

Regional Dynamics & Economic Modeling Laboratory

The Strom Thurmond Institute of Government & Public Affairs



REGIONAL DYNAMICS & ECONOMIC MODELING LABORATORY

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THE IMPACT OF THE CITADEL on Charleston County, the Trident, and the Remainder of South Carolina

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Executive Summary

The Citadel Military College, located in Charleston, South Carolina, has played a central role in the history of that city since its founding in 1842. This study examines the role that the college plays in the city's economy.

Between the years 2006 and 2010, the Citadel employed an average of 1,013 faculty and staff, and spent an inflation-adjusted average of \$53.4 million per year in normal operating expenditures, including wages and scholarships. The college also spent an average of \$15.4 million in capital expenditures during that period. The college furthermore attracted a total in excess of 205,000 visitors to Charleston over those years. Consumer spending by the Citadel's 3,300 students was also examined in estimating the impact of the college, taking into account the fact that members of the Citadel's Corps of Cadets can be expected to spend less than students at other colleges and universities due to the rigid lifestyle that they are required to maintain.

Using the Input-Output (I/O) function of the Regional Dynamics modeling engine, the Regional Dynamics & Economic Modeling Laboratory at the Strom Thurmond Institute, Clemson University estimated the impact that the above had on Charleston County, the Trident region, and the remainder of South Carolina during the years 2006 through 2010. The findings indicate that, on average, every ten staff or faculty members employed by the Citadel generate approximately six additional jobs in Charleston County, including impacts from students, and visitors. The total impact on employment statewide from the Citadel and associated economic activity was 2,565 jobs, including those employed by the Citadel and all "spillover" effects. Furthermore, every dollar spent by the college on operational expenses generates an estimated \$1.05 in additional output of goods and services for the county, including impacts from capital expenditures and spending by students and visitors. The average total impact on output (the dollar value of all goods and services produced) statewide was estimated to be over \$184 million per year during the study period.

The economic impacts spawned from economic activity associated with the Citadel also impacts state and local government revenues. Local (county and municipal) governments in Charleston County netted an average positive impact of approximately \$5.7 million per year, while the state government, through economic impacts diffusing throughout the state, netted an estimated average of \$17.6 million per year.

These impacts are only those associated with Citadel operational and capital spending, as well as the economic activity attributable to students and visitors during the study period. These estimates do not include additional impacts that the Citadel can be expected to have on the region through amenity values and through the production of better educated members of society.

I. Introduction

II. Model and Assumptions

The Citadel Military College of South Carolina was founded in 1842 in Charleston and has played a central role in the history of that city since . The college’s current campus is located in the northwestern quadrant of the city peninsula. This study estimates the economic and fiscal impact that the Citadel had on Charleston County and the remainder of the Charleston Metropolitan Statistical Area (MSA), also known as the “Trident” region, and the remainder of South Carolina between the years 2006 and 2010. The Charleston MSA is a region with a 2010 population of 664,607, and includes Berkeley, Dorchester, and Charleston counties, South Carolina.

This analysis examines the operational impact of the college as well as the impact of economic activity associated with students and attendees of special events at the college. Note that this analysis does not assess the amenity, or quality of life, value that the Citadel clearly brings to the region as a result of the attractiveness and historicity of the campus. Such amenities are important factors in drawing residents and business to an area, but these impacts are often difficult to quantify. Likewise, any institute of higher learning gener-

In estimating the impact of operations, capital investment, and other economic activity associated with the Citadel, the Regional Dynamics & Economic Modeling Laboratory utilized the input-output (I/O) function of the Regional Dynamics (REDYN) modeling engine. REDYN is currently the largest computer model of the United States economy ever built. The model utilizes the most current data available (currently 7.6 terabytes) in order to forecast a baseline level of activity within over 800 Standard Occupation Classification (SOC) and 703 North American Industry Classification System (NAICS) sectors. It also considers distance-to-market and transportation costs in determining the supply and demand of commodities across geographic regions. Changes to employment, income, or demand for products or services by either the private or the public sector can be inputted to the model. Based on these inputs, the model generates a county level estimate of the resultant variation from the projected baseline, as well as the effects on every industry.

The purpose of this study is to determine the impact of the Citadel on the regional economy. Since the object

**Table 1 – Citadel Operations Data
Charleston County**

Concept	2006	2007	2008	2009	2010
Employees (Faculty & Staff)	1,004	1,011	1,020	1,051	978
Wages & Salaries (\$1000)*	\$44,647	45,279	47,265	48,803	48,587
Total Expenditures, excl. capital & wages (\$1000)	\$33,706	35,564	35,447	34,440	33,343
Capital Expenditures (\$1000)	\$25,148	14,266	18,235	11,567	7,922

* Including fringes. All dollar amounts discounted to 2010 dollars.

ates benefits to the community through the production of skilled workers and potential community leaders. The value generated by these benefits can be understood to be over and above the impacts reported in the following.

of study already exists within Charleston County, the methodology employed was to estimate the impact of hypothetically removing the college and all associated economic activity from the economy. Table 1 reports historical employment and expenditures, adjusted for inflation, associated with Citadel operations that were input to the model. Table 2 reports student enrollment

by year and place of residence and the number of visitors to the college for special events. In order to isolate the impact of each specific item, separate I/O models were run for Citadel operations (employees,

Charleston as published by the United States General Services Administration).

