

Economic Impact of Annexation by the City of Sylvania

Prepared for: the City of Sylvania

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Economic Impact of Annexation by the City of Sylvania

This study analyzes the economic impact, benefit, and costs associated with the proposed annexation within Screven County by the City of Sylvania.¹ This project includes three phases that will require extensions of the city's water, sewer, gas, and electricity. It is expected that the annexation by the city will create new demand for commercial and residential property not only within the new city-limits but also within the county.

Economic Impact Summary

The proposed annexation by the City of Sylvania is expected to increase employment and output in both the city and county. The following highlights these economic impacts.

- Employment is expected to increase by 4 jobs in 2006. By 2025, employment is expected to reach a sustained increase of 58 jobs. Therefore, the proposed project will support at least 58 jobs over the next 20 years.
- Gross Regional Product is expected to increase by \$237,000 in 2006 and by 2025 it is expected to increase by \$2.6 million. The largest portion of the increase in GRP will be within the Services Sector.
- Other noteworthy impacts include total personal income increasing by \$3.97 million, total real disposable income increasing by about \$1.7 million, total population increasing by 61 people, and labor force increasing by 37 people.
- The annexation is expected to result in a fiscal impact increasing local revenues by \$334,000 and local expenditures by \$296,000 in 2025.

The summary above shows the complete economic impact of the proposed project, which includes both the city and county. Below is an estimation of that same impact shown separately.

Economic Impact on Sylvania

- Employment is expected to increase by 6 jobs in 2006. By 2025, employment is expected to reach a sustained increase of 51 jobs.
- Total population is expected to increase by 6 people and total labor force is expected to increase by 4 people by 2025.

Economic Impact on Screven

- Employment is expected to decrease by 2 jobs in 2006. However, by 2025 employment is expected to reach a sustained increase of 7 jobs.
- Total population is expected to increase by 55 people and total labor force is expected to increase by 33 people by 2025.

¹ The study area was identified by the City Manager, Carter Crawford. This area includes land along the Sylvania Bypass, which is south of Sylvania, and land along Highway 301, which includes land west and north of Sylvania.

The findings of this study show that the proposed annexation will positively benefit both the county and city. Additionally, it should be noted that without the annexation by the city, the city will not have other reasonable means to promote growth. Non-annexation will effectively stifle growth within the city both in the short-term and in the long run. Since the county is a net beneficiary of the city's growth, non-annexation has the affect of stifling growth in the county as well.

Data and Region

The data supplied for this economic impact analysis came from four different sources:

First, some of the estimated numbers of businesses and type of businesses used in this impact were derived from a study conducted by the City of Sylvania.² The Bureau of Business Research and Economic Development (BBRED) reviewed the City's study confirming the reasonableness of the estimates being both sufficient and reliable proxies for simulation purposes.

Second, to ensure, however, that there is a demand within this regional market for the types of businesses identified by the City's study, this analysis also used a Business Potential Index. The Business Potential Index, which was the second source, is a study that the Small Business Development Center at the University of Georgia creates each year.³ It was used to verify the types of businesses that are underrepresented in this market area and that are likely to emerge in the next few years.

The third source used in this study was Reference USA. This source was used to estimate the employment sizes for the various types of businesses identified by the City's study and the Business Potential Index.

The last source used in this study used was "Dollars & Cents of Shopping Centers: 2004" from the Urban Land Institute.⁴ This report has detailed information on the various types of shopping centers that are represented in the United States. In particular, not only does it show the operating expenditures and expected sales by type of shopping center, but it does this by the type of business within the shopping center. There are five different types of shopping centers represented in the Dollars and cents report: Supper Regional, Regional, Community, Neighborhood, and Convenience Shopping Centers. This study used the concepts from both the Neighborhood and Convenience Shopping Center as a simulation of a shopping center. The Urban Land Institute defines them as the following:

Neighborhood Shopping Center⁵

The neighborhood shopping center provides for the sale of daily living needs-convenience goods like food, drugs, hardware, and personal services. A supermarket is the principal tenant in this type of shopping center.

