

Economic Impact Estimates for the Construction Phase of a New Retractable Roof Stadium for the  
Atlanta Falcons  
An Overview and Summary of Ex Ante Predictions  
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I. Introduction:

The purpose of this report is to summarize the results of an analysis of the economic impact on the City of Atlanta and the State of Georgia resulting from the construction of a new retractable roof stadium for the Atlanta Falcons (see Section IIIB regarding regional distinctions). Economic impact is most commonly defined as the change in annual value of output (measured size of the economy), although related impacts on regional tax revenues, personal wage incomes and full-time equivalent jobs are also derived. These economic impacts are essentially “ex ante” projections (see “Important Distinctions” in Section IIIA below). It is important to acknowledge that a well-known strain of “ex post” economic impact research has generated results that suggest that sporting events, sports franchises (professional and to some extent also collegiate), and sports facilities generate almost no net tangible economic impacts to their “host” regions, or at best generate tangible economic impacts that are a mere fraction of the claims made by *ex ante* studies.

Other relevant impacts such as the net consumption benefits to fans in the relevant region, potential advertising or “legacy” benefits from favorable publicity surrounding the events or a new stadium, or potential long run developmental benefits from making those regions more attractive places to live and work, or possible more targeted longer run enhanced economic development in the neighborhoods near the stadium, are not included in this measure of economic impact. At least regarding the consumption benefits to fans, the results of the *ex post* studies that are so skeptical of the tangible claims made in *ex ante* studies, do not deny that there are such “intangible” economic impacts, and their authors often observe that “regional fans may be happier, but not richer” as a result of the local sports industry and the construction of new sports facilities.

Despite the legitimate debate as to the magnitude of such spending based impacts, the construction phase of such a large building project would almost certainly generate considerable beneficial short term economic impacts on the local economy, especially in periods of high unemployment and excess capacity. Unless the expansion of economic activity induced by such a Project X were to inevitably reduce economic activity elsewhere in the relevant economy via delayed or aborted Projects Y and Z, or unless all of the contractors and sub-contractors, workers, consultants, and materials suppliers were located outside the relevant region, hence significantly limiting the “local capture” of such new spending, positive incremental impacts on local employment, income, output and tax revenues will occur. Section IIIA below provides further discussion of important methodological issues, and the distinction between *ex ante* and *ex post* studies.

II. Summary of Results

**Summary Table 1  
Construction Impacts on the City of Atlanta**

Category	Impact Results	Comments
Direct Output Impact	\$100,234,042	Pre-multiplier increase in "GDP" based on "value added" and adjusted for sources of spending and City capture rates
Indirect Output Impact	\$54,828,021	City level multiplier = 1.547
Total Output Impact: Change in Size of the Atlanta Economy	<b>\$155,062,063</b>	Total increase in local "GDP," size of Atlanta economy
Total Atlanta Tax Benefits	<b>\$1,026,381</b>	Atlanta share of 3 local option + MARTA sales taxes; not limited to General Fund revenues. Limited to indirect spending only.
Total Personal Income	<b>\$71,737,504</b>	Throughout local economy, not limited to direct workers only.
Full-Time Equivalent Jobs within Atlanta	<b>1,468</b>	Throughout local economy, not limited to direct construction

**Summary Table 2  
Source of Direct Output Impact of \$100.234 million from Table 1  
City of Atlanta Impacts**

Source of Direct Impact	Impact Result	Comments
Atlanta based labor expenditures	\$33,810,481	Labor expenditures initially injected into Atlanta economy via worker payrolls and spent in local economy
Atlanta based material vendor expenditures	\$5,704,716	Construction materials purchased via Atlanta based vendors and subcontractors
Atlanta based total "soft" costs	\$60,718,844	So-called "soft" cost expenditures injected into Atlanta economy via Atlanta based vendors and subcontractors
Total Direct Impact	<b>\$100,234,041</b>	

**Table 3**  
**Selected Key Underlying Statistics: City of Atlanta Impacts**

- Currently estimated total budget including systems and equipment and a retractable roof is \$972.978 million, including pre-construction costs and construction over a three year period of March 2014 to March 2017.
- Considering all sources of expected revenues to fund planning and actual construction, about 85% of the funds would originate from outside the City of Atlanta.
- In contrast to various types of “indirect” costs and non-actual construction “direct” costs, as much as 73.57% of total expenditures are expected to be for actual facility construction.
- Of actual overall construction expenditures, about 40% would be used to pay workers, while 60% would be used to purchase materials from all vendors.
- At the peak of actual construction, about two years into the project, an estimated 400,000 worker hours would be required per month, with a more typical month requiring about 200,000 worker hours.

