

The Economic Return on Investment in South Carolina's Higher Education

**Division of Research
Moore School of Business
University of South Carolina
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Historic Joblessness



Source: Bureau of Labor Statistics, Local Area Unemployment Statistics (17 Apr 2009)

Individual Returns to Higher Education

- The lifetime income of the average full-time worker with a bachelor's degree (from ages 22-65) is \$2.5 million, after subtracting the costs of higher education for the individual.
- During an average career, a full-time worker with bachelor's degree earns *\$1.2 million more* than a full-time worker with a high school diploma only.
- Given the average total investment in a four-year education, the individual would gain 8.2 times that amount in incremental income over his or her lifetime.

Study's Main Objective

- To estimate the impact of increased higher educational attainment for the South Carolina workforce.
- Examines South Carolina's goal to be among the top states with its working-age residents holding bachelor's degrees (or higher) by 2030. This means the target is a level of attainment for the workforce that will do the following:
 - Reach 29 percent of working age population (ages 25-65) with at least a bachelor's degree;
 - Follow a plan that increases the traditional K-12 pipeline to higher education and raise adult educational attainment.

Data and Assumptions

- The Division constructed a baseline scenario projecting economic effects to 2030 using the following sources:
 - American Community Survey (ACS) data (2005-2007) on the structure of the South Carolina population by age group and educational attainment;
 - ACS data on the structure of earnings by age group and educational attainment in 2007;
 - U.S. Census population projections for South Carolina by age group.