Convenience Shopping Center

The convenience shopping center is oriented toward personal services such as food stores, food service, drugstores/pharmacies, flower shops, beauty shops, unisex hair shops, and cleaners. It is not anchored by a supermarket but may contain a convenience market or mini-market.

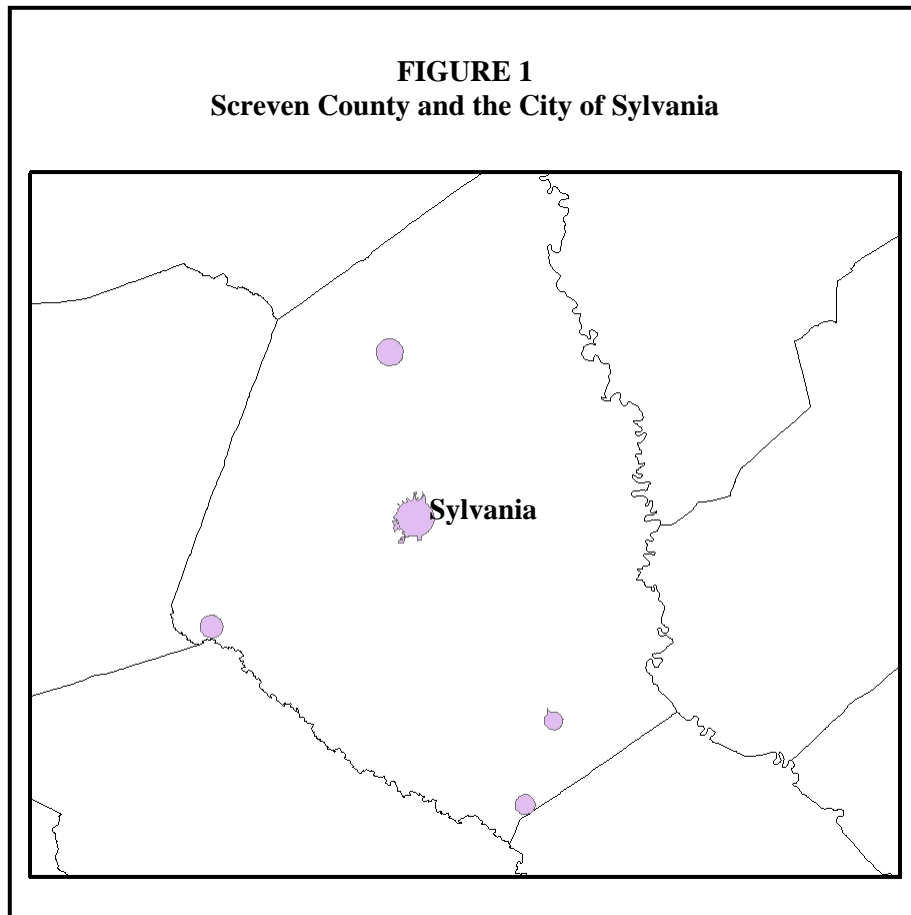
² Crawford, H. Carter. "Economic Development on City By-passes Constructed on the Governor's Road Improvement Program." February 17, 2005 City of Sylvania.

³ The Business Potential Index is a statistical analysis that identifies under represented sectors within the economy compared to other similar counties in Southeast US.

⁴ "Dollars & Cents of Shopping Centers: 2004." Urban Land Institute Washington, D.C.

⁵ It should be noted that this study does not include a supermarket in the direct impacts.

Figure 1 represents the economic region used. The City of Sylvania and Screven County are the primary economic beneficiaries of this impact. However, it is expected that there will be both positive and negative externalities on the surrounding cities and counties due to the growth the annexation will stimulate. For the purpose of this study, the economic area or region will only refer to Screven County, unless otherwise stated.



Direct Economic Impact⁶ – Input Data

Table 1 represents the direct employment impact associated with the proposed project, excluding the property acquisitions and capital improvements.⁷ As such, it is expected that this project will directly support (increase or retain) about 50 jobs within region by 2015. Of that 50 jobs, 17 will be supported by Professional Services, 10 by Food Services, and 7 within the Accommodations sector. It should be noted that BBRED identifies the retention and creation of these direct jobs to be allocated solely within the City of Sylvania.

