The Economic Impact of University System of Georgia Institutions on their Regional Economies in FY 2021

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Dr. Jeffrey M. Humphreys, Director ■ Selig Center for Economic Growth

Selig Center for
Economic Growth
Terry College of Business
UNIVERSITY OF GEORGIA

Executive Summary

The statewide economic impact of the University System of Georgia's institutions in fiscal year 2021 includes:

- $19.3 billion in output (sales);
- $13.1 billion in gross regional product;
- $8.9 billion in income; and
- 152,629 full- and part-time jobs (3.4 percent of all non-farm jobs in Georgia).

These benefits permeate both the private and public sectors of the host communities. For example, for each job created on campus there are two off-campus jobs that exist because of spending related to the college or university.

These economic impacts demonstrate that continued emphasis on colleges and universities as pillars of the state's economy translates into jobs, higher incomes, and greater production of goods and services.

In addition to the system-wide impact summarized here, the following chapters quantify the economic benefits that each institution conveys to the community in which it is located. Each institution's benefits are estimated for several categories of college/university-related expenditures: spending by the institutions themselves for salaries and fringe benefits, operating supplies and expenses, and other budgeted expenditures; spending by the students who attend the institutions; and spending by the institutions for capital projects.

Introduction

How much does a region benefit economically from hosting an institution of higher education? Traditionally, the benefits are discussed in broad, qualitative terms that often fail to satisfy those who demand tangible evidence of the economic linkages between the academic community and the community as a whole; however, this report quantifies the economic benefits that the University System of Georgia's institutions convey to the communities in which they are located.

The benefits are estimated for several important categories of college/university-related expenditures: spending by the institutions themselves for salaries and fringe benefits, operating supplies and expenses, and other budgeted expenditures; spending by the students who attend the institutions; and spending by the institutions for capital projects (construction). The economic impact estimates are based on regional input-output models of each institution's regional economy, certain necessary assumptions, and available data on annual spending in the specified categories. Moreover, the emphasis is on funds received by residents in the region that hosts each college or university. The study reports expenditures and impacts for the 2021 fiscal year—July 1, 2020 through June 30, 2021.

The study does not account for all of the short-term impacts of the 26 institutions on their host communities, however. For example, there are no dollar amounts estimated for several sources of college/university-related spending because doing so would require collecting survey data, a task beyond the resources available to this study. In addition, the study neither quantifies the many long-term benefits that an institution of higher education imparts to the host community's economic development nor does it measure intangible benefits (such as cultural opportunities, intellectual stimulation, and volunteer work) to local residents. Finally, the study is not a net benefit analysis; it estimates only economic benefits and does not calculate what the presence of a tax-exempt college/university costs the community.

Economic Impact Highlights

In the simplest terms, the total economic impact of all 26 institutions on their host communities was $19.3 billion in FY 2021. The output impact of each institution is the change in regional output that is due to spending by the institution and spending by the students who attend that particular college or university. Of the FY 2021 total, $13.1 billion (68 percent) is initial spending by the institutions and students; $6.2 billion (32 percent) is the induced or re-spending (multiplier) impact. Dividing the FY 2021 total output impact ($19.3 billion) by initial spending ($13.1 billion) yields an average multiplier value of 1.47. On average, therefore, every dollar of initial spending generates an additional 47 cents for the economy of the region that hosts the institution.

In FY 2021, value added comprises $13.1 billion (68 percent) of the $19.3 billion output impact, with domestic and foreign trade comprising the remaining 32 percent. The $13.1 billion value-added impact equals about 2 percent of Georgia's GDP. Labor income received by residents of the communities that host one or more institutions equals $8.9 billion, and represents 68 percent of the value-added impact.

The collective or rolled-up employment impact of all institutions on their host communities in FY 2021, including multiplier effects, is 152,629 full- and part-time jobs. Approximately 33 percent of these positions are on campus (50,888 FTE University System employees) and 67 percent (101,741 jobs) are off-campus positions in either the private or public sectors. On average, for each job created on campus there are two off-campus jobs that exist because of spending related to the institution. The 152,629 jobs generated by the University System equal 3.4 percent of all the nonfarm jobs in Georgia, or about one job in 29. To provide perspective, the rolled-up employment impact of the USG's 26 institutions is about the same as the combined number of jobs at Georgia's top five employers—Fort Benning, Walmart, Delta Air Lines, U.S Army Signal Center and Fort Gordon, and Emory University.

Methodology

■ Understanding the Concept of the Short-Term Economic Impact of a College or University ■

The total annual economic impact of college- or university-related spending consists of the net changes in regional output, value added, labor income, and employment that are due to initial spending by the institution (for operations as well as personnel services) and its students. The total economic impact includes the impact of the initial round of spending and the secondary, or indirect and induced spending—referred to as the multiplier effect—that occurs when the initial expenditures are re-spent. Figure 1 provides a schematic representation of impact relationships.