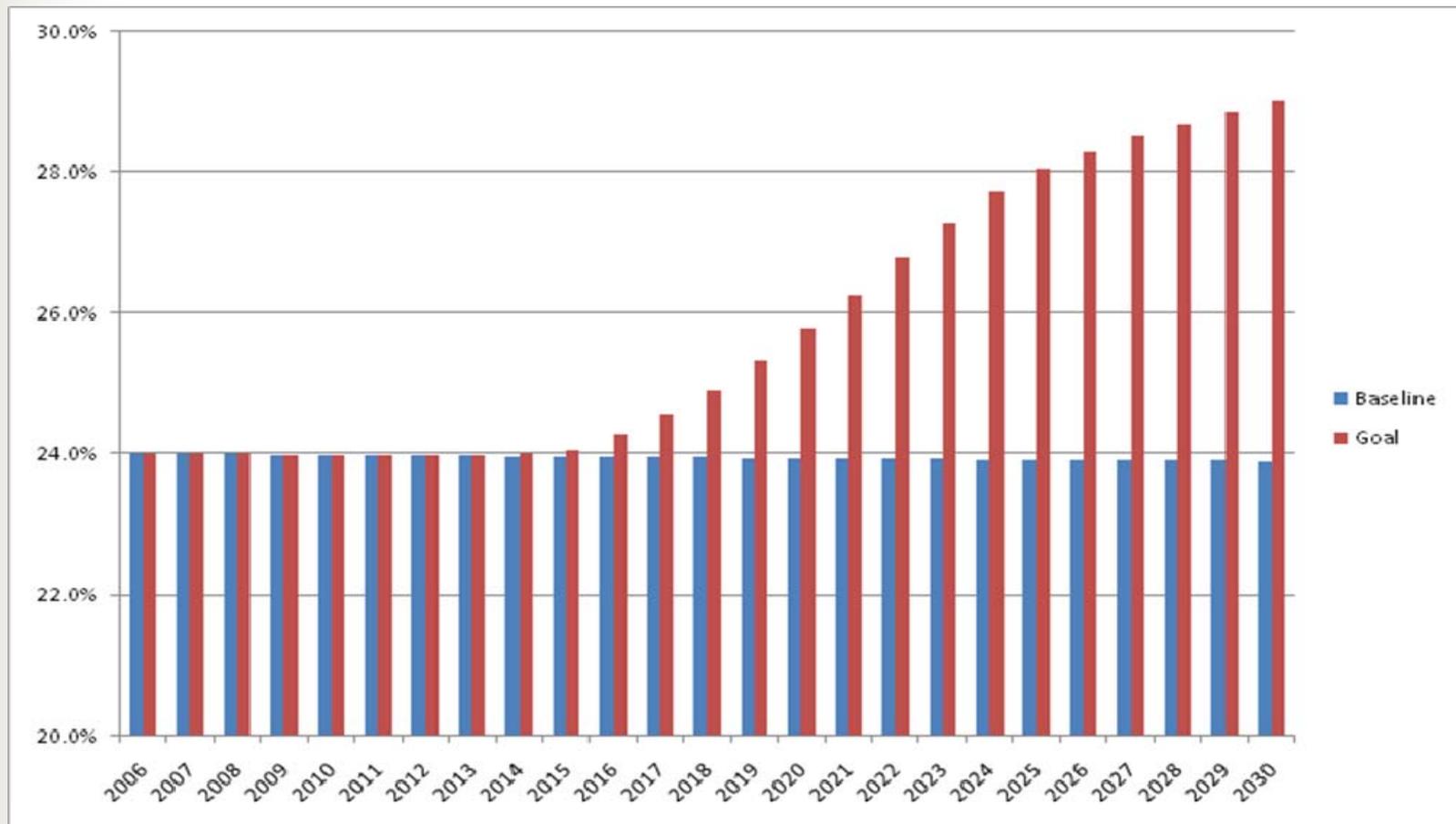
Metrics

- Individual and societal benefits of increased educational attainment
- Income
- Gross State Product
- Employment

Scenarios

- The baseline scenario suggests what will happen if current trends persist.
- Alternative scenario where the baseline scenario is modified according to the HESC Action Plan; namely, to reach the goals by 2030.
- A gradual increase in the number of South Carolinians with bachelor's degrees or higher starting in 2013.
- According to the HESC Action Plan, by 2030 there will be an additional 134,533 residents with bachelor's degrees or higher
 - 56,533 will come from the traditional student pipeline
 - 78,000 will come from the adult population.

Figure 1: S.C. Percentage of Population with at least a Bachelor's Degree



Leveraging South Carolina's Investment in Higher Education

- It was found that after reaching the 29 percent goal in 2030:
 - Each \$1 spent by the state boosts South Carolina's annual gross state product by \$25.
- 2030 the *annual* gain for South Carolina (in 2007 dollars) is:
 - ***\$6.9 billion in total personal income;***
 - ***\$7.8 billion in gross state product;***
 - ***An additional 44,514 permanent jobs.***

Cumulative Effects

- During the time before reaching the 2030 goal (between 2010 and 2030):
- For each dollar that the state spends, \$11.20 is added to the economy (measured by gross state product).

- Figure 2 shows the benefits and costs as the state reaches the 29 percent goal.
- Note how the total additional benefits outstrip costs over time by a wider and wider margin.

Cumulative Gain

- The *cumulative* gain (in 2007 dollars) over the period is:
- ***\$67.8 billion in total personal income;***
- ***\$77.0 billion dollars in gross state product.***

Figure 2: Direct Marginal Benefits and Costs linked with the Action Plan (millions of 2007 dollars)

