

2003 Update

**Economic and Fiscal Impacts of a
Major League Baseball Franchise and Stadium
on the Commonwealth of Virginia**

**Stephen S. Fuller, Ph.D.
George Mason University
Fairfax, Virginia**

January 20, 2003

Introduction

A George Mason University study released in July 2000¹ concluded that construction and operation of a \$300 million Major League ballpark² in Northern Virginia would have a substantial positive impact on the region's economy, and would result in important economic and fiscal benefits for the Commonwealth of Virginia and local jurisdictions surrounding the ballpark.

In the intervening three years since the initial research was collected for the 2000 report, overall economic conditions nationally and in Virginia have changed significantly. In addition, more accurate information on baseball operations has become available with publication of the Commissioner of Baseball Allan H. "Bud" Selig's Blue Ribbon Report on Baseball Economics, and other information made public in conjunction with congressional hearings held in late 2001 and early 2002.

On November 20, Commissioner Selig announced the formation of a special committee to oversee relocation of the Montreal Expos. The committee is expected to complete its work within the next year, and the Greater Washington, D.C. market is the acknowledged leading contender to be the Expos new home.

In the Commonwealth of Virginia, the Virginia Baseball Stadium Authority and its designated investor group, Virginia Baseball Club, L.L.C., are preparing to make the case that Major League Baseball should select a permanent location in Northern Virginia over a site in the District of Columbia proper. Virginia, therefore, will likely soon be faced with a decision on whether to proceed with a public-private baseball stadium project similar to that outlined by the Virginia General Assembly in its 1997 report.

So that Virginia policymakers will have the most accurate information possible as they deliberate the future of Virginia Baseball and the benefits of public involvement in a new Northern Virginia ballpark, George Mason University Professor Stephen Fuller and colleagues have prepared this updated report.

¹ *Economic and Fiscal Impacts of a Major League Baseball Franchise and Stadium on the Commonwealth of Virginia* was based upon 1999 data.

² The \$300 million figure was suggested in the Virginia General Assembly's 1997 *Final Report of the Joint Subcommittee Studying Financing Options for the Purpose of Constructing a Baseball Stadium in Virginia*

Original Estimated Construction Economic Impact. The 2000 study estimated that of total construction outlays estimated at \$277.9 million, the ballpark project would add a total of \$100.4 million in new personal earnings³ and generate 3,384 new jobs in the Commonwealth during the construction period.⁴

Original Estimated Construction Fiscal Impact. The 2000 study also estimated that ballpark construction would result in \$5.5 million in income and sales tax revenue for the Commonwealth, with an additional \$3.4 million in revenue for local governments.

Original Estimated Operations Economic Impact. The 2000 study estimated that operation of the stadium for 80 Major League Baseball games⁵ would generate \$205.85 million in new spending annually in Virginia, with this team and fan spending supporting the creation of 3,074 new full-time-equivalent jobs with personal earnings of \$70.7 million.

Original Estimated Operations Fiscal Impact. This new spending and income generation would yield an estimated \$10.1 million annually in state income and sales taxes and \$6.15 million in new local tax revenues, according to the 2000 study. The economic analyses identified the probable sources of this new spending, both inside the stadium and before-and-after games, and also estimated that 50 percent of the non-stadium spending would be made at hotels, restaurants and retail outlets within the Commonwealth.

In calculating the fiscal impact on state and local governments, only spending by non-Virginia residents was counted as new revenue, to avoid including spending that would likely have taken place within the Commonwealth anyway in the absence of a Major League Baseball franchise.

Thirty-Year Impacts. In order to evaluate the net fiscal impact resulting from a ballpark partially funded with construction bonds, the 2000 study estimated the cumulative fiscal impact of stadium construction and operation over the first thirty years – the likely bond repayment term. This impact was calculated at \$8.62 billion, including team and fan spending (in 1999 dollars), with new personal earnings of \$2.96 billion. State income and sale tax revenues associated with this new spending, over the 30-year period, were estimated to total \$437 million, and local tax revenues were estimated to total \$256 million – assuming constant tax rates and structure, no price changes, and an inflation rate of 2.2 percent. The 2000 study concluded that these net new tax revenues would offset the cost of the Commonwealth’s proposed investment in the Stadium – estimated to total \$540 million, inclusive of interest charges, over 30 years – to yield a net tax revenue benefit of \$153 million.

