

# The Economic Contribution of Furman University to Greenville County and the Surrounding Area

## Introduction

Furman University is a private four-year residential liberal arts institution located in Greenville, South Carolina. Its core mission is the education of undergraduate students, though there are limited offerings for graduate degrees (mainly in education and a few sciences) and a small adult undergraduate program. Greenville County is home to the city of Greenville, a mid-sized city located in the Upstate of South Carolina on I-85 midway between Charlotte, North Carolina and Atlanta, Georgia. It has a population of 506,837 and Gross Regional Product (GRP) of just over \$31 billion. Furman University has called Greenville home since 1851. In this study, we set out to explore one aspect of the long and deep relationship between Furman University and the Greenville community by focusing on the economic contribution of the University to the local community. Though our main definition of the local community is Greenville County, we will also provide information about the economic contribution the University to the counties adjacent to Greenville County: Anderson, Laurens, Pickens, and Spartanburg County. Furman employees live and shop in these counties as well, and the economic linkages between Greenville and these counties should not be discounted. Though the focus is on the economic contribution, the relationship between “town and gown” goes well beyond economic considerations. The cultural, societal, leadership, and community engagement enhancement flowing to and from the University and community, though not measured, are just as important and enriching.

In conducting this contribution study we follow the best practices as laid out by the Association of Public and Land-Grant Universities and Association of American Universities “Economic Impact Guidelines” (2014). We also adopt the norms of contribution studies at other universities for comparison purposes (Blackwell, Cobb, and Weinberg, 2002; Carroll and Smith, 2006; Carey, 2018; to just name a few). Any deviations from these norms and standards will be explained in detail in this document. In deciding what to include in the analysis we use the “but for” approach to contribution studies. In the “but for” approach, we focus on just those economic activities that would not have occurred “but for” the existence of the university. In this way, we do not count spending by the university, students, or visitors that would have otherwise occurred in the community. We are also careful to not double count spending, as this is often a weakness of university contribution studies (Siegfried, Sanderson, and McHenry, 2007). A number of assumptions must be made when completing a contribution analysis. Some information is just not available or too costly to obtain. We seek out the best information we can find and apply as realistic assumptions as possible. One purpose of this document is to clearly spell out the assumptions we have made so the reader can be fully informed on the limitations of the study and its interpretation. When we do make assumptions, we strive to be conservative in our estimates, as well as provide a range of estimates based on different assumptions.

There are five main channels through which the University contributes to the local economy. First, spending on goods and services necessary to run the university. Second, compensation for employees which is spent in the local economy. Third, spending on capital goods by the University for building

projects, major equipment purchases, and land improvement. Fourth, spending by students. Fifth, spending by visitors, who would not have spent in the community “but for” the University.

The direct economic contribution of the University comes from spending on operations, capital expenditure, spending by students, and spending by visitors. This, however, does not capture the full economic contribution to the local community. The purchase of goods and services through these channels generates income for other industries in Greenville County. The income generated indirectly through these other industries also contributes to Greenville’s GRP. In addition, the employees of the University, as well as the employees that are hired by those firms that generate income from university spending, spend in the local economy, contributing to GRP through induced demand for goods and services. Demand which would not have been “but for” the existence of the University. To capture the economic contribution of the University through direct, indirect, and induced demand requires data that captures the channels by which spending flows through the local economy. It also requires detailed information about production patterns in Greenville County, as many of the goods and services used originate outside of the county. Due to the complexity of the analysis, software has been developed to organize the data of economic linkages between industries and regions and derive the multiplier effects of industries through indirect and induced effects. For this study, we use a popular program designed for this type of analysis called IMPLAN. Using the data we have collected on university operations, employee compensation, capital expenditure, student demand, and visitor demand (direct effect), IMPLAN calculates the indirect and induced effects to provide a comprehensive measure of the economic contribution of Furman University to Greenville and the surrounding counties.

The total economic impact can be illustrated in four different ways: employment, labor income, value added, and total output. When reporting employment, the direct effect is the number of people the University directly employs, including full and part-time employees. The indirect and induced effects are interpreted as the number of people employed in the area that are supported by direct, indirect, and induced effects of the University. Labor income is the income earned by those employed and supported by the existence of the University in the region. Direct measures capture the direct amount paid by the University to their employees, while indirect and induced labor income comes from estimates of wages paid to employees in the industries supported by university demand. IMPLAN defines total output as “the gross value of all financial transactions that occur in a region over [a year].” This is the value reported in most university contribution studies, and thus is reported here. This measure is problematic, however, because it includes both purchases of intermediate goods and final goods and services. The final value of a good or service includes the cost of the inputs, or intermediate goods, used to create that good or provide the service. As a result, some goods are being double counted in the reported total output. Total value added, on the other hand, “represents the value of final goods and services.” This definition of economic output is constant with measures of gross regional product (GRP) (the regional variation of gross domestic product (GDP) for states or nations) which is the dominate method of measuring economic activity. We include both measures in our report so one can easily compare across studies, but will highlight the value added when we summarize our results.

The remainder of the paper is organized as follows: In the next four sections we identify the sources, process, and assumptions made in creating the data that represents university operations and employee compensation (Section 2), capital expenditure (Section 3), student demand (Section 4), and visitor demand (Section 5). We also report the individual direct, indirect, and induced contribution of each of

these on Greenville and the surrounding counties. In Section 6 we combine the effects and report the full economic contribution and provide some commentary.

## **Section 2: University Operations**

The University provided a comprehensive report of all spending activities for the 2017-2018 fiscal year (the fiscal year ends in July). We follow the structure of IMPLAN and separate expenditure on goods and services from employee compensation, as these two components of university operations impact the economy in different ways.

### ***Total Expenditure on Goods and Services:***

We must be careful to include only those line items in the university expenditure report that actually contribute to the local economy or are not counted elsewhere in the report. We have carefully explored this report and have included/excluded the following line items from total expenditure.

#### Excluded

- Annuity & life disbursements as well as their fees: these are payments made to donors through an annuity. We would assume that the donor would have used this money independent of the University having been here or not.
- Student Salaries: we do not count student salaries because we are already taking into account student demand in a different part of the model. If we were to include payments to students as a part of university operations, we would double count its effect.
- Research Fellowships: Research fellowship expenditure includes both payment to faculty and students that have been hired by faculty or departments to conduct research. When a fellowship goes to a student, these are essentially paid student salaries. We cannot differentiate between what goes to students and what goes toward supplementing faculty salary, but it does appear the vast majority of this category is going to students. To be certain we do not double count, we will exclude all expenditure on research fellowships.
- Student financial aid: There is no actual cash payout that students receive. This acts as an expense line needed to account for the costs of financial aid, not an actual demand on goods and services in the area.
- Indirect grant expenses: These costs are credited to the operating budget and debited to the grant using an indirect cost rate. This is included in the expenditure report for reporting purposes only, and does not reflect spending that would eventually generate income or demand for goods and services.

