

*AN ANALYSIS OF THE FISCAL IMPACTS
OF THE
ATLANTA BELTLINE TAX ALLOCATION DISTRICT (TAD)*

Prepared for:

Atlanta Development Authority

Prepared by:

Bruce A. Seaman, Ph.D.

October 25, 2005

Prepared under contract between the Atlanta Development Authority and Bruce A. Seaman, Ph.D., acting as an independent consultant and not on behalf of Georgia State University, where he serves as an Associate Professor of Economics in the Andrew Young School of Policy Studies.

Table of Contents:

I. Executive Summary (and Introduction)	1
II. Detailed Description of the <u>Incremental</u> General Fund Analysis	7
III. Analysis of the Fiscal Impacts Using <u>Total</u> Beltline Area Households and Firms	29
IV. Supplemental Revenue From the MARTA and MOST Taxes	33
V. Fiscal Effects on Fulton County	36
Appendix: Methodological Background: The Concept of Economic Impact	38
A. The Context of Spending Flow Economic Impact Studies	
B. Deriving Spending Flow Economic Impacts: Application to the Atlanta Beltline	
References	46

I. Executive Summary

A. Introduction

The Atlanta Beltline Tax Allocation District (TAD) investment plan is projected to stimulate incremental household and related commercial relocation into the City of Atlanta over a 25-year period. These public investments are expected to total from \$2.1 to \$2.66 billion and are focused upon transit construction, land acquisition, transportation improvement, affordable housing, park and greenway design and construction, brownfields and infrastructure, and Atlanta Public School projects. As reported in the *Redevelopment Plan: Atlanta Beltline Tax Allocation District* (Huntley & Associates), such population growth is measured as a cumulative total of 9,577 new households beyond those 18,697 households that would have otherwise located in those areas of the city had it not been for the Beltline inspired improvements in infrastructure, transit, parks, and more balanced development across all four quadrants of Atlanta. These households are considered net incremental additions to the City and not merely households who have moved from other parts of Atlanta. Proportionately, this new household development, and its related increase in commercial activity, will be especially heavy in the Southeast and Northwest, but also quite heavy in the Southwest.

The primary focus of the analysis is on the financial impact of the Beltline and the TAD (tax allocation district) funding arrangement on the city of Atlanta General Fund. This focus is due to the public concern that any additional population growth stimulated by the Beltline public infrastructure investments will create excessive demands on city services that cannot be financed by additional tax revenues, with further financial strains stemming from the property tax revenues diverted from the General Fund into the earmarked TAD revenues that serve as the base for financing the bonds necessary to make the specific proposed Beltline investments. If any resulting net revenue shortfalls sufficiently damage the General Fund, the fear is that Atlanta residents may be faced with tax increases. The primary task of this study is to address this concern.

B. Overall Conclusions

The primary results of the analysis can be simply stated:

- ❖ At an average cost of as little as \$11 per person per year, or 1.7 percent of the average year General Fund annual budget, Atlanta will be able to acquire a substantial increase in valuable park and recreational facilities, enhance inner-city transit, encourage notably more balanced economic development across all four quadrants of the City, and generate overall improvement in the quality of life.
- ❖ Even if no scale economy effects are incorporated into the analysis of additional costs of public services, the per person per year average cost rises only to about \$13.50, or 2.06 percent of the average year General Fund annual budget.
- ❖ In fact, by ignoring the fact that this improved quality of life will inevitably attract even more commercial development that will add to the tax base, as well as making the lives of all current residents more enjoyable, this analysis can be considered to be a worst-case scenario of the fiscal and economic consequences of the Atlanta Beltline Tax Allocation District. In fact, if prior experience in some other TAD areas occurs in this case, whereby property tax revenue growth is higher than anticipated, the bonds could be retired prior to the 25th year allowing the Atlanta

General Fund to more quickly recapture those previously redirected revenues into Beltline projects, or depending upon legal feasibility, some of the “excess appreciation” might be captured on an annual basis by the General Fund. Any such developments would certainly render the projections in this study more pessimistic than should be expected.

C. General Fund Revenue and Cost Components

In order to examine the net effects on the Atlanta General Fund of the Beltline inspired incremental economic activity, both the revenues and the costs of such activity must be identified.

Revenue Effects

Excluding property tax revenues within the TAD, and ignoring any likely effects of higher property tax revenues linked to property appreciations in areas of the city outside of the TAD development areas, the key Atlanta annual revenue sources linked to development within the Beltline (including direct and induced effects) are:

- Sales Taxes linked to household spending
- Business Taxes (including alcohol, insurance premium, and public utility franchise fees, but excluding hotel/motel tax revenues)
- Business License Fees
- Sales and Use Taxes linked to the construction of housing, retail, office, light industry, and institutional establishments.

The first three are permanent additions to the revenue base of the City, while the fourth revenue source (construction inspired sales and use tax revenues) is temporary and applies only to the years over which the Beltline expansion projects are being constructed.

Note that the General Fund sales and use tax revenues documented in the study are limited to the local option sales tax (LOST) only. Since the City of Atlanta’s share of such 1 percent LOST revenues is .4288 (with the balance being divided between Fulton County and other municipalities within the county), every dollar of new spending that adds to the sales tax base generates \$.004288 dollars in Atlanta General Fund revenues. While not affecting the Atlanta General Fund, projections are also reported in Sections IV and V of the effects of the Beltline on MARTA tax revenues, revenues from the Atlanta municipal option sales tax (MOST), and sales tax revenues to Fulton County.

Note also that any incremental building permit fees are not included since they are devoted to paying the costs of administering the building codes and do not generate net General Fund revenues.

Service Cost Effects

On the other hand, additional housing units and households and related business activity within the TAD area will create some additional demands upon City of Atlanta services. Excluding capital expenditures for all development projects, including road building and park landscaping, the potential additional costs linked to the new households and ancillary economic activity within the Beltline fall into the following categories:

- Parks (operational and maintenance)

- Police protection
- Fire protection
- Public works (primarily road maintenance, not construction)

Note that several cost categories will not make additional claims on the Atlanta General Fund budget:

- Water and sewer is paid for in fees for service; in fact, additional tax revenues linked to the 1% special municipal local option sales tax (MOST) may potentially allow a more rapid payoff of the bonds devoted to water and sewer capital improvements or may allow a modest reduction in monthly water and sewer bills. Such revenue effects linked to the MOST are estimated in the study but are not central to the analysis of the General Fund impacts.
- All other utility services are provided privately or in the case of garbage collection are billed separately.
- Any additional school expenses are to be covered by a portion of the property tax revenues generated from within the TAD.
- Any capital expenditures for either roads or park development are also to be paid by from a portion of the property tax revenues generated within the TAD.
- Operational expenses of the expanded transit system, to be integrated with MARTA operations, will continue their present practice of not being part of the General Fund, and will in fact be funded by a combination of applicable Federal grants (possibly, but not limited to, the “New Start” program), additional MARTA revenues received from the 1 percent sales tax applicable to retail transactions within Fulton and DeKalb Counties, or other potential regional or state sources. As with the MOST cited above, the likely revenues generated for MARTA from the Beltline inspired incremental economic activity are estimated, but are not a central part of the analysis of the General Fund impacts.

Diverted Property Tax Revenues

A separate category is the redirection of property tax revenues from that economic development with the TAD area (new as well as existing property appreciation) that would alternatively have accrued to the General Fund, but over the first 25 years will be redirected into earmarked revenues to finance the bonds that will support the Beltline development projects. These revenues are not lost but are merely reallocated, and when the TAD expires, they will be redirected back to the General Fund. Both of these effects are documented in the analysis.

D. More Detailed Conclusions

While the three most fundamental conclusions were stated above in B, five more detailed supporting conclusions can be stated:

- While incremental revenues would be sufficient to more than pay for the incremental police, fire and road maintenance expenses, when the expense of maintaining the substantial increase in park acreage is included along with the diverted property tax revenues, annual revenue shortfalls result.
- These revenue shortfalls range from a low per year of \$687,840 in year 1 (2006) to \$21.4 million in year 25 (2031). The cumulative General Fund revenue shortfall is \$275 million as

of year 25. In the unlikely event that no scale economies exist in the provision of the incremental required policing, fire protection, and road maintenance public services, this cumulative General Fund revenue shortfall would be \$341 million in year 25.

- However, given that the new and appreciated property within the TAD (due solely to Beltline developments) will generate substantial property tax revenues back to the General Fund starting in year 26, as of year 32 a net cumulative revenue surplus is realized.
- Even if one considers the first 25 years only, it is critical to understand that such annual revenue shortfalls are remarkably manageable when put into the proper context. One such context is to measure the shortfall as a percentage of the total General Fund, both in the unrealistic case of no real growth over 25 years, and also in the more realistic case of an average of 2 percent real growth. In the realistic latter case, the average revenue shortfall as a percentage of the General Fund is only 1.7 percent, with the highest single year being 2.7 percent. In the case of no scale economies in the provision of relevant incremental public services, these percentages increase to 2.06 percent and 3.49 percent respectively.
- This first 25-year revenue shortfall can also be understood in terms of what it represents per person to the Atlanta population. This burden represents only an average of \$21.18 in the case in which no business burden sharing is assumed, and can be as low as an average of \$10.93 (about \$11) in the case when all adjustments are made in terms of business versus individual burden sharing. Again, if no scale economies in the provision of police, fire, and road maintenance services is assumed, these figures increase to \$26.22 and \$13.53 per person respectively.

Therefore, there is no compelling evidence that the Atlanta Beltline Tax Allocation District will impose excessive financial burdens on the City of Atlanta General Fund. In fact, even if one ignores the longer term net positive budgetary effect over 32 years, the revenue shortfall over the projected 25 year period represents essentially a purchase by the citizens of Atlanta of about a 33 percent increase in recreational park acreage, expanded and better integrated inner-city public transportation, and significantly more balanced growth within the various areas of Atlanta at cost of about \$11 per person per years, or 1.7 percent of the Atlanta General Fund budget.

II. Detailed Description of the Incremental General Fund Analysis

A. Overview

Table 1 provides the essential summary results that will be further described below. Column (2) reports the projected incremental revenues from all relevant sources linked to Beltline generated additional economic activity; column (3) reports the incremental public service costs (including the substantial additional parks maintenance costs required by the approximately 33 percent increase in recreational acreage in Atlanta; column (4) reports the projected redirected property tax revenues that would have gone into the Atlanta General Fund, but over the projected 25 year period will be redirected into the TAD to support the bonds sold to finance the Beltline investment projects; and columns (5) and (6) report the net revenues, either without those redirected property taxes (column 5) or with them (column 6).

TABLE 1
Summary of Beltline General Fund Fiscal Impacts (32 Years)

(1) Year	(2) Incremental Development Revenues	(3) Incremental Development Service Costs with Parks	(4) Redirected Property Tax Revenues to the TAD	(5) Incremental Development Rev - Costs W/o Prop Tax	(6) Incremental Development Rev - Costs With Prop Tax
1	\$204,505	\$524,589	-\$367,756	-\$320,084	-\$687,840
2	\$435,582	\$1,049,179	-\$857,694	-\$613,597	-\$1,471,291
3	\$510,880	\$1,573,768	-\$1,240,308	-\$1,062,888	-\$2,303,196
4	\$674,090	\$2,098,357	-\$1,695,907	-\$1,424,267	-\$3,120,174
5	<u>\$820,296</u>	<u>\$2,622,947</u>	<u>-\$2,160,617</u>	<u>-\$1,802,651</u>	<u>-\$3,963,268</u>
5 Yrs	\$2,645,353	\$7,868,840	-\$6,322,282	-\$5,223,487	-\$11,545,769
6	\$1,105,403	\$3,253,564	-\$2,767,240	-\$2,148,161	-\$4,915,401
7	\$1,324,616	\$3,884,181	-\$3,385,996	-\$2,559,565	-\$5,945,561
8	\$1,543,834	\$4,514,799	-\$4,017,126	-\$2,970,965	-\$6,988,091
9	\$1,763,057	\$5,145,416	-\$4,660,879	-\$3,382,359	-\$8,043,238
10	<u>\$1,982,283</u>	<u>\$5,860,706</u>	<u>-\$5,317,507</u>	<u>-\$3,878,423</u>	<u>-\$9,195,930</u>
10 Yrs	\$10,364,546	\$30,527,506	-\$26,471,030	-\$20,162,960	-\$46,633,990
Last 5	\$7,719,193	\$22,658,666	-\$20,148,748	-\$14,939,473	-\$35,088,221
11	\$2,227,713	\$6,090,214	-\$6,009,520	-\$3,862,501	-\$9,872,021
12	\$2,459,516	\$6,311,658	-\$6,715,373	-\$3,852,142	-\$10,567,515
13	\$2,691,323	\$6,533,103	-\$7,435,344	-\$3,841,780	-\$11,277,124
14	\$2,923,135	\$6,754,547	-\$8,169,714	-\$3,831,412	-\$12,001,126
15	<u>\$3,154,952</u>	<u>\$6,975,991</u>	<u>-\$8,918,771</u>	<u>-\$3,821,039</u>	<u>-\$12,739,810</u>
15 Yrs	\$23,821,185	\$63,193,019	-\$63,719,752	-\$39,371,834	-\$103,091,586
Last 5	\$13,456,639	\$32,665,513	-\$37,248,722	-\$19,208,874	-\$56,457,596
16	\$3,451,392	\$7,232,226	-\$9,711,392	-\$3,780,834	-\$13,492,226
17	\$4,155,248	\$7,488,460	-\$10,641,065	-\$3,333,212	-\$13,974,277
18	\$4,422,784	\$7,744,695	-\$11,528,131	-\$3,321,911	-\$14,850,042
19	\$4,690,326	\$8,000,930	-\$12,432,938	-\$3,310,604	-\$15,743,542
20	<u>\$4,957,874</u>	<u>\$8,257,165</u>	<u>-\$13,355,841</u>	<u>-\$3,299,291</u>	<u>-\$16,655,132</u>
20 Yrs	\$45,498,809	\$101,916,495	-\$121,389,119	-\$56,417,686	-\$177,806,805
Last 5	\$21,677,624	\$38,723,476	-\$57,669,367	-\$17,045,852	-\$74,715,219
21	\$5,208,329	\$8,513,399	-\$14,269,686	-\$3,305,070	-\$17,574,756
22	\$5,468,767	\$8,769,634	-\$15,201,808	-\$3,300,867	-\$18,502,675
23	\$5,729,210	\$9,025,869	-\$16,152,572	-\$3,296,659	-\$19,449,231
24	\$5,989,659	\$9,282,104	-\$17,122,352	-\$3,292,445	-\$20,414,797
25	<u>\$6,250,113</u>	<u>\$9,539,443</u>	<u>-\$18,111,527</u>	<u>-\$3,289,330</u>	<u>-\$21,400,857</u>
25 Yrs	\$74,144,887	\$147,046,944	-\$202,247,064	-\$72,902,057	-\$275,149,121
Last 5	\$28,646,078	\$45,130,449	-\$80,857,945	-\$16,484,371	-\$97,342,316
26	\$6,019,267	\$9,539,443	\$46,344,309	-\$3,520,176	\$42,824,133
27	\$6,019,267	\$9,539,443	\$47,271,195	-\$3,520,176	\$43,751,019
28	\$6,019,267	\$9,539,443	\$48,216,619	-\$3,520,176	\$44,696,443
29	\$6,019,267	\$9,539,443	\$49,180,951	-\$3,520,176	\$45,660,775
30	<u>\$6,019,267</u>	<u>\$9,539,443</u>	<u>\$50,164,570</u>	<u>-\$3,520,176</u>	<u>\$46,644,394</u>
30 Yrs	\$104,241,222	\$194,744,159	\$38,930,581	-\$90,502,937	-\$51,572,356
Last 5	\$30,096,335	\$47,697,215	\$241,177,645	-\$17,600,880	\$223,576,765
31	\$6,019,267	\$9,539,443	\$51,167,862	-\$3,520,176	\$47,647,686
32	<u>\$6,019,267</u>	<u>\$9,539,443</u>	<u>\$52,191,219</u>	<u>-\$3,520,176</u>	<u>\$48,671,043</u>
32 Yrs	\$116,279,756	\$213,823,045	\$142,289,662	-\$97,543,289	\$44,746,373

Notes: All dollar figures are in “real” 2005 dollars with no inflation adjustment. In essence, a 0% real growth rate is applied to revenue and service costs, but there is a 2% real growth rate (not including inflation) implicit in the redirected property tax revenues.