³ 1999 Dollars

⁴ Northern Virginia’s location bordering the District of Columbia and its Maryland suburbs influences all calculations affecting construction and operation of the ballpark, as varying proportions of money spent for certain types of expenditures will be captured by Virginia firms – with most of the remainder going to firms located in Maryland and D. C.

⁵ Major League Baseball teams play a 162-game regular-season schedule, with one-half of the games at home. However, it is common for one or more rained-out games not to be rescheduled if their outcomes would not affect the final standings, and for makeup games to be played as double-headers.

Additional Benefits. The 2000 economic and fiscal impact analysis also identified additional benefits that could result from the construction and operation of a new Major League Baseball franchise and stadium. These induced impacts could include 1) higher land values in the stadium site area; 2) higher assessed valuations of existing nearby buildings, 3) higher levels of supportable development, 4) an accelerated pace of development, and 5) job and income growth from new activities located in the vicinity of the new ballpark. The nature and magnitude of these benefits have been established in other cities where new baseball stadiums have been built – Baltimore, Cleveland, and Denver all offer good examples of these impacts.

The value that national name recognition of Northern Virginia as the home of a Major League Baseball team was also identified as an important benefit. Increased place-name recognition would result in strengthening Northern Virginia's competitive position for investment capital, business and residential location, conventions and tourism, and would help to build a more diversified economy.

Potential Adverse Impact of a Permanent District of Columbia Location. In addition to estimating the positive benefits of locating a new ballpark in Northern Virginia, the 2000 study also calculated the likely adverse impact that a decision to locate a team permanently in the District of Columbia – instead of Virginia – would have on the Commonwealth.

Building a new stadium and operating a Major League Baseball franchise permanently in the District of Columbia would have a negative impact on Virginia's economy and fiscal base, as well as on the economies and fiscal bases of local jurisdictions, since large numbers of Virginia businesses and residents would transfer significant amounts of their discretionary spending from Virginia to the District of Columbia. The 2000 study estimated that as much as \$54.7 million in Virginia business and fan spending could be transferred into the District annually. Over the first thirty years, this spending shift would cost the Commonwealth and local Virginia government treasuries a total of \$224.5 million in lost tax revenues.

2003 Updated Economic and Fiscal Impacts

For the purpose of this update, only operating outlays and related fiscal impacts were recalculated. With the exception of changes resulting from inflation – estimated at 4.1 percent for the 1999-2002 period, based on “chained prices” – and changes in spending by the team and fans based on new data received, all other assumptions incorporated in the 2000 study were held constant.

It is anticipated that the various costs involved in building a Major League Baseball stadium will have increased somewhat over the past three years – inflation, for example, would account for an increase of \$12 million on a \$300 million base. However, the greatest variables are likely to be those costs associated with an actual site, including land acquisition and site preparation, as well as the cost of the borrowing associated with construction funding.

Given the variability of financing and site costs, the construction phase section of the original economic and fiscal impact analysis has not been updated. These benefits were found to be substantial in the 2000 analysis, and their magnitudes will not be significantly changed by the offsetting inflation and interest rate charges that currently characterize the economy.

Economic Impacts

Two categories of outlays comprise the principal sources of economic and fiscal impacts resulting from the operations of a Major League Baseball franchise:

- 1) team and stadium operations and
- 2) fan spending in-the-stadium and outside-the-stadium before and after games.

The values and impacts of these outlays are presented in Tables 1 and 2.

Team and Stadium Operations. Total outlays by the team for salaries, marketing, administration, local travel by visiting teams, and stadium operations are now projected to total \$145.6 million annually – an increase of 43.3% over the 2000 estimate of \$101.6 million.

It is estimated that the Commonwealth of Virginia will capture an estimated 40 percent of this spending – based on where the expenditures are made or where the firms are located that provide the services being purchased. Based on the capture rate involved (the rate varies depending on type of outlay), it is likely that \$57.875 million in new team and stadium operations spending would be realized annually within the Commonwealth – an increase of 46.3% over the 2000 estimate of \$39.55 million.