We do include those expenditure items that reflect purchases of goods and services and fit the IMPLAN definition of what should be included as a part of university operations.<sup>1</sup> We must also account for the fact that the reported expenditure statement obtained from the University, does not fully account for two major sources of expenditure that will contribute to economic output in the local community. First, all food service operations have been contracted to Bon Appetit Management Company. The University

---

<sup>1</sup> Some expenditure does not reflect eventual demand in the local economy, but IMPLAN assumes it is included in the number provided and discounts the amount based on this assumption. If we were to exclude these line items, IMPLAN would incorrectly discount for them and we would underestimate the effect.

was able to provide information on spending, employee compensation, and employees for food operations through Bon Appetit. We will include these numbers in our calculations. Second, the campus bookstore is run by Barnes & Noble Inc. The University was able to provide information for spending on goods and the number of employees for bookstore operations through Barnes & Noble. We were not able to access employee compensation for Barnes & Noble.<sup>2</sup> We will include the numbers we have in our calculations. The following items from the expenditure report are included in our measure of total output.

Included:

- Cost of goods sold including food and beverages (mostly concessions to be sold at events) and merchandise.
- Depreciation expenditure: included because IMPLAN uses a depreciation adjustment in the calculation of the results.
- Fees (credit card, credit check, late fees, open access fees, and Ticketmaster fees).
- Interest Expense – the majority of which is bond interest expense paid to commercial banks, not the government.
- Fees to investment management consultants.
- Information technology costs reported in the expense report.<sup>3</sup>
- University insurance payments for auto, liability, and property.
- Bon Appetit operating expenses (excluding employee compensation).
- Barnes & Noble operating expenses (excluding employee compensation).
- Entertainment for guests.
- Other expenses.
- Professional services.
- Repairs and Maintenance.
- Supplies.
- Taxes.
- Travel.
- Utilities.
- University profit: included because IMPLAN uses profit adjustment in the calculation of the results.

Applying the above criteria, we end up with direct spending for university operations of \$69,622,988.

IMPLAN has derived from the data a spending pattern for all colleges, universities, junior colleges, and professional schools in the study region. There are important differences, however, between a private, four-year, residential university and its counter-parts in the IMPLAN industry for higher education. We take the information we have from the University budget and construct a Furman specific spending pattern to further customize the program. Using our own aggregation assumptions, the general differences in the industry spending pattern embedded in IMPLAN and that of Furman University are exhibited in Table 1.

---

<sup>2</sup> Barnes & Noble employs five full time employees and six part-time employees, so the consequences of not having information for employee compensation is minimal.

<sup>3</sup> A separate report includes the expenditure on hardware and software considered capital expenditure. These amounts will be included in the capital expenditure report in the next section.

Table 1: Ratio of total spending on different industries

	IMPLAN	Share
Food	12.1006	8.843028
Utilities	17.8283	6.960354
Building Materials	4.7041	0.233275
Maintenance	3.2192	2.383364
Landscape	0.5157	0.025255
Technology	4.2666	6.133752
Supplies	5.4855	15.31257
Travel	4.8624	21.14761
Media	1.3945	2.729439
Finance	1.4631	16.31369
Services	8.0715	17.59404
Entertainment/Food	2.8754	2.123901
Real Estate	33.2174	0.199716
Total	100.0043	100

\* Author calculation from university expenditure report

**Employee Compensation:**

Employee compensation leads to an important contribution by Furman University to the local economy in terms of the demand for goods and services in the local community derived from the spending of Furman employees. Spending that supports the local economy through induced effects. For the purposes of capturing this effect, IMPLAN follows the Bureau of Economic Analysis definition of employee compensation: “The total remuneration, both monetary and in kind, payable by employers to employees in return for their work during the period. It consists of wages and salaries and of supplements to wages and salaries (employer contributions for employee pension and insurance funds and employer contributions for government social insurance).” We calculate employee compensation as all wages and benefits paid to by Furman University and Bon Appetit to employees that work and Furman University.

The only benefit excluded from our measure of employee compensation is the employee tuition benefit. We do not include the tuition benefit because we cannot determine how much of the stated amount is going back to the University in terms of a credit for a dependent that is attending the University and how much is going to another university. In the case of the dependents attending Furman, this would act a student financial aid.<sup>4</sup>

Total employee compensation for this study is \$83,087,885. The combination of both employee compensation and direct spending provides the total expenditure for university operations and comes to \$152,710,873.

---

<sup>4</sup> The parents of these students may spend more in the local community because of the subsidized education that the program assumes, but removing this benefit provides a more conservative estimate.

**Employment:**

Furman directly employs 956 faculty and staff. Bon Appetit employs and additional 158 to run food service and catering while Barnes & Noble employs 11 in its bookstore operations. This leads to 1,125 persons employed to support university operations.<sup>5</sup>

**Economic Contribution of University Operations:**

Table 2 contains the economic contribution of Furman University to Greenville County through university operations.

Table 2: The economic contribution of university operations on Greenville County

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
Direct Effect	1125.0	\$83,087,884.86	\$88,572,306.13	\$152,710,872.63
Indirect Effect	349.4	\$17,429,177.68	\$24,325,097.04	\$44,222,633.18
Induced Effect	508.1	\$21,787,157.94	\$38,766,906.10	\$65,768,217.00
Total Effect	1982.5	\$122,304,220.48	\$151,664,309.27	\$262,701,722.81

Furman University directly employs 1,125, but through indirect and induced effects the University supports and additional 857.5 jobs in Greenville County through university operation expenditure and employee spending. This employment generates \$83,087,884.86 in direct labor income (defined as employee compensation above), and an additional \$39,216,335.62 in labor income for the residents in the county through indirect and induced effects.

Furman University's operations through direct, indirect, and induced effects generate \$262,701,722.81 in total output and \$151,664,309.27 in total value added.

**Surrounding counties:**

The economic contribution of university operations on the four adjacent counties are reported in Table 3:

Table 3: The economic contribution of university operations on surrounding counties

	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
<b>Anderson County</b>				
Indirect Effect	0.2	\$9,694.89	\$20,298.32	\$52,059.33
Induced Effect	0.5	\$18,622.71	\$39,749.30	\$94,602.53
Total Effect	0.7	\$28,317.60	\$60,047.63	\$146,661.87

<sup>5</sup> Of those employees directly hired by the University, 812 live in Greenville County while 102 live in counties adjacent to Greenville County (Anderson County (14), Pickens County (74), and Spartanburg County (14)). This leaves 42 that live outside of the area. The fraction of employees that live outside Greenville County (15%) is similar to the pattern for all industries located in Greenville County (20%). Both of these measures (Furman and County) are not complete, and thus we do not adjust employment levels in IMPLAN.

