The Economic Impact of Redeveloping The Bull Street Campus

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The Economic Impact Of Redeveloping The Bull Street Campus

INTRODUCTION

This report evaluates the economic impacts of the redevelopment of the Bull Street Campus in Columbia, South Carolina on the Columbia metropolitan economy. This analysis is intended to provide the Central Carolina Community Foundation (CCCF), the City and the State (Governor, Budget and Control Board and the Legislature) an estimate of the level of economic activity and jobs that will result from the redevelopment of the Bull Street Campus. These impacts are estimated to occur within the multi-county Columbia metropolitan area during the from the construction of the Bull Street campus as well as the on-going permanent economic impacts of the residents and commercial activity that is anticipated for the Bull Street project once the project is completed.

The CCCF was asked by the City and State of South Carolina to coordinate the redevelopment planning efforts. In January of 2005, CCCF retained the award winning planning firm, Duany Plater-Zyberk & Company (DPZ) to undertake an extensive community-based planning effort and develop a conceptual master plan for the Bull Street Campus. The DPZ plan incorporates a mixed-use development with approximately 1,300 dwelling units, over 500,000 square feet of commercial/office space and substantial re-use of many of the historic structures on the property. Details of the DPZ master plan may be seen on the CCCF's website at http://yourfoundation.org. Once the DPZ plan was completed, the CCCF asked Miley Gallo & Associates, LLC to conduct this economic impact analysis of the DPZ plan.

THE STUDY AREA

The economic impacts of the redevelopment of the Bull Street Campus will extend throughout the metropolitan Columbia area, the Central Midlands area and the entire state. However, the focus of this analysis is to estimate the impacts on the greater Columbia metropolitan area. For the purposes of this analysis, the study area is defined as the same counties that are in the Central South Carolina Alliance. This market area includes twelve counties in and surrounding metropolitan Columbia. Factors of production such as labor and materials freely flow between and across these county lines. Today's workforce is very mobile and many workers travel 25-50 miles to work everyday.

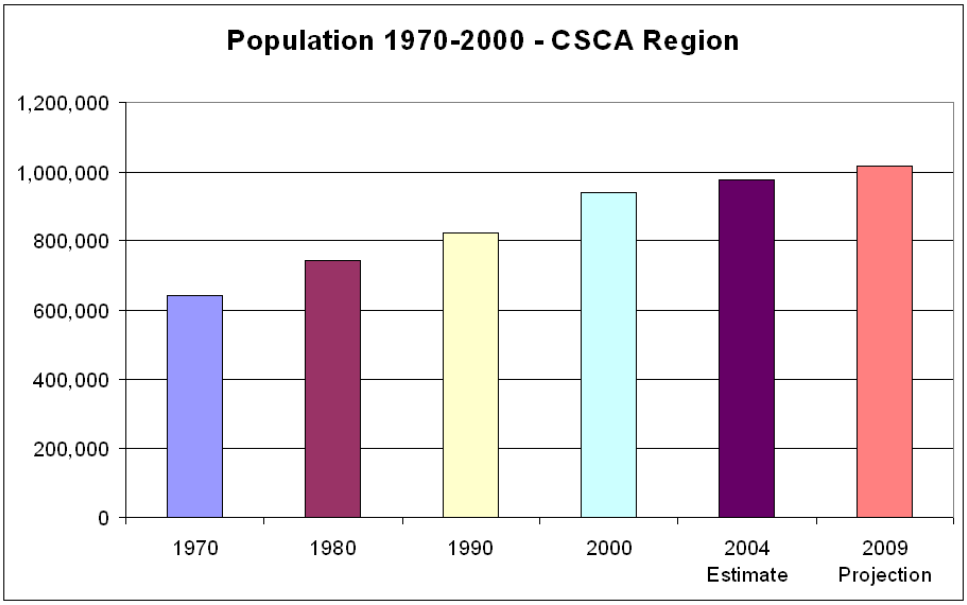
Therefore, the impacts analyzed in this study are evaluated on the counties included in the Central SC Alliance (except McCormick): Calhoun, Clarendon, Fairfield, Kershaw, Lee, Lexington, McCormick, Newberry, Orangeburg, Richland, Saluda and Sumter counties.