- (a) Detailed documentation of revenues in Column (2) is provided below in Table 5.
- (b) Detailed documentation of service costs and parks maintenance expenses in Column (3) is provided below in Table 12.
- (c) Redirected property tax revenues from the General Fund to the TAD are based on new development and existing property appreciation within the TAD and are derived from Table 14-C of the *Redevelopment Plan: Atlanta Beltline TAD Development and Bond Financing Proposal*, October 11, 2005 (Huntley & Associates).

Assume for the moment (prior to the description of the methodology used to generate these results) that the critical column six (6) net revenue projects are accurate within acceptable bounds of uncertainty (e.g. plus or minus 5 percent as one possible standard). How should those results be interpreted? Firstly, given the recapture of the property tax revenues within the TAD as of year 26, Table 1 indicates that the City of Atlanta General Fund will break-even (in 2005 dollars) as of year 32. Secondly, Tables 2 and 3 “normalize” the net revenue shortfalls over the 25-year period, suggesting that even if one ignores the years after year 25, this revenue shortfall burden is highly manageable either measured as a percentage of the projected overall size of the future General Fund (Table 2), or as a per capita amount over all projected future Atlanta individual residents Table 3).

TABLE 2
Annual Net Revenue Shortfall as Percentage of General Fund:
Annual for 25 Years
(No General Fund Growth vs. Expected Real Growth)

(1)	(2)	(3)	(4)	(5)	(6)
Year	Annual Development Revenue Minus Service Costs and Redirected Property Taxes	General Fund 2005	Annual Net Revenue Shortfall as % of General Fund with no GF Real Growth	General Fund 2% Real Growth	Annual Net Revenue Shortfall as % of General Fund with 2% GF Real Growth
0		\$474,933,207		\$474,933,207	
1	- \$687,840	\$474,933,207	0.1448	\$484,431,871	0.1420
2	- \$1,471,291	\$474,933,207	0.3098	\$494,120,509	0.2978
3	- \$2,303,196	\$474,933,207	0.4850	\$504,002,919	0.4570
4	- \$3,120,174	\$474,933,207	0.6570	\$514,082,977	0.6069
5	- \$3,963,268	\$474,933,207	0.8345	\$524,364,637	0.7558
6	- \$4,915,401	\$474,933,207	1.0350	\$534,851,929	0.9190
7	- \$5,945,561	\$474,933,207	1.2519	\$545,548,968	1.0898
8	- \$6,988,091	\$474,933,207	1.4714	\$556,459,947	1.2558
9	- \$8,043,238	\$474,933,207	1.6936	\$567,589,146	1.4171
10	- \$9,195,930	\$474,933,207	1.9363	\$578,940,929	1.5884
11	- \$9,872,021	\$474,933,207	2.0786	\$590,519,748	1.6718
12	- \$10,567,515	\$474,933,207	2.2251	\$602,330,143	1.7544
13	- \$11,277,124	\$474,933,207	2.3745	\$614,376,746	1.8355
14	- \$12,001,126	\$474,933,207	2.5269	\$626,664,281	1.9151
15	- \$12,739,810	\$474,933,207	2.6824	\$639,197,566	1.9931
16	- \$13,492,226	\$474,933,207	2.8409	\$651,981,517	2.0694
17	- \$13,974,277	\$474,933,207	2.9424	\$665,021,148	2.1013
18	- \$14,850,042	\$474,933,207	3.1268	\$678,321,571	2.1892
19	- \$15,743,542	\$474,933,207	3.3149	\$691,888,002	2.2754
20	- \$16,655,132	\$474,933,207	3.5068	\$705,725,762	2.3600
21	- \$17,574,756	\$474,933,207	3.7005	\$719,840,277	2.4415
22	- \$18,502,675	\$474,933,207	3.8958	\$734,237,083	2.5200
23	- \$19,449,231	\$474,933,207	4.0952	\$748,921,825	2.5970
24	- \$20,414,797	\$474,933,207	4.2985	\$763,900,261	2.6724
<u>25</u>	<u>- \$21,400,857</u>	<u>\$474,933,207</u>	<u>4.5061</u>	<u>\$779,178,266</u>	<u>2.7466</u>
	- \$275,149,121 Total	\$12,348,263,382 Total	2.3174 % Average	\$15,991,431,235 Total	1.6669 % Average

Note: Column 2 is taken from Column 6 of Table 1 but for 25 years only. Column (3) is taken from data presented below in Table 4.

Table 2 indicates that even if one projected zero real growth (i.e., any growth would merely compensate for future inflation), the average annual revenue shortfall would be no more than about 2.3 percent, and would peak at 4.5 percent in the 25th year. More realistically, incorporating a 2 percent real growth rate in the future Atlanta General Fund (based on historical trends and likely future growth developed in close consultation with the Atlanta Department of Revenue), those percentages fall to about 1.7 and 2.7 percent respectively.

TABLE 3
Annual Net Revenue Shortfall Per Capita: Annual for 25 Years

(1) Year	(2) Atlanta Households Year 0 = 2005	(3) Atlanta Population (average 2.3 persons per household)	(4) Incremental Development Revenue – Service Costs and Redirected Property Taxes	(5) Annual Revenue Shortfall per Person with no Commercial and other Burden Sharing	(6) Annual Revenue Shortfall per Person reduced by 48.4% non- Residential Share of Burden	(7) Annual Revenue Shortfall per Person reduced only by 37.4% Commercial Share of Burden
0	184,049	423,313				
1	186,313	428,519	-\$687,840	-\$1.61	-\$0.83	-\$1.00
2	188,604	433,790	-\$1,471,291	-\$3.39	-\$1.75	-\$2.12
3	190,924	439,126	-\$2,303,196	-\$5.24	-\$2.71	-\$3.28
4	193,273	444,527	-\$3,120,174	-\$7.02	-\$3.62	-\$4.39
5	195,650	449,995	-\$3,963,268	-\$8.81	-\$4.54	-\$5.51
6	198,056	455,530	-\$4,915,401	-\$10.79	-\$5.57	-\$6.75
7	200,492	461,133	-\$5,945,561	-\$12.89	-\$6.65	-\$8.07
8	202,959	466,805	-\$6,988,091	-\$14.97	-\$7.72	-\$9.37
9	205,455	472,546	-\$8,043,238	-\$17.02	-\$8.78	-\$10.66
10	207,982	478,359	-\$9,195,930	-\$19.22	-\$9.92	-\$12.03
11	210,540	484,243	-\$9,872,021	-\$20.39	-\$10.52	-\$12.76
12	213,130	490,199	-\$10,567,515	-\$21.56	-\$11.12	-\$13.50
13	215,751	496,228	-\$11,277,124	-\$22.73	-\$11.73	-\$14.23
14	218,405	502,332	-\$12,001,126	-\$23.89	-\$12.33	-\$14.96
15	221,091	508,510	-\$12,739,810	-\$25.05	-\$12.93	-\$15.68
16	223,811	514,765	-\$13,492,226	-\$26.21	-\$13.52	-\$16.41
17	226,564	521,097	-\$13,974,277	-\$26.82	-\$13.84	-\$16.79
18	229,351	527,506	-\$14,850,042	-\$28.15	-\$14.53	-\$17.62
19	232,172	533,995	-\$15,743,542	-\$29.48	-\$15.21	-\$18.46
20	235,027	540,563	-\$16,655,132	-\$30.81	-\$15.90	-\$19.29
21	237,918	547,212	-\$17,574,756	-\$32.12	-\$16.57	-\$20.11
22	240,844	553,942	-\$18,502,675	-\$33.40	-\$17.24	-\$20.91
23	243,807	560,756	-\$19,449,231	-\$34.68	-\$17.90	-\$21.71
24	246,806	567,653	-\$20,414,797	-\$35.96	-\$18.56	-\$22.51
25	249,841	574,635	-\$21,400,857	-\$37.24	-\$19.22	-\$23.31
				-\$21.18 average per year	-\$10.93 average per year	-\$13.26 average per year

Notes:

- (a) Column (4) is identical to column (6) in Table 1 (but for 25 years only) and Column (2) in Table 2.
- (b) Population projections are consistent with Atlanta Regional Commission and Bureau of the Census figures.
- (c) The “burden sharing” percentages in columns (6) and (7) are based on the 2005 Fulton County tax digest.

Similar to the implications of Table 2, where the 25-year projected net revenue shortfall represents a very manageable percentage of the General Fund, Table 3 indicates that the most likely per person burden on present and future Atlanta residents (fully adjusting for the share of this burden borne by commercial and other non-residential taxpayers) is slightly less than an average of \$11 per year, peaking at a bit more than \$19 in year 25. Again, this is a very manageable revenue-shortfall, especially when it is noted that a number of potential future revenue sources are not included in Table 1, as will be clear in the more detailed descriptions that follow.

Potential Mitigating Factors not included in the Table 1 Projections

- No potential additions to the General Fund are included that may occur as a result of property tax appreciations elsewhere in the City (outside the TAD areas) as the quality of life improves and incremental economic activity linked to the Beltline projects stimulates the local economy more widely. Such so-called “halo effects” are inevitable, with the only question being their magnitude and timing.
- No consideration is given to the possibility, as has occurred at times in other TADS, that the appreciation of property values and resulting property tax revenues will be greater than currently projected (based on the also quite conservative analysis done by Huntley & Associates and reported in detail in the *Redevelopment Plan: Atlanta Beltline Tax Allocation District*. If that occurs, a number of options become available that would significantly reduce the severity of the negative net revenues projected in Table 1. These include: (1) the possibility of retiring the bonds earlier than the 25-year period and hence allowing the TAD property tax revenues to revert back to the General Fund more quickly than projected in Table 1; and (2) the possibility that the City can legally recapture some of that “excess appreciation” yearly based on the specific way in which the TAD is authorized.
- No potential additional sales tax revenues are projected as the potential result of an increase in non-resident short-term visitors to Atlanta, be they metro area or state residents, or out-of-state visitors attending conferences who could potentially extend their stays in the city, as a result of the more attractive recreational park facilities and the more efficient local transportation network resulting from Beltline investments. See also the methodological Appendix for more discussion of this issue.

B. Revenue Projections

Prior to projecting new revenues resulting from the Atlanta Beltline, it is important to document the current pre-Beltline situation regarding the key revenue components of the Atlanta General Fund. Table 4 provides this information. As described above in Section I, the relevant sources of revenue that will be affected by the Atlanta Beltline are sales taxes, business taxes, and business licenses. Table 4 indicates that those combined revenue sources represent \$217.2 million, or about 45.7 percent of the total General Fund. Note also that sales taxes stem from spending not only done by local residents, but also by temporary visitors to the City, be they metropolitan Atlanta or state of Georgia residents, or out-of-state visitors such as those attending conferences at local hotels or linked to the Georgia World Congress Center. Therefore, it is important that the revenue model described below isolates only those effects of new residential households and their incremental spending activity on Atlanta sales tax revenues.

Table 4
Primary Current Revenue Sources: Atlanta General Fund

Category	2005 Anticipations	Base Measure if Applicable
Property Taxes	\$136,308,156	
Sales Taxes	\$79,767,569	
Business Taxes	\$107,972,958	
Business Licenses	\$29,484,430	21,252 licensees
Permits	\$9,406,084	9,682 permit holders
Sub-Total	\$362,939,197	
Other Fund Sources	\$111,994,010	
Total General Fund	\$474,933,207	

Notes:

1. "Other Fund Sources" include intergovernmental transfers, charges for services, fines and penalties, sales, recoveries and all other miscellaneous funding sources, plus available cash and securities.
2. The General Fund is only one among 21 funds maintained by the City of Atlanta (other examples include aviation funds, water and sewerage funds, capital project funds, Underground Atlanta facilities revenue fund, etc.), with a total annual budget (2004) of \$5,066,364,347 (\$5.066 billion). Therefore, the Atlanta General Fund is actually only approximately 9.4 percent of the total Atlanta annual budget.

Table 5 below reports the revenue projections that are incorporated into Column (2) of Table 1. The relevant revenues stem from (1) sales and use taxes linked to the 9,577 incremental households identified in the *Redevelopment Plan*, and the additional economic activity they generate; (2) business taxes, itemized in the discussion following the table; (3) license fees generated by the incremental business firms derived from the retail, office and light industry square footage projections reported in the *Redevelopment Plan*; and (4) construction phase generated sales and use tax revenues as projected by the specific build-out plan reported also in the *Redevelopment Plan*.

TABLE 5
General Fund Revenue due to Incremental Development caused by the Beltline

(1) Year	(2) New HH Cumulative Total	(3) Sales Tax Revenues Per Year	(4) Business Tax Revenues Per Year	(5) New Firms Cumulative Total	(6) License Fees Revenues Per Year	(7) Incremental Construction Sales Tax Revenue/Year	(8) Total Revenues Incremental Per Year
1	197	\$42,448	\$46,628	13	\$22,984	\$92,445	\$204,505
2	394	\$84,896	\$93,256	72	\$127,296	\$130,134	\$435,582
3	591	\$127,344	\$139,884	85	\$150,280	\$93,372	\$510,880
4	788	\$169,792	\$186,512	117	\$206,856	\$110,930	\$674,090
5	<u>985</u>	<u>\$212,240</u>	<u>\$233,140</u>	<u>149</u>	<u>\$263,432</u>	<u>\$111,484</u>	<u>\$820,296</u>
5 Yr	985	\$636,720	\$699,420	149	\$770,848	\$538,365	\$2,645,353
6	1,374	\$296,058	\$325,212	173	\$305,864	\$178,269	\$1,105,403
7	1,763	\$379,876	\$417,284	197	\$348,296	\$179,160	\$1,324,616
8	2,152	\$463,694	\$509,356	221	\$390,728	\$180,056	\$1,543,834
9	2,541	\$547,512	\$601,428	245	\$433,160	\$180,957	\$1,763,057
10	<u>2,930</u>	<u>\$631,330</u>	<u>\$693,500</u>	<u>269</u>	<u>\$475,592</u>	<u>\$181,861</u>	<u>\$1,982,283</u>
10 Yr	2,930	\$2,955,190	\$3,246,200	269	\$2,724,488	\$1,438,668	\$10,364,546
11	3,331	\$717,733	\$788,413	297	\$525,096	\$196,471	\$2,227,713
12	3,732	\$804,136	\$883,326	325	\$574,600	\$197,454	\$2,459,516
13	4,133	\$890,539	\$978,239	353	\$624,104	\$198,441	\$2,691,323
14	4,534	\$976,942	\$1,073,152	381	\$673,608	\$199,433	\$2,923,135
15	<u>4,935</u>	<u>\$1,063,345</u>	<u>\$1,168,065</u>	<u>409</u>	<u>\$723,112</u>	<u>\$200,430</u>	<u>\$3,154,952</u>
15 Yr	4,935	\$7,407,885	\$8,137,395	409	\$5,845,008	\$2,430,897	\$23,821,185
16	5,399	\$1,163,323	\$1,277,889	441	\$779,688	\$230,492	\$3,451,392
17	5,863	\$1,699,626	\$1,387,713	473	\$836,264	\$231,645	\$4,155,248
18	6,327	\$1,799,604	\$1,497,537	505	\$892,840	\$232,803	\$4,422,784
19	6,791	\$1,899,582	\$1,607,361	537	\$949,416	\$233,967	\$4,690,326
20	<u>7,255</u>	<u>\$1,999,560</u>	<u>\$1,717,185</u>	<u>569</u>	<u>\$1,005,992</u>	<u>\$235,137</u>	<u>\$4,957,874</u>
20 Yr	7,255	\$15,969,580	\$15,625,080	569	\$10,309,208	\$3,594,941	\$45,498,809
21	7,719	\$2,099,538	\$1,827,009	597	\$1,055,496	\$226,286	\$5,208,329
22	8,183	\$2,199,516	\$1,936,833	625	\$1,105,000	\$227,418	\$5,468,767
23	8,647	\$2,299,494	\$2,046,657	653	\$1,154,504	\$228,555	\$5,729,210
24	9,111	\$2,399,472	\$2,156,481	681	\$1,204,008	\$229,698	\$5,989,659
25	<u>9,577</u>	<u>\$2,499,450</u>	<u>\$2,266,305</u>	<u>709</u>	<u>\$1,253,512</u>	<u>\$230,846</u>	<u>\$6,250,113</u>
25 Yr	9577	\$27,467,050	\$25,858,365	709	\$16,081,728	\$4,737,744	\$74,144,887
26	9,577	\$2,499,450	\$2,266,305	709	\$1,253,512	\$0	\$6,019,267
27	9,577	\$2,499,450	\$2,266,305	709	\$1,253,512	\$0	\$6,019,267
28	9,577	\$2,499,450	\$2,266,305	709	\$1,253,512	\$0	\$6,019,267
29	9,577	\$2,499,450	\$2,266,305	709	\$1,253,512	\$0	\$6,019,267
30	<u>9,577</u>	<u>\$2,499,450</u>	<u>\$2,266,305</u>	<u>709</u>	<u>\$1,253,512</u>	<u>\$0</u>	<u>\$6,019,267</u>
30 Yr	9,577	\$39,964,300	\$37,189,890	709	\$22,349,288	\$4,737,744	\$104,241,222

Notes: All dollar figures are in “real” 2005 dollars with no inflation adjustment.