<b>Pickens County</b>				
Indirect Effect	0.4	\$12,773.83	\$21,885.24	\$64,859.03
Induced Effect	0.7	\$26,942.69	\$49,798.98	\$127,982.88
Total Effect	1.2	\$39,716.52	\$71,684.22	\$192,841.91
<b>Spartanburg County</b>				
Indirect Effect	8.1	\$479,525.76	\$641,072.66	\$1,286,994.72
Induced Effect	13.9	\$768,221.22	\$1,121,845.55	\$2,134,686.65
Total Effect	22.0	\$1,247,746.98	\$1,762,918.20	\$3,421,681.37
<b>Laurens County</b>				
Indirect Effect	0.1	\$4,830.38	\$8,423.84	\$23,012.10
Induced Effect	0.3	\$9,802.42	\$17,948.08	\$48,017.79
Total Effect	0.4	\$14,632.80	\$26,371.91	\$71,029.89
<b>Total Combined Effect</b>	<b>48.7</b>	<b>\$2,660,827.82</b>	<b>\$3,842,043.93</b>	<b>\$7,664,430.08</b>

Notice there are no direct effects in these counties because the University only operates in Greenville County. Furman supports an additional 48.7 jobs and \$3,842,043.93 of GRP in these counties combined. The effect is largest in Spartanburg County, which is the most urban and industrialized of the surrounding counties.

### Section 3: Capital Expenditure

Capital expenditure is accounted separately from university operations, as these projects are typically one-time expenditure items that have use over a number of years. The capital improvement projects reported by the University include spending on building, equipment, and land improvements as well as major renovations to buildings. In terms of accounting for this in the input and output table, IMPLAN does not include capital expenditure items in its economic linkages for the higher education sector. In this way, a large and abnormal capital improvement project in one fiscal year does not inflate the contribution of typical university operations.

The University, however, is consistently spending on capital improvements and thus excluding capital expenditures from the analysis completely would underestimate the contribution of university spending. To illustrate the consistent spending on capital projects, the total expenditure of capital projects over the last five years is presented in Table 4:

Table 4: Capital expenditures over five years

	Building	Equipment	Land Improvement	Total Capital Expenditure
Fiscal Year				
2014	\$6,524,183.64	\$3,792,200.51	\$1,775,011.90	<b>\$12,091,396.05</b>
2015	\$6,939,818.04	\$2,659,969.36	\$1,012,361.55	<b>\$10,612,148.95</b>

2016	\$16,337,658.46	\$3,497,919.96	\$1,564,525.87	<b>\$21,400,104.29</b>
2017	\$12,878,059.49	\$3,559,539.18	\$2,990,116.84	<b>\$19,427,715.51</b>
2018	\$5,081,967.55	\$5,996,560.22	\$1,719,628.48	<b>\$12,798,156.25</b>
<b>Average</b>	<b>\$9,552,337.44</b>	<b>\$3,901,237.85</b>	<b>\$1,812,328.93</b>	<b>\$15,265,904.21</b>

Expenditure on buildings has a higher variance than the other categories. The higher value in fiscal year 2016 and 2017 are largely a result of expenditure on major renovations to two student dorms. The University plans to continue to renovate additional student housing buildings on campus over the next few years, so we are comfortable that the average is a reasonable representation of building spending costs for the immediate future. Capital expenditure on equipment consists largely of spending on software, lab equipment, golf carts, vehicles, some improvement to HVAC units, updating teaching stations in classrooms, furniture, and lawn equipment.<sup>6</sup> Land improvement includes changes to the landscape that go beyond the typical maintenance.

Though there is sizable variance in capital expenditure on buildings, for the reasons stated above, we believe an average expenditure across the last five years provides a reasonable representation of consistent annual spending that will contribute to the local economy. Understanding that the five-year average could be biased upward of “typical” due to building renovations, we will also report the results based on the lowest value for building (2018), equipment (2015), and land improvements (2015).

Building projects for educational institutions have a special category in IMPLAN which we will use<sup>7</sup>. We will assume that capital expenditure on equipment and land improvement were not purchased directly from the manufacturer, but from wholesalers. The contribution of Furman University’s capital expenditures to Greenville County using the five-year average is presented in Table 5:

Table 5: The economic contribution of capital expenditure (five year average) on Greenville County

<b>Greenville County</b>				
<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
Direct Effect	49.7	\$3,161,733.86	\$5,144,307.46	\$10,666,482.77
Indirect Effect	15.4	\$922,006.53	\$1,474,093.70	\$2,496,328.83
Induced Effect	20.9	\$894,008.26	\$1,590,800.18	\$2,697,826.11
<b>Total Effect</b>	<b>86.0</b>	<b>\$4,977,748.65</b>	<b>\$8,209,201.33</b>	<b>\$15,860,637.70</b>

<sup>6</sup> The expenditure on information technology included in university operations reflects typical maintenance and not the purchase of large equipment.

<sup>7</sup> IMPLAN industry 55 (new educational and vocational structures). Though Furman’s expenditures do not represent new construction, the renovations were extensive and this category (55) captures the spending inherent in this type of construction activities relative to other possible spending categories. Other possible IMPLAN industries were “maintenance and repair construction of nonresidential structures” (62) and “maintenance and repair construction of residential structures” (63). Using both of these alternate industries, the estimated economic contribution is higher than when using “construction of new educational and vocational structures” (55). As a result, what we have reported here is the most conservative of the possible estimates we could have included.



Capital improvement projects on average support 86 jobs in Greenville County and \$8,209,201.33 in GRP. Table 6 illustrates the economic contribution of capital expenditure to the surrounding counties using the five-year average.