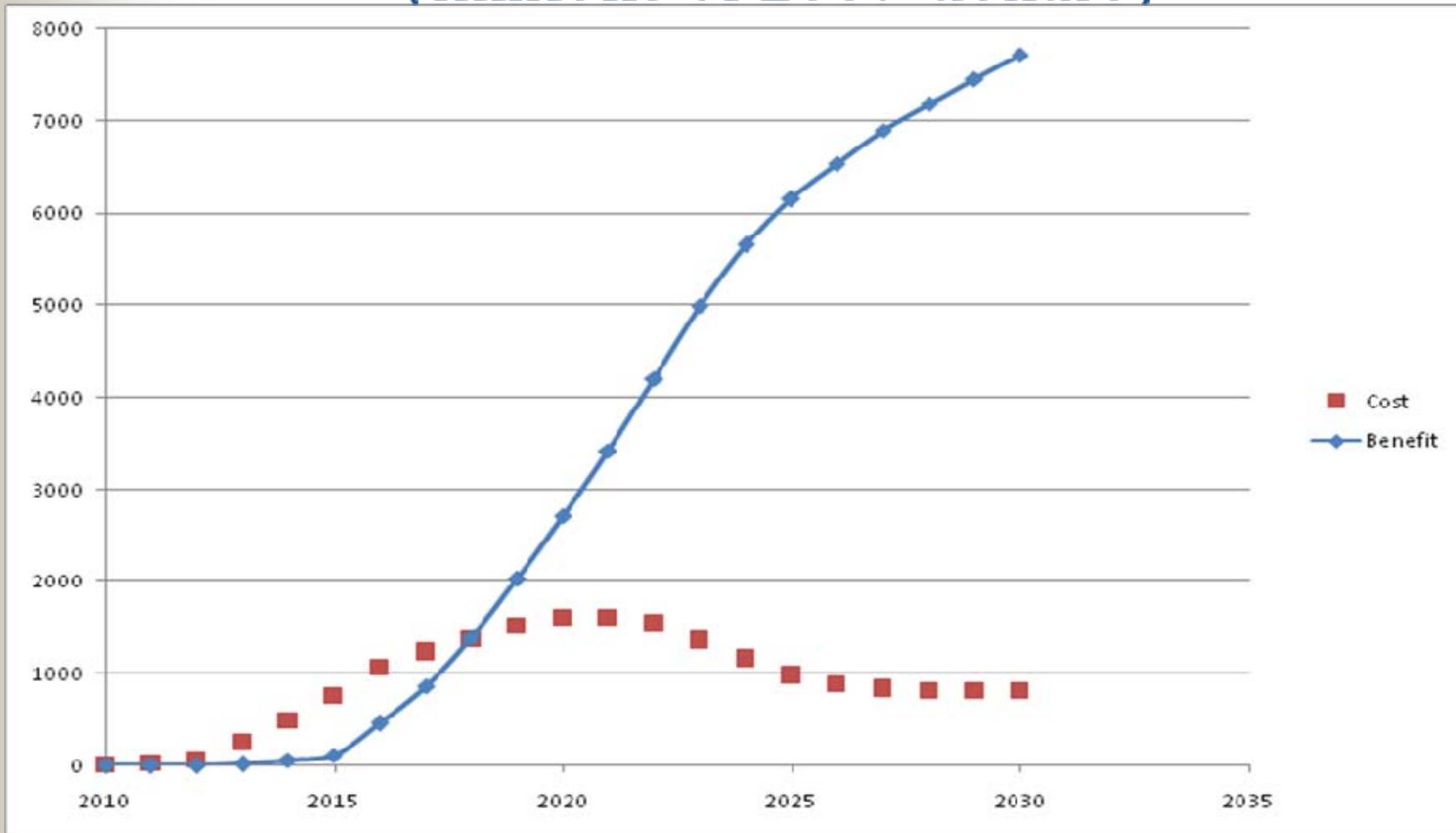
