

The Impact of M&T Bank Stadium on Maryland's Economy, 2006

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Executive Summary

- In 2006, M&T Bank Stadium hosted a total of 16 events, including 11 Ravens games, 1 college football game, 1 college lacrosse game and 3 high school football games.
- Ravens and college football games generated an average of 65,000 fans per game.
- The Stadium generated in excess of \$216 million in gross state product (business sales) in 2006.
- The Stadium supported a total of 3,088 jobs in 2006 and roughly \$100 million in Maryland personal income.
- In 2006, the Stadium generated nearly \$10 million in State of Maryland taxes, including \$3.5 million in admissions tax.
- In 2006, the operations of the Stadium augmented local government tax collections by more than \$3 million, including \$870,233 in admissions taxes.
- The Stadium generated nearly \$13 million in total tax revenue (State and local combined) in 2006.
- The annual debt service on outstanding bonds for construction costs is approximately \$7.0 million.

Exhibit E1: Summary of Economic/Fiscal Impacts of M&T Bank Stadium, 2006

	2006
<i>Economic Impacts</i>	
Gross State Product (\$millions)	\$216.25
Personal Income (\$millions)	\$100.07
Employment	3,088
<i>Fiscal Impacts</i>	
State Tax Receipts (\$millions)	\$9.70
Local Tax Receipts (\$millions)	\$3.18
Total Tax Receipts: State + Local (\$millions)	\$12.88

Introduction and Purpose

To determine the impacts of M&T Bank Stadium, the Center for Applied Business and Economic Research at Towson University (CABER)¹ relied upon IMPLAN, the input-output economic software managed by the Minnesota IMPLAN Group. There are two major components to IMPLAN: data files and software.

An impact analysis using IMPLAN begins by identifying expenditures in terms of the sectoring scheme for the model. Each spending category becomes a "group" of "events" in IMPLAN, where each event specifies the portion of activity allocated to a specific IMPLAN sector. Groups of events can then be used to run impact analysis individually or can be combined into a project consisting of several groups. Once the direct economic impacts have been identified, IMPLAN can calculate the indirect and induced impacts based on a set of multipliers and additional factors.

The hallmark of IMPLAN is the specificity of its economic datasets. The database includes information for five-hundred-and-twenty-eight different industries (generally at the three or four digit Standard Industrial Classification level), and twenty-one different economic variables. Along with these data files, national input-output structural matrices detail the interrelationships between and among these sectors. The database also contains a full schedule of Social Accounting Matrix (SAM) data. Importantly, all of these data are available at the national, state, and county level.

Another major advantage of IMPLAN is its credibility and acceptance within the profession. There are over five hundred active users of IMPLAN databases and software within the federal and state governments, universities, and among private sector consultants.

Data Drivers

Data elements provided by Stadium staff include the number of events and attendees and associated spending for fans, visiting team members and entertainment groups, and media.

Events/Attendees

- Number of events and attendees

M&T Bank Stadium hosted 16 events in 2006², including 11 Ravens football games, 1 college football game, 1 college lacrosse game and 3 high school football games. Both Ravens and college football games generated an average of 65,000 fans per game, while college lacrosse and high school football games attracted an average of 13,500 fans and 10,500 fans per game, respectively. Exhibit 1 provides detail regarding other key variables driving the analysis and estimates of impact.

¹ Estimates were generated with the assistance of Sage Policy Group, Inc and RESI/Towson University.

² To be precise, data characterize the 12-month period stretching from 2/1/2006 to 1/31/2007.

Exhibit 1: Summary of M&T Bank Stadium Events and Fan Attendance by Type, 2006³

Summary Variable	Ravens Games	College Football Games	College Lacrosse Games	High School Football Games
Number of Events	11	1	1	3
Average attendance per event	65,000	65,000	13,500	10,500
Number of daytrip fans per event	60,937	61,201	12,711	10,500
Number of overnight fans per event	4,063	3,796	788	0
Number of fans using public transportation	16,705	16,708	3,470	n/a
Number of fans driving	48,295	48,292	10,030	n/a
Number of fans per car	2.80	2.80	2.80	n/a
Number of fans using parking facilities	42,566	42,564	8,840	n/a
Number of cars parked at stadium	5,000	5,000	2,500	1,000
Number of event day employees	2,500	2,500	500	500

- Attendee spending data

Local attendees of all stadium events spent an average of \$11.13 per event.⁴ Out-of-town fans spent an average of nearly \$97 on lodging and \$61 on food and other expenditures. Exhibit 2 summarizes this and other information.

Exhibit 2: Summary of M&T Bank Stadium Fan Spending Data, 2006

Summary Variable	Ravens Games	College Football Games	College Lacrosse Games	High School Football Games
Average ticket price	\$79.48 ⁵	\$58.40	\$10.00	\$10.00
Average spending at concessions	\$18.50	\$19.00	\$10.00	\$6.00
Average spending for stadium parking	\$25.00	\$25.00	\$10.00	\$7.00
Average lodging spending for overnight fans per night	\$96.47	\$96.47	\$96.47	n/a
Average spending on meals/other expenditures for overnight fans	\$60.60	\$60.60	\$60.60	n/a
Average spending for daytrip fans	\$11.13	\$11.13	\$11.13	n/a

Visiting teams and related personnel

There was an average of 150 visiting team members per event for Ravens, college football and high school football games, including coaches, players, entertainers and production crews. An average of 500 team members per event was recorded at college lacrosse games (tournament). For Ravens and college football games, visiting team

³ Number of daytrip fans per event, number of overnight fans per event, number of fans using public transportation, number of fans driving, number of fans per car and number of fans using parking facilities are estimated based on past data and historic relationships between variables.