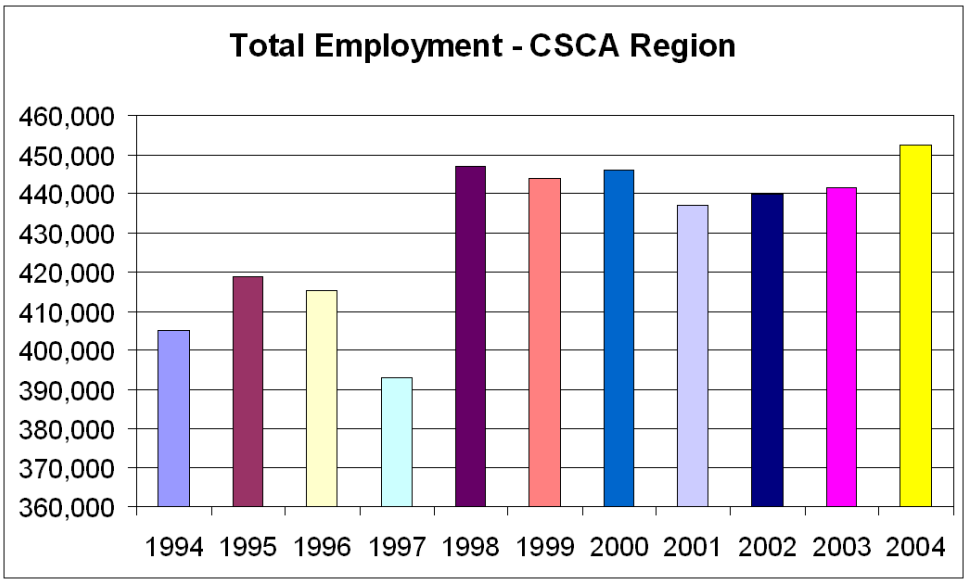
McCormick County was omitted due to the additional distance from the Bull Street Campus to the McCormick county line. It is reasonable to assume that a substantial portion of the economic impacts of the redevelopment of the Bull Street property will occur in these eleven counties. Figure 1 provides a map of the BullStreet Campus redevelopment impact area.

The builders and homeowners in the Bull Street Campus will purchase many of the inputs and resources necessary to build and live from within this eleven-county area. The greatest impacts would be from the jobs that would be created and filled by residents living in the area. In addition to labor inputs, the builders and residents would purchase raw materials such as electricity, food and beverage supplies, various services such as legal and accounting services, maintenance, miscellaneous supplies and transportation services. These eleven counties have experienced substantial growth during the last several decades.

Figure 1

While much of the surrounding areas are rural in nature, the area has become very attractive to people who work in the Central Midlands area. The area is relatively large in terms of square miles, comprising of about 7,100 square miles. The total population in the area in 2004 was a little over 750,000 people. Total employment in the eleven-county area was approximately 560,000 workers in 2004.





Source: Central South Carolina Alliance, 2005.

PROJECT DESCRIPTION – The DPZ Plan

A detailed master plan for the proposed redevelopment of the Bull Street campus has been developed by Duany Plater-Zyberk & Company. The impact analysis in this report assumes the pricing, number of dwelling units, buildout schedule and components as detailed in the DPZ's plan will be followed as closely as possible. The DPZ plan is a mixed use, compact community proposed for development by on the 178 acres of land in that is know as the Bull Street Campus. The development will be designed in conformance with the City of Columbia's proposed "Smart Code" zoning ordinances. The development site plan in Figure 2 on the following page shows the proposed project. More details of the DPZ master plan may be seen on the CCCF's website at http://yourfoundation.org.

The plan includes 1,243 residential dwelling units, including apartment/condominium units, townhomes and single-family homes of a variety of sizes and levels of affordability. In addition, the plan incorporates approximately 500,000 square feet of commercial and office areas and a 160-room hotel. In addition, the plan includes a church; recreational spaces; hiking and biking trails; community facilities; major off-site roadway improvements; and over 25% of the site in preserved and improved open spaces.