TABLE 1
***Direct Employment Impact**

	2006	2008	2010	2015	2020
Food services	0.0	3.2	9.7	13.0	12.5
Retail Trade	0.0	0.9	2.6	3.3	3.0
**Professional Services	0.0	5.6	16.7	21.8	20.4
Accommodations	0.0	7.0	7.0	7.0	7.0
Religious Organizations	2.5	2.5	2.5	2.5	2.5
Gasoline Stations	2.5	2.5	2.5	2.5	2.5
Total	5.0	21.7	41.0	50.0	47.9

* Direct employment includes all jobs directly created or supported by the proposed project

** Professional Services includes both legal and financial advice.

Table 2 represents the direct construction improvements associated with the proposed project. As such, the total direct expenditure was estimated to be \$2.9 million and would be distributed over a ten year period.

TABLE 2
Direct Output Impact
2006 to 2015

Construction	<u>2,900,000</u>
Total	2,900,000

*Direct output includes all expenditures for the proposed project. It should be noted that direct output also has direct jobs related to this value, although it was not calculated in this section of the report.

**Property acquisition was not included in this estimate.

***This estimate assumes that 100% of the dollars spent on construction came from money outside of the city.

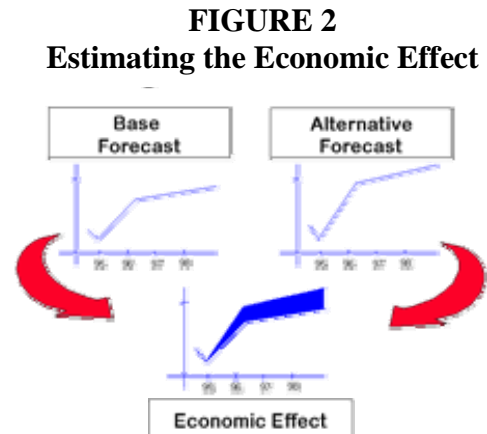
****The direct construction expenditure was equally distributed between 2006 and 2015.

⁶ For this study, the direct impact refers to net new employment or output/sales associated with the proposed project.

⁷ Capital improvements includes all of the infrastructure needs for the annexation like water, sewer, gas, and electricity.

The Model- Economic Impacts

The model used to show the economic impact of the proposed annexation within Screven County for the City of Sylvania was Regional Economic Modeling Inc. (REMI).⁸ This model is a dynamic economic impact model that can analyze multiple impacts geographically and overtime. Additionally, this model incorporates these impacts with the preexisting growth expectations of each region. The concept of how REMI isolates the economic impact is shown in Figure 2. In this figure there is a base forecast (the preexisting growth of the economy absent of the proposed impact), an alternative forecast (the new forecast with the proposed project), and the economic effect (an isolation of the economic impact or the difference between the base forecast and the alternative forecast). For the purpose this study, the following tables and numbers only refer to the economic effect.



Economic Impact

It is not always intuitively obvious why the reallocation of land from one political unit to another promotes economic growth for both. This section of the report first explains some of the economic development dynamics from a theoretical perspective. This is followed by the quantitative analysis of the proposed annexation. The economic impact of the proposed annexation within Screven County for the City of Sylvania is shown in two ways, as an aggregate which includes both the city and county and separate

Economic Impact: Theory of Growth

An important component in determining if an annexation will have a positive or negative effect on an economy is to first determine the following: economic linkages, interdependency, available land, and growth potential. The following section examines each of these concepts in greater detail as it relates to both Screven and Sylvania.

The first factor to look at in determining if a county will benefit from an annexation project is to determine the economic linkages between the two regions. One example of this would be the commuter flows from the county to the city. The more residents traveling from the county to the city for employment, the more they are likely to be linked. Another example of economic linkages are the inter-industry transactions. For example, rural counties tend to have more agricultural farming and cities tend to have agricultural services. A farmer might purchase their fertilizer, seeds, and other materials from a commercial business within a city and then send their final product back to the central city to be processed. The stronger the linkages economically between the two areas, the more likely the county will benefit indirectly from an annexation. It is the opinion of the Bureau of Business Research and Economic Development that there is a

⁸ For more information about REMI and documentation supporting it, please visit www.remi.com.

moderate to high level of economic linkages between the City of Sylvania and Screven County.