Table 6: The economic contribution of capital expenditure (five year average) on surrounding counties

	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
<b>Anderson County</b>				
Indirect Effect	0.4	\$16,221.08	\$28,330.80	\$81,905.27
Induced Effect	0.1	\$3,028.00	\$6,096.98	\$11,887.14
Total Effect	0.5	\$19,249.08	\$34,427.79	\$93,792.41
<b>Pickens County</b>				
Indirect Effect	0.6	\$28,477.06	\$45,538.72	\$133,372.64
Induced Effect	0.2	\$4,810.32	\$9,522.33	\$19,047.02
Total Effect	0.7	\$33,287.38	\$55,061.05	\$152,419.66
<b>Spartanburg County</b>				
Indirect Effect	3.4	\$214,313.15	\$340,707.07	\$668,696.45
Induced Effect	1.3	\$56,455.03	\$92,792.16	\$165,149.79
Total Effect	4.7	\$270,768.18	\$433,499.22	\$833,846.23
<b>Laurens County</b>				
Indirect Effect	0.3	\$14,129.93	\$22,981.11	\$69,770.77
Induced Effect	0.1	\$1,753.30	\$3,476.39	\$6,898.86
Total Effect	0.4	\$15,883.23	\$26,457.50	\$76,669.63
<b>Total Combined Effect</b>	<b>6.3</b>	<b>\$339,187.87</b>	<b>\$549,445.56</b>	<b>\$1,156,727.93</b>

Average capital expenditure programs on campus support an additional 6.3 jobs in surrounding counties, and contributes and additional \$549,445.56 in GRP for these particular counties combined.

As stated above, a more conservative estimate of the typical contribution of capital expenditure to the local economy uses the lowest expenditure values over the last five years instead of the average. Using these numbers, the economic contribution of capital expenditure to Greenville County is reported in Table 7 and the economic contribution of capital expenditure to the surrounding counties in Table 8.

Table 7: The economic contribution of capital expenditure (minimum value) on Greenville County

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
Direct Effect	27.0	\$1,726,649.00	\$2,823,155.58	\$5,798,071.97
Indirect Effect	8.4	\$503,967.24	\$805,386.00	\$1,363,191.18

Induced Effect	11.4	\$488,232.21	\$868,759.17	\$1,473,336.64
Total Effect	46.8	\$2,718,848.45	\$4,497,300.74	\$8,634,599.79

Table 8: The economic contribution of capital expenditure (minimum value) on surrounding counties

	Employment	Labor Income	Total Value Added	Output
<b>Anderson County</b>				
Indirect Effect	0.2	\$8,657.19	\$15,124.50	\$43,696.70
Induced Effect	0.0	\$1,624.88	\$3,272.93	\$6,390.14
Total Effect	0.3	\$10,282.07	\$18,397.42	\$50,086.85
<b>Pickens County</b>				
Indirect Effect	0.3	\$15,188.91	\$24,291.59	\$71,116.22
Induced Effect	0.1	\$2,578.98	\$5,103.32	\$10,223.09
Total Effect	0.4	\$17,767.89	\$29,394.91	\$81,339.31
<b>Spartanburg County</b>				
Indirect Effect	1.9	\$115,765.02	\$183,636.57	\$360,010.15
Induced Effect	0.7	\$30,667.77	\$50,369.29	\$89,683.67
Total Effect	2.5	\$146,432.79	\$234,005.86	\$449,693.83
<b>Laurens County</b>				
Indirect Effect	0.2	\$7,532.44	\$12,251.96	\$37,187.12
Induced Effect	0.0	\$939.82	\$1,862.58	\$3,703.20
Total Effect	0.2	\$8,472.26	\$14,114.54	\$40,890.32
<b>Total Combined Effect</b>	<b>3.4</b>	<b>\$182,955.01</b>	<b>\$295,912.73</b>	<b>\$622,010.30</b>

There is a significant difference in the total contributions. Total jobs supported falls to 50.2 and value added is now \$2,901,803.46.

#### Section 4: Student Demand:

The Common Data Set report for the year 2017-2018 indicates that Furman University had a total of 2,949 students enrolled in the fall of 2017. Furman University is primarily an undergraduate institution, though it does offer some graduate degrees and has an adult undergraduate program. The graduate program is small, with only 203 students enrolled in the fall of 2017. The vast majority in the Masters of Arts in Education and Educational Specialist program, which predominately draws from educators in the region. We assume that these students would have remained in the area and completed their education with other local or online options had an option not been available at Furman, thus graduate students are not included in the assessment. The undergraduate evening studies (UES) program is designed for adult learners from the community and had an enrollment of 71 students in the fall of 2017. 85% of UES students live within 25 miles of campus and the remaining 15% live within the Upstate. We also assume

these students would have remained in the area to complete their undergraduate degree had there not been an option to complete their degree in the evening studies program, thus we do not include UES students in the analysis of student demand.

We must also take into account the popularity of the study away programs offered through the University. An average of 240 students are off campus during either spring or fall semester. We will subsequently reduce the number of students counted in our total by an additional 120 to take into account that study away students will only spend half of their typical annual spending in the community during a year.<sup>8</sup> This leaves 2,555 potential students on campus that demand local goods and services in a given year.

Many studies that take into account student spending to assess their impact on the local community exclude “local” students that attend the university. The assumption is that these individuals would have stayed in the study region had they not attended the university and thus they do not bring “new” expenditure to the area. In other words, they would have still spent “but for” the university, so they should not be included. For students that attend Furman University, however, this assumption is not valid. Attending Furman keeps these students in the area where they would have otherwise left to attend a different college. There are no substitutes in Greenville County for a student planning to attend a 4-year residence based university. Students that apply to Furman attend other 4-year universities and do not typically attend regional, technical, or for profit institutions (which do exist in Greenville County) as an alternative to Furman. As a result, we assume spending by the student (or the local parent supporting the student) is spending that would not have occurred in Greenville County “but for” the presence of the University.

Furman University is a residential college with 99% of students living on campus. The vast majority of student spending occurs on campus and has already been included in operational spending. This includes housing, on-campus food, and books. Students do, however, spend on goods and services off campus and thus generate direct, indirect, and induced income for the Greenville and the surrounding counties. The College Board estimates that students who attend residential, private, non-profit institutions such as Furman spend an average of \$3,990 per year on expenses outside of tuition, fees, room, and board. They estimate students spend an average of \$1,050 on transportation, \$1,240 on books and supplies, and \$1,700 on other expenses.<sup>9</sup> Excluding books, which have already been accounted for in university operations, we will use these amounts for student demand.

In order to determine where students spend their \$1,700 in other expenses in a given year, we use the Bureau of Labor Statistics Consumer Expenditure Report for consumers younger than age 25.<sup>10</sup> Table 9 provides the breakdown of how this spending was allocated. Columns one and two contain the amount spent per student in a year on “other” goods and transportation according to the College Board. Column 3 and 4 provides the fraction of income a typical person of college age spends on different goods and services according to the consumer expenditure survey and our calculations when a particular industry was not represented. The last two columns show what industry codes these goods and services line up with in IMPLAN.

---

<sup>8</sup> Alternatively, we could have reduced the amount these students spend off campus in a year by half.