Figure 2

It is estimated that there will be an average of 150 to 200 dwelling units built on the campus per year. It is assumed that it will take about eight years to sell and build all the dwelling units and the commercial properties.

The following table outlines the proposed investment schedule for the redevelopment of the Bull Street Campus. As the project nears start-up, the exact number, pricing and timing of this preliminary buildout may vary.

Table 1

Bull Street Campus
Investment Buildout Schedule

(Millions of Constant Dollars)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Residential	$ 0.0	$ 0.0	$ 94.3	$ 60.5	$36.2	$ 36.2	$19.2	$ 5.9	$ 5.9	$ 5.9	$ 263.0
Commercial/Office	$ 0.0	$ 0.0	$ 39.0	$ 61.3	$ 23.0	$ 1.2	$ 1.2	$ 0.0	$ 0.0	$ 0.0	$ 125.7
Infrastructure	$ 5.0	$ 5.0	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 10.0
Public Parks, etc	$ 2.0	$ 2.0	$ 2.0	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ 6.0
Totals	$ 7.0	$ 7.0	$135.3	$123.8	$ 61.2	$ 37.4	$19.2	$ 5.9	$ 5.9	$ 5.9	$ 404.7

Source: Central Carolina Community Foundation, DPZ Master Plan and Miley Gallo & Associates, LLC.

ECONOMIC IMPACTS OF THE REDEVELOPMENT OF BULL STREET

The redevelopment of the Bull Street Campus will have impacts on the greater Columbia metropolitan economy in two phases. The initial impacts would occur during the construction of the homes and commercial properties. Once the homes and commercial construction are completed, the permanent residents living and working in campus would have additional impacts on an ongoing basis on the local economy.

The economic impacts from the construction of the Bull Street redevelopment are outlined in this section of the report. This analysis utilizes impact models generated by the IMPLAN modeling system.[1] IMPLAN is a nationally recognized system of local economic models that are specifically designed to represent a local economy such as the Columbia metropolitan area. The IMPLAN models are modifications of the national input-output models developed by the Bureau of Economic Analysis, US Department of Commerce. The IMPLAN models incorporate the most recent data available and are generally 2002 unless otherwise noted.[2] The methodology and assumptions underlying these estimates and those in the following section are provided in the published report. The estimates are based on constant dollars and assume no inflation during the project's buildout. This assumption applies to all estimates in this analysis, including: property values, incomes, sales, construction materials, etc. The assumption of constant dollars provides a more accurate analysis of the impacts since both revenues and costs would increase at relatively even rates throughout the buildout period.

Construction Phase

The construction of the homes, commercial facilities, recreational facilities and all related construction involved in redeveloping the Bull Street Campus would have substantial impacts on the central midlands economy. These impacts would be relatively long-term since the construction of all homes and related amenities is assumed to take approximately eight years.

The construction phase of the development would result in a direct investment of approximately $404.7 million at the time of the project's completion. This investment is outlined in Table 1 above. This includes approximately $263.0 million in residential construction, $125.7 million in commercial/office construction and approximately $16.0 in infrastructure and public space construction). However, this investment is not expected to occur

[1] IMPLAN is regional modeling system developed by MIG, Inc., Stillwaterm, MN.

[2] The latest data available for the IMPLAN modeling system are for the 2002 calendar year. However, the final dollar impacts estimated in this analysis reflect 2005 prices.

all at once. It is assumed in this analysis that the project will take eight years from the initial groundbreaking to the completion of all components of the redevelopment. Given this phasing of the construction activity, the impacts from the construction will not be uniform throughout the project period.
The annual impacts will vary according to the level of annual construction investment. As seen in the following table, the impacts range from a minimum to a maximum level. The output, employment and income impacts outlined in this section are presented with this range of impacts.

