

ECONOMIC IMPACT OF
On the Eastern Shore of Maryland



Study Conducted by:



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Key Figures



ANNUAL IMPACT FROM:

	Economic Impact	Employment Impact	Fiscal Impact
Operations	\$240.6 million	2,475 jobs	\$46.5 million
Construction	\$33.5 million	106 jobs	\$3.03 million
Student Spending Locally	\$90 million	226 jobs	\$12.6 million
Visitor Spending Locally	\$4.4 million	130 jobs	\$.55 million
Educated Workforce, Outreach, & Entrepreneurship	\$112 million	350 jobs	\$16.8 million

Executive Summary

Salisbury University generates \$480.5 million annually in local economic impact in the surrounding community. In addition, the University, annually, generates \$79.48 million in fiscal impact and supports over 3,200 jobs. Fiscal impact is the federal, state, and local taxes generated because of the \$480.5 million in economic activity in the region. These impacts are derived from the following activity categories:

- **Operations (annual local impacts)**
 - Economic - \$ 240.6 million
 - Employment - 2,475 jobs supported
 - Fiscal - \$ 46.5 million

- **Construction (annual local impacts)**
 - Economic - \$ 33.5 million annually (\$ 535.7 million over the past 16 years)
 - Employment - 106 jobs supported annually (1,700 over the past 16 years)
 - Fiscal - \$ 3.03 million annually (\$ 48.46 million over the past 16 years)

- **Student spending (annual local impacts)**
 - Economic - \$ 90 million (\$ 38.6M net new impact)
 - Employment - 226 jobs supported (97.2 net new jobs)
 - Fiscal - \$ 12.6 million (\$ 5.4M net new impact)

- **Visitors (annual local impacts)**
 - Economic - \$ 4.4 million (\$ 35K per 100 visitors)
 - Employment - 130 jobs supported
 - Fiscal - \$ 545,000

- **Educated Workforce, Outreach, and Entrepreneurship (annual local impacts)**
 - Economic - \$ 112 million impact
 - Employment -350 jobs supported
 - Fiscal - \$16.8 million impact

Total Annual Local Impact of \$480.5 Million, Supporting 3,287 jobs

Study Overview

All estimates are provided on an annual basis unless otherwise noted. The geographic area of study is the Eastern Shore of Maryland (also referred to as the region) which includes: Caroline, Cecil, Dorchester, Kent, Queen Anne’s, Somerset, Talbot, Wicomico, and Worcester Counties. Unless otherwise noted, all estimates are based on actual FY ’15 data and AY ’15 for student data.

Economic and Employment Impact of Operations

The annual operating budget of Salisbury University is substantial at over \$165.2 million in FY 15. The significance of these budget numbers increases as the multiplier effect is taken into consideration. Many individuals and businesses receive funds from the University as employees and vendors. These funds are then re-spent in the local economy on goods and services.

Table 1. Economic and Employment Impact of Salisbury University’s Operating Budget		
	Economic (\$ millions)	Employment
Direct Effect	157.1	1,841.0
Indirect Effect	2.6	16.8
Induced Effect	80.9	617.8
Total Effect	240.6	2,475.6

Table 1 shows the estimated annual economic and employment impact of Salisbury University’s operating budget for FY 15. After accounting for leakage, the direct economic effect is approximately \$157.1 million. This spending creates an indirect effect of approximately \$2.6 million and an induced effect of approximately \$80.9 million. Thus, the total

estimated economic effect from operations is \$240.6 million on the Eastern Shore on Maryland. In other words, each dollar spent in operational monies by Salisbury University results in total economic activity of \$1.46 in the region.

Salisbury University directly employs over 1,800 people, including full-time and part-time positions. Through its operations, the University supports an additional 16.8 indirect jobs and 617.8 induced jobs in the region (including both full-time and part-time jobs).

Spending by the University, and by the students, results in indirect and direct expenditures involving taxable transactions. The total fiscal impact of the economic activities relating to the operation of the University is approximately \$46.5 million which includes \$34.9 million in federal taxes and \$11.6 million in state and local taxes.