<sup>9</sup> <https://trends.collegeboard.org/college-pricing/figures-tables/average-estimated-undergraduate-budgets-2018-19>

<sup>10</sup> <https://www.bls.gov/cex/2017/combined/age.pdf>

Table 9: Student Demand Calculations

College Board Spending Category		CES proportion				Sector
Other	1700					
		Fraction	Amount per student	Total Amount	IMPLAN Sector Code and Description	
		<i>0.10</i>	<i>167.20</i>		501	Full service restaurant
		<i>0.10</i>	<i>167.20</i>		502	Limited service restaurant
		<i>0.10</i>	<i>167.20</i>		503	Other restaurant
		<i>0.13</i>	<i>213.43</i>		397	Retail: home furnishing
		<i>0.03</i>	<i>47.40</i>		398	Retail: Electronics
		<i>0.04</i>	<i>67.32</i>		400	Retail: food and beverage
		<i>0.08</i>	<i>132.30</i>		401	Retail: Health and Personal Care
		<i>0.16</i>	<i>279.26</i>		403	Retail: Clothing
		<i>0.03</i>	<i>47.40</i>		404	Retail: sporting/hobby
		<i>0.11</i>	<i>189.86</i>		405	Retail: General
		<i>0.03</i>	<i>47.40</i>		423	Movie Industry
		<i>0.03</i>	<i>47.40</i>		424	Music Industry
		<i>0.02</i>	<i>31.60</i>		492	Independent Artists
		<i>0.02</i>	<i>31.60</i>		493	Museums
		<i>0.02</i>	<i>31.60</i>		494	Amusement Parks
		<i>0.02</i>	<i>31.60</i>		496	Other Amusement
Transportation	1050					
		<i>0.34</i>	<i>357</i>		396	Retail: Motor Vehicle and Parts
		<i>0.5</i>	<i>525</i>		402	Retail: Gasoline Stores
		<i>0.16</i>	<i>168</i>		504	Auto Repair and Maintenance

Notes:

1. To get the total amount of “other” spent on the CES for individuals under the age of 25 and to calculate the proportions spent above, we sum the following categories from the CES: Food away from home, alcoholic beverages, housekeeping supplies, household furnishings and equipment, apparel and services, drugs, medical supplies, entertainment, personal care products and services, tobacco products, and miscellaneous.
2. We do not include health insurance. We assume the majority of students are on their parent’s health insurance plan. Medical services are not included because the University offers medical services on campus.
3. The values in italics represent categories where the CES survey did not provide a sufficient level of detail to identify specific industry categories in IMPLAN. For example, CES indicates that the proportion of funds other than housing and typical food costs that individuals use on entertainment is 18.5%, yet did not provide how that entertainment money was used. IMPLAN does not provide an entertainment industry and so we in ad hoc fashion split the entertainment proportion into categories 398, 404, 423, 424, 492, 493, 494, and 496, with the sum of proportions in these categories adding up to 0.185. Similarly, the CES only captures the amount spent on food outside the home (29.5%). We evenly split this proportion across the IMPLAN categories that include industries that provide food outside the home. We could not use the same process for transportation. The CES estimates that individuals in this age category spend \$3,366 (net outlay) on vehicle purchases. This amount is significantly above the College Board estimates, so we exclude this cost as well as public transportation and find 50% of the remaining costs are on gasoline

and motor oil and 16% is used on maintenance and repair, we include the remainder in the IMPLAN category Retail: Motor Vehicles and Parts.

Using this information, we calculate the direct, indirect, and induced contribution of student spending on the local economy. Table 10 summarizes the impact that student demand has on Greenville County and Table 11 summarizes the impact on the surrounding counties.

Table 10: The economic contribution of student demand (including local students) on Greenville County

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
Direct Effect	51.8	\$1,482,780.16	\$2,139,413.07	\$3,666,083.31
Indirect Effect	8.3	\$393,400.09	\$715,767.79	\$1,197,096.66
Induced Effect	9.5	\$408,737.16	\$727,401.77	\$1,233,688.91
<b>Total Effect</b>	<b>69.7</b>	<b>\$2,284,917.42</b>	<b>\$3,582,582.63</b>	<b>\$6,096,868.88</b>

Student demand supported close to 70 jobs in the local economy and \$3.58 million in GRP.

Table 11: The economic contribution of student demand (including local students) on surrounding counties

	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
<b>Anderson County</b>				
Indirect Effect	0.0	\$1,288.89	\$2,584.54	\$6,970.26
Induced Effect	0.0	\$508.67	\$1,059.93	\$2,339.38
<b>Total Effect</b>	<b>0.0</b>	<b>\$1,797.56</b>	<b>\$3,644.47</b>	<b>\$9,309.64</b>
<b>Pickens County</b>				
Indirect Effect	0.0	\$2,078.96	\$3,790.57	\$10,365.23
Induced Effect	0.0	\$750.29	\$1,427.81	\$3,312.57
<b>Total Effect</b>	<b>0.1</b>	<b>\$2,829.25</b>	<b>\$5,218.37</b>	<b>\$13,677.80</b>
<b>Spartanburg County</b>				
Indirect Effect	0.7	\$49,163.22	\$68,427.05	\$130,938.29
Induced Effect	0.4	\$19,546.38	\$30,686.75	\$56,027.83
<b>Total Effect</b>	<b>1.1</b>	<b>\$68,709.60</b>	<b>\$99,113.80</b>	<b>\$186,966.12</b>
<b>Laurens County</b>				
Indirect Effect	0.0	\$692.68	\$1,226.01	\$3,412.43
Induced Effect	0.0	\$246.85	\$462.49	\$1,133.36
<b>Total Effect</b>	<b>0.0</b>	<b>\$939.54</b>	<b>\$1,688.50</b>	<b>\$4,545.79</b>
<b>Total Combined Effect</b>	<b>1.3</b>	<b>\$74,275.95</b>	<b>\$109,665.15</b>	<b>\$214,499.36</b>

Student demand supported 1.3 jobs in the local economy of the surrounding counties and \$0.1 million to those counties GRP.

Some could argue that local student expenditure should not be included because the students' spending is offset by an equivalent reduction in parental spending in the county. In order to provide a conservative estimate of the effects of student demand, we also provide the economic contribution of student demand using only those students that came from outside of the study area. Only 9.4% (66 of a class of 702) of the 2018 entering class of undergraduate day students are from Greenville County with an additional 21 from Anderson, Pickens, or Spartanburg County (an additional 3%). If we assume this percentage has stayed consistent across incoming classes<sup>11</sup>, approximately 240 students on campus are from Greenville County and 76 from surrounding counties. For the conservative case, we will demonstrate the contribution of student demand using 2,315 students<sup>12</sup>. The economic contribution from student demand on Greenville and the surrounding counties are presented in Tables 12 and 13 respectively.