**Table 4**  
**Construction Impacts on State of Georgia**

Category	Impact Results	Comments
Direct Output Impact	\$222,419,944	Pre-multiplier increase in “GDP” based on “value added” and adjusted for sources of spending and State capture rates
Indirect Output Impact	\$201,245,565	State level multiplier = 1.9048
Total Output Impact	<b>\$423,665,510</b>	Total increase in state “GDP”
Total Georgia Sales Tax Benefits	<b>\$6,278,862</b>	Includes 4% sales tax via indirect/induced spending only. Effective average personal income tax rate = 3.8%
Total Georgia Personal Income Tax Benefits	<b>\$6,393,061</b>	
Total Georgia Tax Benefits	<b>\$12,671,923</b>	
Total Personal Income	<b>\$168,238,446</b>	Throughout state economy, not limited to direct workers only.
Full-Time Equivalent Jobs within Georgia	<b>4,560</b>	Throughout state economy, not limited to direct construction

**Summary Table 5  
Source of Direct Output Impact of \$222.420 million from Table 1  
State of Georgia Impacts**

Source of Direct Impact	Impact Result	Comments
Georgia based labor expenditures	\$121,998,138	Labor expenditures initially injected into Georgia economy via worker payrolls and resulting payroll spending in Georgia
Georgia based material vendor expenditures	\$18,986,275	Construction and related equipment materials purchased via Georgia based vendors and sub-contractors
Georgia based total "soft" costs	\$81,435,531	Soft cost expenditures injected into Georgia economy via Georgia based vendors and subcontractors
<b>Total Direct Impact</b>	<b>\$222,419,944</b>	

**Table 6  
Selected Key Underlying Statistics: State of Georgia Impacts**

- Currently estimated total budget including systems and equipment and retractable roof is \$972.978 million including pre-construction costs and three year actual construction period of March 2014 to March 2017.
- Considering all sources of expected revenues to fund planning and actual construction, about 68% of the funds would originate from outside the State of Georgia.
- In contrast to various types of "indirect" costs and non-actual construction "direct" costs, as much as 73.57% of total expenditures are expected to be for actual facility construction.
- Of actual construction expenditures, about 40% would be used to pay workers, while 60% would be used to purchase materials from all vendors not limited to those that are Georgia based
- At the peak of actual construction, about two years into the project, an estimated 400,000 worker hours would be required per month, with a more typical month requiring about 200,000 worker hours.

**III. Important Distinctions:**

**A. Ex ante vs. ex post studies:**

*Ex ante* analysis makes a prediction of the likely future economic impact based on certain assumptions and economic models. Key steps include isolating the net injections of new spending into an identifiable region that would not otherwise have occurred, in contrast to spending that is merely diverted from one regional sector to another (sometimes called a "substitution" effect), or that "crowds out" other potential new spending due to capacity limitations (suggesting that, e.g., visitors to a region to attend a particular event might make it difficult to accommodate the "normal" flow of visitors, or that might even

reduce localized spending by residents, as has seemingly occurred in many cities hosting the Olympics). Both of those complications cause a “displacement” effect. It is also necessary to measure the “capture rate” of such new spending (i.e., the spending that does not immediately leave the local region when paid, e.g., to non-local suppliers or sponsors). After properly identifying the resulting “direct base impact,” relevant “multipliers” are applied to measure the “indirect” impacts (linked to intra-regional supply chain effects), and “induced” impacts (linked to the subsequent spending within the region of incomes earned via the direct and indirect impacts). Ex ante impact predictions can be overly optimistic due to overstated attendance (especially non-local attendance) and per diem per capita spending, failures to adjust for displacement and non-local capture, and/or excessively high multipliers.