Induced and indirect impacts of this new spending in the Commonwealth (the resulting business and employee spending generated by the team’s initial outlays) would increase the economic impact of these direct outlays to \$117.16 million – an increase of 39.7% over the original 2000 estimate of \$83.83 million. These findings are outlined in Table 1.

**Table 1 – Economic Impacts of Team and Stadium Operations
on the Commonwealth of Virginia
(in millions of 2002 dollars)**

Sources⁶	Total Expenditure	Percent in Virginia	Expenditures in Virginia	Virginia Multiplier	Total Impact
<i>Team Outlays</i>					
Operations	\$7.50	0.75	\$5.625	1.8501	\$10.407
Marketing & Advertising	\$6.00	0.75	\$4.500	2.0905	\$9.407
General Admin.	\$16.80	0.75	\$12.600	2.2107	\$27.855
<i>Salaries</i>					
Players	\$87.50	0.20	\$17.500	1.9141	\$33.497
Others⁷	\$3.00	0.25	\$.750	1.9141	\$1.436
Equipment	\$2.40	0.50	\$1.200	1.9770	\$2.372
Travel⁸	\$4.40	0.50	\$2.200	2.0181	\$4.440
<i>Team Sub-total</i>	\$127.60	0.35	\$44.375	2.0152	\$89.414
Game-Day					
Stadium Operations⁹	\$18.00	0.75	\$13.500	2.0550	\$27.742
Total Outlays	\$145.60	0.40	\$57.875	2.0243	\$117.16

⁶ Sources: Virginia Baseball Club, L.C.; multipliers developed from Bureau of Economic Development. RIMS II Multipliers for Virginia; GMU Center for Regional Analysis

⁷ Includes salaries of manager, coaches, and manager of player development.

⁸ Travel reflects visiting team expenditures with the 50% captured locally reduced for airfares and other in-transit expenses.

⁹ outlays associated with TV and radio would accrue largely outside of the state and area not included in these totals

Fan Spending. Fan spending, as shown in Table 2, is divided into two types:

- 1) spending within the stadium proper, and
- 2) spending taking place before and after games.

Total in-stadium spending is now projected at \$80.5 million (up 31.8% from 2000) and total out-of-stadium (before-and-after games) spending is projected at \$38.5 million (up 5.9% from 2000,) for total fan spending of \$119.0 million annually – up 22.2% from the 2000 estimate.

It is estimated that 61 percent of fan spending will directly benefit the Commonwealth’s economy, accounting for \$72.3 million in increased spending for food and beverages, retail sales, parking, entertainment, over-night accommodations, and local transportation – an increase of 24.5% over the 2000 estimate.

Total direct, indirect and induced impacts of fan spending are now estimated to total \$149.7 million annually – an increase of 22.7 percent over the 2000 estimate.

**Table 2 – Economic Impacts of Fan Expenditures on the Commonwealth of Virginia
(in millions of 2002 dollars)**

Sources ¹⁰	Total Expenditures	Percent In Virginia	Expenditures In Virginia	Virginia Multiplier	Total Impact
<i>In-Stadium</i>					
Parking ¹¹	\$8.704	0.33	\$2.872	2.0014	\$5.749
Food/Beverages ¹²	\$45.696	0.60	\$27.418	2.1672	\$59.419
Retail Sales ¹³	\$26.112	0.67	\$17.495	1.9899	\$34.813
Total In-Stadium	\$80.512	0.59	\$47.785	2.0923	\$99.981
<i>Out-of-Stadium</i>					
Day-Trippers ¹⁴ (Virginia)	\$17.626	0.80	\$14.101	2.0189	\$28.468
Day-Trippers (Out-of-State) ¹⁵	\$11.750	0.50	\$5.875	2.0189	\$11.861
Overnighters ¹⁶	\$9.123	0.50	\$4.562	2.0654	\$9.422
Total Out-of-Stadium	\$38.499	0.64	\$24.537	2.0290	\$49.751
Total Fan Impact	\$119.011	0.61	\$72.322	2.0704	\$149.732

¹⁰ Sources: National averages and Virginia Base Club, L.C.; multipliers developed from Bureau of Economic Analysis RIMS II Multipliers for Virginia; GMU Center for Regional Analysis