Table 12: The economic contribution of student demand (excluding local students) on Greenville County

<b>Greenville County</b>				
<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
Direct Effect	46.9	\$1,343,494.04	\$1,938,445.69	\$3,321,707.86
Indirect Effect	7.6	\$356,445.78	\$648,531.66	\$1,084,646.64
Induced Effect	8.6	\$370,342.13	\$659,072.74	\$1,117,801.40
<b>Total Effect</b>	<b>63.1</b>	<b>\$2,070,281.95</b>	<b>\$3,246,050.09</b>	<b>\$5,524,155.90</b>

Table 13: The economic contribution of student demand (excluding local students) on surrounding counties

	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
<b>Anderson County</b>				
Indirect Effect	0.0	\$1,167.82	\$2,341.76	\$6,315.50
Induced Effect	0.0	\$460.89	\$960.37	\$2,119.63
<b>Total Effect</b>	<b>0.0</b>	<b>\$1,628.70</b>	<b>\$3,302.13</b>	<b>\$8,435.13</b>
<b>Pickens County</b>				
Indirect Effect	0.0	\$1,883.67	\$3,434.50	\$9,391.56
Induced Effect	0.0	\$679.81	\$1,293.68	\$3,001.40
<b>Total Effect</b>	<b>0.1</b>	<b>\$2,563.48</b>	<b>\$4,728.18</b>	<b>\$12,392.96</b>

<sup>11</sup> Once students come to campus, many of them change their home address to their school address, thus we do not have exact data on those that are for Greenville County for a given student population and must extrapolate it from the home addresses of the representative incoming class.

<sup>12</sup> I have chosen to only exclude Greenville students as the parent offset of the students even from the surrounding counties would not be captured in this study.

<b>Spartanburg County</b>				
Indirect Effect	0.7	\$44,545.06	\$61,999.34	\$118,638.57
Induced Effect	0.4	\$17,710.28	\$27,804.17	\$50,764.83
Total Effect	1.0	\$62,255.34	\$89,803.52	\$169,403.39
<b>Laurens County</b>				
Indirect Effect	0.0	\$627.60	\$1,110.82	\$3,091.83
Induced Effect	0.0	\$223.65	\$419.02	\$1,026.84
Total Effect	0.0	\$851.26	\$1,529.85	\$4,118.67
<b>Total Combined Effect</b>	<b>1.1</b>	<b>\$67,298.79</b>	<b>\$99,363.67</b>	<b>\$194,350.16</b>

Including local students has a small effect on the overall economic contribution of student demand to the local community. The difference in 6.8 total jobs supported and \$346,834.02 in total value added.

#### Visitor Demand:

Universities attract a number of visitors that would not have come to the area “but for” the existence of the university. These visitors spend in the local area and thus support the local economy, and are typically included in university contribution studies. To capture the contribution of visitor spending to the local economy, we must identify how many visitors come to campus that would not have come to the area “but for” the University, how much they spend, and what they spend their money on.

There is no practical way to determine exactly how many people visit campus from outside of the area, so we focus on a few particular events and features of the University that consistently attract visitors. In taking this approach we are almost certainly underestimating the number of visitors from outside the area that come to campus, and thus we consider this a conservative estimate. The main activities that bring out-of-the-area visitors to campus are move-in day, visits to the admissions office, commencement, summer freshman orientation, football games, and teams that visit for athletic competitions.

To calculate the number of visitors that come from outside of the area to assist with move-in we take the number of freshman from the 2018 class, remove those that come from the local community and multiply the number by two, assuming that each freshman will have two people on average to assist them. We follow a similar pattern to capture the number of visitors that come for the summer Freshman Orientations. We know how many students attended and we assumed that they each brought two guests (there are events for the parents of students that come to orientation). As we did for move-in, we remove those that come from the local area. The Office of Admissions maintains a list of all those that come to campus for an admission tour and where they are from. We remove those from this list that come from the local community. The number of visitors that come to commencement were based on the size of the graduating class in 2017. We removed the students that are from the local community.<sup>13</sup> We assumed that each student will have between four and five guests. This assumption allows for siblings, parents, and potentially one or more extended family member. Only the guests are

---

<sup>13</sup> Here again we had to use the ratio of students from the 2018 freshman cohort because many students change to their local address when they come to campus.

counted toward visitor spending and not the student. For football games we have access to the location of fans that bought tickets to the game through the online portal. We count the number of tickets bought by those who live outside of the area. We will assume that anyone that bought a ticket at the stadium is from the local area. A typical season has five home games, however, in the season we had data for, one home game was canceled. We used the average for the four games to extrapolate attendance to the fifth game. Finally, for the number of visitors that come to campus to participate in an athletic competition (the opposing team), we took the number of athletes on Furman’s sports teams and presumed that any traveling opposing team will have a team of the same size. We then took the number of Furman home games and calculated the approximate number of visitors that came to participate in athletic events.

Table 14 summarizes our estimates of the number of visitors that come from outside of the area that would not have come “but for” the University.

Table 14: Number of visitors to campus

Move in	1,094
Football Games	923
Admissions	16,770
Commencement	2,547
Freshman Orientation	928
Visiting teams	508
Total	22,770

Next, we estimate what visitors spend when they come to campus. We focus on spending on food and lodging. It is possible that there will be expenditure on entertainment, retail, and other goods in the area, but that should be small relative to food and lodging. The base general figures for Furman’s visitor spending were comprised through Google’s hotel and travel search and Numbeo, the world’s largest crowd-sourced database with information on cities and their costs-of-living. The average price of a hotel room in Greenville is around \$138 for a night, which was discerned from averaging the hotel prices around the city on the Google Travel map. The three tier base price of meals around Greenville was taken from Numbeo, which has information on the average price for “inexpensive restaurants,” “McMeal at McDonald’s (or Equivalent Combo),” and “Mid-range restaurant for two.” We used the average price of a McDonald’s meal as the base price for all fast food transactions since its price is comparable to other quick eat chains (\$7). We divided the price of a mid-range restaurant by two and equated this price to the average price of a full-service sit down meal (\$14). We also used Numbeo to find the cost of a meal at a full-service higher-end restaurant (\$25).

We did not include transportation in visitor spending because of the sheer inaccuracy of any estimation that could have been performed. It’s impossible to know who drove, flew, took a train, or bus to Greenville. Additionally, Greenville-Spartanburg Airport is in Spartanburg County so we could not include any potential revenue from flying to Greenville County.