Visitors from outside of the Trident region and the

Concept	2006	2007	2008	2009	2010
Total Student Enrollment	3,302	3,283	3,313	3,337	3,402
...Students from Charleston County	755	790	781	808	648
...Students from Berkeley & Dorchester Counties	332	318	334	361	302
...Students from Remainder of South Carolina	996	919	935	887	1,194
...Students from South Carolina, Total	2,083	2,027	2,050	2,056	2,144
...Students from Out of State	1,219	1,256	1,263	1,281	1,258
Total Visitors	35,196	35,642	41,101	42,311	51,537

wages, and normal operating expenditures), capital spending (structures and equipment), visitor spending, and student spending. I/O models are linear in nature; therefore these four models can be added to provide an estimate of the college’s total impact on the region.

Visitor Spending. Because there is no precise data on the point of origin for visitors to the college, assumptions had to be made. For purposes of this model, visitors were assumed to originate from the individual counties within the Trident region, the remainder of the state, and outside of South Carolina in the same proportions as those reported for enrolled students in each year. Only spending by visitors assumed to originate from outside of Charleston County was included in the model, as it may be assumed that Charleston residents would be spending their incomes within the county independent of their attendance of Citadel events.

Visitors from Berkeley and Dorchester counties, given their proximity to Charleston, are assumed to only stay for the day, consuming lunch and dinner in Charleston County, plus incidentals (spending on meals and incidentals are based on the federal per diem rates for

state are conservatively assumed to remain in Charleston for two days and one night, consuming lunch and dinner on the first day and breakfast and lunch on the second day. Expenditures on lodging are based on the median of room rates for hotels within a two-mile radius of the Citadel’s campus (\$169 per night), with two persons assumed per room.

Student Spending. The student population at the Citadel, known as the Corps of Cadets, is very different from that at other colleges and universities; cadets are not at liberty to come and go from campus at will as at other institutions. Also, tuition and fees at the Citadel are much more inclusive than at other institutions; fees include uniforms, dining, and so forth. Students do often purchase additional uniforms with their own money, however, and from time to time they are allowed off campus, during which time they do spend their incomes in the local economy. The Citadel estimates this amounts to \$6,000 to \$8,000 per student per year. In the interest of conservatism, the lower of these numbers was used in the model.

An additional consideration in modeling student spending is the treatment of “local” students, that is,

students who already reside in Charleston or the remainder of the Trident region. In order to establish a confidence interval for student impacts, student spending impacts were modeled under two sets of assumptions.

First, as discussed regarding attendees at Citadel events who already live in Charleston, it may be assumed that local students will consume goods and services in the local economy independent of their enrollment at the college. Therefore, in this model, any students who are residents of the Trident region are excluded; also in this model, spending by cadets who are residents of South Carolina is excluded in any impacts reported for the remainder of South Carolina. This model is very conservative, because some segment of local students attending the Citadel would have left the Trident region to attend other institutions had they not applied to or been accepted at the Citadel. This provides the lower boundary of the confidence interval.

the lower of these two numbers shall be reported, again in the interest of conservatism. The estimates for the second, more liberal model are reported in the Appendix.

Note that Citadel expenditures on scholarships are included as a portion of operational expenditures. These expenditures are modeled as additions to household disposable income, and are assumed to be distributed among the Trident counties and the remainder of the state in the same proportions as those reported for enrolled students in each year.

III. Results

The results reported for Charleston County in Table 3 and 4, and for the entire study region in the Appendix include all direct, indirect, and induced effects. Direct impact is the jobs, income, and output directly attributable to the Citadel itself; in this case, direct impact consists of the faculty and staff employed by the Citadel, their wage income, and the value of their

Concept	2006	2007	2008	2009	2010
Employees (Faculty & Staff)	1,582	1,561	1,599	1,624	1,575
Output (\$1000)*	\$106,923	107,539	111,501	110,883	110,554
Disposable Income (\$1000)	\$49,942	49,571	52,135	53,150	53,277
Net Local Fiscal Impact (\$1000)	\$5,987	5,698	5,434	5,573	5,662

* All dollar amounts discounted to 2010 dollars.

A second approach to modeling spending by cadets is to assume that, had these students not enrolled at the Citadel, all of them would have enrolled at other institutions outside of the Trident region, or possibly outside of South Carolina. Therefore, these students may be assumed to have been retained for the state and region by the Citadel. This is an extremely optimistic assumption, as many students, had they not enrolled at the Citadel, may have enrolled at one of the other colleges within the Trident region, or may have chosen not to attend college. However, this assumption provides the upper boundary of the confidence interval. In the results tables presented in subsequent sections,

“output”. Indirect effects are the jobs, income, and output generated as the Citadel purchases goods and services from its suppliers. Induced effects are the “ripples” of economic activity that expand into the broader economy as employees of the Citadel and its suppliers spend their wages on goods and services, which spurs further job creation in the region.

The metrics used in reporting impacts are employment, output, disposable income, and net state and local fiscal impact, relative to the baseline (the estimate of what the regional economy would look like with no change other than normal economic growth). Em-

ployment is the number of jobs generated in the region (each county, the Trident, or the state) in each year by the Citadel, including direct, indirect, and induced employment. Output is the dollar value of all goods and services produced within the region; this metric is broader than, but roughly equivalent to, regional gross domestic product (GDP). Disposable income is aggregated after-tax income for all households in the region; disposable income is primarily wage-driven, but also includes income from dividends, interest, and rent. Finally, net fiscal impact is the revenue generated by the Citadel and associated economic activity to state and local government, which includes county and municipal governments, from all sources, net of expenses.