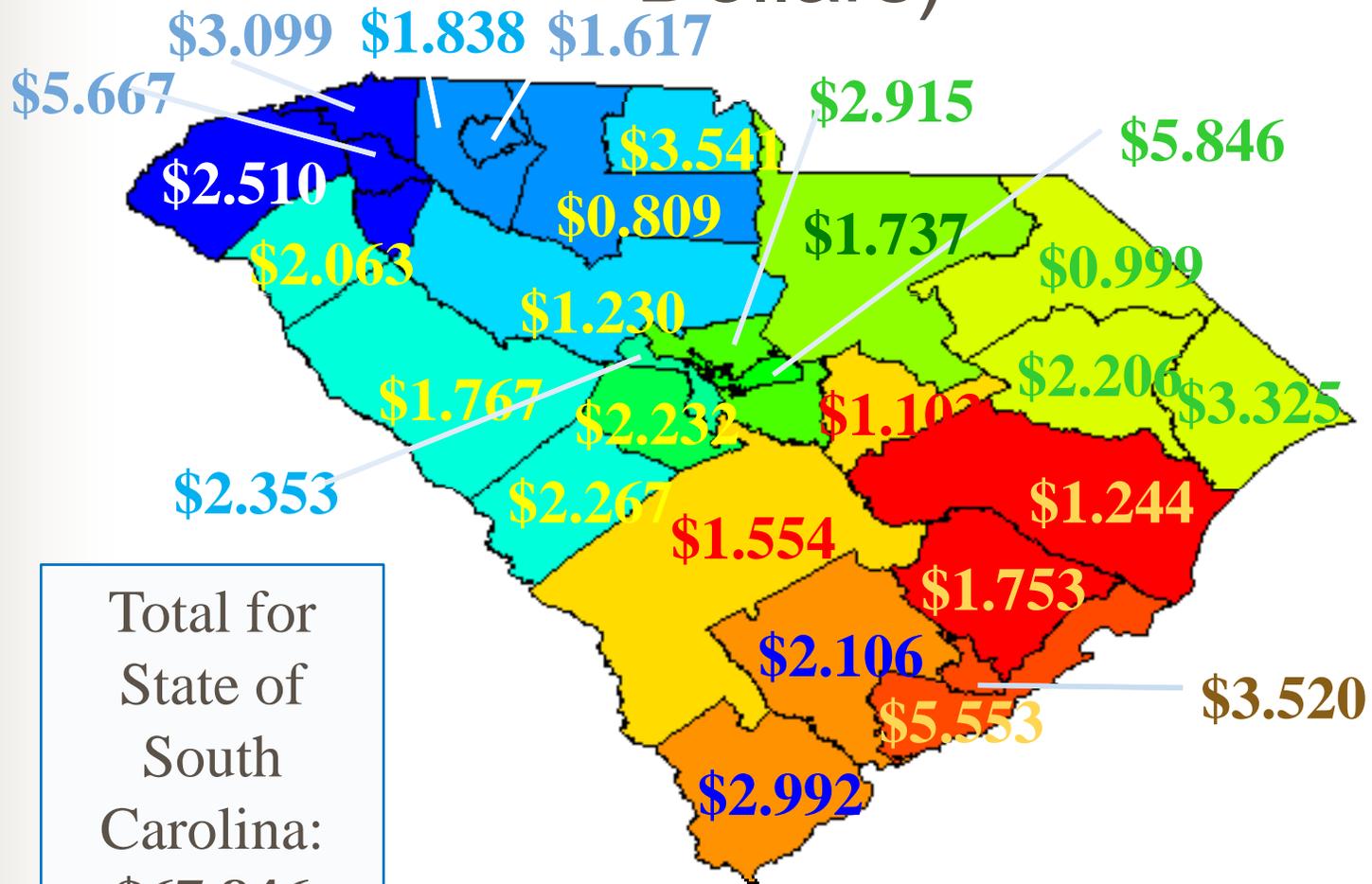