As the construction dollars are spent and re-spent in the eleven-county area, it creates additional income for those companies and individuals that supply goods and services to the construction of the homes and commercial/office space. The recipients of this income will spend it on other goods and services. Each time, some of the purchases will be for goods and services inside the counties and some are on goods and services from outside the area. This is the well known "multiplier effect".

The multipliers used in this analysis estimate three components of total change within the local area:

- *Direct effects* represent the initial change in the industry in question.
- *Indirect effects* are changes in inter-industry transactions as supplying industries respond to increased demands from the directly affected industries.
- *Induced effects* reflect changes in local spending that result from income changes in the directly and indirectly affected industry sectors.

This cycle of spending continues until leakages from the region (spending on goods and services outside the area) stop the cycle. Due to the ripple effects of the multiplier, the initial, direct investment of results in an indirect impact of many more dollars.

As seen in the following table, the third year of the project is expected to represent the largest single year activity. The compounding effects of the multiplier cause the initial direct investment of $135.3 million to result in an indirect impact of $89.4 million for at total increase of in the output of $225 million in total output in the eleven-county area. The last three years of the project are expected to represent the smallest single years of activity. The compounding effects of the multiplier cause the initial direct investment of $5.9 million to result in an indirect impact of $3.8 million for at total increase of in the output of $9.8 million in total output in the eleven-county area.

Table 2

Employment Impacts from Construction

	Highest Year	Lowest Year
Direct Impacts	1,505	46
Indirect Impacts	557	29
Induced Impacts	540	19
Total Impacts	**2,601**	**94**

Output Impacts from Construction

	Highest Year	Lowest Year
Direct Impacts	$ 135,000,000	$ 5,900,000
Indirect Impacts	$ 45,632,985	$ 2,336,136
Induced Impacts	$ 43,793,865	$ 1,548,056
Total Impacts	**$ 224,926,850**	**$ 9,784,192**

Labor Income from Construction

	Highest Year	Lowest Year
Direct Impacts	$ 51,208,390	$ 1,569,952
Indirect Impacts	$ 17,911,928	$ 877,256
Induced Impacts	$ 14,246,141	$ 503,583
Total Impacts	**$ 83,366,459**	**$ 2,950,791**

It is estimated that there would be up to as many as 1,505 new jobs created directly in the greater Columbia area from the construction activity in the most active year. In addition to these direct jobs, another 997 jobs would be created as an indirect effect of the construction activity for a total of 2,601 new jobs in the Columbia metropolitan area during the year three. The job creation would decline as the project gets closer to completion with the smallest impacts occurring in the last three years. In the last three years, construction activity would only generate 46 jobs directly and another 48 indirectly for a total of 94 jobs.

Labor income generated from the redevelopment would also vary by year. As seen in Table 1, the third year of the project is expected to represent the largest single year activity. The compounding effects of the multiplier cause the initial direct investment of $135.3 million to result in an direct impact on labor income of over $51 million dollars. This would be multiplied throughout the region and result in an indirect impact of $32.1

million in labor income for at total increase of in labor income in the region of $83.4 million. As stated above, the last three years of the project are expected to represent the smallest single years of activity. The compounding effects of the multiplier cause the initial direct investment of $5.9 million in those years to result in an direct impact of $1.6 million in labor income and an indirect impact of $1.3 million for at total increase of in labor income of $2.9 million in the eleven-county area.

Impacts from Permanent Bull Street Residents

In addition to the impacts from the residential and commercial construction activity, once the project is fully developed, the eleven-county area would experience substantial impacts from economic activity generated by the residents and employees in the Bull Street Campus. The economic impacts of the redevelopment of the Bull Street Campus estimated in this study are based on the projected total income of the 1,243 households living in the Bull Street campus. Once completed, Bull Street will represent more than $405 million in new capital investment and tax base in the area.