- (a) The incremental households and the specific time pattern of their introduction into Atlanta are based on the Huntley & Associates data (in turn based on the demand analysis model) reported in the *Redevelopment Plan*.
- (b) Sales taxes due to net new households attracted to Atlanta as a result of Beltline area improvements are based on expenditure data from the *Consumer Expenditure Survey* (Bureau of Labor Statistics), adjusted for (1) spending that would not enter the Atlanta/Fulton County local option sales tax base; (2) the planned 20 percent of affordable housing as part of the Beltline development; and (3) modest Atlanta “induced” effects based on an average of IMPAN multiplier data, also reflecting RIMS II data (the final “tax multiplier” after all adjustments is 1.27, and the local “output” spending multiplier is 1.42). The relevant sales tax is the LOST of 1%, of which Atlanta obtains 42.88%. Thus, for every \$1.00 of taxable spending, Atlanta would receive \$.00428. The taxable spending is not limited to within the TAD, but is considered to have been the incremental result of Beltline developments.
- (c) Relevant business taxes are limited to (1) utility franchise fees; (2) alcoholic beverage taxes; and (3) insurance premium taxes. They do not include hotel-motel tax revenues. These revenues are generated by the direct and induced incremental spending of households uniquely attracted to Atlanta by Beltline development. The Appendix provides additional detail on these calculations.
- (d) License fees are generated by the incremental firms that are attracted into the areas by Beltline developments, largely but not exclusively to serve the households that will locate in that area. The number of such firms is calculated based on the *Redevelopment Plan* square footage projections and the average square footage required by the different categories of commercial development (i.e. retail, office including local and multi-story, and light industry). Specifically, it is assumed that the average multi-story office will have 6,000 square feet; the average industrial establishment will also require 6,000 square feet; the average retail facility will consume 2,000 square feet; while the average local smaller office will require 1,500 square feet. Based upon the projected total (base plus incremental) square footage for the Beltline area reported in the *Redevelopment Plan*, this results in following number of total expected establishments in the different categories: 814 multi-story; 283 local office, 307 industrial/institutional (of which 210 would be industrial), and 924 retail, for a total of 2,328. When adjusted proportionately for the incremental square footage only, this becomes a total of 709 over the 25-year period. Atlanta budgetary data is utilized to calculate current license fees per business establishment, which is then modestly adjusted for induced as well as direct effects. The result is \$1,768 per establishment after incorporating induced as well as direct effects.
- (e) Construction sales tax revenues are derived from the *Redevelopment Plan* build-out schedule and related construction expenses, and then adjusted for those portions of those expenses that would not enter the sales tax base (e.g., primarily. administrative expenses unlikely to be spent in the city and non-local vendor expenses that may not be captured in user fees). Again direct and induced effects are incorporated with the final “tax multiplier” being 1.27. Table 8 below provides more detailed annual calculations.
- (f) All categories of revenue except construction sales taxes represent annual figures based on cumulative development as additional households and business establishments are added (e.g. starting with 197 new households in year 1 and ending with the “fully mature” development after 25 years of 9,577. By contrast, since some construction projects begin while others are ending, those annual figures are based on the construction projects scheduled for those particular years and they are not cumulative. This is most clearly seen in the \$0 revenues for construction sales taxes in the years 25-30, when no further construction is scheduled under Beltline plan.

B.1. Individual Components of the Revenue Projections: Business Taxes

The business tax revenue calculations can be understood by noting that this category includes:

- a. Public utility franchise fees
- b. Alcoholic beverage taxes
- c. Local insurance premium taxes (collected by the stat and rebated to local governments based upon population)
- d. Hotel-motel taxes

Hotel-motel taxes, which are the largest single component of Atlanta business taxes, are not relevant to the Beltline TAD and are ignored here (although one could argue that some very modest additional hotel rooms would be sold as the City becomes a more pleasant place to visit, or as visitors potentially extend their stays). An outline of the methodology used to calculate the incremental revenues from each of the other individual sources can be described as follows, and also is reflected in the model calculations shown in Table 7.

Franchise Fee Calculation

1. Current Atlanta Franchise Fee Revenues: \$43,044,481
2. Divide by current # households 184,049
3. Franchise Fees per current household: \$233.88
4. Estimated household utility spending: Consumer Expenditure Survey figure for average household in South = \$2,891 x 184,049 = \$532,086,036
5. Weighted average Franchise Fee based on 4% rate for electricity and cable TV, and 3% rate for natural gas and telecommunications, weighted by past Seaman study showing % of fees paid to Georgia municipalities by each sector = 3.739% rate.
6. Total Atlanta household utility spending x .03739 = \$19,894,697
7. Implied ratio of household paid franchise fees in total = .4576
8. Adjusted household franchise fees per household = \$19,894,697 / 184,049 = \$108.09.

Alcoholic Beverage Tax Revenue Calculation

1. Current Atlanta Revenues: \$12,966,062
2. Assumed proportion of tax base generated by Atlanta households vs. tourists etc. = .45
3. Total revenue / current households = \$31.70

Insurance Premium Tax Revenues Calculation

1. Current Atlanta Insurance Policy Premium revenues: \$18,777,205
2. Revenue/ # households = \$45.91 (reflects that most revenue linked to individual policies or business paid premiums is linked to local population)

Conclusion Regarding Business Taxes

The sum of these three per household revenues = \$185.70, which is then multiplied by the relevant number of incremental cumulative households to derive the direct tax revenues and then by 1.27 (rounded) to incorporate the induced tax multiplier revenue effects. Any small number disparities are due to rounding.

B. 2. The Individual Components of Revenue Projections: Sales Tax Revenue based on Household and Construction Spending

The Bureau of Labor Statistics *Consumer Expenditure Survey* (2003) provides an important source of information regarding the spending habits of households in different regions (BLS Table 8) and having different levels of income (BLS Table 1). Average annual expenditures in the South for the average household (total expenditures of \$37,625) and also for the highest 20 percent quintile (\$81,731 total expenditures) were carefully examined to isolate those components of spending relevant to the Fulton County 1 percent local option sales tax (LOST). Those groups were chosen based on the plan to have 20 percent of “affordable” housing, and the likelihood that many relatively affluent households will be attracted into the City as a result of the significant quality of life improvements resulting from Beltline investments. Table 6 summarizes that household expenditure data relevant to the LOST tax base.

Table 6
Consumer Expenditure Survey Data Relevant to the LOST Tax Base

Sales Tax Base Spending Category	
<u>For Average Income HH</u>	<u>Annual Spending</u>
Food at home	\$2,996
Alcoholic Beverages	\$345
House Repair/ Maintenance/Insurance	\$942
Utilities	\$2,891
Household Operations	\$401
Housekeeping Supplies	\$496
Housekeeping Furnishings	\$1,294
Apparel and Services	\$1,451
Transportation	\$7,621
Other vehicle expenses	\$841
Drugs/Medical Supplies	\$610
Entertainment	\$1,812
Tobacco	\$275
<u>Miscellaneous x 50%</u>	<u>\$278</u>
Subtotal of relevant expense	\$22,253
<u>For High Income HH</u>	
Food at home	\$4,503
Alcoholic Beverages	\$902
House Repair/Maintenance/Insurance	\$2,034
Utilities	\$4,098
Household Operations	\$1,001
Housekeeping Supplies	\$1,051
Housekeeping Furnishings	\$3,559
Apparel and Services	\$3,255
Transportation	\$14,525
Other vehicle expenses	\$1,637
Drugs/Medical Supplies	\$796
Entertainment	\$4,516
Tobacco	\$281
<u>Miscellaneous x 50%</u>	<u>\$580</u>
Subtotal for High Income	\$42,738
Weighted Avg: 20% Avg Income & 80% High	\$38,641

This \$38,641 annual spending figure plays a role in the more general economic model developed to analyze this and the other components of the incremental revenues (including the business tax revenues already summarized above). Note in that model in Table 7, that an alternative calculation generated an average per household annual spending figure that was quite similar (\$36,454, only about 6 percent lower), strongly suggesting that this is a realistic basis for calculating incremental household generated sales tax revenues.

Table 7 is a description of the components of that economic model, with the third column providing explanatory notes.

Table 7
Revenue Projection Economic Model

Row #	Category	Entry	Description
1	2005 Pop	423,313	Bureau of the Census
2	Per Cap Y 99	\$25,772	Bureau of the Census
3	Total Income	\$10,909,622,636	Line 1 x Line 2
4	Total HH	184,049	Line 1 divided by 2.3
5	Income /HH	\$59,276	Line 6 divided by line 4
6	Sales Tax Base	0.615	Bahl & Hawkins 1997 study
7	Relevant Spend/HH	\$36,454	Line 5 x Line 6
8	Total Local Relevant Spend	\$6,709,417,921	Line 7 x Line 4
9	Local HH LOST	\$67,094,179	Line 8 x .01 tax rate
10	Atlanta Share of LOST	0.4288	Department of Rev data
11	Atlanta Share of ATL HH LOST Direct	\$28,769,984	Line 9 x Line 10
12	Total ATL LOST	\$79,767,569	Expected LOST all sources
13	ATL HH Share of Total LOST	0.360672695	Line 11 divided by Line 12
14	ATL LOST/ATL HH	\$156.32	Line 11 divided by Line 4
15	Sales Tax Base from Consumer Survey	\$38,641	HH spending from Consumer Survey
16	Total Local LOST alternative base	\$7,111,842,449	Line 15 x Line 4
17	Adjusted ATL HH Base LOST	\$71,118,424.49	Line 17 x .01 tax rate; alternative
18	Atlanta Share of total ATL HH LOST	\$30,495,580	Line 10 x Line 17
19	Induced on-site Atlanta multiplier	0.42	Average of relevant local multipliers
20	Induced Spending from B19	\$2,986,973,829	Line 16 x Line 19
21	Adjustment to Tax Base	0.85	Adjustment for tax base leakages
22	Induced Local HH Tax Base	\$2,538,927,754	Line 21 x Line 20
23	Induced Total LOST ATL Households	\$25,389,278	Line 22 x .01 LOST tax rate
24	ATL share of induced LOST	\$10,886,922	Line 23 x Atlanta share of 0.4288
25	Total Direct + Induced ATL HH ATL LOST	\$39,656,906	Line 11 + Line 24 direct + induced
26	Total ATL HH Share of ATL LOST	0.497155758	Line 25 divided by Line 12
27	Total ATL LOST ATL Payments/HH	\$215.47	Line 25 / Line 4
28	Franchise Fees	\$43,044,481	Total Franchise Fees in ATL budget
29	Franchise Fees/HH	\$233.87	Line 28 divided by Line 4
30	Utility Spending by Average Income	\$2,891	From Consumer Expenditure Survey
31	Estimated Total Utility Spending	\$532,086,036	Line 30 x Line 4
32	HH Franchise Fees @ 3.739% weighted	\$19,894,697	Line 31 x weighted avg. franchise fee
33	Estimated HH Share Franchise Fees	0.462189262	Line 32 divided by Line 28
34	Adjusted HH Franchise Fees/HH	\$108.09	Line 32 divided by Line 7 (#HH)
35	Total Alcohol Tax Revenues Atlanta	\$12,966,062	Actual Atlanta Alcohol Tax Revs.
36	Estimated Atlanta HH contributed share	0.45	Based on residents vs. tourist spend

37	Total ATL HH generated Alcohol Revs	\$5,834,728	Line 35 x Line 36
38	ATL contributed Alcohol Tax /HH	\$31.70	Line 37 divided by Line 7 (# HH)
39	Insurance Tax Revenues	\$18,777,205	Actual Atlanta Insurance Tax Revs.
40	Share of HH in Insurance Tax Revs	0.45	Adjusted for households vs. business
41	Adjusted HH based Insurance Tax Revs	\$8,449,742	Line 39 x Line 40
42	Insurance Tax Revenues/HH	\$45.91	Line 41 divided by Line 7 (# HH)
43	Sum of Business Taxes / HH	\$185.71	Line 34 + Line 38 + Line 42
44	Total Beltline Households	28,274	From Redevelopment Plan study
45	Incremental Beltline Households	9,577	From Redevelopment Plan study
46	Atlanta Sales Tax Revenues x TBHH	\$6,092,174	Line 27 x Line 44
47	Atlanta Sales Tax Revenues TBHH/Yr.	\$243,687	Line 46 divided by 25 (years)
48	Atlanta Business Taxes x TBHH	\$5,250,673	Line 43 x Line 44
49	Atlanta Business Taxes TBHH/Yr.	\$210,027	Line 48 divided by 25 (years)
50	Induced Sales LOST/Total Sale LOST	0.274527774	Line 24 divided by Line 25
51	Implicit Tax Multiplier	1.27	1 + Line 50 to get implied tax multiplier
52	ATL Bus Tax Revs with Induced TBHH/Yr.	\$267,685	Line 51 x Line 49
53	ATL Bus Taxes/HH with induced effects	\$236.69	Line 43 x Line 51
54	Atlanta Sales Tax Revs x IBHH	\$2,063,548	Line 37 x Line 45
55	Atlanta Sales Tax Revs IBHH/Yr.	\$82,541.91	Line 54 divided by 25 (years)
56	ATL Bus Tax Revs IBHH with induced	\$2,266,765	Line 53 x Line 45
57	Atlanta Bus Tax Revs IBHH/Yr.	\$90,671	Line 56 divided by 25 (years)
58	Total Beltline # Establishments	2,328	Derived from square footage data
59	Incremental Beltline Establishments	709	Derived from square footage data
60	Per Establishment License Fee	\$1,387	Based on Dept. of Revenue data
61	Per Establishment License w. Induced	\$1,768	Line 60 x Line 51
62	Total BB Business License Fees	\$3,228,936	Line 60 x Line 58
63	Incremental BB License Fees	\$983,383	Line 60 x Line 59
64	Per Year Average Total BB License Fees	\$129,157	Line 62 divided by 25 (years)
65	Per Year Avg. Incremental BB License F	\$37,449	Line 63 divided by 25 (years)
66	Per Year Avg. Total BB License Fee w. Induced	\$164,615	Line 51 x Line 64
67	Per Year Avg. Inc. BB License Fee w Induced	\$47,730	Line 51 x Line 65

Table 8 provides further documentation of the calculations related to the construction phase generation of sales and use tax revenues, based specifically on (1) the build-out schedule reported in the *Redevelopment Plan*, along with (2) the specific projected total construction expenses reported annually in that *Plan*. The calculation of sales and use tax revenues reported in Table 8 adjusts for administrative and other components (primarily non-local vendor subcontracts) that would divert such construction spending away from the LOST tax base. Those adjustments are indicated in Table 8. It is important to note that Table 8 provides the revenues based on the base plus the incremental build out plans. If one were to isolate only those projects expected to be uniquely generated by the Beltline public investments (based on the incremental square footage versus the total “base” plus “incremental” square footage as reported in the *Redevelopment Plan*) in order to generate the correctly conceived incremental construction expenditures, the figures derived in Table 8 would have to be adjusted downward by a factor of 0.3058. It is those lower revenue figures that are reported in Column (7) of Table 5, summing to \$4,737,744 in contrast to the total of \$15,492,957 reported below in Table 8. But Table 8 demonstrates the methodology.

