicion. Investment in sports infrastructure such as stadiums represent a tremendous diversion or reallocation of a city's or community's limited revenues (from tax receipts, state and national grants, and other sources). What is the opportunity cost of these activities to the community? While it may be true that certain events may be of such a high profile that the community may receive some short term name recognition, investments in other activities may offer more benefits to local residents. Multiplier analysis often overestimates the event's benefits, especially where economic activity is simply reallocated in a community or the activity displaces or substitutes one group of consumers with another group of consumers, i.e., business travelers delay ordinary and regularly planned trips to a city until the event is over.

Of key concern for hallmark events like the Olympics, is whether they are able to sustain their economic stimuli. Given that these events involve a substantial amount of both public and private investment, communities are liable to receive a large portion of their economic stimulus prior to the actual staging of the activity through the construction and infrastructure development, with benefits tailing off quickly after the event occurs.

Facilities constructed for the event may find their way into other uses, as for example was the case for the Los Angeles Coliseum, and for a number of the facilities built for the 1996 Atlanta Olympics. Some of this infrastructure may have been constructed for urban renewal, restructuring and redevelopment purposes as opposed to simply economic development [16, 4, 5].

It is important to note though, that some of this potential stimulus may simply involve accelerating planned infrastructure development and improvement, as for example, is the case for the completion of highway projects in Atlanta for the 1996 Olympics, and Salt Lake City for the 2002 Winter Olympics. The rest of the stimulus must come from the activity's ability to generate sales, tourism, new business

creation and relocation, employment, and related economic activity, from the initial planning stages of the event, through the staging of the event, and even following the event.

ASSESSING THE IMPACT OF SPECIAL EVENTS

A number of studies have been conducted on the impact of professional sports and sports facilities on regional economic activity. Special events, especially hallmark events like the Olympics, or the Super Bowl, can be assessed within this same framework. These events generally require a community, through some combination of private and public sources, to invest in infrastructure and facility construction. Cities may also use the event as an opportunity or pretext to undertake community or urban development and redevelopment programs. Since these are readily identifiable events, in this analysis their effects are assessed using regression analysis with the inclusion of a dummy variable.

According to Colclough, Lawrence and Daellenbach [3], Johnson [6], and Owen [12], public investment in infrastructure and subsidization of professional sports activities can have a positive, though limited, impact on income and employment within a region's economy. Studies by Baade and Dye [1, 2], Noll and Zimbalist [11], Rosentraub [14], find just the opposite result; little if any power from a "sports strategy" for economic and urban development. French and Disher [5] seriously question the success of the 1996 Olympics in Atlanta as a vehicle for urban redevelopment, especially in the central business district.

The analysis of special events presented below draws upon and is a variant of a model first used by Baade and Dye [1, 2], and further developed by Rosentraub [14] and Noll and Zimbalist [10, 11]. Assuming that hallmark events are going to act as an "engine of growth", their occurrence should have some observable effects on various measures of sectoral employment and income. Since some of the activities associated with these events may occur outside of the individual city's geographic boundaries, the analysis is conducted at the MSA level.

The impact of these events is assessed for two cities, Atlanta, Georgia, and Los Angeles, California, both of which have served as host cities for a Summer Olympics and at least one Super Bowl in the last twenty-five years. Annual data from the Bureau of Economic Analysis, Regional Economic Information System (REIS), was assembled into a panel covering the years from 1973 to 1998. The following equations are estimated for both cities at several levels of disaggregation:

$$PY_i = f(C_{ij}, POP_i, USGDP_i, HALL_i); \text{ and,} \quad (1)$$

$$EMP_i = f(C_{ij}, POP_i, USGDP_i, HALL_i); \text{ where,} \quad (2)$$

EMP = MSA employment (BEA, Regional Accounts Data);
USGDP = real GDP in1996 dollars (BEA, National Income and Products Accounts);
PY = personal income for the MSA (BEA, Regional Accounts Data);
POP = population by MSA (BEA, Regional Accounts Data);
C = a constant; and,
HALL = "1" for the occurrence of a hallmark or special event, and "0" otherwise.

The equations were estimated for fixed effects, and also testing for differences in individual city responses to the hallmark events. Additionally, individual equations for each city were initially estimated. Both the individual and panel series estimates yielded similar results regarding the effects of hallmark events on total employment, sectoral employment, total income, sectoral income, and average wage income, and only the panel results are reported. Due to the limited data set, positive serial correlation detected in the analysis was corrected for using a first order auto-regressive structure in the equations. Heteroscedasticity, was corrected for by weighting with panel corrected standard errors.

REGRESSION RESULTS

Regression results are reported in Tables 1 and 2. Overall, the signs of the regression coefficients are consistent with reported results from studies in the sports literature such as Baade and Dye [1, 2], Colclough, Lawrence and Daellenbach [3], Johnson [6], and Owen [12]. As expected, the coefficients on population and USGDP were positive and significant.

Table 1 reports the results of Equation 1 for total personal income from all sources, service sector hotel trade, and retail trade. Only in the case of total personal income (PY) is the coefficient on HALL, the dummy variable for special events, both positive and approach a 5 percent level of significance. In the equations for sectoral income hotel and retail trade, the estimated reported regression coefficient is also positive but not significant. These results suggest that the hallmark event has a fairly limited sectoral response, with perhaps a more accentuated cumulative effect on the community as a whole.