Employment

The Citadel employed an average of 1,013 faculty and staff between the years 2006 and 2010. The estimated impact on employment from Citadel operations was an average of 1,415, yielding an employment multiplier (the ratio of total to direct impact) of **1.40**. In other words, every ten employees hired by the Citadel generates on average four additional jobs in the county through indirect and induced effects. The total estimated impact on employment for Charleston County, including operations, capital expenditures, and student and visitor spending, averaged 1,588 over that period. This indicates an estimated multiplier for the broader measure of impact of **1.57**.

Output

The Citadel's total output, here quantified as total operational expenditures, averaged \$53.4 million per year over the study period. The average annual impact to the county from Citadel operations only was \$98.4 million during this time, indicating an estimated output multiplier for operational impact of **1.84**. This means that every dollar spent by the Citadel in its normal operations generates an additional 84 cents of output in the broader county economy. Total estimated impact on output for the county, including capital and visitor and student spending, averaged \$109.5 million per year, indicating a multiplier of approximately **2.05**.

Disposable Income

Households in Charleston County, on average, see a positive impact on their disposable incomes due to the wages paid by the Citadel and its suppliers, as well as income generated through “spillover” economic activity.

Local Fiscal Impact

Local (county and municipal) government revenues are generated largely through taxes on property, which increases in value due to higher demand associated with improved commerce, local sales taxes, and an increase in licenses and fees associated with the creation of new business. Intergovernmental transfers from federal and state sources, largely associated with the increased demand on public education associated with population increases tied to economic development, also contribute to increases in revenue. However, there are costs as well: increased demand on water and sewer infrastructure, greater traffic flows requiring more frequent highway repair or even construction of new or widening of existing roadways, increased demand for public safety officers, and, again, an increase in demand for public education. The jobs and commerce generated by the Citadel in the region, however, create more revenue for county and municipal governments than costs due to the income generated and the breadth of the impact on commerce.

In estimating local fiscal impact, inputs to the model were adjusted to take into account the property tax revenues foregone by local governments due to the land occupied by the Citadel being state-owned and therefore tax-exempt. In order to account for this, the property tax paid by parcels, primarily residential, selected on a semi-random basis, surrounding the campus was obtained from the Charleston County public access website for the years 2006 through 2010. These tax bills were averaged for each year and multiplied by an estimate of the number of parcels that would occupy the approximately 131 non-marsh acres held by the college. The result was subtracted from the baseline for local government output and also subtracted from the estimated impact on local government revenue generated by the model. The number reported

Concept	2006	2007	2008	2009	2010
Net Government Revenue	\$19,496	17,278	17,115	17,180	17,035

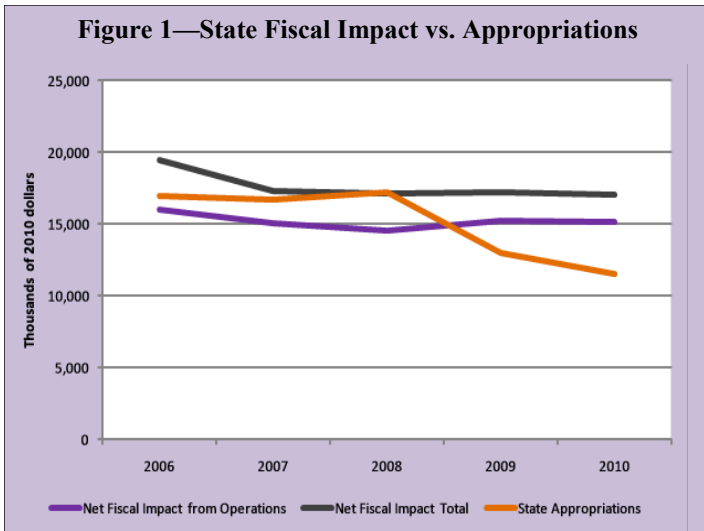
in Table 3 and in the Appendix tables are net of this amount. It should be noted that property values in the area surrounding the Citadel would likely be much lower if the campus, which provides an amenity value to surrounding properties, were not present. As such, the model is rather conservative in that it likely overestimates these foregone property tax revenues.

except 2008, the total impact to state net revenues from the Citadel was greater than the funding appropriated to it by the state.

Population

In addition to economic and fiscal impacts, the model uses predicted changes in disposable income to estimate the net change in population to the county, region, and state attributable to economic activity associated with the Citadel. The model approximates that a total of 415 residents live in Charleston County due to the direct, indirect, and induced impacts from the Citadel and its students and visitors. Population impact estimates for all model regions are presented in the Appendix.

In Table 4, the number of residents attributed to these economic impacts can be seen to gradually increase over the three-year period between 2006 and 2008; this is due to the way in which the model was constructed, in essence hypothetically removing the Citadel from the region. The model assumes that population responses to such changes in the economy will occur gradually, due to the costs involved in relocating, which presents in the results as a low population



State Fiscal Impact

Citadel operations, capital spending, and its associated economic activities impact state government revenues and expenditures as well. These revenues are generated through income taxes, sales taxes collected through consumer spending associated with induced effects, as well as intergovernmental transfers. Impacts on state government expenditures are, again, largely tied to public education. Not including state appropriations for the Citadel, the college’s impact on state revenues are much larger than its impact on expenditures, for a net positive fiscal impact. The estimated impact on net revenue is presented in Table 4; detailed impacts on gross revenues are reported in the Appendix. The net fiscal impact for the Citadel is compared to state appropriations for the college in Figure 1, where it can be observed that, in every year

Concept	2006	2007	2008	2009	2010
Persons	143	279	415	414	415

impact in the first year building to a larger one by the third year.