The total personal income of the residents is estimated based on the projected housing

Table 3

Proposed Housing Values	Estimated Household Income	Total Personal Income
$675,000	$279,000	$ 13.7 mil
$450,000	$186,000	$ 2.8 mil
$325,000	$134,000	$ 16.4 mil
$300,000	$124,000	$ 6.9 mil
$250,000	$103,000	$ 8.3 mil
$160,000	$ 66,000	$ 23.9 mil
$125,000	$ 52,000	$ 1.7 mil
$118,000	$ 49,000	$ 3.3 mil
$108,000	$ 45,000	$ 14.2 mil
		$109.0 mil

values and the housing value/household income multiple of 2.4.[3] Table 3 shows the estimates of total personal income of the Bull Street residents. The midpoint of the housing values and the estimated income based on the housing multiple are shown.

It is estimated that the 1,243 households living in the Bull Street Campus would earn approximately $109 million in total personal income at the time of the development's

[3] Based on the average household income and average housing value in Lexington and Richland Counties. Source: 2000 Census, US Department of Commerce.

buildout. Using the IMPLAN Modeling system, it is estimated that the residents and economic activity located on the Campus would result in an increase in direct annual output in the eleven-county of over $109.0 million. This direct impact would then have an indirect impact of $30 million for a total of over $138 million on the 11-county area. Based on this increase in output, it is estimated that there would be an additional 823 jobs created from the direct spending of the residents in the Bull Street Campus.

In addition, there would be 338 indirect jobs generated by the residents spending for a total of 1,161 permanent jobs created as a result of the redevelopment of the Bull Street Campus in the eleven county metropolitan area. These impacts would begin to occur within a year or so of residents moving into Bull Street and continue to grow in magnitude until the project is completed. And finally, there would be over $30 million of direct and indirect impacts on the labor income of the 11-county area.

Local Property Taxes

The redevelopment of the Bull Street Campus will also generate substantial local property taxes and sales taxes. It is estimated that at buildout, the project will generate approximately $9.5 million in local property taxes.[4] These would be generated for the various local governments as indicated in the table below:

	Estimated Annual Tax Revenues at Buildout
City of Columbia	$ 2.0 Million/year
Richland County	$ 1.7 Million/year
Richland School District #1	
Operating	$ 4.7 Million/year
Debt Service	$ 1.1 Million/year
Total Local Tax Revenues	$ 9.5 Million/year

These tax revenue estimates are based on the total buildout as outlined in Table 1 and assume the millage rates that exist in 2005 are constant over the buildout period. It is assumed that all commercial, office and retail improvements and all multi-family dwelling units would be assessed at 6% as well as 50% of the single-family dwelling units. The remaining 50% of the single-family dwelling units are assumed to be owner-occupied and assessed 4%. These 4% assessed units are also assumed to take advantage of the Property

[4] Millage rates are assumed to be: City of Columbia (92.0 Mils), Richland County (80.0 mils), Richland School District 1 operating (218.1 mils) and Richland School District 1 debt service (49.5 mils).

Tax Relief Act which exempts the first $100,000 of market value from school operating millage.

Included in the estimated 9.5 million in annual property taxes, City of Columbia and Richland County property taxes will also be collected from the vehicles owned by the 1,243 households in the redeveloped Bull Street Campus. Based on the average assessed value of $591 per vehicle and the average of 1.67 vehicles owned by the average household in Richland County, the vehicles owned by the residents in Bull Street would generate approximately $500,000 a year in local property taxes by the time the project is built out.

South Carolina Income and Sales Taxes

In addition to the property taxes that will be paid by the property owners located in the Bull Street Campus, the economic activity that will occur on the Campus will generate substantial taxes for state government. These taxes will be primarily from sales and income taxes. The following estimates are based on the levels of occupancy and economic activity at the project's buildout (estimated to be ten years from the time the project is started).

It is estimated that at buildout, South Carolina state sales and income taxes would increase by over $8.0 million a year due to the redevelopment of the Bull Street Campus. This estimate is based on conservative estimates of income taxes and taxable sales. It is assumed that the average income tax rate for those households living in the Bull Street Campus will be 5% of gross income. The state would realize an increase of approximately $5.4 million in personal income taxes from the new residents in development.