Table 8
Calculation of Total Construction Phase Sales and Use Tax Revenues
(Not Incremental)

Category		Tax Revenues Based on Rev per \$100 Mill. Development Cost x Actual Planned Annual Cost
Development Cost	\$100,000,000	Based on \$100 mill.
Adjustment Overhead	0.7	Based on past studies
Adjusted Development Cost	\$70,000,000	Total Cost x 0.7
Non-Local Vendor Adj.	0.67	Based on past studies
Final Relevant Spending	\$46,900,000	Adjusted Cost x 0.67
LOST	0.01	LOST tax rate
Full LOST Revenues	\$469,000	Adjusted Cost x .01
Atlanta Share	0.4288	Dept. of Finance
Atlanta Revenues	\$201,107	Full LOST x .4288
Local Tax Multiplier	1.27	Derived in Table 6
Total Induced + Direct	\$255,406	Atlanta Rev x 1.27
Year One Total Develop Cost	\$118,362,961	\$302,306
Year 2	\$166,617,855	\$425,552
Year 3	\$119,549,549	\$305,337
Year 4	\$142,029,525	\$362,752
Year 5	\$142,739,673	\$364,566
Year 6	\$228,248,076	\$582,960
Year 7	\$229,389,317	\$585,874
Year 8	\$230,536,263	\$588,804
Year 9	\$231,688,945	\$591,748
Year 10	\$232,847,389	\$594,707
Year 11	\$251,553,466	\$642,483
Year 12	\$252,811,234	\$645,695
Year 13	\$254,075,290	\$648,924
Year 14	\$255,345,666	\$652,169
Year 15	\$256,622,394	\$655,429
Year 16	\$295,112,904	\$753,736
Year 17	\$296,588,468	\$757,505
Year 18	\$298,071,411	\$761,293
Year 19	\$299,561,768	\$765,099
Year 20	\$301,059,577	\$768,925
Year 21	\$289,727,459	\$739,982
Year 22	\$291,176,096	\$743,682
Year 23	\$292,631,977	\$747,400
Year 24	\$294,095,137	\$751,137
Year 25	\$295,565,612	\$754,893
Total Revenues over 25 years		\$15,492,957

C. Incremental Public Service Costs and Park Maintenance Expenses

As with General Fund revenues, it is important to begin by documenting the current expenditures within the Atlanta departments that will be affected by the population and related economic activity expansion linked to the Beltline. Note that there are actually a total of nineteen (19) departments within the structure of Atlanta city government, but most of those are not likely to be significantly affected by the incremental economic activity generated by the Beltline. The full listing of Atlanta departments and their approximate proportionate share of Atlanta General Fund expenditures is provided in Table 9:

Table 9
Atlanta Government Departments

Department	Approximate Percentage of General Fund
City Council	1.17
Office of the Mayor	0.014
Chief of Staff and Reporting Offices	0.52
Chief Operating Officer, Reporting and Misc.	1.85
Chief Policy Officer *	-
Information Technology *	-
Administrative Services *	-
Law	1.00
Corrections	6.62
Finance	2.63
Procurement	0.065
Public Works	6.39
Parks, Recreation & Cultural Affairs	5.10
Judicial Agencies	2.80
Non-Departmental	26.20
Human Resources	0.81
Fire Services	12.98
Police Services	28.68
Planning & Community Development	2.53

Note: Figures taken from the City of Atlanta Budget; departments marked with an *did not have positive expenditures in the 2004 budget, but did in the 2003 budget.

As described in Section I, those departments most significantly affected by Beltline inspired population and economic activity expansion are police services, fire services, parks, and public works (specifically that segment of public works dealing with road maintenance). Before making the adjustments (most importantly for administrative overhead and in the cases of fire and police, earmarked funding for servicing Hartsfield-Jackson Atlanta International Airport, and in the case of public works, those items not related to road maintenance) that are further described in the notes to Table 11 below (and also reflected in the resulting adjusted budget figures reported in Table 12 below), the gross 2005 budget expenditure figures for those departments are reported in Table 10.

Table 10

Gross Unadjusted Expenditures for Selected Departments: 2005 Atlanta Budget

Department	Gross Unadjusted Expenditure	Measure
Police	\$ 176,142,974	# of precincts: 6
Fire	\$ 93,684,536	# of fire stations: 34
Parks	\$ 31,090,070	# of parks: 348; 3,403 acres
Public Works	\$ 69,774,470	# of miles of paved streets: 1,700; # of miles of unpaved streets: 26

Note: Latest available data provided by the Atlanta Department of Finance

While the academic literature was carefully reviewed to assist in determining the likely effect on these budgetary areas resulting from incremental population growth and related commercial activity (see the References), the Atlanta Department of Finance was also consulted regularly regarding their perception of the “cost drivers” for each of these units, and how likely it would be that the Beltline related changes would significantly increase General Fund obligations. Table 11 summarizes the information received from various consultations with specific departments.

Table 11
Likely Factors Influencing the Costs for the Major Affected City Departments

<u>Department</u>	<u>Unit</u>	<u>Cost Drivers</u>
Fire Services	Field Operations	Land Use - Field Operations are driven by response time. Response time is Driven by the type of building structures & the number of fire stations in an area.
	Technical Services	Land Use - The type of building structures determine the need for inspections.
	Inspections	Commercial buildings drive the number of inspections conducted.
Police Services	Field Operations	Population density - Police zones are determined by population density in an area.
Parks Recreation	Recreation	Population - Additional recreation programs depend on the population make-up.
	Recreation Programs	Many programs service children and seniors. Increased population in these age groups lead to expansion of children's and senior programs.
Public Works	Special Operations Street Sweeping	Geographic square miles

Consequently, Table 12 documents the results of the analysis incorporating adjustments to current expenditures as documented in the notes to the table (and referred to above), and the conclusions drawn regarding possible scale economies in the provision of various public services from a review of the academic literature (see the References) and the consultations with the Atlanta Department of Revenue. Note also that Table 13 following Table 12 provides supplemental clarifications of the important explanatory notes regarding these calculations.

TABLE 12

General Fund Service and Park Maintenance Costs due to Incremental Development

Yr	Cumul Inc Park Acres	Per Year Parks \$	Cumul Inc Green-Way Acres	Per Year Grway \$	Cumul Inc HH	Per Year Pub Wks \$	Per Year Police \$	Per Year Fire \$	Per Year Tot Inc Costs
1	100	\$403,200	25	\$12,600	197	\$12,163	\$72,069	\$24,558	\$524,589
2	200	\$806,400	50	\$25,200	394	\$24,326	\$144,137	\$49,116	\$1,049,179
3	300	\$1,209,600	75	\$37,800	591	\$36,488	\$216,206	\$73,674	\$1,573,768
4	400	\$1,612,800	100	\$50,400	788	\$48,651	\$288,274	\$98,232	\$2,098,357
5	<u>500</u>	<u>\$2,016,000</u>	<u>125</u>	<u>\$63,000</u>	<u>985</u>	<u>\$60,814</u>	<u>\$360,343</u>	<u>\$122,790</u>	<u>\$2,622,947</u>
5 Yr	500	\$6,048,000	125	\$189,000	985	\$182,442	\$1,081,028	\$368,370	\$7,868,840
6	600	\$2,419,200	150	\$75,600	1,374	\$84,831	\$502,650	\$171,283	\$3,253,564
7	700	\$2,822,400	175	\$88,200	1,763	\$108,848	\$644,958	\$219,776	\$3,884,181
8	800	\$3,225,600	200	\$100,800	2,152	\$132,864	\$787,266	\$268,268	\$4,514,799
9	900	\$3,628,800	225	\$113,400	2,541	\$156,881	\$929,574	\$316,761	\$5,145,416
10	<u>1,021</u>	<u>\$4,116,672</u>	<u>250</u>	<u>\$126,000</u>	<u>2,930</u>	<u>\$180,898</u>	<u>\$1,071,882</u>	<u>\$365,254</u>	<u>\$5,860,706</u>
10 Yr	1,021	\$22,260,672	250	\$693,000	2,930	\$846,764	\$5,017,358	\$1,709,712	\$30,527,506
11	1,021	\$4,116,672	266	\$134,064	3,331	\$205,656	\$1,218,580	\$415,242	\$6,090,214
12	1,021	\$4,116,672	266	\$134,064	3,732	\$230,414	\$1,365,278	\$465,231	\$6,311,658
13	1,021	\$4,116,672	266	\$134,064	4,133	\$255,171	\$1,511,975	\$515,220	\$6,533,103
14	1,021	\$4,116,672	266	\$134,064	4,534	\$279,929	\$1,658,673	\$565,208	\$6,754,547
15	<u>1,021</u>	<u>\$4,116,672</u>	<u>266</u>	<u>\$134,064</u>	<u>4,935</u>	<u>\$304,687</u>	<u>\$1,805,371</u>	<u>\$615,197</u>	<u>\$6,975,991</u>
15 Yr	1,021	\$42,844,032	266	\$1,363,320	4,935	\$2,122,62	\$12,577,235	\$4,285,811	\$63,193,019
1									
16	1,021	\$4,116,672	266	\$134,064	5,399	\$333,334	\$1,975,116	\$673,039	\$7,232,226
17	1,021	\$4,116,672	266	\$134,064	5,863	\$361,982	\$2,144,861	\$730,882	\$7,488,460
18	1,021	\$4,116,672	266	\$134,064	6,327	\$390,629	\$2,314,606	\$788,724	\$7,744,695
19	1,021	\$4,116,672	266	\$134,064	6,791	\$419,276	\$2,484,352	\$846,566	\$8,000,930
20	<u>1,021</u>	<u>\$4,116,672</u>	<u>266</u>	<u>\$134,064</u>	<u>7,255</u>	<u>\$447,924</u>	<u>\$2,654,097</u>	<u>\$904,408</u>	<u>\$8,257,165</u>
20 Yr	1,021	\$63,427,392	266	\$2,033,640	7,255	\$4,075,76	\$24,150,267	\$8,229,430	\$101,916,495
6									
21	1,021	\$4,116,672	266	\$134,064	7,719	\$476,571	\$2,823,842	\$962,251	\$8,513,399
22	1,021	\$4,116,672	266	\$134,064	8,183	\$505,218	\$2,993,587	\$1,020,093	\$8,769,634
23	1,021	\$4,116,672	266	\$134,064	8,647	\$533,866	\$3,163,332	\$1,077,935	\$9,025,869
24	1,021	\$4,116,672	266	\$134,064	9,111	\$562,513	\$3,333,077	\$1,135,777	\$9,282,104
25	<u>1,021</u>	<u>\$4,116,672</u>	<u>266</u>	<u>\$134,064</u>	<u>9,577</u>	<u>\$591,284</u>	<u>\$3,503,554</u>	<u>\$1,193,869</u>	<u>\$9,539,443</u>
25 Yr	1,021	\$84,010,752	266	\$2,703,960	9,577	6,745,218	\$39,967,659	\$13,619,354	\$147,046,944
26	1,021	\$4,116,672	266	\$134,064	9,577	\$591,284	\$3,503,554	\$1,193,869	\$9,539,443
27	1,021	\$4,116,672	266	\$134,064	9,577	\$591,284	\$3,503,554	\$1,193,869	\$9,539,443
28	1,021	\$4,116,672	266	\$134,064	9,577	\$591,284	\$3,503,554	\$1,193,869	\$9,539,443
29	1,021	\$4,116,672	266	\$134,064	9,577	\$591,284	\$3,503,554	\$1,193,869	\$9,539,443
30	<u>1,021</u>	<u>\$4,116,672</u>	<u>266</u>	<u>\$134,064</u>	<u>9,577</u>	<u>\$591,284</u>	<u>\$3,503,554</u>	<u>\$1,193,869</u>	<u>\$9,539,443</u>
30 Yr	1,021	104,594,112	266	\$3,374,280	9,577	9,701,638	\$57,485,429	\$19,588,699	\$194,744,159
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

Notes: All dollar figures are in “real” 2005 dollars with no inflation incorporated.

- (a) The cumulative parks acreage is based on the Beltline plan to add a total of 1,021 additional acres of park space, with the schedule of this development accelerated to occur within the first 10 years. Based on a budgetary analysis in cooperation with the Parks Department, the annual maintenance expense per acre is \$4,032. Park acreage is to be distinguished from Green-way acreage, which does not require as much maintenance (i.e. only \$504/acre).
- (b) Current police expenditures net of Hartsfield-Jackson International Airport and administrative overhead are \$122,419,157, or \$665.14 per Atlanta household. Based on a review of the academic literature on economies of scale in public service provision, the relatively small incremental number of new households per year, and other factors such as effects on population density and lowering crime rates as a result of new development, the incremental cost per new household is adjusted by 0.55 to be \$365.83. See Table 13 below.
- (c) Current fire expenditures net of Hartsfield-Jackson International Airport and administrative overhead are \$65,551,149, or \$356.16 per household. Academic research indicates greater scale economies in fire service provision than in police protection, generating an incremental cost adjustment factor of 0.35 and a \$124.66 per incremental household per year service cost. See Table 13.
- (d) Public works refers solely to road maintenance (not capital expenditures), and is linked both to new road development with the TAD as well as the additional wear-and tear of incremental household and related commercial activity. Adjusting the current public works budget to focus only on road maintenance yields a current budget of \$25,251,381, or \$137.20 per household. Adjusting for scale economy effects and the relatively modest projected incremental household and commercial activity yields an adjusted per incremental household figure of 0.45 or \$61.74. See Table 13.

The translation of current budgetary expenditure totals into incremental spending projections reflected in Table 12 incorporates some anticipated scale economy cost benefits that create a difference between the average and the “incremental” cost per additional household attracted to Atlanta by the Beltline investments. These are reflected in Table 13. Note that parks expenditures are not derived as a function of incremental households, since it is incremental acreage that drives those expenditures. The derivation of those expenses, which constitute the largest single expense item to the General Fund (beyond the diverted property tax revenues within the TAD), was the result of consultations with the Department of Parks and Recreation, and is described in note (a) of Table 12.

Table 13
Public Service Cost Components (excluding Parks Maintenance)

<u>Category</u>	<u>Current '05 City Budget</u>	<u>\$/Household Average Cost</u>	<u>Incremental Cost/HH</u>	<u>Incremental To Average Cost Ratio</u>	<u>Avg. # of New HH/Yr</u>	<u>Avg. Added Incremental Cost Per Year</u>
Police	\$122,419,157	\$665.14	\$365.83	0.55	383	\$140,142
Fire	\$65,551,149	\$356.16	\$124.66	0.35	383	\$47,753
<u>PubWork</u>	<u>\$25,251,381</u>	<u>\$137.20</u>	<u>\$61.74</u>	<u>0.45</u>	<u>383</u>	<u>\$23,651</u>
Total	\$213,221,687	\$1,158.51	\$552.23			\$211,547

Sensitivity of the Overall Results to the Calculation of Public Service Costs

Because it is important to determine the sensitivity of the results to the possibility of experiencing such scale economies in the provision of these services, the analysis was redone assuming no scale economies in public service provision. The results of that analysis were referenced in the Executive Summary (Part I), but Table 14 provides the detailed documentation of the results from assuming that the “incremental to average cost ratio” in Table 13 is 1.0 for all categories.