It should be noted that these impacts do not include the portion of the population that might live in the area due to the amenity values provided by the Citadel, such as individuals drawn by the college’s sports programs or those who choose to live in the region as a result of having graduated from the Citadel.

Broader Impacts

Charleston County, with a 2010 population of 350,209, is the most populous and urbanized county in the Trident region. The county also contains the City of Charleston, which is the central city of the Trident region. For that reason, in addition to the Citadel's physical location in Charleston, the largest share of the economic and fiscal impacts from the college is predicted to be realized by Charleston County. However, the impacts are by no means limited to Charleston. Some workers who are employed in Charleston, including at the Citadel, reside in Berkeley and Dorchester and other surrounding counties, and commerce resulting from indirect and induced effects from the Citadel flows across county lines into the remainder of the state, as well as into other states. The impact of the Citadel on the economy and on local governments in the Trident region and the remainder of South Carolina is reported for each model in the Appendix.

IV. Conclusion

The impact that the college has on Charleston County, the Trident, and the state of South Carolina as both an engine and a catalyst of economic activity has been estimated by this study. These estimates should be taken as non-inclusive of the college's historic and amenity values, and of the value added it generates through producing a more educated workforce and a more informed citizenry. As a landmark tied to South Carolina's history and as an institute of higher learning, the Citadel's true impact to the county, the Trident, and the state cannot be measured in its totality. Additionally, the presence of the historic campus boosts the amenity value of the properties surrounding it and for the City of Charleston itself. This also would be difficult to quantify in a satisfactory manner.

Appendix I—Citadel Operational Impacts

(All dollar amounts in 2010 dollars)

Table A-1 – Estimated Impact on Employment, Citadel Operations					
Region	2006	2007	2008	2009	2010
Berkeley	171	171	174	177	173
Charleston	1,392	1,405	1,418	1,464	1,393
Dorchester	79	79	81	82	81
Trident Total	1,642.3	1,655.3	1,672.9	1,723.2	1,646.8
Rest of South Carolina	453	449	457	466	458
Total South Carolina	2,095.6	2,104.7	2,130.0	2,189.6	2,104.5

Table A-2 – Estimated Impact on Output, Citadel Operations (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	11,937.1	12,055.3	12,393.0	12,700.9	12,556.6
Charleston	94,570.7	97,609.4	99,820.5	100,662.5	99,110.9
Dorchester	4,945.6	5,009.8	5,166.0	5,312.2	5,266.1
Trident Total	111,453	114,674	117,379	118,676	116,934
Rest of South Carolina	36,662.7	36,834.3	37,931.1	39,151.0	38,882.9
Total South Carolina	148,116.1	151,508.7	155,310.6	157,826.6	155,816.4

Table A-3 – Estimated Impact on Disposable Income, Citadel Operations (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	11,543.6	11,758.1	12,211.9	12,665.8	12,627.0
Charleston	44,582.9	45,409.5	47,155.7	48,920.4	48,747.4
Dorchester	8,103.5	8,243.1	8,578.1	8,913.4	8,881.6
Trident Total	64,230.0	65,410.7	67,945.7	70,499.6	70,255.9
Rest of South Carolina	18,263.3	18,312.4	18,967.1	19,826.8	19,922.5
Total South Carolina	82,493.3	83,723.1	86,912.8	90,326.5	90,178.5

Table A-4 – Estimated Impact on Net Local Government Revenue, Citadel Operations (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	1,780.9	1,687.2	1,634.7	1,705.9	1,705.2
Charleston	6,177.7	5,928.1	5,818.7	6,060.3	6,054.8
Dorchester	1,227.4	1,161.0	1,123.7	1,174.0	1,174.5
Trident Total	9,186.0	8,776.4	8,577.1	8,940.3	8,934.5
Rest of South Carolina	2,378.0	2,236.4	2,165.9	2,270.4	2,270.7
Total South Carolina	11,564.0	11,012.7	10,743.0	11,210.7	11,205.3

Table A-5 – Estimated Impact on Net State Government Revenue, Citadel Operations, South Carolina (\$1000s)					
Concept	2006	2007	2008	2009	2010
Net Revenue	16,023.4	15,085.2	14,543.4	15,196.1	15,189.5

Table A-6 – Estimated Impact on Population, Citadel Operations					
Region	2006	2007	2008	2009	2010
Berkeley	45	89	131	132	131
Charleston	128	252	375	377	378
Dorchester	32	63	93	93	92
Trident Total	205	403	599	602	601
Rest of South Carolina	59	115	170	171	170
Total South Carolina	264	518	769	773	771

Appendix II—Impact from Capital Expenditures

Table A-7 – Estimated Impact on Employment, Capital Spending					
Region	2006	2007	2008	2009	2010
Berkeley	74	42	54	35	24
Charleston	75	43	55	35	24
Dorchester	26	15	20	13	9
Trident Total	175	100	129	83	57
Rest of South Carolina	163	93	121	77	53
Total South Carolina	339	194	250	160	110

Table A-8 – Estimated Impact on Output, Capital Spending (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	5,244.7	2,982.1	3,821.1	2,429.9	1,668.5
Charleston	5,700.8	3,275.9	4,242.3	2,726.6	1,892.1
Dorchester	1,770.5	1,010.9	1,300.6	830.5	572.6
Trident Total	12,715.9	7,268.9	9,363.9	5,987.0	4,133.2
Rest of South Carolina	13,131.7	7,532.1	9,736.8	6,247.4	4,328.4
Total South Carolina	25,847.6	14,801.0	19,100.7	12,234.5	8,461.6