To expand on the economic linkages, it is also important to determine the level of dependency of county residents on a central city. If the city is the primary service center for the county, then the county's growth would, therefore, be dependent on the growth of the central city. The things one should notice in determining a core-central city would include the following: centralized medical, legal, commercial, and recreational services. The higher the level of dependency on the core city, the higher the economic benefits the county would receive from an annexation. Although there are alternatives for medical, legal, commercial, and recreational services (examples include Statesboro, Augusta, and Savannah), county residents are still moderately-to-highly dependent on the City.

Planned growth in a centralized area is critical for commercial growth. Commercial businesses, in general, tend to locate in urban areas to benefit from the following: dense populations, access to services (water, sewer, and electricity), and agglomerations of other services and goods.⁹ Businesses do this because they know consumers want easy access to not only their products but also complement goods and services from other businesses. The closer proximity reduces the transportation cost and time for consumers. Therefore, urbanized areas tend to be the key driver for their rural hinterlands (in this case the county). One example of this is the growth of Effingham County being dependent on the growth of both Rincon and Springfield, its two central-urbanized cities. Effingham County grew at 19% between 2000 and 2004, where as Rincon and Springfield grew by 36.4% and 9.8%, respectively.¹⁰

If it is determined the that county is dependent on the city, that they are economically interlinked, and the centralized commercial area is planned right, then the last major factor in determining if an annexation project will benefit the county depends on the access to available land.¹¹ It should be noted that if the city has available high quality land, then the annexation might not have an immediate direct benefit. However, if the city does not have any reasonably sellable land, then an annexation program becomes vital for both the city and county's short-term and long-term growth. Moreover, not allowing the annexation program would not only stifle growth for the city but also potentially the county.

⁹ Agglomeration economies is a term referring to the additional benefit gained by either competing or complementary businesses as a result of locating near each other.

¹⁰ Source: US Census Bureau, Population Estimates Program

¹¹ Available building space that can be re-developed should be considered similar to that of available land. If the city does not have available building space, then it is critical for the city's growth to obtain more land and new building space for growth.

Economic Impact: Summary Total

Table 4 shows the total economic impact of the proposed project on employment between 2006 and 2025. The total increase in employment in 2006 is estimated to be 4 jobs and by 2015 it is expected to increase to 67 jobs. One will notice that the peak in employment is ten years from the start of the project. This is associated with the construction portion of the impact for the commercial sectors. Construction tends to produce a temporary surge in employment and a subsequent fall two to three years later. However, the annexation for the City of Sylvania, as proposed, can maintain a total economic impact of at least 58 jobs.

TABLE 4
Employment Impact

	2006	2010	2015	2020	2025
Manufacturing	0	0	0	0	0
Non-Manufacturing					
Natural Resources, Mining, Utilities	1	3	4	2	2
Construction	0	3	3	2	2
Wholesale Trade	0	0	0	0	0
Retail Trade	1	5	6	6	5
Information, Finance, and Real Estate	0	1	1	1	1
Transportation and Warehousing	0	0	0	0	0
Services	2	41	50	47	45
State & Local Government	0	1	3	4	4
*Total Employment	4	54	67	61	58

* Numbers may not add up due to rounding.

Table 5 shows the impact in terms of total output. That is for each person employed in the economy there is an associated amount of goods and services produced. The table shows that total Gross Regional Product (GRP) is expected to increase by \$237,000 in 2006 and increases to \$2.6 million by 2025. It should be noted that the largest portion of the increase in GRP is within the Service Sector, \$55,000 in 2006 and \$2.1 million in 2025.