Table 14
Modification of Table 12: No Scale Economies in Public Service Provision

	Cumu Inc	Per Year Parks \$	Cumul Inc Green way Acres	Per Year Grway \$	Cumul Inc HH	Per Year Pub Wks \$	Per Year Police \$	Per Year Fire \$	Per Year Tot Inc Costs
1	100	\$403,200	25	\$12,600	197	\$27,028	\$131,033	\$70,164	\$644,025
2	200	\$806,400	50	\$25,200	394	\$54,057	\$262,065	\$140,327	\$1,288,049
3	300	\$1,209,600	75	\$37,800	591	\$81,085	\$393,098	\$210,491	\$1,932,074
4	400	\$1,612,800	100	\$50,400	788	\$108,114	\$524,130	\$280,654	\$2,576,098
5	500	\$2,016,000	125	\$63,000	985	\$135,142	\$655,163	\$350,818	\$3,220,123
5 Yr	500	\$6,048,000	125	\$189,000	985	\$135,142	\$655,163	\$350,818	\$9,660,368
6	600	\$2,419,200	150	\$75,600	1,374	\$188,513	\$913,902	\$489,364	\$4,086,579
7	700	\$2,822,400	175	\$88,200	1,763	\$241,884	\$1,172,642	\$627,910	\$4,953,036
8	800	\$3,225,600	200	\$100,800	2,152	\$295,254	\$1,431,381	\$766,456	\$5,819,492
9	900	\$3,628,800	225	\$113,400	2,541	\$348,625	\$1,690,121	\$905,003	\$6,685,949
10	1,021	\$4,116,672	250	\$126,000	2,930	\$401,996	\$1,948,860	\$1,043,549	\$7,637,077
10 Yr	1,021	\$22,260,672	250	\$693,000	2,930	\$1,611,414	\$7,812,069	\$4,183,099	\$38,842,500
11	1,021	\$4,116,672	266	\$134,064	3,331	\$457,013	\$2,215,581	\$1,186,369	\$8,109,700
12	1,021	\$4,116,672	266	\$134,064	3,732	\$512,030	\$2,482,302	\$1,329,189	\$8,574,258
13	1,021	\$4,116,672	266	\$134,064	4,133	\$567,048	\$2,749,024	\$1,472,009	\$9,038,817
14	1,021	\$4,116,672	266	\$134,064	4,534	\$622,065	\$3,015,745	\$1,614,829	\$9,503,375
15	1,021	\$4,116,672	266	\$134,064	4,935	\$677,082	\$3,282,466	\$1,757,650	\$9,967,934
15 Yr	1,021	\$42,844,032	266	\$1,363,320	4,935	\$4,446,652	\$21,557,187	\$11,543,146	\$84,036,582
16	1,021	\$4,116,672	266	\$134,064	5,399	\$740,743	\$3,591,091	\$1,922,908	\$10,505,478
17	1,021	\$4,116,672	266	\$134,064	5,863	\$804,404	\$3,899,716	\$2,088,166	\$11,043,022
18	1,021	\$4,116,672	266	\$134,064	6,327	\$868,064	\$4,208,341	\$2,253,424	\$11,580,566
19	1,021	\$4,116,672	266	\$134,064	6,791	\$931,725	\$4,516,966	\$2,418,683	\$12,118,110
20	1,021	\$4,116,672	266	\$134,064	7,255	\$995,386	\$4,825,591	\$2,583,941	\$12,655,654
20 Yr	1,021	\$63,427,392	266	\$2,033,640	7,255	\$8,786,974	\$42,598,891	\$22,810,267	\$141,939,410
21	1,021	\$4,116,672	266	\$134,064	7,719	\$1,059,047	\$5,134,216	\$2,749,199	\$13,193,198
22	1,021	\$4,116,672	266	\$134,064	8,183	\$1,122,708	\$5,442,841	\$2,914,457	\$13,730,742
23	1,021	\$4,116,672	266	\$134,064	8,647	\$1,186,368	\$5,751,466	\$3,079,716	\$14,268,286
24	1,021	\$4,116,672	266	\$134,064	9,111	\$1,250,029	\$6,060,091	\$3,244,974	\$14,805,830
25	1,021	\$4,116,672	266	\$134,064	9,577	\$1,313,964	\$6,370,046	\$3,410,944	\$15,345,691
25 Yr	1,021	\$84,010,752	266	\$2,703,960	9,577	\$14,719,090	\$71,357,549	\$38,209,557	\$213,283,154
26	1,021	\$4,116,672	266	\$134,064	9,577	\$1,313,964	\$6,370,046	\$3,410,944	\$15,345,691
27	1,021	\$4,116,672	266	\$134,064	9,577	\$1,313,964	\$6,370,046	\$3,410,944	\$15,345,691
28	1,021	\$4,116,672	266	\$134,064	9,577	\$1,313,964	\$6,370,046	\$3,410,944	\$15,345,691
29	1,021	\$4,116,672	266	\$134,064	9,577	\$1,313,964	\$6,370,046	\$3,410,944	\$15,345,691
30	1,021	\$4,116,672	266	\$134,064	9,577	\$1,313,964	\$6,370,046	\$3,410,944	\$15,345,691
30 Yr	1,021	\$104,594,112	266	\$3,374,280	9,577	\$21,288,912	\$103,207,778	\$55,264,279	\$290,011,609

In light of the modified annual and cumulative cost projections in Table 14, it is also necessary to demonstrate how Tables 1, 2 and 3 would change if those higher costs were to be experienced. Hence, Tables 15, 16, and 17 report those results, with Table 15 being the modified Table 1, Table 16 the modified Table 2, and Table 17 the modified Table 3. As concluded in Section 1, these changes do not fundamentally change the overall conclusions reached by this study that the 25-year revenue shortfalls are extremely manageable when

normalized as a percentage of the General Fund (Tables 2 and 16), or in per capita of the population terms (Tables 3 and 17).

Such relatively minimal burdens are not only very unlikely to require any tax increases given the previously described conservative assumptions that make this analysis basically a worst-case scenario, but any such remaining net burdens are clearly likely to be overwhelmed by the “consumption benefits” of the new recreational and transit facilities, more balanced growth throughout the city, and overall enhancement to the quality of life resulting from the Beltline investments (see also the Appendix discussion).

Table 15
Modification of Table 1: Higher Public Service Cost Implications

Year	Incremental Development Revenues	Incremental Development Service Costs with Parks	Redirected Property Tax Revenues to TAD	Incremental Development Rev - Costs w/o Prop Tax	Incremental Development Rev - Costs with Prop Tax
1	\$204,505	\$644,025	-\$367,756	-\$439,520	-\$807,276
2	\$435,582	\$1,288,049	-\$857,694	-\$852,467	-\$1,710,161
3	\$510,880	\$1,932,074	-\$1,240,308	-\$1,421,194	-\$2,661,502
4	\$674,090	\$2,576,098	-\$1,695,907	-\$1,902,008	-\$3,597,915
5	<u>\$820,296</u>	<u>\$3,220,123</u>	<u>-\$2,160,617</u>	<u>-\$2,399,827</u>	<u>-\$4,560,444</u>
5 Yrs	\$2,645,353	\$9,660,369	-\$6,322,282	-\$7,015,016	-\$13,337,298
6	\$1,105,403	\$4,086,579	-\$2,767,240	-\$2,981,176	-\$5,748,416
7	\$1,324,616	\$4,953,036	-\$3,385,996	-\$3,628,420	-\$7,014,416
8	\$1,543,834	\$5,819,492	-\$4,017,126	-\$4,275,658	-\$8,292,784
9	\$1,763,057	\$6,685,949	-\$4,660,879	-\$4,922,892	-\$9,583,771
10	<u>\$1,982,283</u>	<u>\$7,637,077</u>	<u>-\$5,317,507</u>	<u>-\$5,654,794</u>	<u>-\$10,972,301</u>
10 Yrs	\$10,364,546	\$38,842,502	-\$26,471,030	-\$28,477,956	-\$54,948,986
Last 5	\$7,719,193	\$29,182,133	-\$20,148,748	-\$21,462,940	-\$41,611,688
11	\$2,227,713	\$8,109,700	-\$6,009,520	-\$5,881,987	-\$11,891,507
12	\$2,459,516	\$8,574,258	-\$6,715,373	-\$6,114,742	-\$12,830,115
13	\$2,691,323	\$9,038,817	-\$7,435,344	-\$6,347,494	-\$13,782,838
14	\$2,923,135	\$9,503,375	-\$8,169,714	-\$6,580,240	-\$14,749,954
15	<u>\$3,154,952</u>	<u>\$9,967,934</u>	<u>-\$8,918,771</u>	<u>-\$6,812,982</u>	<u>-\$15,731,753</u>
15 Yrs	\$23,821,185	\$84,036,586	-\$63,719,752	-\$60,215,401	-\$123,935,153
Last 5	\$13,456,639	\$45,194,084	-\$37,248,722	-\$31,737,445	-\$68,986,167
16	\$3,451,392	\$10,505,478	-\$9,711,392	-\$7,054,086	-\$16,765,478
17	\$4,155,248	\$11,043,022	-\$10,641,065	-\$6,887,774	-\$17,528,839
18	\$4,422,784	\$11,580,566	-\$11,528,131	-\$7,157,782	-\$18,685,913
19	\$4,690,326	\$12,118,110	-\$12,432,938	-\$7,427,784	-\$19,860,722
20	<u>\$4,957,874</u>	<u>\$12,655,654</u>	<u>-\$13,355,841</u>	<u>-\$7,697,780</u>	<u>-\$21,053,621</u>
20 Yrs	\$45,498,809	\$141,939,416	-\$121,389,119	-\$96,440,607	-\$217,829,726
Last 5	\$21,677,624	\$57,902,830	-\$57,669,367	-\$36,225,206	-\$93,894,573
21	\$5,208,329	\$13,193,198	-\$14,269,686	-\$7,984,869	-\$22,254,555
22	\$5,468,767	\$13,730,742	-\$15,201,808	-\$8,261,975	-\$23,463,783
23	\$5,729,210	\$14,268,286	-\$16,152,572	-\$8,539,076	-\$24,691,648
24	\$5,989,659	\$14,805,830	-\$17,122,352	-\$8,816,171	-\$25,938,523
25	<u>\$6,250,113</u>	<u>\$15,345,691</u>	<u>-\$18,111,527</u>	<u>-\$9,095,578</u>	<u>-\$27,207,105</u>
25 Yrs	\$74,144,887	\$213,283,163	-\$202,247,064	-\$139,138,276	-\$341,385,340
Last 5	\$28,646,078	\$71,343,747	-\$80,857,945	-\$42,697,669	-\$123,555,614
26	\$6,019,267	\$15,345,691	\$46,344,309	-\$9,326,424	\$37,017,885
27	\$6,019,267	\$15,345,691	\$47,271,195	-\$9,326,424	\$37,944,771
28	\$6,019,267	\$15,345,691	\$48,216,619	-\$9,326,424	\$38,890,195
29	\$6,019,267	\$15,345,691	\$49,180,951	-\$9,326,424	\$39,854,527
30	<u>\$6,019,267</u>	<u>\$15,345,691</u>	<u>\$50,164,570</u>	<u>-\$9,326,424</u>	<u>\$40,838,146</u>
30 Yrs	\$104,241,222	\$290,011,618	\$38,930,581	-\$185,770,396	-\$146,839,815
Last 5	\$30,096,335	\$76,728,455	\$241,177,645	-\$46,632,120	\$194,545,525
31	\$6,019,267	\$15,345,691	\$51,167,862	-\$9,326,424	\$41,841,438
32	<u>\$6,019,267</u>	<u>\$15,345,691</u>	<u>\$52,191,219</u>	<u>-\$9,326,424</u>	<u>\$42,864,795</u>
32 Yrs	\$116,279,756	\$320,703,000	\$142,289,662	-\$204,423,244	-\$62,133,582

Table 16
Modification of Table 2: Higher Public Service Cost Implications

Year	Annual Development Revenue Minus Service Costs and Redirected Property Taxes	General Fund 2005	Annual Net Revenue Shortfall as % of General Fund with no GF Real Growth	General Fund 2% Real Growth	Annual Net Revenue as % of General Fund with 2% GF Real Growth
0		\$474,933,207		\$474,933,207	
1	\$807,276	\$474,933,207	0.1700	\$484,431,871	0.1666
2	\$1,710,161	\$474,933,207	0.3601	\$494,120,509	0.3461
3	\$2,661,502	\$474,933,207	0.5604	\$504,002,919	0.5281
4	\$3,597,915	\$474,933,207	0.7576	\$514,082,977	0.6999
5	\$4,560,444	\$474,933,207	0.9602	\$524,364,637	0.8697
6	\$5,748,416	\$474,933,207	1.2104	\$534,851,929	1.0748
7	\$7,014,416	\$474,933,207	1.4769	\$545,548,968	1.2858
8	\$8,292,784	\$474,933,207	1.7461	\$556,459,947	1.4903
9	\$9,583,771	\$474,933,207	2.0179	\$567,589,146	1.6885
10	\$10,972,301	\$474,933,207	2.3103	\$578,940,929	1.8952
11	\$11,891,507	\$474,933,207	2.5038	\$590,519,748	2.0137
12	\$12,830,115	\$474,933,207	2.7015	\$602,330,143	2.1301
13	\$13,782,838	\$474,933,207	2.9021	\$614,376,746	2.2434
14	\$14,749,954	\$474,933,207	3.1057	\$626,664,281	2.3537
15	\$15,731,753	\$474,933,207	3.3124	\$639,197,566	2.4612
16	\$16,765,478	\$474,933,207	3.5301	\$651,981,517	2.5715
17	\$17,528,839	\$474,933,207	3.6908	\$665,021,148	2.6358
18	\$18,685,913	\$474,933,207	3.9344	\$678,321,571	2.7547
19	\$19,860,722	\$474,933,207	4.1818	\$691,888,002	2.8705
20	\$21,053,621	\$474,933,207	4.4330	\$705,725,762	2.9833
21	\$22,254,555	\$474,933,207	4.6858	\$719,840,277	3.0916
22	\$23,463,783	\$474,933,207	4.9404	\$734,237,083	3.1957
23	\$24,691,648	\$474,933,207	5.1990	\$748,921,825	3.2970
24	\$25,938,523	\$474,933,207	5.4615	\$763,900,261	3.3955
<u>25</u>	<u>\$27,207,105</u>	<u>\$474,933,207</u>	<u>5.7286</u>	<u>\$779,178,266</u>	<u>3.4918</u>
	\$341,385,340	\$12,348,263,382	2.8752	\$15,991,431,235	2.0614
	Total	Total	Average	Total	Average

Table 17
Modification of Table 3: Higher Public Service Cost Implications

Year	Atlanta Households Year 0 = 2005	Atlanta Population (avg 2.3 persons per household)	Incremental Development Revenue - Service Costs and Redirected Property Taxes	Annual Revenue Shortfall per Person with no Commercial and other Burden Sharing	Annual Revenue Shortfall per Person reduced by 48.4% non-Residential Share of Burden	Annual Revenue Shortfall per Person reduced only by 37.4% Commercial Share of Burden
0	184,049	423,313				
1	186,313	428,519	-\$807,276	-\$1.88	-\$0.97	-\$1.18
2	188,604	433,790	-\$1,710,161	-\$3.94	-\$2.03	-\$2.47
3	190,924	439,126	-\$2,661,502	-\$6.06	-\$3.13	-\$3.79
4	193,273	444,527	-\$3,597,915	-\$8.09	-\$4.18	-\$5.07
5	195,650	449,995	-\$4,560,444	-\$10.13	-\$5.23	-\$6.34
6	198,056	455,530	-\$5,748,416	-\$12.62	-\$6.51	-\$7.90
7	200,492	461,133	-\$7,014,416	-\$15.21	-\$7.85	-\$9.52
8	202,959	466,805	-\$8,292,784	-\$17.76	-\$9.17	-\$11.12
9	205,455	472,546	-\$9,583,771	-\$20.28	-\$10.47	-\$12.70
10	207,982	478,359	-\$10,972,301	-\$22.94	-\$11.84	-\$14.36
11	210,540	484,243	-\$11,891,507	-\$24.56	-\$12.67	-\$15.37
12	213,130	490,199	-\$12,830,115	-\$26.17	-\$13.51	-\$16.38
13	215,751	496,228	-\$13,782,838	-\$27.78	-\$14.33	-\$17.39
14	218,405	502,332	-\$14,749,954	-\$29.36	-\$15.15	-\$18.38
15	221,091	508,510	-\$15,731,753	-\$30.94	-\$15.96	-\$19.37
16	223,811	514,765	-\$16,765,478	-\$32.57	-\$16.81	-\$20.39
17	226,564	521,097	-\$17,528,839	-\$33.64	-\$17.36	-\$21.06
18	229,351	527,506	-\$18,685,913	-\$35.42	-\$18.28	-\$22.17
19	232,172	533,995	-\$19,860,722	-\$37.19	-\$19.19	-\$23.28
20	235,027	540,563	-\$21,053,621	-\$38.95	-\$20.10	-\$24.38
21	237,918	547,212	-\$22,254,555	-\$40.67	-\$20.99	-\$25.46
22	240,844	553,942	-\$23,463,783	-\$42.36	-\$21.86	-\$26.52
23	243,807	560,756	-\$24,691,648	-\$44.03	-\$22.72	-\$27.56
24	246,806	567,653	-\$25,938,523	-\$45.69	-\$23.58	-\$28.60
25	249,841	574,635	-\$27,207,105	-\$47.35	-\$24.43	-\$29.64
Avg				-\$26.22	-\$13.53	-\$16.42

III. Analysis of the Fiscal Impacts Using Total Beltline Area Households and Firms

As discussed in Section II above, the conceptually correct analysis of the economic impact of the Atlanta Beltline TAD requires a clear focus on the incremental households and related incremental economic activity uniquely generated by the Beltline infrastructure improvements. Nevertheless, there has been public interest in the effects of the larger number of households projected to enter the City of Atlanta within the Beltline areas including both the “base” as well as the incremental households. Therefore, this section applies the methodology derived above to analyze the effects of the entire base plus incremental 28,274 households expected to enter the City over the next 25 years and locate in the Beltline areas.