Table A-9 – Estimated Impact on Disposable Income, Capital Spending (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	2,078.0	1,214.3	1,598.2	1,043.3	734.9
Charleston	2,914.6	1,703.2	2,242.3	1,464.5	1,032.4
Dorchester	1,187.6	695.6	917.7	600.4	423.8
Trident Total	6,180.2	3,613.2	4,758.1	3,108.2	2,191.1
Rest of South Carolina	6,035.6	3,528.9	4,647.7	3,036.5	2,140.9
Total South Carolina	12,215.8	7,142.1	9,405.8	6,144.7	4,332.0

Table A-10 – Estimated Impact on Net Local Government Revenue, Capital Spending (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	325.2	166.3	214.0	133.4	87.8
Charleston	410.0	215.1	277.9	174.9	116.6
Dorchester	182.7	93.4	120.5	75.2	49.5
Trident Total	917.9	474.8	612.4	383.5	253.9
Rest of South Carolina	872.4	448.2	577.5	360.8	238.1
Total South Carolina	1,790.3	923.0	1,189.9	744.3	492.1

Table A-11 – Estimated Impact on Net State Government Revenue, Capital Spending, South Carolina (\$1000s)					
Concept	2006	2007	2008	2009	2010
Net Revenue	2,479.4	1,249.6	1,604.1	994.6	648.3

Table A-12 – Estimated Impact on Population, Capital Spending					
Region	2006	2007	2008	2009	2010
Berkeley	8	13	18	14	12
Charleston	8	13	19	15	12
Dorchester	5	7	11	8	7
Trident Total	21	33	48	37	31
Rest of South Carolina	21	33	48	37	31
Total South Carolina	43	66	96	73	63

Appendix III—Impact of Student Spending (Conservative Model)

Table A-13A – Estimated Impact on Employment, Student Spending					
Region	2006	2007	2008	2009	2010
Berkeley	24	23	24	23	26
Charleston	28	28	28	28	31
Dorchester	12	12	12	12	13
Trident Total	63	63	64	62	70
Rest of South Carolina	74	74	75	73	82
Total South Carolina	138	137	139	136	152

Table A-14A – Estimated Impact on Output, Student Spending (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	1,328.9	1,337.6	1,375.7	1,363.9	1,551.2
Charleston	2,010.9	2,023.6	2,080.9	2,062.6	2,345.8
Dorchester	638.1	643.5	663.0	658.4	750.1
Trident Total	3,977.9	4,004.8	4,119.5	4,085.0	4,647.1
Rest of South Carolina	5,397.3	5,425.6	5,573.5	5,518.4	6,272.5
Total South Carolina	9,375.1	9,430.3	9,693.0	9,603.4	10,919.6

Table A-15A – Estimated Impact on Disposable Income, Student Spending (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	494.7	501.9	520.0	519.2	594.4
Charleston	915.2	928.3	961.8	960.1	1,099.3
Dorchester	352.4	358.1	371.7	371.8	426.4
Trident Total	1,762.2	1,788.3	1,853.5	1,851.1	2,120.1
Rest of South Carolina	2,304.8	2,334.3	2,415.2	2,407.5	2,753.7
Total South Carolina	4,067.0	4,122.6	4,268.7	4,258.6	4,873.8

Table A-16A – Estimated Impact on Net Local Government Revenue, Student Spending (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	77.4	72.9	70.1	70.4	81.2
Charleston	128.7	122.9	119.8	120.1	138.1
Dorchester	54.2	51.1	49.1	49.5	57.1
Trident Total	260.4	246.9	238.9	240.0	276.4
Rest of South Carolina	333.1	313.6	301.5	302.4	348.1
Total South Carolina	593.5	560.5	540.4	542.4	624.5

Table A-17A – Estimated Impact on Net State Government Revenue, Student Spending, South Carolina (\$1000s)					
Concept	2006	2007	2008	2009	2010
Net Revenue	452.3	442.8	419.0	433.0	433.4

Table A-18A – Estimated Impact on Population, Student Spending					
Region	2006	2007	2008	2009	2010
Berkeley	2	4	6	6	6
Charleston	3	5	8	8	9
Dorchester	1	3	4	4	5
Trident Total	6	12	18	17	19
Rest of South Carolina	8	16	24	24	26
Total South Carolina	14	28	42	41	46

Appendix IV—Impact of Student Spending (Assuming 100% Retention)

Table A-13B – Estimated Impact on Employment, Student Spending					
Region	2006	2007	2008	2009	2010
Berkeley	35	35	36	36	36
Charleston	42	42	42	42	43
Dorchester	18	18	18	18	18
Trident Total	94	95	96	96	97
Rest of South Carolina	111	111	113	113	114
Total South Carolina	205	206	209	209	211

Table A-14B – Estimated Impact on Output, Student Spending (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	1,981.0	2,019.0	2,073.5	2,099.3	2,152.2
Charleston	2,997.7	3,054.5	3,136.5	3,174.8	3,254.7
Dorchester	951.3	971.3	999.3	1,013.5	1,040.7
Trident Total	5,930.0	6,044.9	6,209.3	6,287.6	6,447.6
Rest of South Carolina	8,046.0	8,189.5	8,400.8	8,494.0	8,702.6
Total South Carolina	13,975.9	14,234.4	14,610.0	14,781.6	15,150.3