⁴ Excluding stadium concessions. This may include meals outside the stadium, retail, etc.

⁵ The average ticket price for NFL football games is up roughly 39 percent from the 1998 season (\$57/ticket).

members stayed an average of 2 nights in Baltimore, spending roughly \$148 per night per person. Other expenses vary by type of event. Please see exhibit 3 for additional detail.

Exhibit 3: Summary of M&T Bank Stadium Visiting Team Members, 2006

Summary Variable	Ravens Games	College Football Games	College Lacrosse Games	High School Football Games
Number of team/group members	150	150	500	150
Average length of stay in Baltimore	2	2	n/a	n/a
Average lodging expenses per night, per person	\$148.42	\$148.42	n/a	n/a
Average meal/other expenses per day, per person	\$111.31	\$92.76	\$92.76	\$23.84

Media personnel

- Media/crew members event data

Both Ravens and college football games reported an average of 150 media representatives per game, while the college lacrosse event and high school football games reported an average of 75 personnel and 50 personnel per game, respectively. Please see exhibit 4 for more detail.

Exhibit 4: Summary of M&T Bank Stadium Media Personnel, 2006

Summary Variable	Ravens Games	College Football Games	College Lacrosse Games	High School Football Games
Average number of media personnel per event	150	150	75	50
Overnight media – advance TV crews	3	14	6	n/a
Overnight media – non-local TV crews	29	93	36	n/a
Local media daytrips	117	43	33	n/a
Average length of stay – advance TV crews	6	2	2	n/a
Average length of stay – non-local TV crews	6	1	1	n/a

- Media personnel spending data

Those members of the press who stayed overnight for M&T Bank Stadium events spent an average of \$124 on lodging in the area. Overnight media personnel spent an average of roughly \$93 on meals and other expenditures per day while local media personnel spent an average of \$24 per day.

Exhibit 5: Summary of M&T Bank Stadium Media Personnel Spending, 2006

Summary Variable	All Events
Average lodging expenses for media personnel (per person, per night)	\$123.68
Average meal/other expenditures for overnight media personnel (per person, per day)	\$92.76
Average meal/other expenditures for local media personnel (per person, per day)	\$23.84

Results

In 2006, M&T Bank Stadium increased Maryland’s gross state product (GSP is a proxy for business sales) by \$216 million after accounting for multiplier effects. This output translated into \$100 million in personal income to Maryland residents and supported over 3,000 jobs.⁶ Exhibit 6 provides a summary of estimated economic impacts.

Exhibit 6: Economic Impacts of M&T Bank Stadium, 2006

Economic Impacts	Direct Impact	Secondary Impact	Total Impact
GSP (millions)	\$88.9	\$127.4	\$216.3
Wages (millions) ⁷	\$50.7	\$49.4	\$100.1
Employment	1,366	1,722	3,088

State tax revenues traceable to the Stadium’s operation amounted to approximately \$9.7 million in 2006. This includes \$3.6 million in income tax, \$2.6 million in sales tax and \$3.5 in admissions tax. The Stadium also generated nearly \$3.2 million in local tax revenue, including \$1.8 million in income tax, \$417,260 in hotel room tax, \$870,233 in admissions tax and \$89,300 in parking revenue. Exhibit 7 summarizes estimated fiscal impacts.

⁶ Annual job equivalents.

⁷ In accordance with other studies conducted by other analysts of the impact of M&T Bank stadium, it has been assumed that 40 percent of the Ravens’ salary income remains in Maryland.

Exhibit 7: Fiscal Impacts of M&T Bank Stadium, 2006

Fiscal Impacts	Direct Impact	Secondary Impact	Total Impact
<i>State (thousands)</i>			
Income tax	\$2,017	\$1,590	\$3,607
Sales tax	\$1,867	\$744	\$2,611
Admissions tax	\$3,480	--	\$3,480
Total State revenues	\$7,364	\$2,334	\$9,698
<i>Local (thousands)</i>			
Income tax	\$1,009	\$796	\$1,805
Hotel occupancy tax	\$417	--	\$417
Admissions tax	\$870	--	\$870
Parking	\$89	--	\$89
Total Local revenues	\$2,385	\$796	\$3,181
Total State + Local revenues	\$9,749	\$3,130	\$12,879

Conclusion

M&T Bank Stadium continues to be a major driver of economic activity in Baltimore City and surrounding region. In 2006, the Stadium augmented gross state product by approximately \$216 million and supported over 3,000 jobs. This economic activity generated a total of nearly \$13 million in combined state and local government tax revenues.

Both economic and fiscal impacts could be substantially bolstered through the attraction of more non-professional football events, including concerts and collegiate tournaments. Intensified efforts to increase facility utilization are now underway, and if successful should boost impact from 2006 totals going forward.