TABLE 5
Gross Regional Product 2000\$

	2006	2010	2015	2020	2025
Manufacturing	\$ 3,099	\$ 18,120	\$ (6,437)	\$ (21,220)	\$ (18,360)
Non-Manufacturing					
Natural Resources, Mining, Utilities	\$ 122,020	\$ 136,300	\$ 137,025	\$ 6,401	\$ 6,202
Construction	\$ 13,320	\$ 85,060	\$ 111,000	\$ 73,760	\$ 63,900
Wholesale Trade	\$ 2,474	\$ 23,420	\$ 27,600	\$ 24,500	\$ 26,520
Retail Trade	\$ 25,750	\$ 204,900	\$ 279,700	\$ 273,100	\$ 276,400
Information, Finance, and Real Estate	\$ 14,964	\$ 147,774	\$ 178,786	\$ 150,445	\$ 146,205
Transportation and Warehousing	\$ 627	\$ 4,462	\$ 3,723	\$ 2,136	\$ 2,369
Services	\$ 54,537	\$ 1,501,273	\$ 2,005,254	\$ 2,039,096	\$ 2,109,441
*Total Employment	\$ 236,790	\$ 2,121,309	\$ 2,736,652	\$ 2,548,217	\$ 2,612,676

* Numbers may not add up due to rounding.

Although the annexation of the City of Sylvania will have a significant impact in terms of jobs and output, these two components do not represent all the economic benefits of the project. Table 6 shows the impact of the project on total personal income and total real disposable income.¹² As such, it is estimated that total personal income will increase by \$3.97 million and total real disposable income will increase by \$1.7 million by 2025.

TABLE 6

Other Impacts

	2006	2010	2015	2020	2025
Personal Income (Nom \$)	\$ 126,800	\$ 1,616,000	\$ 2,857,000	\$ 3,345,000	\$ 3,967,000
Real Disposable Income (Fixed 2000\$)	\$ 92,510	\$ 1,019,000	\$ 1,554,000	\$ 1,620,000	\$ 1,722,000

In addition to an increase in the region in both total and real incomes, there will also be increases in population and labor force. In 2010, the total population increase is expected to be 18 and the total labor force is expected to be 16. By 2025, population is expected to increase to 61 and labor force to 37. The reason why there is a lag in the increase in population and labor force relative to employment is because of the time it takes to attract and hire economic migrants into the region.

TABLE 7

Total Population by Four Age Groups

	2006	2010	2015	2020	2025
Ages 0-14	0	4	12	16	17
Ages 15-24	0	3	6	7	8
Ages 25-64	0	10	25	32	33
Ages 65 & Older	0	0	1	2	3
Total Population	1	18	45	57	61

* Numbers may not add up due to rounding.

TABLE 8

Labor Force by Age Groups

	2006	2010	2015	2020	2025
Ages 16-19	0	1	2	2	2
Ages 20-21	0	1	1	1	1
Ages 22-24	0	1	2	2	2
Ages 25-29	0	2	5	4	3
Ages 30-34	0	2	5	6	4
Ages 35-44	0	3	7	9	11
Ages 45-54	0	2	5	6	7
Ages 55-59	0	1	2	2	2
Ages 60-61	0	0	1	1	1
Ages 62-64	0	0	1	1	1
Ages 65-69	0	1	1	1	1
Ages 70-74	0	0	0	1	1
Ages 75 & Older	0	0	0	0	1
Total Labor Force	1	16	34	37	37

* Numbers may not add up due to rounding.

¹² Personal income includes the sum of wage and salary disbursements, other labor income, proprietors' income, rental income, personal dividend income, personal interest income, and transfer payments, less personal contributions for social insurance. Real disposable income is the amount of real dollars available for consumption and savings.

Another way to look at the economic contributions of this project is to look at how it affects residential and business capital stock.¹³ Table 9 shows both the optimal and actual capital stock. Optimal capital stock represents the demand for either the residential or business capital stock, and actual capital stock represents the real value in the increase of the capital stock. As such, the total increase in residential actual capital stock is expected to increase by \$2.9 million by 2025. Business actual capital stock is expected to increase by \$2.6 million by 2025.