Table A-15B – Estimated Impact on Disposable Income, Student Spending (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	737.5	757.6	783.8	799.1	824.7
Charleston	1,364.3	1,401.2	1,449.6	1,477.8	1,525.2
Dorchester	525.3	540.6	560.3	572.2	591.5
Trident Total	2,627.0	2,699.3	2,793.7	2,849.2	2,941.5
Rest of South Carolina	3,435.9	3,523.4	3,640.4	3,705.6	3,820.6
Total South Carolina	6,062.9	6,222.7	6,434.1	6,554.8	6,762.1

Table A-16B – Estimated Impact on Net Local Government Revenue, Student Spending (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	115.4	110.1	105.6	108.4	112.6
Charleston	191.9	185.5	180.5	184.9	191.7
Dorchester	80.8	77.1	74.0	76.1	79.3
Trident Total	388.2	372.7	360.1	369.4	383.5
Rest of South Carolina	496.6	473.4	454.4	465.5	483.0
Total South Carolina	884.7	846.1	814.5	834.9	866.5

Table A-17B – Estimated Impact on Net State Government Revenue, Student Spending, South Carolina (\$1000s)					
Concept	2006	2007	2008	2009	2010
Net Revenue	1,225.2	1,157.3	1,099.1	1,128.1	1,172.1

Table A-18B – Estimated Impact on Population, Student Spending					
Region	2006	2007	2008	2009	2010
Berkeley	3	6	9	9	9
Charleston	4	8	12	12	12
Dorchester	2	4	6	6	6
Trident Total	9	18	27	27	27
Rest of South Carolina	12	24	37	36	36
Total South Carolina	21	42	64	63	63

Appendix V—Impact of Visitor Spending

Table A-19 – Estimated Impact on Employment, Visitors					
Region	2006	2007	2008	2009	2010
Berkeley	5	4	5	5	7
Charleston	87	85	97	97	126
Dorchester	2	2	3	3	3
Trident Total	93	92	105	105	136
Rest of South Carolina	15	15	17	17	22
Total South Carolina	108	106	121	121	158

Table A-20 – Estimated Impact on Output, Visitors (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	340.0	337.9	389.7	393.8	520.3
Charleston	4,640.7	4,630.1	5,357.0	5,431.3	7,205.2
Dorchester	158.6	158.0	182.7	185.1	245.2
Trident Total	5,139.2	5,126.1	5,929.3	6,010.2	7,970.7
Rest of South Carolina	1,294.1	1,287.5	1,485.8	1,503.4	1,986.4
Total South Carolina	6,433.4	6,413.6	7,415.1	7,513.6	9,957.1

Table A-21 – Estimated Impact on Disposable Income, Visitors (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	359.2	359.4	416.8	423.6	562.8
Charleston	1,529.4	1,530.4	1,775.5	1,804.8	2,398.1
Dorchester	261.2	261.4	303.4	308.4	410.0
Trident Total	2,149.8	2,151.2	2,495.7	2,536.8	3,370.9
Rest of South Carolina	544.0	544.0	630.9	641.1	851.5
Total South Carolina	2,693.8	2,695.3	3,126.5	3,177.9	4,222.4

Table A-22 – Estimated Impact on Net Local Government Revenue, Visitors (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	56.2	52.2	57.4	58.2	79.8
Charleston	215.1	202.5	224.9	228.0	310.7
Dorchester	40.2	37.3	41.0	41.6	57.1
Trident Total	311.5	292.0	323.3	327.7	447.6
Rest of South Carolina	78.8	73.4	81.0	82.1	112.3
Total South Carolina	390.3	365.4	404.2	409.8	559.9

Table A-23 – Estimated Impact on Net State Government Revenue, Visitors, South Carolina (\$1000s)					
Concept	2006	2007	2008	2009	2010
Net Revenue	540.9	500.5	548.9	556.2	763.9

Table A-24 – Estimated Impact on Population, Visitors					
Region	2006	2007	2008	2009	2010
Berkeley	1	3	4	4	5
Charleston	4	9	13	14	16
Dorchester	1	2	3	3	4
Trident Total	7	13	21	21	24
Rest of South Carolina	2	4	6	6	7
Total South Carolina	9	17	26	27	31

**Appendix VI—Total Impact
(Using Conservative Student Spending Estimates)**

Table A-25 – Estimated Impact on Employment, Total					
Region	2006	2007	2008	2009	2010
Berkeley	273	241	257	240	229
Charleston	1,582	1,561	1,599	1,624	1,575
Dorchester	119	108	115	109	106
Trident Total	1,974	1,910	1,971	1,973	1,910
Rest of South Carolina	673	600	637	603	575
Total South Carolina	2,647	2,510	2,608	2,576	2,485

Table A-26 – Estimated Impact on Output, Total (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	18,850.6	16,712.9	17,979.4	16,888.6	16,296.7
Charleston	106,923.1	107,539.1	111,500.6	110,883.1	110,554.1
Dorchester	7,512.8	6,822.2	7,312.2	6,986.2	6,833.9
Trident Total	133,286.5	131,074.2	136,792.2	134,757.9	133,684.6
Rest of South Carolina	54,058.8	48,786.9	52,356.3	50,162.5	48,415.7
Total South Carolina	187,345.3	179,861.1	189,148.5	184,920.3	182,100.3

Table A-27 – Estimated Impact on Disposable Income, Total (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	14,475.5	13,833.7	14,746.9	14,651.9	14,519.1
Charleston	49,942.1	49,571.4	52,135.2	53,149.8	53,277.2
Dorchester	9,904.7	9,558.3	10,170.8	10,194.0	10,141.8
Trident Total	74,322.3	72,963.4	77,053.0	77,995.8	77,938.0
Rest of South Carolina	26,111.3	23,733.4	25,633.4	24,926.9	24,327.7
Total South Carolina	100,433.6	96,696.7	102,686.4	102,922.7	102,265.8