The distance you travel to visit will have an impact on how much you spend on food and lodging (if you do at all). We are careful to account for these spending differences by decomposing the visitor’s



numbers further into distance from Furman University when they visit. When using student data, we use the location data from the 2018 freshman class. For all visitor spending, we do not include any guests from Greenville County because they would be spending money in Greenville “but for” the presence of the University. Those that still live in the upstate or a drivable distance (the rest of the Upstate, Columbia, Charlotte, Asheville, or Atlanta) are counted as visitors, but separately from those that live further than 2 hours away, which we categorize as “non-drivable”.

In all visitor spending categories, those within driving distance are predicted to buy only meals. Those in the non-drivable cohort will both buy meals and likely stay for a night, depending on how long the trip to Greenville will be. We assume a range for each meal and nightly stay, because of this, each meal or lodging multiplier is the average of the range. For the meal breakdown, we make the assumption that half of the meals spent will be in an inexpensive restaurant (limited service or not three course), a quarter will be at fast food restaurants, and the last quarter will be at a full-service, sit-down restaurant. For each visitor spending category, we multiplied the number of visitors within the cohort by the likelihood proportion of eating at an inexpensive, fast-food, and full-service sit down restaurant and by the price of a meal at each restaurant type. Then we added the totals up for the meals. For lodging, we multiplied the number of expected guests by the average night stay by the average price of a hotel, then divided by two since we assume that most guests will share a room with one other person, most likely parents. Table 15 contains the final numbers used to capture direct spending by visitors to campus.

Table 15: Total spending by visitors to campus on food and lodging

<b>Visitor Spending</b>		
<b>Food</b>		
	Limited Service Restaurants	\$139,999.13
	Full Service Restaurants	\$941,041.50
<b>Lodging</b>		
	Hotels/Motels	\$1,103,396.25
<b>Total</b>		<b>\$2,184,436.88</b>

Though we did capture the major events that attract visitors to campus from outside of the area, this should be considered a fairly conservative estimate. There are a number of events on campus that bring people from outside of the area that would contribute to local demand, but we do not have enough information about the attendees to include in the study. For example, eight Furman athletic teams sponsor summer camps and the club sports programs hold occasional competitions on campus as well. The student government organization and departments on campus bring concerts, actors, and distinguished visitors to campus for presentations and conferences. This not only brings the invited guests to campus, but is also open to the public, bringing additional visitors to campus. Some of the economic contribution of these events are rolled up in university operations and thus accounted for, but we do not include these visitors as a part of visitor demand.

In addition, the fine arts departments on campus present a number of faculty and student concerts, plays, displays, and other creative works. We do not include visitors that attend these events because we do not have data on where they come from. Anecdotal evidence suggests that the majority of those that attend these events are from the local community and thus should not be included in the

contribution study.<sup>14</sup> We most certainly are missing some visitors that come from outside the area to attend these events by making this assumption.

There are other organizations that use Furman facilities and bring visitors to the area. To be conservative we do not include any of these events because the external organization could have chosen an alternate venue in Greenville County, but certainly not all of these events would have remained in the area “but for” the University. Just a sampling of events that fall into this category include: USA Rugby matches, gymnastics and karate meets, multiple dance competitions and recitals, Shrine Circus, National College Trade Fair, a number of high school graduations, summer camps for community organizations, Scottish Games, conferences for Blue Cross/Blue Shield and the Bankers Association, etc. Furman University also has a golf course that is open to the public and sponsors tournaments that attracts visitors not included in the analysis. The economic contribution of visitor spending to the local community is listed in Table 16:

Table 16: The economic contribution of visitor demand on Greenville County

<b>Greenville County</b>				
<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
Direct Effect	28.9	\$868,597.16	\$1,317,315.45	\$2,184,437.05
Indirect Effect	4.0	\$201,740.76	\$337,298.52	\$567,300.54
Induced Effect	5.5	\$233,624.24	\$415,808.74	\$705,101.64
<b>Total Effect</b>	<b>38.3</b>	<b>\$1,303,962.16</b>	<b>\$2,070,422.71</b>	<b>\$3,456,839.23</b>

Visitor demand supports 38 jobs in Greenville County and just over \$2 million in GRP. This contribution is less than that other sources of contribution, but none the less, does support the local economy.

The contribution of visitor demand to the surrounding counties is presented in Table 17.

Table 17: The economic contribution of visitor demand on surrounding counties

	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
<b>Anderson County</b>				
Indirect Effect	0.0	\$833.26	\$1,743.94	\$4,650.18
Induced Effect	0.0	\$304.72	\$633.36	\$1,386.67
<b>Total Effect</b>	<b>0.0</b>	<b>\$1,137.97</b>	<b>\$2,377.30</b>	<b>\$6,036.86</b>
<b>Pickens County</b>				
Indirect Effect	0.0	\$1,292.11	\$2,409.39	\$6,437.60
Induced Effect	0.0	\$442.68	\$843.85	\$1,944.59
<b>Total Effect</b>	<b>0.0</b>	<b>\$1,734.79</b>	<b>\$3,253.24</b>	<b>\$8,382.18</b>

<sup>14</sup> The common assumption is that these would have found such cultural events somewhere else in the study area had it not been offered by Furman University, and thus is has not generated in “new” demand.

<b>Spartanburg County</b>				
Indirect Effect	0.4	\$29,388.30	\$40,586.47	\$75,496.27
Induced Effect	0.2	\$11,336.54	\$17,846.99	\$32,533.27
Total Effect	0.6	\$40,724.84	\$58,433.46	\$108,029.54
<b>Laurens County</b>				
Indirect Effect	0.0	\$439.70	\$786.16	\$2,077.44
Induced Effect	0.0	\$145.46	\$273.16	\$663.78
Total Effect	0.0	\$585.16	\$1,059.32	\$2,741.22
<b>Total Combined Effect</b>	<b>0.7</b>	<b>\$44,182.76</b>	<b>\$65,123.32</b>	<b>\$125,189.80</b>

The effects of visitor demand through indirect and induced effects on the surrounding counties is understandably small.

#### **Total Economic Contribution of the University:**

To present the total economic contribution of Furman University to Greenville County as well as the surrounding counties, we sum the total effects (direct, indirect, and induced) of university operations, capital expenditure, student demand, and visitor demand. The total economic contribution for Greenville County as well as the surrounding counties using our baseline estimations is reported in Table 18.