A. Using the entire 28,274 households (base plus incremental) projected to locate within the Beltline quadrants over 25 years, along with the derived 2,324 total commercial enterprises of various types (derived from projected total square footage divided by likely average square footage for the various categories of commercial development), Table 18 documents the total revenues from sales taxes (including construction phases), business taxes, and business licenses, minus the total service costs but without any consideration of the maintenance costs for the additional parks and greenways. Also, the property tax revenues that would have been derived from the base residential and commercial property that is diverted to the TAD and away from the General Fund are also not considered in Table 18. As can be seen, in this case the city runs operating surpluses in all years, with a cumulative total of about \$60 million.

Table 18
Total Revenues versus Total Costs w/o Parks Maintenance or Diverted Property Taxes

<u>Year</u>	<u>Total HH Revs</u>	<u>Total HH Costs w/o Parks</u>	<u>Revenue- Costs</u>
1	\$687,840	\$321,950	\$365,890
2	\$1,373,554	\$643,900	\$729,654
3	\$1,594,740	\$965,850	\$628,890
4	\$2,103,172	\$1,287,800	\$815,372
5	<u>\$2,556,003</u>	<u>\$1,609,750</u>	<u>\$946,253</u>
5 Years	\$8,315,309	\$4,829,250	\$3,486,059
6	\$3,429,160	\$2,243,158	\$1,186,002
7	\$4,086,837	\$2,876,566	\$1,210,271
8	\$4,744,530	\$3,509,974	\$1,234,556
9	\$5,402,237	\$4,143,382	\$1,258,855
10	<u>\$6,059,959</u>	<u>\$4,776,790</u>	<u>\$1,283,169</u>
10 Years	\$32,038,032	\$22,379,120	\$9,658,912
Last 5 Yrs	\$23,722,723	\$17,549,870	\$6,172,853
11	\$6,805,748	\$5,430,630	\$1,375,118
12	\$7,506,973	\$6,084,470	\$1,422,503
13	\$8,208,215	\$6,738,310	\$1,469,905
14	\$8,909,473	\$7,392,151	\$1,517,322
15	<u>\$9,610,746</u>	<u>\$8,045,991</u>	<u>\$1,564,755</u>
15 Years	\$73,079,187	\$56,070,672	\$17,008,515
Last 5 Yrs	\$41,041,155	\$33,691,552	\$7,349,603
16	\$10,512,836	\$8,803,098	\$1,709,738
17	\$12,612,128	\$9,560,206	\$3,051,922

18	\$13,419,699	\$10,317,313	\$3,102,386
19	\$14,227,288	\$11,074,420	\$3,152,868
20	<u>\$15,034,897</u>	<u>\$11,831,528</u>	<u>\$3,203,369</u>
20 Years	\$138,886,035	\$107,657,237	\$31,228,798
Last 5Yrs	\$65,806,848	\$51,586,565	\$14,220,283
21	\$15,790,289	\$12,588,635	\$3,201,654
22	\$16,578,324	\$13,345,742	\$3,232,582
23	\$17,355,991	\$14,101,745	\$3,254,246
24	\$18,143,159	\$14,857,748	\$3,285,411
25	<u>\$18,930,346</u>	<u>\$15,613,751</u>	<u>\$3,316,595</u>
25 Years	\$225,684,144	\$178,164,858	\$47,519,286
Last 5 Yrs	\$86,798,109	\$70,507,621	\$16,290,488
26	\$18,175,453	\$15,613,751	\$2,561,702
27	\$18,175,453	\$15,613,751	\$2,561,702
28	\$18,175,453	\$15,613,751	\$2,561,702
29	\$18,175,453	\$15,613,751	\$2,561,702
30	<u>\$18,175,453</u>	<u>\$15,613,751</u>	<u>\$2,561,702</u>
30 Years	\$316,561,409	\$256,233,613	\$60,327,796
Last 5 Yrs	\$90,877,265	\$78,068,755	\$12,808,510

B. Expanding Table 18 into Table 19, we add the parks and greenways maintenance fees to the other service costs (i.e. to the public works/roadway maintenance, police and fire protection expenses). Since the Beltline project is adding such a substantial amount of additional parks and greenway acreage, such maintenance costs are relatively high, leading to a reversal of the operating surpluses seen in Table 18. At the same time, there are substantial benefits to the residents of Atlanta in having such additional parkland, which can extend beyond direct consumption benefits into a potentially significant factor to further attract commercial development throughout the city as the quality of life improves. Table 19 provides the 30-year results of adding park maintenance expenses, but continuing to ignore the issue of diverted TAD property tax revenues.

Table 19
Total Revenues Versus Total Costs including Parks Maintenance but not Property Taxes

Year	Total HH Revs	Total HH Costs	Revenue- Costs	Total HH Costs	Revenue- Costs
		w/o Parks	w/o Parks	with Parks	with Parks
1	\$687,840	\$321,950	\$365,890	\$737,750	-\$49,910
2	\$1,373,554	\$643,900	\$729,654	\$1,475,500	-\$101,946
3	\$1,594,740	\$965,850	\$628,890	\$2,213,250	-\$618,510
4	\$2,103,172	\$1,287,800	\$815,372	\$2,951,000	-\$847,828
5	<u>\$2,556,003</u>	<u>\$1,609,750</u>	<u>\$946,253</u>	<u>\$3,688,750</u>	<u>-\$1,132,747</u>
5 Years	\$8,315,309	\$4,829,250	\$3,486,059	\$11,066,251	-\$2,750,942
6	\$3,429,160	\$2,243,158	\$1,186,002	\$4,737,958	-\$1,308,798
7	\$4,086,837	\$2,876,566	\$1,210,271	\$5,787,166	-\$1,700,329
8	\$4,744,530	\$3,509,974	\$1,234,556	\$6,836,374	-\$2,091,844
9	\$5,402,237	\$4,143,382	\$1,258,855	\$7,885,582	-\$2,483,345
10	<u>\$6,059,959</u>	<u>\$4,776,790</u>	<u>\$1,283,169</u>	<u>\$9,019,462</u>	<u>-\$2,959,503</u>
10 Years	\$32,038,032	\$22,379,120	\$9,658,912	\$45,332,793	-\$13,294,761
Last 5 Yrs	\$23,722,723	\$17,549,870	\$6,172,853	\$34,266,542	-\$10,543,819
11	\$6,805,748	\$5,430,630	\$1,375,118	\$9,681,366	-\$2,875,618
12	\$7,506,973	\$6,084,470	\$1,422,503	\$10,335,206	-\$2,828,233
13	\$8,208,215	\$6,738,310	\$1,469,905	\$10,989,046	-\$2,780,831
14	\$8,909,473	\$7,392,151	\$1,517,322	\$11,642,887	-\$2,733,414
15	<u>\$9,610,746</u>	<u>\$8,045,991</u>	<u>\$1,564,755</u>	<u>\$12,296,727</u>	<u>-\$2,685,981</u>
15 Years	\$73,079,187	\$56,070,672	\$17,008,515	\$100,278,025	-\$27,198,838
Last 5 Yrs	\$41,041,155	\$33,691,552	\$7,349,603	\$54,945,232	-\$13,904,077
16	\$10,512,836	\$8,803,098	\$1,709,738	\$13,053,834	-\$2,540,998
17	\$12,612,128	\$9,560,206	\$3,051,922	\$13,810,942	-\$1,198,814
18	\$13,419,699	\$10,317,313	\$3,102,386	\$14,568,049	-\$1,148,350
19	\$14,227,288	\$11,074,420	\$3,152,868	\$15,325,156	-\$1,097,868
20	<u>\$15,034,897</u>	<u>\$11,831,528</u>	<u>\$3,203,369</u>	<u>\$16,082,264</u>	<u>-\$1,047,367</u>
20 Years	\$138,886,035	\$107,657,237	\$31,228,798	\$173,118,271	-\$34,232,236
Last 5Yrs	\$65,806,848	\$51,586,565	\$14,220,283	\$72,840,245	-\$7,033,397
21	\$15,790,289	\$12,588,635	\$3,201,654	\$16,839,371	-\$1,049,082
22	\$16,578,324	\$13,345,742	\$3,232,582	\$17,596,478	-\$1,018,154
23	\$17,355,991	\$14,101,745	\$3,254,246	\$18,352,481	-\$996,490
24	\$18,143,159	\$14,857,748	\$3,285,411	\$19,108,484	-\$965,325
25	<u>\$18,930,346</u>	<u>\$15,613,751</u>	<u>\$3,316,595</u>	<u>\$19,864,487</u>	<u>-\$934,141</u>
25 Years	\$225,684,144	\$178,164,858	\$47,519,286	\$264,879,572	-\$39,195,428
Last 5 Yrs	\$86,798,109	\$70,507,621	\$16,290,488	\$91,761,301	-\$4,963,192
26	\$18,175,453	\$15,613,751	\$2,561,702	\$19,864,487	-\$1,689,034
27	\$18,175,453	\$15,613,751	\$2,561,702	\$19,864,487	-\$1,689,034
28	\$18,175,453	\$15,613,751	\$2,561,702	\$19,864,487	-\$1,689,034
29	\$18,175,453	\$15,613,751	\$2,561,702	\$19,864,487	-\$1,689,034
30	<u>\$18,175,453</u>	<u>\$15,613,751</u>	<u>\$2,561,702</u>	<u>\$19,864,487</u>	<u>-\$1,689,034</u>
30 Years	\$316,561,409	\$256,233,613	\$60,327,796	\$364,202,007	-\$47,640,598
Last 5 Yrs	\$90,877,265	\$78,068,755	\$12,808,510	\$99,322,435	-\$8,445,170

C. Finally, when the TAD property taxes that are diverted away from the General Fund during the first 25 years, but then are recaptured starting in year 26 are considered, we see the results in Table 20. The key result is that revenue shortfalls worsen during the 25-year TAD period, but for years 26 through 30, the recapture of such revenues generates an overall 30-year result that is more favorable than without the consideration of such property tax effects, as seen in Table 19. That is, over the 30 years, the cumulative revenue shortfall in Table 19 is \$47.6 million, while in Table 20 below the comparable shortfall figure is only \$8.7 million. The effect of the years 26-30 is also seen clearly in the comparison in Table 20 of the last two columns as of year 25, where without subtracting the diverted base property taxes the fiscal challenge is \$39 million, while with those diverted property taxes, the result is a shortfall of \$241 million. Of course, even if one did not consider the dramatic payback that then occurs in years 26-30, the actual strain on the City of Atlanta is remarkably minimal. The highest annual operating revenue shortfall linked to the Beltline is only \$19.045 million in year 25 (in 2005 dollars), which relative to the 2005 General Fund of \$447.037 million is only 4.26 percent. Given that these figures do not include any likely additional property taxes that would accrue over the entire 25 year period as a result of the inevitable additional commercial development in other parts of the city linked to the Beltline improvements and other modest property appreciations resulting from the higher quality of life in Atlanta, there is a strong prospect of no real overall revenue shortfalls. Even if there were such modest fiscal challenges, the benefits that are generated are surely much higher than such a modest investment in city funds.

Table 20
Revenues Versus Costs including Parks Maintenance and Property Tax Effects

<u>Year</u>	<u>Total HH Revs</u>	<u>Total Costs with Parks</u>	<u>Property Taxes</u>	<u>Rev-Cost w/o Lost Property Tax</u>	<u>Rev-Cost w Lost Property Tax</u>
1	\$687,840	\$737,750	-\$367,756	-\$49,910	-\$417,666
2	\$1,373,554	\$1,475,500	-\$857,694	-\$101,946	-\$959,640
3	\$1,594,740	\$2,213,250	-\$1,240,308	-\$618,510	-\$1,858,818
4	\$2,103,172	\$2,951,000	-\$1,695,907	-\$847,828	-\$2,543,735
5	<u>\$2,556,003</u>	<u>\$3,688,750</u>	<u>-\$2,160,617</u>	<u>-\$1,132,747</u>	<u>-\$3,293,364</u>
Sum 5	\$8,315,309	\$11,066,250	-\$6,322,282	-\$2,750,941	-\$9,073,223
6	\$3,429,160	\$4,737,958	-\$2,767,240	-\$1,308,798	-\$4,076,038
7	\$4,086,837	\$5,787,166	-\$3,385,996	-\$1,700,329	-\$5,086,325
8	\$4,744,530	\$6,836,374	-\$4,017,126	-\$2,091,844	-\$6,108,970
9	\$5,402,237	\$7,885,582	-\$4,660,879	-\$2,483,345	-\$7,144,224
10	<u>\$6,059,959</u>	<u>\$9,019,462</u>	<u>-\$5,317,507</u>	<u>-\$2,959,503</u>	<u>-\$8,277,010</u>
Sum 10	\$32,038,032	\$45,332,792	-\$26,471,030	-\$13,294,760	-\$39,765,790
Last 5	\$23,722,723	\$34,266,542	-\$20,148,748	-\$10,543,819	-\$30,692,567
11	\$6,805,748	\$9,681,366	-\$6,009,520	-\$2,875,618	-\$8,885,138
12	\$7,506,973	\$10,335,206	-\$6,715,373	-\$2,828,233	-\$9,543,606
13	\$8,208,215	\$10,989,046	-\$7,435,344	-\$2,780,831	-\$10,216,175
14	\$8,909,473	\$11,642,887	-\$8,169,714	-\$2,733,414	-\$10,903,128
15	<u>\$9,610,746</u>	<u>\$12,296,727</u>	<u>-\$8,918,771</u>	<u>-\$2,685,981</u>	<u>-\$11,604,752</u>
Sum 15	\$73,079,187	\$100,278,024	-\$63,719,752	-\$27,198,837	-\$90,918,589
Last 5	\$41,041,155	\$54,945,232	-\$37,248,722	-\$13,904,077	-\$51,152,799
16	\$10,512,836	\$13,053,834	-\$9,711,392	-\$2,540,998	-\$12,252,390
17	\$12,612,128	\$13,810,942	-\$10,641,065	-\$1,198,814	-\$11,839,879
18	\$13,419,699	\$14,568,049	-\$11,528,131	-\$1,148,350	-\$12,676,481
19	\$14,227,288	\$15,325,156	-\$12,432,938	-\$1,097,868	-\$13,530,806
20	<u>\$15,034,897</u>	<u>\$16,082,264</u>	<u>-\$13,355,841</u>	<u>-\$1,047,367</u>	<u>-\$14,403,208</u>
Sum 20	\$138,886,035	\$173,118,269	-\$121,389,119	-\$34,232,234	-\$155,621,353
Last 5	\$65,806,848	\$72,840,245	-\$57,669,367	-\$7,033,397	-\$64,702,764
21	\$15,790,289	\$16,839,371	-\$14,269,686	-\$1,049,082	-\$15,318,768
22	\$16,578,324	\$17,596,478	-\$15,201,808	-\$1,018,154	-\$16,219,962
23	\$17,355,991	\$18,352,481	-\$16,152,572	-\$996,490	-\$17,149,062
24	\$18,143,159	\$19,108,484	-\$17,122,352	-\$965,325	-\$18,087,677
25	<u>\$18,930,346</u>	<u>\$19,864,487</u>	<u>-\$18,111,527</u>	<u>-\$934,141</u>	<u>-\$19,045,668</u>
Sum 25	\$225,684,144	\$264,879,570	-\$202,247,064	-\$39,195,426	-\$241,442,490
Last 5	\$86,798,109	\$91,761,301	-\$80,857,945	-\$4,963,192	-\$85,821,137
26	\$18,175,453	\$19,864,487	\$46,344,309	-\$1,689,034	\$44,655,275
27	\$18,175,453	\$19,864,487	\$47,271,195	-\$1,689,034	\$45,582,161
28	\$18,175,453	\$19,864,487	\$48,216,619	-\$1,689,034	\$46,527,585
29	\$18,175,453	\$19,864,487	\$49,180,951	-\$1,689,034	\$47,491,917
30	<u>\$18,175,453</u>	<u>\$19,864,487</u>	<u>\$50,164,570</u>	<u>-\$1,689,034</u>	<u>\$48,475,536</u>
Sum 30	\$316,561,409	\$364,202,007	\$38,930,581	-\$47,640,596	-\$8,710,015
Last 5	\$90,877,265	\$99,322,435	\$241,177,645	-\$8,445,170	\$232,732,475

IV. Supplemental Revenue from the MARTA and the MOST Taxes

The Atlanta General Fund does not receive any of the sales tax revenues from either the 1 percent tax imposed in Fulton and DeKalb Counties to partially fund MARTA, nor does it receive the revenues from the more recently imposed (effective October 1, 2004), 1 percent City of Atlanta Municipal Option Sales Tax (MOST) earmarked for capital improvements in the water and sewage treatment facilities. While the MARTA tax has a larger tax base than the LOST analyzed in Section I (which applies only in Fulton County), the MOST has a sales tax base that is restricted to only eligible retail sales and use occurring within the incorporated area of the City of Atlanta. Hence the tax base is smaller than the LOST, although there is no sharing of such revenues as there was in the LOST case (with Atlanta receiving only 42.88 percent of those revenues).