Table A-28 – Estimated Impact on Net Local Government Revenue, Total (\$1000)					
Region	2006	2007	2008	2009	2010
Berkeley	2,239.7	1,978.6	1,976.2	1,968.0	1,954.0
Charleston	5,987.4	5,698.2	5,433.6	5,573.4	5,661.9
Dorchester	1,504.6	1,342.8	1,334.2	1,340.2	1,338.2
Trident Total	9,731.7	9,019.5	8,744.0	8,881.7	8,954.1
Rest of South Carolina	3,512.5	2,939.1	2,997.5	2,892.0	2,799.8
Total South Carolina	13,244.1	11,958.7	11,741.5	11,773.7	11,753.8

Table A-29 – Estimated Impact on Net State Government Revenue, Total, South Carolina (\$1000s)					
Concept	2006	2007	2008	2009	2010
Net Revenue	19,496.0	17,278.0	17,115.4	17,179.9	17,035.2

Table A-30 – Estimated Impact on Population, Total					
Region	2006	2007	2008	2009	2010
Berkeley	57	108	160	156	154
Charleston	143	279	415	414	415
Dorchester	39	75	111	108	107
Trident Total	239	461	685	678	676
Rest of South Carolina	87	161	238	227	221
Total South Carolina	326	622	923	905	898

Appendix VII—Gross Revenue Detail

Table A-31 – Estimated Gross Local Governments Revenue, Total Charleston County					
Revenue Source (thousands of 2010 dollars)	2006	2007	2008	2009	2010
All Revenue	7,362.9	7,308.2	7,691.5	7,829.5	7,869.4
-General revenue	6,619.7	6,570.4	6,915.0	7,039.1	7,075.0
--Intergovernmental revenue	2,455.0	2,436.7	2,564.5	2,610.5	2,623.9
---From federal government	184.9	183.5	193.2	196.6	197.6
---From state government	2,270.1	2,253.2	2,371.4	2,413.9	2,426.2
---From local government	0.0	0.0	0.0	0.0	0.0
--General revenue from own sources	4,164.7	4,133.7	4,350.5	4,428.5	4,451.1
---Taxes	2,222.9	2,206.3	2,322.1	2,363.7	2,375.8
----Property	1,870.9	1,856.9	1,954.3	1,989.4	1,999.6
----Sales and gross receipts	161.8	160.6	169.1	172.1	173.0
-----General sales	60.8	60.4	63.5	64.7	65.0
-----Selective sales	101.0	100.3	105.5	107.4	108.0
-----Motor fuel	0.0	0.0	0.0	0.0	0.0
-----Alcoholic beverage	0.0	0.0	0.0	0.0	0.0
-----Tobacco products	0.0	0.0	0.0	0.0	0.0
-----Public utilities	43.6	43.2	45.5	46.3	46.6
-----Other selective sales	57.5	57.0	60.0	61.1	61.4
----Individual income	0.0	0.0	0.0	0.0	0.0
----Corporate income	0.0	0.0	0.0	0.0	0.0
----License taxes	11.7	11.6	12.2	12.5	12.5
-----Motor vehicle license	11.7	11.6	12.2	12.5	12.5
-----Other license taxes	0.0	0.0	0.0	0.0	0.0
----Other taxes	178.5	177.1	186.4	189.8	190.8
---Charges and miscellaneous general revenue	1,941.8	1,927.3	2,028.4	2,064.8	2,075.3
----Current charges	1,482.1	1,471.1	1,548.3	1,576.0	1,584.1
-----Education	122.0	121.1	127.5	129.8	130.4
-----Institutions of higher education	0.0	0.0	0.0	0.0	0.0
-----School lunch sales (gross)	46.9	46.6	49.0	49.9	50.2

Table A-31 (Continued) – Estimated Gross Local Governments Revenue, Total Charleston County

Revenue Source (thousands of 2010 dollars)	2006	2007	2008	2009	2010
-----Other education	75.1	74.5	78.4	79.8	80.2
-----Hospitals	871.3	864.8	910.1	926.5	931.2
-----Highways	0.0	0.0	0.0	0.0	0.0
-----Air transportation (airports)	38.5	38.2	40.2	40.9	41.1
-----Parking facilities	18.6	18.5	19.4	19.8	19.9
-----Sea and inland port facilities	0.0	0.0	0.0	0.0	0.0
-----Natural resources	0.0	0.0	0.0	0.0	0.0
-----Parks and recreation	25.8	25.6	27.0	27.4	27.6
-----Housing and community development	14.7	14.6	15.3	15.6	15.7
-----Sewerage	159.1	157.9	166.2	169.2	170.0
-----Solid waste management	83.2	82.6	87.0	88.5	89.0
-----Other charges	148.9	147.8	155.5	158.3	159.1
----Miscellaneous general revenue	459.6	456.2	480.2	488.8	491.3
-----Interest earnings	248.2	246.4	259.3	264.0	265.3
-----Special assessments	15.9	15.8	16.6	16.9	17.0
-----Sale of property	9.0	8.9	9.4	9.5	9.6
-----Other general revenue	186.5	185.1	194.8	198.3	199.4
-Other than general revenue	743.3	737.8	776.5	790.4	794.4
--Utility revenue	743.8	738.3	777.0	791.0	795.0
---Water supply	341.6	339.1	356.8	363.2	365.1
---Electric power	243.7	241.8	254.5	259.1	260.4
---Gas supply	151.9	150.8	158.7	161.5	162.3
---Transit	6.7	6.6	7.0	7.1	7.1
--Liquor store revenue	0.0	0.0	0.0	0.0	0.0
--Insurance trust revenue	-0.5	-0.5	-0.6	-0.6	-0.6
---Unemployment compensation	0.0	0.0	0.0	0.0	0.0
---Employee retirement	-0.5	-0.5	-0.6	-0.6	-0.6
---Workers' compensation	0.0	0.0	0.0	0.0	0.0
---Other insurance trust revenue	0.0	0.0	0.0	0.0	0.0