In studies of the construction phase of stadiums designed to house future sporting events and serve as the home for sports franchises, overstatements are especially likely to occur if it is assumed that all construction spending is captured by local suppliers of construction materials and services, rather than carefully tracing the spending flows linked to the construction phases. Payments that are made to non-local suppliers will generally not be captured within the local economy (except in limited amounts as specific personnel are working in the region). Also, it is important to determine how much of the sources of the construction funding originated from outside the relevant region, or at least would most likely have been diverted to other uses outside that region were this construction project not to occur.

*Ex post* analysis attempts to measure the actual economic impacts of events and organizations by exploring the historical record. Such studies are efforts to confirm the predictions made by ex-ante analysis by (1) comparing key ex ante assumptions with what actually occurred regarding attendance/tickets sold, hotel nights, per diem spending and other generally “observable” parameters, and/or (2) conducting sophisticated statistical/econometric analysis to try to isolate the unique causal effects of an event or organization on realized tax receipts, employment, income and/or output. This second approach examines whether such measured impact variables are higher, lower, or roughly unchanged compared to what would have been predicted without the event or organization. An important issue is the relevant time period over which to make such comparisons. An overwhelmingly common result is that the impacts as measured by *ex post* studies are lower, sometimes dramatically so, than are the predictions made by *ex ante* studies (a comprehensive list of references could be provided). Some studies cannot find any independent impact at all of sports teams, sporting events, or even the construction of new facilities. Some studies have even suggested that those net effects are negative (e.g., while local residents are the dominant fan base of a professional franchise, much of their spending related to that franchise is diverted from other sectors of the local economy while ultimately being paid in part to athletes who may re-spend large portions of it outside the local economy).

At times, these skeptical findings are the results of efforts to confirm that some of the underlying data assumptions of the *ex ante* studies were indeed too optimistic (e.g., in construction studies, there are cases in which early predictions of the proportion of local contractors and subcontractors, and the degree to which locally based labor will be utilized, prove to be erroneous). In non-construction based studies, there are many cases of actual realized attendance or numbers of non-local visitors seemingly falling short of projections). For example, Baumann et al. (“Bowling in Hawaii: Examining the Effectiveness of Sports-Based Tourism Strategies,” *Journal of Sports Economics*, 10(1), February, 2009) claim that despite the Hawaiian Tourism Authority projecting 27,625 visitors to the state for the 2007 Pro Bowl, their more thorough study identifies only between 5,596 and 6,519 net arrivals via air travel due to the Pro Bowl. But the statistical/econometric studies are the most common ex post analysis, and the type that has generated the most skepticism about ex ante economic impact claims. Despite their statistical sophistication and the rarity of any such study finding strong evidence of large economic

impacts, they do however have some acknowledged weakness. It is inherently difficult to establish causality when so many different factors can influence employment, output and tax revenues in complex interacting ways. Also, as with “needles in a haystack,” even comparatively large plausible absolute dollar predictions of ex ante impacts are typically still a relatively small share of overall regional gross domestic product (applicable also to employment, income and tax revenue claims), hence making it inherently difficult to “tease out” the unique causal role played by any one event or organization. Therefore, despite the legitimate challenge posed by ex post studies to ex ante economic impact claims, even their advocates concede there are important limitations to their analysis.

#### B. Definition of the Relevant Region

In any economic impact study, an often overlooked but vitally important issue is the exact definition of the region. The relevant question is always “economic impact on whom?” “Economic impact, where?” Because of various “aggregation” paradoxes, definition of “visitor,” degree of local “spending capture” and changes in the value of multipliers by region, the economic impact on a smaller region can actually be greater than on a larger region. Regardless of the direction of the effect, it can be difficult to compare economic impact studies that apply to different regions.

In the case of studies applicable to Atlanta, the most common variations, ranging from the smallest to the largest region, are: (1) the City of Atlanta; (2) the City of Atlanta plus all of Fulton County; (3) metro Atlanta, i.e. the Metropolitan Statistical Area of Atlanta including Sandy Springs and Macon, and clearly extending well past the boundaries of the City itself or Fulton County; (4) the State of Georgia. The construction economic impact analysis focuses on the City of Atlanta, and the State of Georgia.