Figure 3: Map of PUMAs Overlaid S.C. Counties

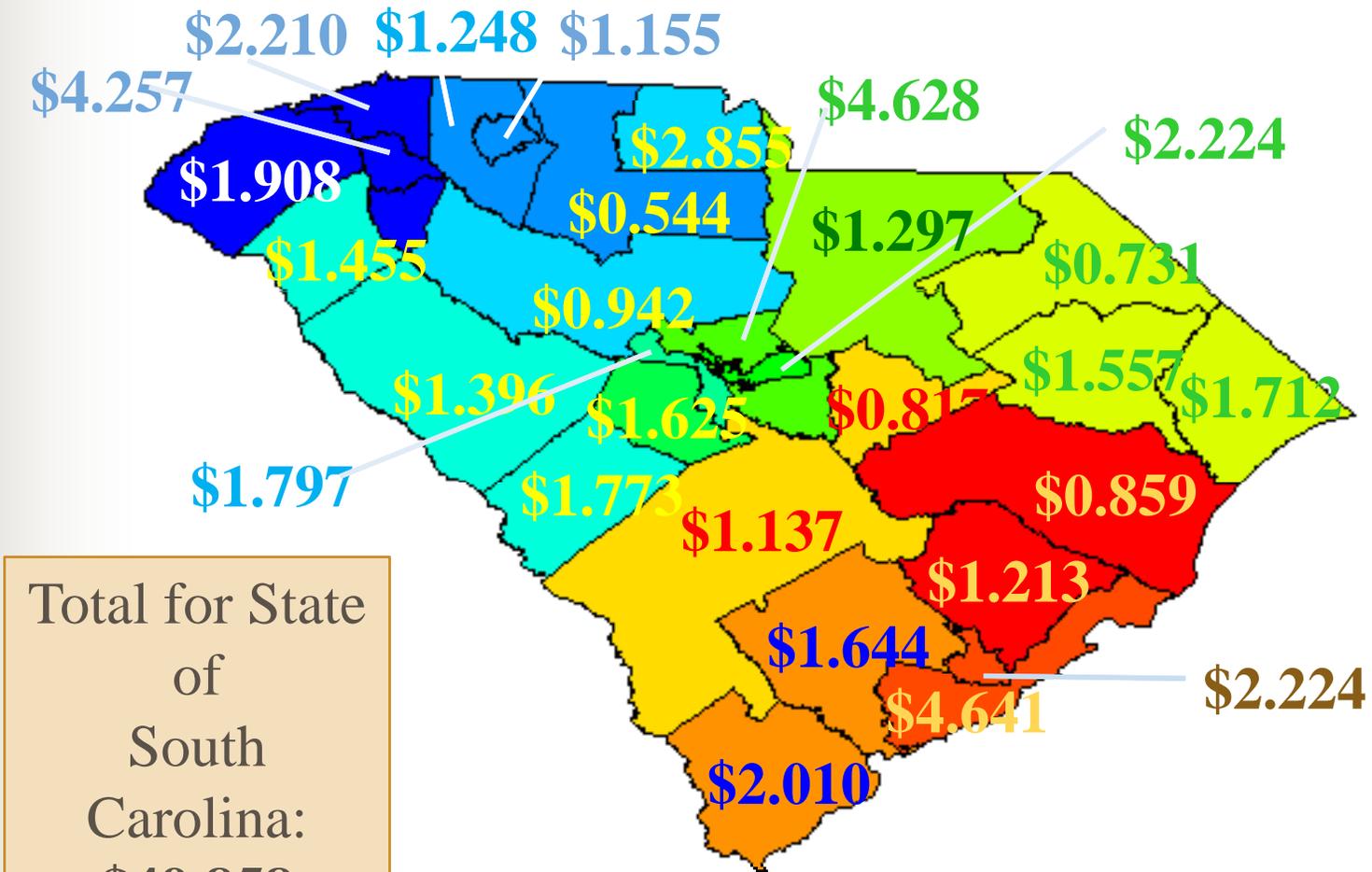


Cumulative Total Benefit (2010-2030) New Income (in Billions of Dollars)



Total for State of South Carolina: **\$67.846 billion**

Cumulative Net Benefits (2010-2030) (in Billions of Dollars)



Total for State of South Carolina: **\$49.858 billion**

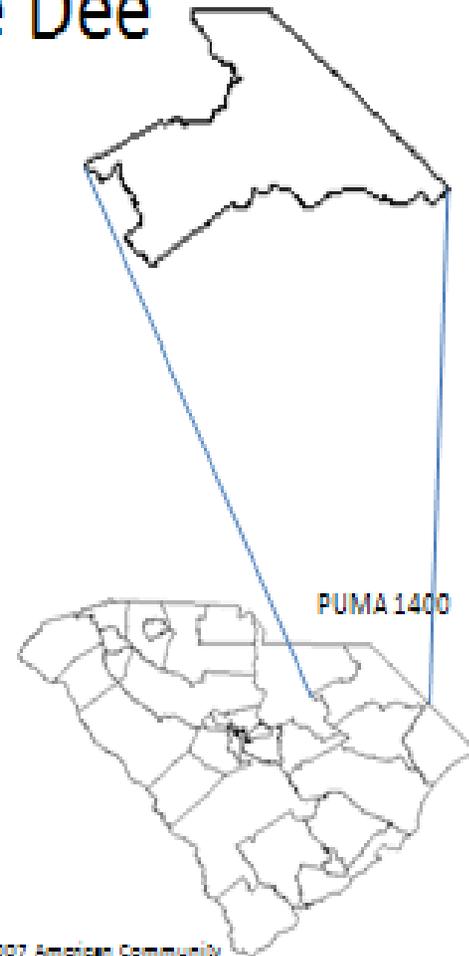
Unemployment Rate and Labor Force Participation : Upper Pee Dee

Unemployment Rate by Educational Attainment

Less than high school graduate	15.6%
High School graduate	8.6%
Some College or Associate's degree	8.0%
Bachelor or More	3.1%
Area-wide	8.9%

Labor Force Participation by Educational Attainment

Less than high school graduate	46.7%
High School graduate	70.5%
Some College or Associate's degree	76.7%
Bachelor or More	85.6%