TABLE 9
Residential Capital Stock (Fixed 2000\$)

	2006	2010	2015	2020	2025
Actual Capital Stock	\$ 9,537	\$ 328,100	\$ 1,398,000	\$ 2,285,000	\$ 2,886,000
Optimal Capital Stock	\$ 194,500	\$ 2,195,000	\$ 3,529,000	\$ 3,796,000	\$ 4,093,000

Business Capital Stock (Fixed 2000\$)

	2006	2010	2015	2020	2025
Actual Capital Stock	\$ 47,680	\$ 663,800	\$ 1,803,000	\$ 2,310,000	\$ 2,572,000
Optimal Capital Stock	\$ 1,366,000	\$ 4,189,000	\$ 4,869,000	\$ 3,767,000	\$ 3,941,000

The last major component to look at is the estimated fiscal impact. Table 10 shows the overall estimated revenues and expenditures by both the State and region.¹⁴ In addition to the summary level there is a detailed breakout of both the local revenues and expenditures, as shown in Tables 11 and 12.¹⁵

TABLE 10
Fiscal (2004\$)

	2006	2010	2015	2020	2025
State Revenues	\$ 12,220	\$ 137,700	\$ 220,100	\$ 230,300	\$ 239,100
Local Revenues	\$ 9,820	\$ 124,600	\$ 246,800	\$ 293,700	\$ 323,900
State Expenditures	\$ 1,820	\$ 49,970	\$ 140,800	\$ 182,800	\$ 200,200
Local Expenditures	\$ 3,409	\$ 80,190	\$ 211,900	\$ 271,100	\$ 295,800

¹³ Residential and Business Actual Capital Stock is the amount of capital accumulated over time net of depreciation. Residential and Business Optimal Capital Stock is the amount of capital required to satisfy the current demand in a region. Optimal capital stock minus actual capital stock equals the future investment needed to satisfy current demand.

¹⁴ It should be noted that region here refers to both Sylvania and Screven County.

¹⁵ The assumption in the REMI model is that the local regional fiscal structure is similar to the state average for local governments.

TABLE 11
Local Revenues at Adjusted State Average Rates (2004\$)

	2006	2010	2015	2020	2025
Federal Intergovernmental	\$ 88	\$ 2,028	\$ 5,249	\$ 6,535	\$ 6,944
State Intergovernmental	\$ 978	\$ 23,350	\$ 61,590	\$ 78,750	\$ 85,910
Property Tax	\$ 1,081	\$ 18,680	\$ 60,270	\$ 86,540	\$ 102,800
General Sales Tax	\$ 1,579	\$ 14,460	\$ 20,790	\$ 20,120	\$ 20,980
Motor Fuel Sales Tax	\$ -	\$ -	\$ -	\$ -	\$ -
Alcoholic Bev Sales Tax	\$ 84	\$ 825	\$ 1,034	\$ 896	\$ 844
Tobacco Sales Tax	\$ -	\$ -	\$ -	\$ -	\$ -
Public Utility Sales Tax	\$ 158	\$ 1,265	\$ 1,623	\$ 1,445	\$ 1,432
Other Sales Tax	\$ 236	\$ 2,159	\$ 3,103	\$ 3,003	\$ 3,131
Individual Income Tax	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate Income Tax	\$ -	\$ -	\$ -	\$ -	\$ -
Motor Vehicle License	\$ 0	\$ 2	\$ 2	\$ 2	\$ 3
Other Tax	\$ 170	\$ 1,867	\$ 2,814	\$ 2,910	\$ 3,075
Education Charges	\$ 121	\$ 1,330	\$ 2,005	\$ 2,073	\$ 2,191
Other Charges & Rev	\$ 3,672	\$ 40,420	\$ 60,920	\$ 63,000	\$ 66,570
Utility&Liquor Store Rev	\$ 1,635	\$ 18,000	\$ 27,120	\$ 28,050	\$ 29,640
Unemployment Comp.	\$ -	\$ -	\$ -	\$ -	\$ -
Employee Retirement	\$ 18	\$ 203	\$ 306	\$ 316	\$ 334
Total Revenues	\$ 9,820	\$ 124,588	\$ 246,826	\$ 293,641	\$ 323,854

TABLE 12
Local Expenditures at Adjusted State Average Rates (2004\$)