¹¹ assumes 80% of fans arrive by car with an average of 3 people per vehicle and pay \$10 to park; only labor and other directly related outlays are included as economic benefits

¹² in-stadium purchases of food and beverages average \$14.00 per fan with 60 percent of the revenues expended for labor and merchandise

¹³ in-stadium retail sales average \$8.00 per fan with 67 percent of the revenues expended for labor and merchandise

¹⁴ in-state day trippers spend on average \$9 per fan before and after games for food and beverages, transportation and other purchases as part of the game-day trip

¹⁵ out-of-state day trippers comprise 40 percent of the fans; before and after game daily expenditures total \$9 for day-trippers including transportation costs, food and beverages, and retail sales

¹⁶ 10 percent of the out-of-town fans are overnight visitors for 40 weekend and Friday night games; these visitors spend an additional \$139.75 for hotel, meals, transportation and retail purchases beyond the \$9.00 spent by day-trippers not staying overnight.

2003 Updated Fiscal Impacts

As described above, increased economic activity resulting from team spending, stadium operations and fan spending both within and outside the ballpark will support the generation of new jobs and personal earnings within the Commonwealth's economy. These jobs and related income will, in turn, generate additional income and sales taxes at the state level. Moreover, this activity will also generate a range of other state-level taxes – business, utilities, gasoline and others – and a full-range of local taxes within the jurisdiction hosting the stadium. These local revenue gains will also extend to other Virginia jurisdictions that are home to the vendors and workers benefiting from increased spending by the team and fans. The job and income effects of direct spending by the Major League Baseball team and fans and their associated state tax revenues are presented in Table 3.

Virginia Gross State Product Impact. As noted in Tables 1 and 2, direct spending by the team and both in-stadium and out-of-stadium fan spending is now estimated to result in a total of \$130.2 million direct spending annually in the Commonwealth of Virginia. With an aggregate multiplier of 2.0499, it is estimated that this spending would add a total of \$266.9 million to Virginia's gross state product every year.

This spending would also support the creation of new jobs and associated personal earnings within the Commonwealth. As shown in Table 3, the total employment effect of this spending is estimated to total 3,938 new full-time equivalent jobs (in- and out-of-stadium across the state's economy) with personal earnings totaling \$77 million – an increase of 8.8% over the 2000 estimate.

State Fiscal Impact. Virginia state tax revenues associated with a) direct team salaries and other personal earnings generated by the operations of the franchise and stadium within the Commonwealth, and b) sales taxes on fan spending and new retail spending by the workers whose jobs have been generated as a result of baseball and stadium operations are now estimated to yield a total of \$12.9 million in annual revenues. This represents a 28.3 percent increase in revenue over the original 2000 estimate. Ninety-one percent (91.1%) or \$11.8 million of these state-level tax revenues would result from local outlays by the team or from spending within the stadium by fans.

State income and sales tax revenues generated by team and fan spending account for the largest source of fiscal benefits accruing to the Commonwealth from the presence of Major League Baseball within the state, but other sources of revenues would generate additional annual fiscal benefits. These revenue sources would include: utilities, corporate income, and gasoline purchases.

Table 3
Annual Employment, Personal Income and Fiscal Impacts
Of Stadium Operations in the Commonwealth of Virginia
(in millions of 2002 dollars)

Source ¹⁷	Jobs ¹⁸	Earnings	State Revenues ¹⁹	
			Income	Sales
<i>Annual In-Stadium Spending Impacts</i>				
Team Outlays	1,153.7	\$27.127		
Stadium Operations	504.0	\$8.780		
Fan Expenditures	1,630.4	\$28.329		
In-Stadium Impact Sub-Total	3,288.1	\$64.236		
<i>Annual In-Stadium Spending Impact Revenues</i>				
Revenue Generated by Team Salaries and In-Stadium Spending			\$4.163	\$0.237
Sales Tax on Food, Beverages & Retail Sales				\$3.231
Excise Tax on Alcohol				\$0.071
Revenue from Indirect Jobs/Earnings Generated by In-Stadium Spending			\$2.955	\$1.098
In-Stadium-Spending Impact Revenue Sub-Total			\$7.118	\$4.637
<i>Annual Out-of-Stadium Spending Impacts</i>				
Fan Expenditures	650.1	\$12.655	\$0.582	\$0.216
Taxes on Fan Spending ²⁰				\$0.361
Out-of-Stadium Sub-totals	650.1	\$12.655	\$0.582	\$0.577
Total Annual Impacts²¹	3,938.2	\$76.891	\$7.700	\$5.214