The top 10 industries impacted by Salisbury University's operational spending in the region by output in descending order are: real estate, owner-occupied dwellings, wholesale trade, hospitals, electric power transmission and distribution, full-service restaurants, wired telecommunications carriers, limited-service restaurants, offices of physicians, and natural gas distribution.

Economic and Employment Impact of Capital Spending

Salisbury University also makes substantial capital expenditures that have impacts within the region. The level of capital expenditures can vary significantly from year to year. Therefore, rather than examining the impact for one given year, the impact of the average capital expenditures is examined here for projects completed over the tenure of the current University President, Dr. Janet Dudley-Eshbach, which extends from 2000 to the present. Over this period a number of significant capital projects have been undertaken including the construction of the Scarborough Leadership Center, Henson Science Hall, the Teacher Education and Technology Center (TETC), the Wayne Street Parking Garage, Sea Gull Square, Perdue Hall, Sea Gull Stadium, the Henson Medical Simulation Center, and the Guerrieri Academic Commons.

During this time period, a total of \$356 million was invested in the above capital projects resulting in a total economic impact of approximately \$535.7 million.

When averaged over the 16-year period being examined, the annual economic impact is approximately \$33.5 million. Additionally, approximately 1,700 local jobs (full-time and part-



time) were supported during the construction of these projects. The fiscal impact of these capital projects totals approximately \$48.46 million which includes approximately \$29.71 million in federal taxes and \$18.75 million in state and local taxes. However, it is important to note that impacts from any given capital project occurs during the time of the project.

The funding for capital projects comes from a variety of sources including federal and state sources. It is likely that without Salisbury University, the funds that have been invested in capital projects from federal and state sources would be allocated elsewhere in the state, potentially outside of the Eastern Shore.

Student Spending

In fall 2015, over 5,500 students lived in off-campus housing, of which approximately 1,800 were estimated to be commuter students. It is assumed that students living off-campus incur similar living expenses as those on campus. Therefore, based on the cost of attendance estimates provided by Salisbury University, students are assumed to spend approximately \$6,150 in rent, \$4,470 in food, and \$2,638 in transportation and personal expenses during the 9-month academic year. These estimates are conservative given the rental market off-campus and the fact that many students stay within the region



during the summer months. To avoid double counting, tuition and fees expenses are not included here as these expenditures are already captured in the operational budget of the University. Furthermore, students who reside on campus are estimated, conservatively, to spend an

average of \$7 off campus per day. A total of 3,160 students lived on campus in fall 2015. This includes students living on the main campus and those residing in Sea Gull Square and University Park.

The total economic activity attributable to student spending is estimated to be around \$90 million, supporting 226 jobs, and generating a fiscal impact of \$12.6 million. However, some of this economic activity would have already been present (in the case of commuter students) or has already been captured in other components of this study.

To estimate the net new local impact of spending by Salisbury University students, the number of students who reside off-campus who are not commuters is multiplied by the annual expenses identified above. The number of on-campus students is multiplied by the estimated average daily off-campus spending by the number of days in the school year. These totals are used as inputs in an IMPLAN model.

The estimated annual local economic impact from off-campus, non-commuter students is approximately \$38.6 million. The annual local employment impact from this local spending is approximately 97.2 and

the fiscal impact totals approximately \$5.4 million including \$2.22 million in federal taxes and \$3.18 million in state and local taxes.

Given the rural nature of the Eastern Shore, the majority of the economic activity generated by student spending in the local economy can be attributed directly to the presence of the University.

Approximately 70.2% of students (6,087) come to Salisbury University from primary residences outside of the Eastern Shore. This means that a majority of student spending is considered “new money” or money that would not have otherwise been spent within the region. On the other hand, if Salisbury University was not present on the Eastern Shore, a small portion of students may have attended one of the other two universities present in the region, Washington College and the University of Maryland Eastern Shore. However, given their relatively low enrollment figures (approximately 1,500 and 3,500 respectively), at best a small percentage of students from the Eastern Shore would likely stay within the region for college if Salisbury University was not present, the majority would have to leave the Eastern Shore to attend college elsewhere.