Source: 2005-2007 American Community Survey 3-Year Estimates

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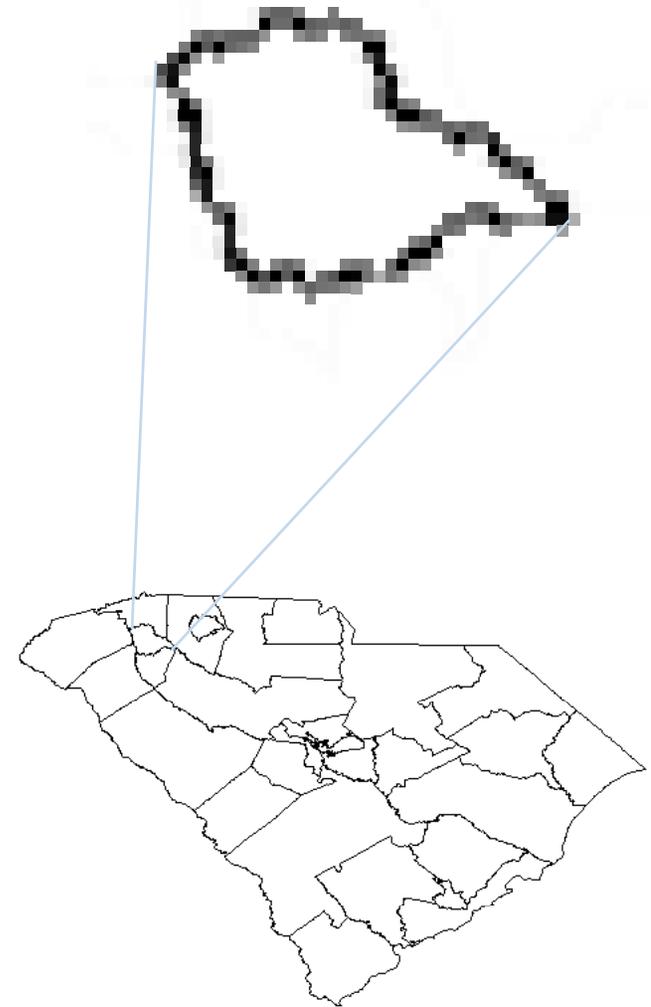
Educational Attainment & Poverty Status: Greenville Urban

Share of 25-64 Year Old Population

Less than high school graduate	15.9%
High School graduate	26.0%
Some College or Associate's degree	24.7%
Bachelor or More	33.3%

Poverty Status by Educational Attainment

Area-wide	12.3%
Less than high school graduate	27.1%
High School graduate	17.0%
Some College or Associate's degree	7.6%
Bachelor or More	2.9%



PUMA 201

Figure 7: Unemployment Rate and Labor Force Participation: U.S. & S.C.

Unemployment Rate by Educational Attainment

	U.S.	S.C.
Less than high school graduate	10.0%	12.1%
High School graduate	6.4%	7.1%
Some College or Associate's degree	4.9%	5.0%
Bachelor or More	2.7%	2.4%
Area-Wide	5.1%	5.8%

Labor Force Participation by Educational Attainment

	U.S.	S.C.
Less than high school graduate	60.5%	55.1%
High School graduate	74.4%	74.0%
Some College or Associate's degree	80.0%	79.4%
Bachelor or More	84.9%	83.5%

Source: 2005-2007
American Community
Survey 5-Year
Estimates

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Figure 9: Educational Attainment & Poverty Status: U.S. & S.C.