¹⁷ Sources: multipliers developed from Bureau of Economic Analysis RIMS II Multipliers for Virginia; GMU Center for Regional analysis;

¹⁸ full-time equivalent jobs and income resulting from spending within the Commonwealth of Virginia;

¹⁹ includes state income and retail sales taxes generated by the growth in personal earnings resulting from team, stadium and fan spending in- and out-of-the-stadium.

²⁰ excludes taxes paid by fans who are residents of the Commonwealth;

²¹ excludes state corporate and utilities taxes estimated at \$398,940.

Economic and Fiscal Impacts over a Thirty-Year Period

Original 2000 Estimated Impacts

To illustrate the potential return on the Commonwealth of Virginia's proposed investment in a Major League Baseball stadium in Northern Virginia, the 2000 report estimated the total economic and fiscal impacts associated with the ballpark's construction and operation over a thirty-year period – the likely repayment term for stadium construction bonds.

Assuming a nominal 2.2% annual rate of inflation, the 2000 report estimated that direct team and fan spending would result in an in-state spending increase of \$4.086 billion over the first thirty years, with an estimated total economic impact of \$8.618 billion. This increased spending would, it was estimated, create and support 3,074 full-time equivalent jobs annually in Virginia, with personal earnings totaling \$2.96 billion.

The fiscal impacts of this thirty-year stream of stadium, team and fan spending were estimated in 2000 to total \$693.1 million - \$436.6 million in new tax revenue for the Commonwealth of Virginia and \$256.5 million in new revenue for local Virginia governments. These estimated gains in state and local fiscal revenues excluded the gasoline tax, personal property tax, and sales tax on construction materials. Additionally, these totals assumed there would be no change in tax rates over this thirty-year period and that price increases for tickets, parking, food and retail items would increase at only the average rate of inflation.

With stadium construction bond costs estimated at \$18 million per year over the 30-year repayment term – a total of \$540 million – it was estimated in 2000 that construction and operation of a Major League Baseball stadium would result in an approximate net fiscal impact of \$153.1 million during the bond repayment term.

2003 Updated Impacts

The revised total economic and fiscal impacts conveyed upon the Commonwealth of Virginia from construction and operation of a Major League Baseball stadium in Northern Virginia over the first thirty years are presented in Table 4. Again, the construction phase impacts have not been recalculated except for a fiscal impact inflation adjustment due to the probable offsetting impacts of increased construction costs and lower financing costs.

Economic Impacts. The total direct spending impact of team and stadium operations over the first thirty years is now estimated at \$5.45 billion – an increase of 33.4 percent over the 2000 estimate. The total economic impact is now estimated to be \$11.18 billion over 30 years – an increase of 29.7 percent. Total personal income generated by the team and ballpark will amount to \$3.22 billion over 30 years – an increase of 8.8% over the 2000 estimate.

Fiscal Impact. The fiscal impact on the Commonwealth of Virginia and local Virginia governments resulting from baseball spending and its economic impact will be substantial. Total Virginia state and local government revenue from baseball operations is now estimated to amount to \$819.5 million over the first thirty years – an increase of 18 percent over the original 2000 estimate. Of this, \$538.6 million will accrue to the Commonwealth, with another \$280.9 million to local Virginia governments.

When added to the fiscal impacts from the ballpark’s construction phase, the total fiscal impact will amount to \$829.0 million.

With stadium construction bond costs estimated at \$18 million per year over the 30-year repayment term – a total of \$540 million – construction and operation of a Major League Baseball stadium in Northern Virginia will result in an approximate net positive fiscal impact of \$289 million during the bond repayment term alone.