It is estimated that 50% of personal income is spent on items that are taxable in South Carolina.[5] Based on a sales tax rate of 5%, the new residents would generate approxi-

Total State Sales and Income Taxes	
SC Income Taxes	$5.4 million per year
SC Sales Taxes	$2.7 million per year
Total SC Taxes	$8.1 million per year

[5] South Carolina Board of Economic Advisors Cost Benefit Model, SC Board of Economic Advisors

mately $2.7 million a year in new sales taxes at the project's buildout.

The sales activities would also generate approximately $543,000 in LOST sales tax revenues for Richland County. However, these revenues are used to offset property taxes and are not considered in this analysis as "additional" tax revenue.

Table 3

Summary of Permanent Economic Impacts

	Direct	Indirect	Total
Output	$ 108.7 M	$ 30.0 M	$ 138.0 M
New Jobs	823	338	1,161
Labor Income	$ 20.8 M	$ 9.5 M	$ 30.3 M
Local Property Taxes	NA	NA	$ 9.5M/year
State Sales and Income Taxes	NA	NA	$ 8.1M/year

SUMMARY

As outlined in the analysis above, it is clear that the redevelopment of the Bull Street Campus will have a positive impact on the greater Columbia metropolitan economy. These benefits will be generated from both the construction phase and the permanent on-going phase of the redevelopment project. If the property is developed as outlined in the DPZ plan and successfully implemented within a six to ten year buildout, the impacts as outlined in this analysis can be reasonably expected to be realized in the greater metropolitan area of Columbia.

An additional benefit from the proposed redevelopment of the Bull Street Campus is that many of the additional costs on to the City, Richland County and Richland #1 School District that result from new residential development would most likely be relatively modest. Since the project is located in a well-established area within the City, most of the infrastructure -- such as water and sewer capacity, connecting traffic arteries and school capacity -- already exists to serve the area. Most importantly, there is (or will be once the current capital improvements are made in the system) existing capacity in the school system to serve new children living in the area – and these costs typically represent about two-thirds of the costs on new residential development. Although it is beyond the scope of this report to quantify the value of this benefit, the cost savings from the existing infrastructure would certainly accrue to the City, Richland County and Richland #1 School District.

The following summary of economic impacts during the construction phase as well as the long-term, permanent phase of the redevelopment of the Bull Street Campus clearly shows the positive economic impacts of the proposed development on the area.

Table 4

Summary of Economic Impacts

	Maximum during Construction Phase	Permanent Phase
Output	$ 224.9 Million	$ 138.0 Million
New Jobs	2,600	1,161
Labor Income	$ 83.4 Million	$ 30.0 Million
Capital Investment	$ 135.0 Million	$ 405.0 Million
Local Property Taxes	NA	$ 9.5 M/year
State Sales and Income Taxes	NA	$ 8.1 M/year

Appendix 1

METHODOLOGY

The economic impacts of the redevelopment of the Bull Street Campus will extend throughout the metropolitan Columbia area, the Central Midlands area and the entire state. However, the focus of this analysis is to estimate the impacts on the greater Columbia metropolitan area. For the purposes of this analysis, the study area is defined as the same counties that are in the Central South Carolina Alliance. This market area includes twelve counties in and surrounding metropolitan Columbia. Factors of production such as labor and materials freely flow between and across these county lines. Today's workforce is very mobile and many workers travel 25-50 miles to work everyday.

Therefore, the impacts analyzed in this study are evaluated on the counties included in the Central SC Alliance (except McCormick): Calhoun, Clarendon, Fairfield, Kershaw, Lee, Lexington, McCormick, Newberry, Orangeburg, Richland, Saluda and Sumter counties. McCormick County was omitted due to the additional distance from the Bull Street Campus to the McCormick county line. It is reasonable to assume that a substantial portion of the economic impacts of the redevelopment of the Bull Street property will occur in these eleven counties. Figure 1 provides a map of the Bull Street Campus redevelopment impact area.