The estimates for the employment equations (Table 2) yielded similar results. Only two individual sectors were analyzed, retail trade and service sector; sectors that would be expected to have the strongest response to these types of events. Coefficient estimates for HALL on total employment, retail employment, and service sector employment were uniformly positive, but not significant. These results suggest that the hallmark event has a greater impact on total income than on overall employment which would be consistent with the transient nature of the activity.

Table 1
Dependent Variable: PY (Total Income)

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
POP	0.145322	0.061653	2.357087	0.0232
USGDP	36.86696	11.86098	3.108255	0.0034
HALL	5879.134	2966.223	1.982027	0.0540
C-AT	871030.9	2924453.	0.297844	0.7673
C-LA	-1.48E+09	4.09E+09	-0.362381	0.7189
AR(1)	1.004901	0.012423	80.88985	0.0000
R-squared	0.996241			
Adjusted R-squared	0.995793			
F-statistic	2226.038			0.0000
Durbin-Watson stat	1.411075			
Included observations: 25		Total panel observations 48		

Table 1 (cont)

Dependent Variable: Service Sector Income; Hotels

Variable	Coefficient	Std. Error	t-Statistic	Prob.
POP	0.255357	0.077368	3.300546	0.0022
USGDP	76.58883	35.41869	2.162385	0.0373
HALL	8721.311	9984.808	0.873458	0.3882
C-AT	-760446.1	68888.79	-11.03875	0.0000
C-LA	-1911200.	444813.2	-4.296635	0.0001
AR(1)	0.691862	0.129520	5.341724	0.0000
R-squared 0.988560				
Adjusted R-squared	0.986971			
F-statistic	622.1524			0.0000
Durbin-Watson stat	1.477121			
Included observations: 25		Total panel observations 42		

Dependent Variable: Retail Income

Variable	Coefficient	Std. Error	t-Statistic	Prob.
POP	2.259871	0.481269	4.695646	0.0000
USGDP 782.8800	173.4107	4.514601	0.0001	
HALL	1426.865	43825.44	0.032558	0.9742
C-AT	-7160879.	1025485.	-6.982917	0.0000
C-LA	-11156836	3531230.	-3.159476	0.0029
AR(1)	0.913642	0.040153	22.75374	0.0000
R-squared 0.996823				
Adjusted R-squared	0.996445			
F-statistic	2635.697			0.0000
Durbin-Watson stat	1.122657			
Included observations: 25		Total panel observations 48		

Table 2
Dependent Variable: Total Employment

Variable	Coefficient	Std. Error	t-Statistic	Prob.
POP	0.339276	0.121891	2.783423	0.0080
USGDP	210.2535	47.74192	4.403959	0.0001
HALL	5474.340	11918.33	0.459321	0.6484
C-AT	-520889.5	144578.7	-3.602809	0.0008
C-LA	615390.4	778896.5	0.790080	0.4339
AR(1)	0.837512	0.084769	9.879897	0.0000
R-squared	0.997222			
Adjusted R-squared	0.996891			
F-statistic	3014.870		0.0000	
Durbin-Watson stat	1.170300			

Included observations: 25 Total panel observations 48

Dependent Variable: Service Employment

Variable	Coefficient	Std. Error	t-Statistic	Prob.
POP	0.273467	0.043801	6.243363	0.0000
USGDP	40.33225	15.31241	2.633958	0.0118
HALL	1489.911	3863.412	0.385646	0.7017
C-AT	-573156.2	97768.49	-5.862382	0.0000
C-LA	-876979.6	312781.8	-2.803807	0.0076
AR(1)	0.914551	0.048963	18.67846	0.0000

Table 2 (cont)

R-squared	0.997057		
Adjusted R-squared	0.996706		
F-statistic	2845.536	0.0000	
Durbin-Watson stat	2.232606		
Included observations: 25	Total panel observations 48		

Dependent Variable: Retail Employment

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
POP	0.041193	0.031618	1.302829	0.1997
USGDP	44.67569	11.23039	3.978106	0.0003
HALL	3281.446	2758.764	1.189462	0.2409
C-AT	-99344.13	62696.13	-1.584534	0.1206
C-LA	60181.54	218824.4	0.275022	0.7846
AR(1)	0.909402	0.086978	10.45552	0.0000
R-squared	0.990342			
Adjusted R-squared	0.989192			
F-statistic	861.3057		0.0000	
Durbin-Watson stat	1.181676			
Included observations: 25	Total panel observations 48			

CONCLUSION

Advocates of hallmark events will argue that these events help to promote job creation, income growth, and attracts new industry into the community. It is possible, though, that these activities and the transient nature of these activities, instead of generating employment in skilled technical, industrial, manufacturing, and research areas stimulate employment in largely unskilled sectors, limiting growth potential. Additionally, investing in singular special events such as a Summer Olympics, may lead a community to misdirect its resources towards infrastructure that has very little use after the event, and fails to redirect local economic activity towards its desired ends.

The regression results presented above indicate that the hallmark/special events strategy can have a beneficial impact on a region's economy. It is far from complete, only analyzing overall economic activity and two sub-sectors, retail trade and service sector activity on an annual basis. Using data at a quarterly or monthly frequency may reveal a greater level of community economic response, but that does not necessarily imply that these activities are engines of growth. The level to which these activities enhance community economic growth still requires additional study and analysis.

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