Some public concern exists regarding the possible future cost requirements of the additional Beltline induced households and commercial activity related to water and sewer usage (linked to possible additional capital requirements as the system's capacity is strained). Remember that the operating costs of the water and sewage treatment system should be covered by the user fees that will be directly charged to the new households and business establishments. So operating costs on this issue present no future problem. Also, the relatively small percentage increase in the number of Atlanta households incrementally caused by the Beltline improvements represent at their 25-year peak no more than about 5 percent of the current number of Atlanta households, and given the population growth projected in Table 3 in Part II, such incremental households would represent no more than about 3.8 percent of the total household population. Thus, there is no serious fear that the water and sewage treatment operating capacity will be uniquely challenged by such incremental economic activity. In fact, any supplemental revenues received by the City via the MOST tax will be available to further speed up the ongoing capital improvements that are occurring with current MOST revenues. Conceivably, such additional revenues could even slightly reduce local resident and commercial water and sewer bills also being, in part, devoted to that purpose. Thus, such incremental MOST revenues are also reported here (assuming that the MOST is renewed over the relevant period; the effect of any shorter time period is easily seen because the results are reported on an annual basis).

Future operating costs have been a more direct concern in some quarters regarding the feasibility of funding the operations of the planned improvements in the local transportation network as a result of Beltline capital investments. Again, the capital improvements themselves will be adequately covered by the anticipated TAD property tax revenues funding the bonds for such capital expenditures. While on the transportation issue it must be noted that the Atlanta General Fund has never been used for such purposes and there is no expectation of any transit related operating costs becoming a burden on the Atlanta General Fund Budget, it is also useful to project the likely revenues that would flow to MARTA (which would be integrated closely with the Beltline transit plans).

Table 21 reports the likely MARTA sales tax revenues, essentially adjusting the Atlanta LOST revenues derived and reported in Table 5 of Part II for the fact that MARTA receives 100 percent of such revenues in contrast to Atlanta receiving only 42.88 percent of the LOST revenues. The calculations are conservative inasmuch as no upward adjustment is made for the fact that the MARTA tax is collected in DeKalb as well as in Fulton County, which would be expected to generate at least modest additional total sales revenues compared to the LOST which is limited to Fulton County only.

Table 21
Incremental MARTA Tax Revenues Generated by Beltline Induced Economic Activity

Year	New HH Cumulative Total	MARTA Sales Tax Revenues Per Year
1	197	\$98,993
2	394	\$197,986
3	591	\$296,979
4	788	\$395,972
<u>5</u>	<u>985</u>	<u>\$494,965</u>
5 Yr	985	\$1,484,895
6	1,374	\$690,436
7	1,763	\$885,907
8	2,152	\$1,081,378
9	2,541	\$1,276,849
<u>10</u>	<u>2,930</u>	<u>\$1,472,320</u>
10 Yr	2,930	\$6,891,785
11	3,331	\$1,673,820
12	3,732	\$1,875,320
13	4,133	\$2,076,820
14	4,534	\$2,278,320
<u>15</u>	<u>4,935</u>	<u>\$2,479,820</u>
15 Yr	4,935	\$17,275,885
16	5,399	\$2,712,978
17	5,863	\$3,963,686
18	6,327	\$4,196,844
19	6,791	\$4,430,002
<u>20</u>	<u>7,255</u>	<u>\$4,663,160</u>
20 Yr	7,255	\$37,242,555
21	7,719	\$4,896,318
22	8,183	\$5,129,476
23	8,647	\$5,362,634
24	9,111	\$5,595,792
<u>25</u>	<u>9,577</u>	<u>\$5,828,950</u>
25 Yr	9577	\$64,055,725
26	9,577	\$5,828,950
27	9,577	\$5,828,950
28	9,577	\$5,828,950
29	9,577	\$5,828,950
<u>30</u>	<u>9,577</u>	<u>\$5,828,950</u>
30 Yr	9,577	\$93,200,475

Table 22 reports the likely annual and cumulative tax revenues from the MOST (assuming a renewal over the relevant period). Such revenues will be lower than in the case of MARTA (even without making an upward adjustment in the MARTA case for the likely DeKalb County generated revenues linked to Beltline

induced economic activity) because it applies only within the City of Atlanta. Such revenues are estimated to be an average of 80 percent of those linked to the MARTA tax, inasmuch as most of the incremental economic activity generated by the Beltline will take place within the City of Atlanta rather than the non-incorporated areas of Fulton County.

Table 22
Incremental MOST Revenues Generated by Beltline Induced Economic Activity

Year	New HH Cumulative Total	MOST Sales Tax Revenues Per Year
1	197	\$79,194
2	394	\$158,389
3	591	\$237,583
4	788	\$316,778
<u>5</u>	<u>985</u>	<u>\$395,972</u>
5 Yr	985	\$1,187,916
6	1,374	\$552,349
7	1,763	\$708,726
8	2,152	\$865,102
9	2,541	\$1,021,479
<u>10</u>	<u>2,930</u>	<u>\$1,177,856</u>
10 Yr	2,930	\$5,513,428
11	3,331	\$1,339,056
12	3,732	\$1,500,256
13	4,133	\$1,661,456
14	4,534	\$1,822,656
<u>15</u>	<u>4,935</u>	<u>\$1,983,856</u>
15 Yr	4,935	\$13,820,708
16	5,399	\$2,179,382
17	5,863	\$3,170,949
18	6,327	\$3,357,475
19	6,791	\$3,544,002
<u>20</u>	<u>7,255</u>	<u>\$3,730,528</u>
20 Yr	7,255	\$29,803,044
21	7,719	\$3,917,054
22	8,183	\$4,103,581
23	8,647	\$4,290,107
24	9,111	\$4,476,634
<u>25</u>	<u>9,577</u>	<u>\$4,663,160</u>
25 Yr	9,577	\$51,253,580
26	9,577	\$4,663,160
27	9,577	\$4,663,160
28	9,577	\$4,663,160
29	9,577	\$4,663,160
<u>30</u>	<u>9,577</u>	<u>\$4,663,160</u>
30 Yr	9,577	\$74,569,380

V. Fiscal Effects in Fulton County: LOST Sales Tax Revenue Projections

Fulton County will also receive a portion of incremental LOST revenues, which it shares with the City of Atlanta, and the other municipalities within the County. At the same time, there are no expected additional service costs that it will have to bear as a result of the incremental economic activity generated by the Beltline. The major adverse effect will be the County share of the loss of the property taxes redirected to the TAD over the currently anticipated 25 year period (as noted above, if such property tax revenues are higher than expected, one likely effect is to retire the bonds more rapidly and allow the TAD area property taxes to be recaptured by both Atlanta and Fulton County earlier than the 26th year as projected in Section II).

Based on data from Fulton County and the City of Atlanta Finance Departments, Fulton County receives 25.91 percent of any LOST revenues that are generated. Based on that share percentage, Table 23 projects the Fulton County incremental LOST revenues over the 30-year period as a direct recalculation of the Atlanta LOST and construction related calculations described above in Section II (Table 5).

Table 23
Fulton County Sales Tax Revenues

Year	New HH Cumulative Total	Sales Tax Revenues Per Year	Incremental Construction Sales Tax Revenue/Year	Total Revenues Incremental Only Per Year
1	197	\$25,649	\$55,859	\$81,508
2	394	\$51,298	\$78,633	\$129,931
3	591	\$76,947	\$56,419	\$133,366
4	788	\$102,596	\$67,029	\$169,625
<u>5</u>	<u>985</u>	<u>\$128,245</u>	<u>\$67,364</u>	<u>\$195,609</u>
5 Yr	985	\$384,735	\$325,304	\$710,039
6	1,374	\$178,892	\$107,718	\$286,610
7	1,763	\$229,539	\$108,256	\$337,795
8	2,152	\$280,186	\$108,798	\$388,984
9	2,541	\$330,833	\$109,342	\$440,175
<u>10</u>	<u>2,930</u>	<u>\$381,480</u>	<u>\$109,888</u>	<u>\$491,368</u>
10 Yr	2,930	\$1,785,665	\$869,307	\$2,654,972
11	3,331	\$433,689	\$118,716	\$552,405
12	3,732	\$485,898	\$119,310	\$605,208
13	4,133	\$538,107	\$119,907	\$658,014
14	4,534	\$590,316	\$199,433	\$789,749
<u>15</u>	<u>4,935</u>	<u>\$642,525</u>	<u>\$121,109</u>	<u>\$763,634</u>
15 Yr	4,935	\$4,476,200	\$1,547,782	\$6,023,982
16	5,399	\$702,936	\$139,273	\$842,209
17	5,863	\$1,026,987	\$139,970	\$1,166,957
18	6,327	\$1,087,398	\$140,670	\$1,228,068
19	6,791	\$1,147,809	\$233,967	\$1,381,776
<u>20</u>	<u>7,255</u>	<u>\$1,208,220</u>	<u>\$142,080</u>	<u>\$1,350,300</u>
20 Yr	7,255	\$9,649,550	\$2,343,742	\$11,993,292
21	7,719	\$1,268,631	\$136,732	\$1,405,363
22	8,183	\$1,329,042	\$137,416	\$1,466,458
23	8,647	\$1,389,453	\$138,103	\$1,527,556
24	9,111	\$1,449,864	\$138,794	\$1,588,658
<u>25</u>	<u>9,577</u>	<u>\$1,510,275</u>	<u>\$139,487</u>	<u>\$1,649,762</u>
25 Yr	9577	\$16,596,815	\$3,034,274	\$19,631,089
26	9,577	\$1,510,275	\$0	\$1,510,275
27	9,577	\$1,510,275	\$0	\$1,510,275
28	9,577	\$1,510,275	\$0	\$1,510,275
29	9,577	\$1,510,275	\$0	\$1,510,275
<u>30</u>	<u>9,577</u>	<u>\$1,510,275</u>	<u>\$0</u>	<u>\$1,510,275</u>
30 Yr	9,577	\$24,148,190	\$3,034,274	\$27,182,464

Appendix. Methodological Background: The Concept of Economic Impact

A. The Context of “Spending-Flow” Economic Impact Studies

It is important to recognize how the concept of fiscal economic impact used in this study fits into a larger context of a full “cost-benefit” analysis. Whether the subject of investigation is the Georgia World Congress Center, the Atlanta Dogwood Festival, the Atlanta Braves, the Atlanta Olympic Games, the New World of Coca-Cola, The Georgia Aquarium, or the Atlanta Beltline TAD proposal, a comprehensive analysis requires an exploration of the following equation:

Equation (1): Net benefits from an event or facility = (consumption value) - (capital costs + operating costs) - (environmental + congestion + public safety + other costs) + (increase in regional productivity and long run economic growth and development) + (increases in short run net regional economic activity).

Consumption value refers to the benefits to direct consumers of a good or service, or even a public facility such as Centennial Olympic Park, or the new parks and improved public transit planned as part of the Beltline project. At a minimum, such value in most cases can be measured by the actual expenditures people are willing to make to consume those products, which in simple cases like restaurant meals, is the price of the meal multiplied by the quantity consumed. But even for such private goods, the real consumption value will exceed observed consumer expenditures to the extent that people actually derive greater value from such consumption than they are forced to pay. This excess value, called “consumer surplus” by economists, is common to all goods and services since sellers are rarely able (despite considerable effort) to charge people the maximum prices that they would be “willing to pay” rather than do without those services. Thus, even for purely private goods like restaurant meals, the consumption value is typically understated by observed expenditures.

The problem is even more complex for potential magnet tourist attractions, or local public amenities important to residents such as recreational parks and efficient transit systems since even people who rarely visit such facilities may derive some value from their existence (often called “option” value), linked to the notion that they may want to visit them in the future (perhaps with visiting relatives and friends), and thus would be willing to pay something now to ensure their future financial viability. These people are in essence “indirect consumers,” who derive value from the facility without having to actually visit or attend events.

In addition, even if actual visits to the new facilities by Georgians essentially shifts dollars of spending toward downtown Atlanta but away from other Georgia based goods and services, there could be a net gain in consumption value if the consumer surplus derived from those visits exceeds the consumer surplus lost from not consuming other goods and services (such as clothing from a store in a local mall).

While economists have devised techniques to try to measure these consumption values, the task is difficult when the value is not limited to observed private expenditures. Thus, despite the importance of such concepts, economic impact studies typically ignore any consumption

value other than the observed expenditures of “visitors” as part of the estimation of the short run spending flow impacts in the last term on the right side of the equation.

Other important long run benefits of institutions and events present difficult measurement challenges as well. For example, the contribution of the Atlanta Olympics to the revitalization of Downtown and Midtown Atlanta, as well as the dramatic improvements in air access to Savannah as a result of the new Savannah Airport, and the diversion of tourist attention to other parts of the state such as Columbus, have longer term implications for “balanced” growth in the state that are not easily captured by simple aggregate spending analysis. In the context of the Beltline, the expected shift of residential and commercial economic activity away from the Northeast quadrant and toward the heretofore other weaker parts of the city will also generate much desired more balanced growth, the benefits from which are not easily quantified. Similarly, no one believes that the long run economic impact of, say, the construction of an extensive fiber optic network throughout Georgia is limited to the short run jobs created or temporary injections of new spending linked to the construction phase. Greatly enhanced productivity of existing industries, as well as the potential of attracting new firms to the state are more fundamental economic benefits – benefits that are also likely to occur over time as the quality of life in Atlanta improves as a result of the Beltline public infrastructure improvements.

Conversely, a full cost-benefit analysis should evaluate the negative consequences of more growth and economic activity upon congestion and environmental costs (dramatic current concerns of most Georgians), as well as more mundane negative consequences of having to shift limited policing resources to cover sports events and conventions at the potential expense of reduced police coverage elsewhere, or to protect new residential and commercial development such as that expected to be generated by the Beltline investments. In fact, the controversial concept of a “development impact fee” is intended to compensate governments for the negative effects of new construction on a jurisdiction’s infrastructure. As a dramatic example of the need to include negative as well as positive effects, no one would consider an economic impact study of the tobacco industry to be complete if it just focused on the alleged new jobs created or expanded local economic activity near, say, the Brown and Williamson plant in Macon. The substantial economic costs linked to the health consequences of smoking could not be ignored in a full analysis. It is for this reason that a major focus on this study has been to address the likely negative consequences as well as the positive benefits of Beltline investments.

By largely ignoring these other important, but problematic costs and benefits, traditional economic impact studies are actually incomplete versions of equation (1), focusing solely on the very last term on the right side of the equation: “increases in short run net regional economic activity.” Despite these limitations, this focus upon the net injections of new spending into a specific geographical area, and the somewhat longer-term multiplier consequences of such net spending injections, is thought to provide at least a tractable approach to measuring economic impacts. The challenges of correctly measuring economic impacts in this way are the subject of Part B.

B. Deriving Spending-Flow Economic Impacts: Application to the Atlanta Beltline

Based on the above discussion, economic impact is normally defined as the change in one or more of the following particular measures of “net regional economic activity:” output, earnings, employment, or tax revenues in a specified geographic area as a result of an injection of new additional spending into the region that would not otherwise have occurred without the availability of the particular institution, event, or investment project under investigation. It is a demand driven analysis that often focuses upon the spending of out-of-state attendees or visitors who have been uniquely attracted by the institution under investigation, but can (as in this case) focus on the spending of residents who have been uniquely attracted to live in the region (here the City of Atlanta) by a particular investment project (here a set of publicly funded projects that encourage a wide variety of supplemental private investment projects) such as the Atlanta Beltline Tax Allocation District.

Because of the unique focus upon the impact of the Atlanta Beltline TAD on the fiscal status of the City of Atlanta’s General Fund finances, this particular study measures economic impact primarily in terms of tax revenues and service expenditures resulting from a change in the size of the population of the City induced by the infrastructure and quality of life improvements resulting from the various Beltline transit, transportation, affordable housing, Atlanta Public Schools, and related projects. Employment effects that also stem from the resident relocations have been reported in Huntley and Associates *Redevelopment Plan: Atlanta Beltline Tax Allocation District*, but since the City of Atlanta does not collect any revenues from a personal income tax, the focus here has been on the effects of the residential household units relocating along with the number of establishments created by the related additional commercial square footage as cited also in that study.