Educational Attainment

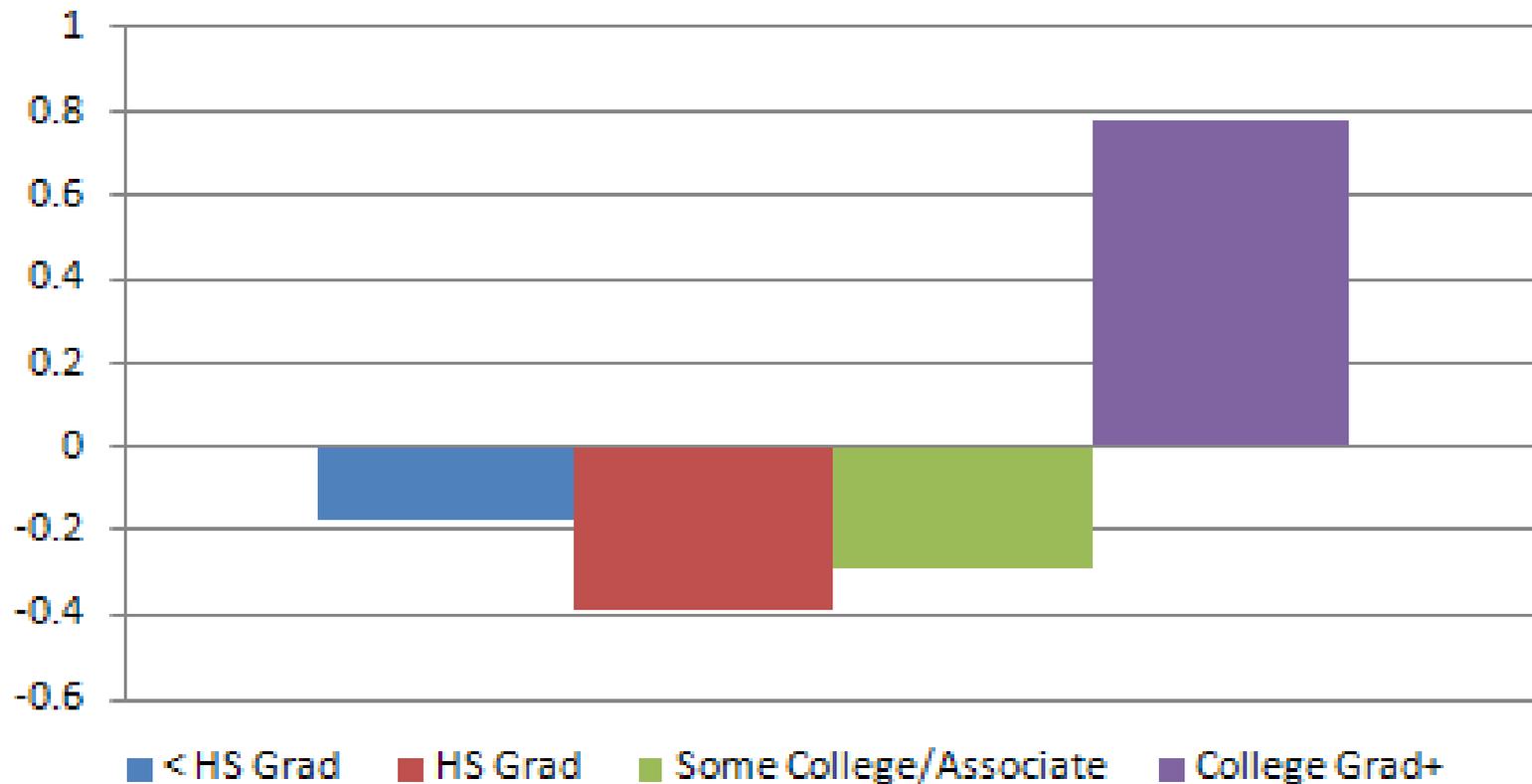
	U.S.	S.C.
Less than high school graduate	13.3%	15.2%
High School graduate	29.0%	32.7%
Some College or Associate's degree	28.7%	28.1%
Bachelor or More	29.0%	24.0%

Poverty Status by Educational Attainment

	U.S.	S.C.
Area-Wide	10.2%	12.0%
Less than high school graduate	23.6%	27.1%
High School graduate	11.4%	13.2%
Some College or Associate's degree	7.7%	7.7%
Bachelor or more	3.6%	3.5%

Source: 2005-2007
American Community
Survey 3-Year
Estimates

Figure 6: Per Capita Income Correlation with Educational Attainment*



*Calculated by the Division of Research.

Figure 10: Correlation Between Prison Population Share and Educational Attainment



*Calculated by the Division of Research.

Paths to the Future



Summary

- The benefits of higher education extend beyond raising income for South Carolinians.
- Individuals who earn bachelor's degrees are much more likely to achieve a higher socio-economic status compared with less-educated citizens.
- They pay substantially more taxes and place significantly lower burdens on government programs.
- Educated individuals are far less likely to be jobless.

Further Research

- Impact of lower incarceration rate.
- Impact of health benefits.
- Impact of external research funding.
- Impacts of alternative scenarios of attainment.