**Table A-32 – Estimated Gross State Government Revenue, Total
South Carolina**

Revenue Source (thousands of 2010 dollars)	2006	2007	2008	2009	2010
All Revenue	21,216.3	20,410.4	21,706.0	21,668.1	21,577.8
-General revenue	18,100.6	17,414.6	18,519.1	18,486.8	18,414.5
--Intergovernmental revenue	6,792.2	6,534.6	6,949.2	6,937.0	6,909.5
---From federal government	6,103.8	5,863.1	6,240.2	6,229.4	6,176.7
---From state government	196.2	198.9	205.9	205.4	235.0
---From local government	492.1	472.6	503.1	502.2	497.7
--General revenue from own sources	11,308.4	10,880.0	11,570.0	11,549.8	11,505.0
---Taxes	7,563.3	7,274.2	7,736.9	7,723.4	7,685.7
----Property	177.1	178.7	185.5	185.0	209.3
----Sales and gross receipts	3,837.5	3,686.4	3,923.3	3,916.5	3,884.0
-----General sales	2,832.7	2,720.9	2,895.9	2,890.9	2,866.1
-----Selective sales	1,004.8	965.5	1,027.4	1,025.6	1,017.9
-----Motor fuel	497.7	478.0	508.8	507.9	503.4
-----Alcoholic beverage	150.3	144.3	153.6	153.4	152.0
-----Tobacco products	32.2	31.0	33.0	32.9	32.6
-----Public utilities	55.4	53.4	56.8	56.7	56.8
-----Other selective sales	269.1	258.7	275.2	274.7	273.1
----Individual income	2,844.4	2,731.9	2,907.8	2,902.8	2,877.0
----Corporate income	193.5	185.9	197.8	197.5	195.7
----License taxes	377.3	362.4	385.7	385.0	381.8
-----Motor vehicle license	111.3	107.0	113.8	113.6	112.8
-----Other license taxes	266.0	255.5	271.9	271.4	269.0
----Other taxes	133.4	129.0	136.8	136.6	137.8
---Charges and miscellaneous general revenue	3,745.1	3,605.8	3,833.1	3,826.3	3,819.3
----Current charges	2,714.9	2,614.3	2,778.8	2,773.9	2,769.9
-----Education	1,222.1	1,174.3	1,249.6	1,247.4	1,238.0
-----Institutions of higher education	1,176.4	1,129.8	1,202.6	1,200.5	1,189.9
-----School lunch sales (gross)	4.1	4.1	4.3	4.2	4.9

Table A-32 (Continued) – Estimated Gross State Government Revenue, Total
South Carolina

Revenue Source (thousands of 2010 dollars)	2006	2007	2008	2009	2010
-----Other education	41.6	40.3	42.7	42.6	43.3
-----Hospitals	1,018.3	982.0	1,043.0	1,041.1	1,044.0
-----Highways	34.8	33.4	35.5	35.5	35.2
-----Air transportation (airports)	3.8	3.8	4.0	4.0	4.5
-----Parking facilities	1.6	1.6	1.7	1.7	1.9
-----Sea and inland port facilities	122.6	117.8	125.3	125.1	124.0
-----Natural resources	17.9	17.2	18.3	18.3	18.1
-----Parks and recreation	31.7	30.6	32.5	32.4	32.5
-----Housing and community development	9.0	8.7	9.2	9.2	9.3
-----Sewerage	13.7	13.9	14.4	14.4	16.5
-----Solid waste management	11.5	11.4	11.9	11.9	12.9
-----Other charges	227.9	219.6	233.4	232.9	232.9
----Miscellaneous general revenue	1,030.2	991.6	1,054.2	1,052.4	1,049.4
-----Interest earnings	350.7	337.9	359.1	358.4	358.7
-----Special assessments	2.2	2.2	2.3	2.3	2.4
-----Sale of property	5.8	5.6	5.9	5.9	6.0
-----Other general revenue	671.6	645.9	687.0	685.8	682.3
-Other than general revenue	3,115.7	2,995.8	3,186.8	3,181.3	3,163.4
--Utility revenue	1,258.0	1,211.6	1,287.7	1,285.5	1,284.4
---Water supply	35.2	35.4	36.8	36.7	41.1
---Electric power	1,209.1	1,162.4	1,236.6	1,234.4	1,226.9
---Gas supply	13.1	13.3	13.8	13.7	15.7
---Transit	0.6	0.6	0.6	0.6	0.7
--Liquor store revenue	0.0	0.0	0.0	0.0	0.0
--Insurance trust revenue	1,857.7	1,784.2	1,899.1	1,895.8	1,879.0
---Unemployment compensation	465.4	447.0	475.8	474.9	470.7
---Employee retirement	1,265.1	1,215.0	1,293.3	1,291.1	1,279.6
---Workers' compensation	0.0	122.2	130.1	129.8	128.7
---Other insurance trust revenue	0.0	0.0	0.0	0.0	0.0