In properly deriving this measure of economic impact, a number of distinctions must be made.

1. Net Injections vs. Diversions of Spending

A careful distinction must be made between “net injections of new spending” into a region typically done by visitors, or in this case by new residents, versus the “diversion of existing spending” from one sector of the economy to another (without generating any net increase overall), typically done by residents in the case of a study of tourist attractions, but here by Beltline area residents that might just relocate from other parts of the city. All of the 9,577 “incremental residents” are assumed to be relocating to Atlanta from outside the City. Even in the case of studies of tourist attractions such as the Georgia Aquarium, some resident spending *could* be considered an injection of economic activity if that spending would have alternatively been done outside the region.

2. The Importance of Incremental Spending

Visitor or new resident spending that would have occurred anyway without the magnet facilities or new public investments cannot be attributed to those facilities. Only economic

activity that is unlikely to occur in the absence of these facilities can be considered a real incremental economic benefit. Two implications follow:

- Spending done by visitors or “base case new housing units” at any of the magnet facilities, or in this case within the Beltline areas, that would have alternatively been done elsewhere (during their visit to the region or due to the decision of households to locate in Atlanta without the inducement of the Beltline improvements) cannot generate any net incremental economic benefits.
- However, in the case of visitors to tourist type attractions, potential net incremental economic benefits need not be limited to spending done by visitors at those magnet facilities, if it is plausible that those visitors:
 - (a) would not have visited the region had the magnet facilities not been available;
 - (b) extended their already planned visit due to the availability of the magnet facilities; or
 - (c) spent more per day in the region due to the availability of the facilities (a variation on (1) above).

3. The Definition of the Region

The application of these first two principles depends critically on the definition of the region. If the focus were narrowed to downtown Atlanta, almost all of the spending done by metro-Atlanta residents would count as visitor spending in addition to the spending done by visitors from other states, or Georgians from outside the metro-area. If the region were defined as the city of Atlanta, the approximately 87.5 percent of metro-residents not living in Atlanta would count as visitors. Broadening the region to metro-Atlanta or to the state of Georgia would further reduce the proportion of visitors in the mix of magnet facility attendees. In this study, the primary region is defined as the city of Atlanta, with the critical focus being not visitors to the City (although the new parks and improved transit facilities may in fact lead to additional visitations from metro-area or state residents, or extensions of stays by non-Georgians already attracted into the City for short stays due to their attendance at a conference (e.g. at the Georgia World Congress Center). Conservatively, any possible additional tax revenues into the Atlanta General Fund are not considered.

4. Adjusting Incremental Spending: Value Added Expenditures and Direct Impact

While it is critical to distinguish incremental from non-incremental spending, a further adjustment is required prior to being able to identify what is called the **Direct Economic Impact**. When visitors pay for their hotel, meals, transportation, entertainment and other goods and services, or when new residents buy goods and services in the categories identified above in Table 5 from the *Consumer Expenditure Survey* (Bureau of Labor Statistics), a portion of those expenditures is **not** received by Atlanta based firms and workers, but is “repatriated” to non-Atlanta economic agents in the form of profits to non-local corporate headquarters, or in the form of original manufacturer prices to non-Atlanta manufacturers (as distinct from local retailer markups, a portion of which ultimately supports local workers and possibly local profits if the

retailers are themselves Atlanta based).¹ The resulting adjusted incremental expenditures are often called “value-added expenditures.”

5. Total Impact = Direct + Induced: The Role of the Multiplier

The value-added expenditures constitute the **Direct Economic Impact**. When a **multiplier** is applied to this direct economic impact, one can obtain the **Induced Economic Impact** (again, see Tables 1-3). The summation of the Direct and Induced Economic Impacts then constitutes the **Total Output Economic Impact**, or just Total Impact.²

The concept of induced economic impact refers to the additional economic activity that is generated within the relevant region as such initial adjusted net injections stimulate supplemental economic activity over time before that spending “leaks” out of the region. The rate at which such initial spending leaves the region (and thus ceases to contribute to regional economic activity) depends on the particular types of spending, the geographical size of the region, and the degree of economic self-sufficiency of the region. For example, the wage payments to local hotel workers linked to visitor spending will be used to purchase food, clothing, housing, and more discretionary goods and services. Even if that spending is initially done locally, a portion of it will leak from the region quickly in the form of payments to non-local food processors or to non-local clothing manufacturers, while other parts of that spending will re-circulate within the region for a much longer time period (e.g. the part paid in wages or prices to local suppliers is itself re-spent by those residents initially largely within Atlanta before it leaves the local economy).

This very complex process is estimated by the use of a **multiplier**, whereby an assumed multiplier of 1.42 would generate an ultimate total economic impact of \$1.42 million stemming from an initial direct economic impact of \$1 million. The difference of \$0.42 million constitutes the total dollar amount of induced economic impact in these subsequent rounds of economic activity.

¹ A good example related to the entire state of Georgia in the case of a study of, for example, either the Georgia World Congress Center or the Georgia Aquarium, is the fact that of the 15,142 rooms at Atlanta's 25 largest hotels, only about 15.6% of them (2,364) are in hotels that are owned by Georgia based firms (Bass and Holiday Inn hotels, and Ritz Carlton hotels, comprising 5 of the top 25 hotels). Data derived from publicly available financial information on hotel operations reveals that the average hotel profit as a percentage of total sales is about 9.41%. Thus, about 8% of the spending on lodging at the major hotels is “repatriated” to corporate headquarters outside Georgia (i.e. 84.4% of non-Georgia owned hotel rooms x 9.41% profit).

² Note that terminology in economic impact studies is not always uniform. For example, a distinction is sometimes made between direct and indirect new spending impacts, where indirect refers to new spending by visitors to a facility, while direct refers to the spending that is reflected in the facility's own budget (such as wage payments for employees).

This study utilizes primarily the IMPLAN multipliers (from the Minnesota IMPLAN Group, Inc.) applicable to the City of Atlanta, but also is sensitive to the Department of Commerce (Bureau of Economic Analysis) “RIMS II Model” to derive the relevant spending multiplier that allows the calculation of the induced as well as the direct sales tax and other revenues to the City of Atlanta General Fund budget. While ideally economic impact study researchers would derive their own survey-based model of a region's economy to apply to the particular event or facility that they are examining, the cost of such an effort would normally be prohibitive.³ The regularly updated IMPLAN (or alternative RIMS II) multipliers provide highly disaggregated results linked to proprietary data not generally available to outside researchers. The models have outstanding reputations and are generally considered to provide accurate and conservative values that do not lead to systematic over-estimates of the economic impacts from injections of new spending.

6. The Negative Relationship Between Direct Impact and the Multiplier

To avoid overstating the economic impact, it is also important to recognize an important relationship between the direct economic impact and the magnitude of the multiplier used to estimate the induced economic impacts. In general, the smaller and less self-sufficient is the region being analyzed (such as a city compared to a state), the more quickly any net injection of new spending will leak from the region and limit any induced economic impacts. However, for any given spending that is linked to an event or a facility, smaller regions will typically have a greater proportion of visitor to resident spending - and hence a greater amount of direct economic impact.

At the same time, although metro-Atlanta has an economic role in Georgia that is greater than its proportionate population or geographical area, it is still the case that there is a lower multiplier effect for the City of Atlanta than there is for Fulton County, metropolitan Atlanta, or Georgia (i.e. new spending leaves Atlanta more rapidly than it leaves those larger areas). In summary, larger more self-sufficient regions tend to have larger multiplier effects, but smaller initial direct economic impacts upon which to apply those effects. Conversely, smaller and less self-sufficient regions tend to have smaller multiplier effects, but at least those effects apply to a generally larger initial direct economic impact. The negative relationship between these two

³ For example, while not deriving a full input-output model related to the study of the economic impact of a fifth runway at Hartsfield-Jackson Atlanta International Airport, researchers conducting that study did have the cooperation of the airlines in conducting a detailed survey of the specific spending patterns of airport employees, including what portions of their income were spent for specific goods and services in which particular counties in the southern portion of metro Atlanta. These results were helpful in more accurately identifying the direct and multiplier (induced) economic impacts of an expansion of air traffic linked to capacity expansion at the airport. See *The Economic Impact of a Commuter Runway for Hartsfield International Airport: Metro Atlanta and Selected Counties*, The Georgia State University Research Foundation, Project # 836, Dr. Bruce A. Seaman, Project Director, January 31, 1991.

important components of economic impact analysis tends to limit the magnitude of the properly calculated economic impacts.

7. Supply-Side Constraints: The Threat of Displacement.

A final pitfall to avoid refers, not to the proper derivation of new demand and the effects of that demand on economic activity, but to the possibility that supply constraints in the region would naturally limit the degree to which a local economy could actually expand to generate the magnitude of new economic activity that is predicted from the spending impact analysis just described. This dilemma is often called the “displacement effect,” and refers to the possibility that a spending flow analysis will systematically overstate the real net economic impact on a region from an event or a facility by failing to more fully examine the possibility that other potential visitors to a region are crowded out by the inability of the local hospitality and transportation infrastructure to accommodate, say, additional visitors to the New World of Coca Cola and the Georgia Aquarium and other events in the same time period, or in the case of the Beltline, the possibility that the new household and related commercial activity would excessively strain the ability of the City of Atlanta to provide public services to those new residents and business establishments. The analysis of the effects of such new economic activity on the cost-side of the City of Atlanta budget addresses this issue in this study.

Note importantly that this displacement effect is not identical to the issue raised earlier in the distinction between net spending injections created by visitors vs. the mere diversion of spending from one local sector to another done by residents. This supply-side displacement effect refers instead to the possibility of one group of visitors or new residents being precluded from injecting new spending into a region because of the existence of another group of visitors or new residents which has essentially tied-up the region's hospitality, transportation, and services economy, so that there is insufficient productive capacity to accommodate both visitor or resident groups.

This issue was an important one in the calculation of the economic impact on Georgia of the 1996 Summer Olympics, since there was legitimate concern that regular trade show visitors, non-local sports fans, non-local corporate meetings and general tourist business would be reduced not only during the Games, but in other time periods due to the anticipation of the many inconveniences surrounding the preparation for the Games. Most Olympics economic impact studies assumed that such alternative visitors could easily reschedule their events to avoid the much-anticipated three-week Olympic period, so that there would be very limited displacement when considered over a longer time frame.⁴ By contrast, Professor Philip Porter (University of

⁴ The possible displacement effect was explicitly considered by Dr. Donald Ratajczak of Georgia State University in his own assessments of the economic impact of the 1996 Olympics, and was considered but not expressly referred to by Dr. Jeffrey M. Humphreys and Michael K. Plummer in their 1992 report, *The Economic Impact on the State of Georgia of Hosting the 1996 Summer Olympic Games*, Atlanta Committee for the Olympic Games, Inc. Note that while non-Olympics visitors were indeed likely to be capable of rescheduling trips and events rather than canceling them outright, the Olympics impact studies may have understated the degree to which

South Florida) has argued that the actual net economic impact of the typical Super Bowl is essentially zero, claiming that there is virtually full displacement of other tourist related economic activity in order to accommodate the dramatic short run increase in local demand for this major event.⁵

However, regardless of the merits of this controversial claim, displacement effects are unlikely to be significant in the case of the Atlanta Beltline inasmuch as the relatively small incremental number of households of 9,577 and new business establishments of 709 (over a lengthy 25 year period) is very unlikely to generate such displacement effects.

Georgia residents “fled” the Atlanta area to avoid the anticipated inconvenience, thus in essence shifting some economic activity away from Georgia due to this displaced resident (not visitor) spending.

⁵See "Super Bowl doesn't add up," *Atlanta Business Chronicle*, January 19-25, 2001, pp. 48A and 53A. Porter focuses special attention on Tampa's limited supply of hotels and airport access.

References

(Note: Other consulting studies generated as part of the Beltline project that were reviewed for this study are not included in this listing, which primarily focuses upon the academic literature related to the costs of public services or to sales tax and other relevant revenue issues. Also not included herein are any related previous studies or publications by the author, or any references cited in the Appendix methodological discussion).

Association of Chief Police Officers of England, Wales and Northern Ireland (2005), "Guidance on Charging for Police Services," (25 Victoria Street, London, SW1H OEX)

Bahl, Roy, Richard Gustely and Michael J. Wasylenko (1975), "The Determinants of Local Government Police Expenditures: A Public Employment Approach," *National Tax Journal* XXXI: 67-79.

Bahl, Roy W. and Richard Hawkins (1997), "The Sales Tax in Georgia: Issues and Options," FRP Report No. 1 (October), Fiscal Research Program, Andrew Young School of Policy Studies, Georgia State University

Begashaw, Getachew (1999), "Determinants of Public Service Expenditures in Fast Growing Local Governments of Michigan," Unpublished Ph.D. Dissertation (available via microfiche).

Bordua, David J. and Edward W. Haurek (1968), "The Police Budget's Lot," *Police in Urban Society*, 57-70.

Bunnell, Gene (1994), "Pros and Cons of Paying for Growth with Impact Fees," Working Paper, University of Wisconsin-Madison, Department of Agricultural Economics.

Byrnes, Joel and Brian Dollery (2002), "Do Economies of Scale Exist in Australian Local Government? A Review of the Empirical Evidence," Working Paper Series in Economics, University of New England (No. 2002-2).

Chamlin, Mitchell, B. (1989), "A Macro-Social Analysis of Change in Police Force Size, 1972-1982: Controlling for Static and Dynamic Influences," *The Sociological Quarterly* 30: 615-624.

Chamlin, Mitchell B. (1990), "Determinants of Police Expenditures in Chicago, 1904-1958," *The Sociological Quarterly* 31: 485-494.

Community and Economic Development Program Clemson University, "Economies of Scale Can Reduce Costs," *Economic Brief No. 8*.
www.strum.clemson.edu/teams/ced/econ/3-2No8.pdf

Commonwealth Grants Commission (2001), "Administrative Scale," *Discussion Paper CGC 2001/16* (November)

Idaho Statesman (2004), "SunCor: Project will Pay for Itself," August 26, 2004.

Jackson, Pamela Irving and Leo Carroll (1981), "Race and the War on Crime: The Sociopolitical Determinants of Municipal Police Expenditures in 90 non-Southern U.S. Cities," *American Sociological Review* 46: 290-305.

Liner, Gaines H. (1992), "Annexation Impact on Municipal Efficiency," *Review of Regional Studies*, 22:75-87.

Lowry Redevelopment Authority (2005), "Report on the Lowry Redevelopment Plan." http://www.lowry.org/info/about_lra.htm

McDowall, David and Colin Loftin (1986), "Fiscal Politics and the Police: Detroit, 1928-76," *Social Forces* 65:162-176.

Persky, Joseph and Wim Wiewel (1995), "Economic Development and Metropolitan Sprawl: Changing Who Pays and Who Benefits," Technical Paper, University of Illinois at Chicago.

Pittman, David (2005), "Growth Pays for Itself in 4 Years, SAHBA Finds," *Tucson Citizen*, May 17, 2005.

Renkow, Mitch (2005), "Economic Impacts of Residential Development: Lessons from Chatham County," *NC State Economist*, College of Agricultural Life Sciences <http://www.chatamnc.com/modules/news/article.php?storyid=1>

Scott, Robert L. (2001), "Rightsizing Local and Regional Government: Methods and Model for Representative Local Governance," James Irvine Foundation (February).

Sjoquist, David L. (1996), "Local Government Fiscal Report," FRP Report No. 96.5 (December), Fiscal Research Program, Andrew Young School of Policy Studies, Georgia State University

Sjoquist, David L., ed. (2003), *State and Local Finances Under Pressure* (Edward Elgar Publishers, Cheltenham).

Stinson, Thomas F. and Andrea Lubov (1982), "Segmented Regression, Threshold Effects, and Police Expenditures in Small Cities," *American Journal of Agricultural Economics*, November: 738-746.

Walker, Mary Beth (1998), "Revenue Losses from Exemption of Goods from the Georgia Sales Tax," FRP Report No. 24 (November), Fiscal Research Program, Andrew Young School of Policy Studies, Georgia State University.

Walzer, Norman (1972), "Economies of Scale and Municipal Police Services: The Illinois Experience," *The Review of Economics and Statistics*, 54: 431-438.

Wilensky, G. (1970), "Determinants of Local Government Expenditures," in John P. Crecine, ed., *Financing the Metropolis: Public Policy in Urban Economies* (Beverly Hills: Sage Publications): 197-218.

Will, R.E. (1965), "Scaler Economies and Urban Services Requirements," *Yale Economic Essays* V (Spring): 3-60.