	2006	2010	2015	2020	2025
Insurance Trusts	\$ (9)	\$ (82)	\$ 31	\$ 116	\$ 148
Welfare	\$ (6)	\$ (52)	\$ 20	\$ 74	\$ 95
Higher Education	\$ 4	\$ 86	\$ 226	\$ 290	\$ 316
Intergovernmental	\$ 6	\$ 150	\$ 396	\$ 507	\$ 553
Interest on Debt	\$ 78	\$ 1,834	\$ 4,839	\$ 6,187	\$ 6,749
Transportation	\$ 132	\$ 3,085	\$ 8,138	\$ 10,410	\$ 11,350
Natural Resources, Parks, Housing	\$ 147	\$ 3,450	\$ 9,100	\$ 11,640	\$ 12,690
Sewerage, Solid Waste	\$ 173	\$ 4,050	\$ 10,680	\$ 13,660	\$ 14,900
Police, Fire, Correction	\$ 287	\$ 6,743	\$ 17,790	\$ 22,740	\$ 24,810
Administration & Unallocable	\$ 311	\$ 7,298	\$ 19,250	\$ 24,610	\$ 26,850
Health	\$ 419	\$ 9,818	\$ 25,900	\$ 33,110	\$ 36,120
Utilities, Transit	\$ 475	\$ 11,140	\$ 29,400	\$ 37,590	\$ 41,000
Elementary & Secondary Education; Libraries	\$ 1,392	\$ 32,670	\$ 86,170	\$ 110,200	\$ 120,200
Total Expenditures	\$ 3,408	\$ 80,190	\$ 211,941	\$ 271,133	\$ 295,781

Economic Impact: Sylvania and Screven

Tables 13 and 14 are the same impacts as shown above; however, the impacts shown below have been distributed geographically to the city and county. Moreover, the county estimates exclude the value/impacts occurring within the city.

Table 13 shows the employment impact by Sylvania and Screven. In 2006, Screven County is shown with a decrease in employment of 2 jobs. This is due to the immediate increase in demand for employment within the city for the retail trade sector. Overtime, as the labor force increase there will be less pressure/completion for employees. By

2015, Screven County is expected to increase employment by 10 jobs. This is due to the inter industry transactions between businesses within the city and the county.¹⁶

TABLE 13
Employment Impact By Sylvania and Screven

	Sylvania					Screven				
	2006	2010	2015	2020	2025	2006	2010	2015	2020	2025
Manufacturing	0	0	0	0	0	0	0	0	0	0
Non-Manufacturing										
Natural Resources, Mining, Utilities	1	3	4	2	2	0	0	0	0	0
Construction	0	0	0	0	0	0	3	3	2	2
Wholesale Trade	0	0	0	0	0	0	0	0	0	0
Retail Trade	3	5	6	5	5	-2	0	1	0	0
Information, Finance, and Real Estate	0	1	1	1	1	0	0	0	0	0
Transportation and Warehousing	0	0	0	0	0	0	0	0	0	0
Services	3	36	44	42	41	0	5	5	5	4
State & Local Government	0	1	2	3	3	0	0	1	1	1
*Total Employment	6	46	57	53	51	-2	8	10	8	7

* Numbers may not add up due to rounding.

Table 14 represents the estimated increase in population and labor force. The current trend within the Sylvania and Screven County is that 90% of new home construction is outside of Sylvania. Therefore, a majority of the projected future population and labor force is expected to come from outside of the city.

TABLE 14
Population and Labor Force by Sylvania and Screven

	Sylvania					Screven				
	2006	2010	2015	2020	2025	2006	2010	2015	2020	2025
Population	1	2	4	6	6	1	16	40	51	55
Labor Force	1	2	3	4	4	1	14	30	33	33

The proposed annexation project is expected to have a significant economic impact on both the county and city. Total employment is estimated to increase by 58 jobs and total output by \$2.6 million in 2025. Other noteworthy impacts include the following: total personal income increasing by \$3.97 million, total real disposable income increasing by about \$1.7 million, total population increasing by 61, and labor force increasing by 31.

¹⁶ The inter industry transactions refers to the induced and indirect economic effects.