# Economic Impact Estimates for Major Atlanta-based Sporting Events and MLS Franchise An Overview and Preliminary Summary of Ex Ante Predictions Bruce A. Seaman, Ph.D. September 17, 2012

I. Introduction: The purpose of this report is to summarize the results of an initial review of annual economic impact claims from previous studies or press releases applicable to particular major sporting events, and to the establishment of a Major League Soccer franchise, all of which would utilize a new football stadium serving as the home of the Atlanta Falcons. Economic impact is defined as the change in annual value of output (measured size of the economy) in either the City of Atlanta or the State of Georgia In 2012 dollars (see Section III B regarding regional distinctions). This is the single most commonly used definition of economic impact as reported in press accounts. To keep the reporting as simple as possible, this "incremental output" impact is the single measure of tangible spending impacts reported, although there are also related impacts on regional tax revenues, personal wage incomes and full-time equivalent jobs. In all cases, these economic impacts are essentially "ex ante" projections, although in some cases modified by existing evidence regarding "ex post" impacts (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 and sports franchises (professional and to some extent also collegiate) 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 those areas, potential advertising or "legacy" benefits from favorable publicity surrounding the events, 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 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 often observe that "regional fans may be happier, but not richer" as a result of the local sports industry.

#### **II. Summary of Results**

## Summary Table Previously Cited versus Defensible Lower and Higher Bound Economic Impacts: Preliminary Assessment (Impacts reported in \$ millions)

<b>Event/Organization</b>	* Previous	Lower	Higher	Comments **
	Metro/State	City/State	City/State	
WrestleMania	62.1	29.9/25.9	39.9/35.1	Attendance; visitor and hotel stays as cited by WWE were put though ASC model
NCAA Men's Final 4	43.8/51.5	32.9/38.6	45.5/51.5	City can be > metro due to visitor measurement
SEC Championship	26.5/30.1	29.15/33.1	31.8/36.2	Previous result had UGA in the game; impacts are lower when in-state teams play; new results allow more generally for non-instate pairings

New BCS Game	240	110/125	185/201.7	May be lower if more local
		,		teams play
Bank of America	26.2/28.6	20.96/22.9	30.1/32.9	Adjusts for City vs. Metro and
Classic				also variations in likely
				attendance and spending totals
Chick Fil-A Kickoff	31.2/34.4	24.96/27.52	35.9/39.6	Impacts also vary with location
				of teams; adjusts for same
				factors as above
Chick Fil-A Bowl	30.6/35.1	24.5/28.1	35.2/40.4	Impacts also vary with location
				of teams; adjusts for same
				factors as above
World Cup	400-600	100/150	200/250	Ex post studies of prior World
				Cups justify lower ex ante
				predictions
NCAA Lacrosse	18-22	14.4/18	21.6/26.4	Very little study has been done
Cham				on these types of events
Super Bowl	185/251	125/187.5	203.5/276	Range of past ex ante studies
				justifies caution as does severity
				of ex post critique of this event
MLS Franchise	22.629 -	25/15	36/24	Actual experience of other MLS
	24.25			franchises justifies caution;
				actual calculation of likely
				attendance and non-local fan
				base via ASC model also used
Totals	1,086/1,379	536.77/671.62	864.5/1,013.8	

<sup>\*</sup> For Wrestlemania, only a regional impact was reported by Enigma Research Corporation on behalf of the WWE (World Wrestling Entertainment), seemingly applicable to metro-Atlanta.

For the MLS Franchise, the range in the impacts applies to Cobb County (the lower result) and Gwinnett County (the higher result), and applies to "stadium events" only (MLS team, concerts, international soccer matches, and other, with the MLS team being about 57.6%, concerts about 26.4%, international soccer about 6.4% and other about 9.6% of the total impacts in the Gwinnett County study; the corresponding break-downs for Cobb County are 51.6% for the MLS team, 30.2%, 7.3% and 11.0%). No impacts from the separate events estimated for "soccer fields" are included in the figures cited. The Soccer Fields impacts from tournaments, camps, league games and practice are 22.7% higher than for Stadium events for Cobb County but only 55.41% as high as the "stadium events" for Gwinnett County.

The BCS claims that the five host cities shared a total economic impact of \$1.2 billion from the 2010 games, which translates into \$240 million per city. It is unclear where that estimate originates.

The Super Bowl impacts represent the adjusted impacts for metro Atlanta and Georgia respectively after re-evaluating the original predictions for the 2000 Game hosted at the Georgia Dome (Bruce A. Seaman in cooperation with the Atlanta Sports Council and the NFL). The original predictions were \$215 million for metro-Atlanta and \$292 million for Georgia. The downward adjustments were made after reassessing the per diem per capital spending realities. Other Super Bowl ex ante impact estimates have typically ranged from about \$150 million to \$390 million. Ex post study critics often argue the actual impacts were only 10% of these figures.

The World Cup estimated regional impacts are based on the consulting firm AECOM reported in a press release in October 2009, and represent the per host city impacts over about 12 host cities.

The NCAA Lacrosse Championships were estimated for the State of Maryland Development office for the 2010 event.

All other ex ante estimates are derived from the economic impact model originally developed for the Atlanta Sports Council (ASC) by Bruce A. Seaman, Ph.D., Donald Ratacjzak, Ph.D. (former Georgia State University Economic Forecasting Center Director, in cooperation with McKinsey and Company). This model has been periodically updated by Bruce A. Seaman.

The previous study totals represent the lowest to the highest whether or not they represent Metro vs. State, or lower bound vs. upper bound as cited.

\*\*\* Details of the analysis behind these modified estimates will be provided in the fuller report, and are subject to some modification as the analysis is further refined and finalized.

#### 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 <u>not</u> 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.

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 or sporting events, or even suggest 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 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., 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 some 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. Because the construction economic impact analysis focuses on the City of Atlanta, and the State of Georgia, every effort was made to report in the Summary Table results for those regions. This sometimes required some adjustment to what was reported in past studies.