Table 4
Revised Total Economic and Fiscal Impacts in the Commonwealth of Virginia
over Thirty-Year Bond Repayment Period
(in current year dollars²²)

Source	Construction Phase (\$Mill)	Operations Phase (\$Mill)	Total Impact (\$Mill)
Total Direct Spending	134.0	5,450.0	5,584.5
Total Economic Impact	304.2	11,175.6	11,479.8
Total Personal Income	100.4	3,219.9	3,320.3
Fiscal Impacts			
State Level	5.8 ²³	538.6	544.4
Local Level	3.6	280.9	284.5
Total Fiscal Impacts	9.5	819.5	829.0

Potential Loss of Spending, Economic Impacts and Revenue to the District of Columbia

The original 2000 report mentioned that Virginia would lose a significant amount of spending and resulting revenue in the event that Major League Baseball were to locate a team permanently in the District of Columbia, rather than Northern Virginia. At that time, the magnitude of lost spending by Virginia residents was estimated at \$59.74 million annually, and the resulting loss of tax revenue was estimated to total \$224.5 million over the team’s first thirty years.

In the two years since the original report was released, competition between the Virginia Baseball Stadium Authority and its designated ownership group, Virginia Baseball Club, L.L.C., and their District of Columbia counterparts has intensified as the prospects for a team being relocated to the National Capital Area have increased substantially.

Based upon the updated economic and fiscal analysis presented above, it is clear that the potential loss of economic activity and Virginia state and local tax revenue have grown as well.

It is now estimated that in the event that Major League Baseball locates a team permanently in the District of Columbia, Virginia residents would spend \$71.5 million annually in D.C. that they otherwise would be likely to spend in Virginia. (This calculation does not include spending in D.C. by business travelers and tourists staying in Virginia hotels.)

This transferred spending would result in Virginia governments losing an accumulated \$266.4 million in state and local tax revenue over the team’s first thirty years in the District of Columbia.

²² Dollar values are increased by the estimated average annual inflation rate of 2.2 percent for a 30-year period.

²³ Reflects inflation rate of 1.041% from 2000. Excludes sales tax on construction materials that, if included, would add an estimated \$3.015 million to the fiscal impact of stadium construction.

Conclusion

The 2000 Economic and Fiscal Impact Study of a major league baseball franchise and stadium in Virginia demonstrated that Major League Baseball in Northern Virginia would provide significant benefits for both the Commonwealth and for the local host jurisdiction. The nature of these economic and fiscal benefits has not changed dramatically since they were measured in 1999. However, the receipt of more current and accurate information, coupled with normal inflationary trends, has resulted in significant increases in the projected dimensions of these impacts.

Spending. Overall, annual team and fan spending in Virginia is projected to total \$130.2 million (in 2002 dollars) for an increase of 33 percent over the combined spending level originally calculated in 1999.

This increased team and fan spending is now estimated to generate a total contribution of \$266.9 million to the state's economy and support the addition of 3,938 new jobs, with new personal earnings totaling \$77 million.

State Fiscal Impact. The fiscal impact of this increased spending within the Commonwealth is now estimated to produce a total of \$12.9 million in annual revenue, an increase of \$2.9 million annually (28.3 percent) over the value of fiscal benefits calculated in the 2000 study. This revenue is in addition to construction phase fiscal benefits

Local Fiscal Impact. While local fiscal impacts have not been specifically re-calculated in this update, it can be expected that their estimated 1999 total of \$6.15 million would grow proportionately and also increase by 28.3 percent, to an estimated \$7.89 million annually.

- **The increased economic and fiscal benefit estimates resulting from this updated analysis once again establish the positive value of a Major League Baseball team in Northern Virginia to the Commonwealth's economy and to state and local treasuries.**
A new team and stadium would have significant positive impacts on job and income growth as well as provide major new sources of tax revenues to the Commonwealth and local governments in Virginia.
The tax revenue generated for Virginia by the Major League team and ballpark would exceed projected bond repayment costs by over \$288 million in the first 30 years alone.
- **Conversely, a decision to locate a team and new ballpark in the District of Columbia, rather than Northern Virginia, would cause Virginia residents to spend significant amounts of money in the District that would likely otherwise be spent in Virginia, generating revenues for the District government at the expense of the Commonwealth of Virginia and its local governments.**