The methodology used in this study is the IMPLAN regional input-output modeling system developed by MIG, Inc. of Stillwater, Minnesota. IMPLAN was developed by MIG, Inc. as a cost-effective means to develop regional input-output models. The IMPLAN accounts closely follow the accounting conventions used in the "Input-Output Study of the US Economy" by the Bureau of Economic Analysis (1980) and the rectangular format recommended by the United Nations.[1]

The IMPLAN Input-Output Model mathematically describes commodity flows from producers to intermediate and final consumers. Purchases for final use (final demand) drive the model. Industries producing goods and services for final demand purchase goods and services from other producers. These other producers, in turn, purchase goods and services. This buying of goods and services (indirect purchases) continues until leakages from the region stop the cycle.

[1] The IMPLAN Input-Output System, MIG, Inc. 1997, p. 1.

The IMPLAN input-output model mathematically derives these indirect and induced effects. The resulting multipliers describe the change in output for each and every regional industry caused by a one-dollar change in final demand for any given industry. The notion of a multiplier rests upon the difference between the initial effect of a change in final demand and the total effects of that change. Total effects are the direct effects plus indirect effects, plus induced effects. Direct effects are the production changes associated with the immediate final demand changes. Indirect effects are production changes in backward-linked industries caused by the changing input needs of directly effected industries. Induced effects are those resulting from the household expenditures from new labor income.

The multipliers used in this analysis estimate three components of total change within the local area:

- *Direct effects* represent the initial change in the industry in question.
- *Indirect effects* are changes in inter-industry transactions as supplying industries respond to increased demands from the directly affected industries.
- *Induced effects* reflect changes in local spending that result from income changes in the directly and indirectly affected industry sectors.

In essence, the multipliers estimated by this methodology represent the chain-reaction, ripple effect in an economy that a new dollar of economic activity would produce. To produce a dollar of new product, employees must be hired and paid. The wages paid to these workers would then be spent by them on goods and services, such as food, gasoline, clothes, housing, etc. within the region and outside the region. When they spend these dollars, those dollars become income to the recipient and the spending continues over and over again.

The economic activity of the project also requires intermediate inputs to be purchased such as electricity, raw materials, transportation services, etc. These expenditures would also become income to the recipient. These dollars are paid out by the receiving company in the form of purchases for raw materials, wages for labor, etc. They in turn are then spent over and over again in the economy. When purchases are made from outside the

region they are considered "leakages" from the economy. The chain-reaction buying of goods and services continues until these leakages from the region stop the cycle.

The multipliers calculated in the methodology used in this study can be used to estimate the change in regional output in the eleven-county area from the redevelopment construction activity and the impact of the residents living within the redeveloped campus.

MILEY, GALLO & ASSOCIATES, LLC

Miley, Gallo & Associates is one of the Southeast's leading economic and financial consulting firms. The firm specializes in economic impact analyses, fiscal impact analyses, feasibility reports, impact fee studies and benefit/cost modeling. Our clients include national and prominent local real estate developers, school districts, local governments, regional development agencies, and other private sector development firms. Miley, Gallo & Associates partners appear regularly before decision-makers at all levels of government and understand the values, needs and desires of the communities they represent. With offices located in Research Triangle Park, North Carolina and Columbia, South Carolina, the firm is well positioned to provide clients with hands-on service for projects throughout the entire Southeast region.

Miley, Gallo & Associates appreciates that every proposed development is unique and deserves a custom solution. Land use decisions are not made overnight, and we excel at providing advice and counsel along the way. We represent our clients. Our business plan is simple: we focus on exceeding our client's expectations and building long-term relationships.

The roots of Miley, Gallo & Associates, LLC can be traced to 1993 when Harry W. Miley, Jr. Ph. D. founded Miley & Associates, Inc. After several years of successful client collaborations, Lucy L. Gallo, CPA and Dr. Harry Miley decided to leverage the depth of their experience in the accounting, finance and economic aspects of real estate transactions to form Miley, Gallo & Associates, LLC. The Company is an economic and financial consulting firm providing a range of analytical services to public and private sector clients. Miley, Gallo & Associates conducts fiscal and economic impact analyses of proposed new developments and has extensive experience in assisting clients with their economic development and community revitalization projects.