Economic Impact of Visitors

Salisbury University hosts a number of events that bring out-of-town visitors to the region for one or more days. Some of these events include Homecoming and Family Weekend, sporting events, Sea Gull Century, the Ratcliffe Shore Hatchery Entrepreneurship Competition, and cultural events among many others.

Each event at the University has a unique visitor profile. Some events may bring as many as 8,000 individuals to the area, such as Sea Gull Century, while others may bring several hundred or a few thousand. Rather than assessing each individual event, this analysis provides a general impact estimate that can be applied to individual events. The inputs for this estimate assuming an average hotel rate of \$120 per night (double occupancy) and daily spending on food of \$45 (the State of Maryland per diem reimbursement rate). It is estimated that, for every 100 out-of-town overnight visitors that stay overnight for 2 nights, there is an economic impact of approximately \$32,000 in the local economy.

This estimate is decidedly conservative as it does not capture any retail, transportation spending, or other spending categories beyond food and lodging. When the estimated spending in these additional categories is added to the estimate above, the “Impact per 100 Visitors” figure increases to approximately \$35,000. Using these numbers as a starting point, we estimate that the total impact of

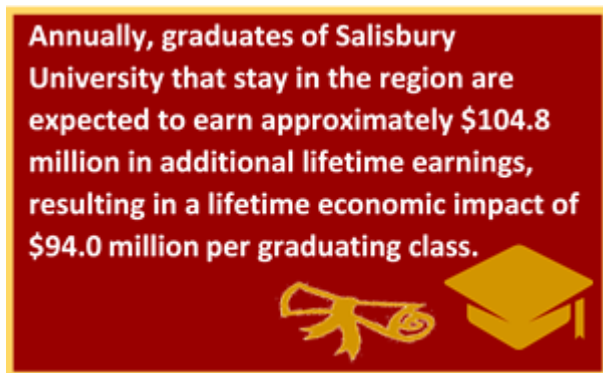
visitors that come to the area for reasons directly related to Salisbury University (athletic events, open houses, Homecoming and Family Weekend, cultural events, non-credit offerings, family visits, etc.) is approximately \$4.4 million with a fiscal impact of over \$545,000. In addition, these activities support over 130 jobs in the local economy.

Impact of a Better Educated Workforce

Salisbury University contributes to a better educated workforce within the region and beyond. In the last academic year, 1,935 undergraduate students graduated from SU along with 270 graduate students. The contributions of Salisbury University graduates are critically important to the local economy.

Higher education levels are associated with greater pay in the workforce. On the Eastern Shore, those with a bachelor's degree earn an annual income of approximately \$47,887¹ on average. Individuals who attain a graduate degree earn an annual income of approximately \$62,720¹. This compares to an annual income of approximately \$29,133¹ on average for those who earn a high school diploma but do not go on to complete a college degree.

These incremental annual earnings compound over the course of the individual's work life. The estimated present value (PV) of the incremental lifetime earnings of those who earned undergraduate and graduate degrees from Salisbury University in AY 15 are approximately \$1.1 billion. Assuming just 10% of graduates stay within the region after graduation, they will



bring with them an estimated \$104.8 million in additional earnings over their lifetime. These estimates assume that the incremental earnings hold over the work life of the individual (estimated as the traditional age of graduation through the retirement, age 22 to age 67). The present value of the additional annual earnings is calculated using a discount rate of 3.34%, the annual rate on a 30-year constant maturity *Treasury Bond* in 2014².

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¹ U.S. Census, American Community Survey 2011-2013 3-Year Estimates

These additional earnings generate further economic impact in the local economy through higher levels of spending on goods and services. The economic impact of these additional lifetime earnings within the region are approximately \$94 million per graduating class after accounting for leakage, again assuming conservatively that approximately 10% of Salisbury University graduates remain on the Eastern Shore for work. The fiscal impact of these additional earnings includes approximately \$14.1 million in federal, state, and local taxes.