Table 18: The total economic contribution of Furman University on Greenville County and the surrounding counties

<b>Baseline Estimate</b>				
<b>Greenville</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
University Operations	1,982.5	\$122,304,220.48	\$151,664,309.27	\$262,701,722.81
Capital Expenditure	86.0	\$4,977,748.65	\$8,209,201.33	\$15,860,637.70
Student Demand	69.7	\$2,284,917.42	\$3,582,582.63	\$6,096,868.88
Visitor Demand	38.3	\$1,303,962.16	\$2,070,422.71	\$3,456,839.23
<b>Total</b>	<b>2,176.5</b>	<b>\$130,870,848.71</b>	<b>\$165,526,515.94</b>	<b>\$288,116,068.62</b>
<b>Surrounding Counties</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
University Operations	48.7	\$2,660,827.82	\$3,842,043.93	\$7,664,430.08
Capital Expenditure	6.3	\$339,187.87	\$549,445.56	\$1,156,727.93

Student Demand	1.3	\$74,275.95	\$109,665.15	\$214,499.36
Visitor Demand	0.7	\$44,182.76	\$65,123.32	\$125,189.80
<b>Total</b>	<b>57.0</b>	<b>\$3,118,474.40</b>	<b>\$4,566,277.96</b>	<b>\$9,160,847.17</b>

As these results show, Furman University supports 2,176.5 jobs in Greenville County and contributes over \$165.5 million to Greenville GRP. This is 0.53% of Greenville County’s total GRP. The contribution to total output is over \$288.1 million. University operations, employee compensation, capital expenditure, student demand, and visitor demand support an additional 57 jobs and over \$4.5 million in GRP in the surrounding counties.

Though we feel the estimates reported in Table 18 provide the best estimates of Furman University’s contribution, we can also see that our conservative measures (the lowest years in capital expenditure and excluding local students from student demand) still demonstrate significant economic contributions. Table 19 presents the total contribution under our more conservative estimates of capital expenditure and student demand.

Table 19: The total economic contribution of Furman University on Greenville County and the surrounding counties (more conservative estimates)

<b>Greenville</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
University Operations	1,982.5	\$122,304,220.48	\$151,664,309.27	\$262,701,722.81
Capital Expenditure	46.8	\$2,718,848.45	\$4,497,300.74	\$8,634,599.79
Student Demand	63.1	\$2,070,281.95	\$3,246,050.09	\$5,524,155.90
Visitor Demand	38.3	\$1,303,962.16	\$2,070,422.71	\$3,456,839.23
<b>Total</b>	<b>2,130.7</b>	<b>128,397,313.0</b>	<b>161,478,082.8</b>	<b>280,317,317.7</b>
<b>Surrounding Counties</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value Added</b>	<b>Output</b>
University Operations	48.7	\$2,660,827.82	\$3,842,043.93	\$7,664,430.08
Capital Expenditure	3.4	\$182,955.01	\$295,912.73	\$622,010.30
Student Demand	1.1	\$67,298.79	\$99,363.67	\$194,350.16
Visitor Demand	0.7	\$44,182.76	\$65,123.32	\$125,189.80
<b>Total</b>	<b>53.9</b>	<b>2,955,264.4</b>	<b>4,302,443.7</b>	<b>8,605,980.3</b>

The relationship between Furman University and the Greenville community has been forged over a number of years. Furman is deeply integrated with the community and the community is invaluable intertwined with the University. Though much of the value of the symbiotic relationship goes beyond the economic integration, the economic relationship itself is significant: over \$165.5 million in contribution to local GRP and supporting over two thousand employees.

**Works Cited:**

Association of Public and Land-Grant Universities and Association of American Universities (2014). Economic Engagement Framework: Economic Impact Guidelines, December, [www.aplu.org/CICEPFramwork](http://www.aplu.org/CICEPFramwork).

Blackwell, M., Cobb, S., & Weinberg, D. (2002). The economic impact of educational institutions: Issues and methodology. *Economic Development Quarterly*, 16(1), 88-95.

Carey, R. (2018). The economic & fiscal impact of the Citadel Military College. Clemson University Regional Economic Analysis Laboratory. Strom Thurmond Institute.

Carroll, M. C., & Smith, B. W. (2006). Estimating the economic impact of universities: The case of Bowling Green State University. *Industrial Geographer*, 3(2).

Siegfried, J. J., Sanderson, A. R., & McHenry, P. (2007). The economic impact of colleges and universities. *Economics of Education Review*, 26(5), 546-558.

**Acknowledgements:**

I would like to thank Furman University for the financial support of this project. The Dean’s Office and Dean Ken Peterson, in particular, were especially helpful in provided resources, advice, and access to data for this project. Dyson Robinson, an undergraduate research fellow, provided much needed support, data work, and a sounding board. A report such as this requires significant information and data regarding the operation of the University. I have been greatly assisted by the following individuals as I have sought out data and would like to thank them all for patiently responding to all of my requests.

Name	Title	Assistance
Jessica Berkey-Barnes	Director of the Office of Student Involvement and Inclusion	Freshman Orientation numbers
Amy Blackwell	Associate Vice President Finance	University operations and employee compensation
Susan Cooper	Human Resource Generalist	Where Furman employees live
Dwight Covington	Athletic Ticket Sales Coordinator	Ticket sales for football games
Amy Ecklund	Controller/Director Financial Services	University operations and employee compensation
David Eubanks	Assistant Vice President for Assessment and Institutional Effectiveness	Number of students and location information. Information on education choices of applicants that do not choose Furman
Nancy Georgiev	Director Rinker Center for Study Away and International Education	Number of students on study away
Brad Harmon	Assistant Dean for the First-Year and Second-Year Experience	Freshman Orientation numbers
Danielle Hernandez	Director McAlister Auditorium	Calendar of events held at McAlister Auditorium and Timmons Arena
Marta Lanier	Associate Director Masters of Arts in Strategic Design	Fine Arts events on campus and typical make up of those that attend this events
Tony McGuirt	Director Younts Conference Center and Summer Programs	Events held at Younts Conference Center and summer programs
Rick Presnell	Senior Workday FDM and Financial Systems Manager	University operations and employee compensation

Pamela Rastatter	Administrative Assistant Undergraduate Evening Studies	Number of students in UES
Elaine Stewart	Admissions Database Administrator	Number of people that come for admissions tours and where they come from
Troy Terry	Executive Director of Graduate and Evening Studies	Number of students in graduate and evening studies program as well as where they live
Ronald Thompson	Director Housing and Residence Life	Off-campus housing and freshman move in numbers
Becky Vuksta	Director Auxiliary Services	Bon Appetit and Barnes & Nobel financial information. Furman Golf Course operation information. Number of students that use food plan.
Teddi Walker	Associate Director Residence	Freshman move in numbers