Impact of Local Business Development

Salisbury University has a variety of entrepreneurship programs and a number of graduates who have gone to on to start their own businesses upon graduation. The Shore Hatchery Entrepreneurship Competition, established by a \$1 million gift from the Philip E. and Carole R. Ratcliffe Foundation announced to SU's Franklin P. Perdue School of Business, is one such program that rewards individuals for their entrepreneurial efforts in the creation and growth of businesses with the potential of positively impacting regional employment within three years. Shore Hatchery has completed its first two and a half years of competitions awarding \$510,000 thus far. Of the 22 winning businesses, eight are (or will be) located within the study region. These eight businesses have received \$170,000 in capital.

Specifically for students, there is also the annual Perdue Entrepreneurship Competitions which provide seed funds to entrepreneurial students for their business concepts. In spring 2014, these competitions resulted in a total of approximately \$62,000 in prize earnings. In spring 2015, it was \$112,000.

In addition, the Small Business Development Center, the Business, Economic, and Community Outreach Network (BEACON), and the Eastern Shore Regional G.I.S. Cooperative (ESRGC), and other outreach entities operating at Salisbury University make major contributions to the region's economy.

In combination, these outreach units and the various entrepreneurial activities described above are estimated to have an \$18 million impact, supporting over 350 jobs. This impact includes \$2.7 million in federal, state, and local taxes.

² Federal Reserve System Historical Data, www.federalreserve.gov

Study Methodology

The economic impact of Salisbury University was estimated using IMPLAN (Impact Analysis for PLANing), an economic impact assessment software system originally developed at the University of Minnesota and the U.S. Forest Service. The IMPLAN model includes all economic effects when calculating total output/employment (i.e. this includes “direct” plus “indirect” plus “induced” [ripple effect] impacts). In IO models, the “jobs supported” estimates are the number of jobs that are needed to produce the current level of local output at the average productivity levels of workers in their respective industries. The Social Accounting Matrices in IMPLAN provide the multipliers of the indirect and induced economic and employment impacts. The model is based on regional data from 2013 inflated to 2015 figures.

The direct economic impact includes the initial spending by Salisbury University to its employees, through salaries, or to businesses selling directly to the school system. The indirect economic impact accounts for the additional spending and jobs supported in the local economy from the spending to local suppliers. These local suppliers pay salaries to their employees from the money received from contracts with the University. Additionally, they contract with other local firms for goods and services.

The induced economic impact accounts for the additional spending and jobs supported in the local economy from consumer retail spending associated with the direct and indirect effects. For example, employees of Salisbury University and those of the firms contracting with Salisbury University will spend a significant portion of their salaries in the local economy. This spending supports additional jobs at local firms.

At each level of impact, there is “leakage.” Leakage accounts for the spending that goes to employees and vendors outside of the region. Once this money exits the region, it is not available for re-spending or recirculating within the region.

Model Inputs and Data Sources

Primary model inputs include actual fiscal expenditures provided by Salisbury University’s Administration and Finance Office. Student spending impacts were estimated using data from the University Analysis, Reporting, and Assessment Office. Data from the United States Census Bureau and the U.S. Bureau of Labor Statistics used to calculate the student spending and incremental earnings estimates.

Glossary

Direct Effects- The set of expenditures applied to the predictive model (i.e., I/O multipliers) for impact analysis.

Indirect Effects- The impact of local industries buying goods and services from other local industries.

Induced Effects- The response by an economy to an initial change (direct effect) that occurs through re-spending of income received by a component of value added.

Total Economic Impact- the sum of direct effects, indirect effects, and induced effects.

Employment Impact- full-time and part-time jobs supported in the study region as a result of the economic activity.

Leakage- spending that leaves the study region.

Multiplier Effect- a numeric way of describing the secondary (indirect and induced) impacts stemming from the direct economic activity.

Present Value- the current worth (in 2015 dollars) of a future stream of cash flows.

Output- Output represents the value of industry production. In IMPLAN these are annual production estimates for the year of the data set and are in producer prices. For manufacturers this would be sales plus/minus change in inventory. For service sectors production = sales. For retail and wholesale trade, output = gross margin and not gross sales³.

³ IMPLAN Glossary, www.implan.com