Indirect spending refers to the changes in inter-industry purchases as a region's industries respond to the additional demands triggered by spending by the college or university, its faculty and staff, and its students. It consists of the ripples of activity that are created when an institution and its employees and students purchase goods or services from other industries located in the host community. Induced spending is similar to indirect spending except that it refers to the additional demand triggered by spending by the region's households as their income increases due to changes in production. Basically, the induced impact captures the ripples of activity that are created when households spend more due to increases in their earnings that were generated by the direct and indirect spending.

The sum of the direct, indirect, and induced economic impacts is the total economic impact, which is expressed in terms of output (sales, plus or minus inventory), value added (gross regional product), labor income, or employment. Total industry output is gross receipts or sales, plus or minus inventory, or the value of production by industry (including households) for a given period. Total output impacts are the most inclusive, largest measures of economic impact. Because of their size, output impacts typically are emphasized in economic impact studies and receive much media attention. One problem with output as a measure of economic impact, however, is that it includes the value of inputs produced by other industries, which means that there inevitably is some double counting of economic activity. The other measures of economic activity (value added, labor income, and employment) are free from double counting and provide a much more realistic measure of the true economic impact of a college or university on its regional economy.

The regional economic areas are the host communities, including the surrounding counties from which employees and students commute. The effects of expenditures that go to people, businesses, or governments located outside the regions are not included in the value-added, labor income, and employment impact estimates.

The multiplier concept is common to most economic impact studies. Multipliers measure the response of the local economy to a change in demand or production. In essence, multipliers capture the impact of the initial round of spending plus the impacts generated by successive rounds of re-spending of those initial dollars. The magnitude of a particular multiplier depends upon what proportion of each spent dollar leaves the region during each round of spending. Multipliers therefore are unique to the region and to the industry that receives the initial round of spending.

Figure 2 illustrates the successive rounds of spending that might occur if a person buys an item locally. Assume that the amount spent is $100 and that the appropriate regional output multiplier is 2.0. The initial injection of spending to the region is $100, which creates a direct economic impact of $100 to the regional economy. Of that $100, only $50 is re-spent locally; the rest flows out of the region through non-local taxes, non-local purchases, and income transfers. After the first round of spending, the total economic impact to the region is $150. During the second round of re-spending, $25 is re-spent locally and $25 leaks out of the region, a 50 percent leakage. Now the total economic impact to the region is $175. After seven rounds of re-spending, less than $1 remains in the local economy, but the total economic impact has reached almost $200. The induced (multiplier effect) impact to the region ($100) equals the total impact ($200) minus the direct impact ($100).

The multiplier traces the flows of re-spending that occur throughout the region until the initial dollars have completely leaked to other regions. Obviously, multiplier effects within large, self-sufficient areas are likely to be larger than those in small, rural, or specialized areas that are less able to capture spending for necessary goods and services. Multiplier effects also vary greatly from industry to industry, but in general, the greater the interaction with the local economy, the larger the multiplier for that industry. For example, personal services, business services, and entertainment industries have intricate relationships with local supporting industries, and therefore have relatively high multiplier values. Conversely, electric, gas, and sanitary services usually are less intertwined with local supporting industries, and their multipliers are lower.

■ Analytic Approach ■

Estimating the economic impact of the University System of Georgia institutions on their regional economies in FY 2021 involved four basic steps. First, initial spending (and employment) for each institution were obtained for Budget Unit "A" and Budget Unit "B"; and then the institutional expenditures were allocated to industrial sectors recognized by the economic impact modeling system. Second, spending by students was estimated and then allocated to industrial sectors. Third, expenditures associated with capital projects (construction) funded were obtained for each institution and were allocated to the appropriate industrial sectors. Finally, the IMPLAN modeling system was used to build regional economic models that are specific to each institution.

The geographic areas corresponding to the regional models that were built for each institution, which include the labor force directly involved in their economic spheres, are reported in Appendix 1. These geographic areas are based on an analysis of commuting patterns data obtained from the U.S. Census Bureau. For analytical purposes, all dollar amounts were converted to inflation-adjusted dollars, but the amounts expressed in this report are expressed in 2021 dollars.

Type SAM (social accounting matrices) multipliers from IMPLAN were used to estimate the economic impacts associated with all categories of spending. Type SAM multipliers capture the original expenditures resulting from the impact, the indirect effects of industries buying from industries, and the induced effects of households' expenditures based on information in the social account matrix. The multipliers account for Social Security and income tax leakage, institutional savings, commuting, inter-institutional transfers, and people-to-people transfers.

Whenever appropriate, IMPLAN applied margins to convert purchaser prices to producer prices. In input-output models, all expenditures are in terms of producer prices, which allow all spending to be allocated to the industries that actually produce the good or service. The margins are derived from U.S. Bureau of Economic Analysis data. Moreover, margins were selected according to type of consumer to which these applied. For example, households pay transportation, wholesale, and the full retail margins. In contrast, institutions of higher education may pay little or no retail margin as they have typically more buying power than a household. In addition, some sectors of the model do not have margins. For instance, because there usually are no wholesalers or retailers involved when someone rents a room, hotels and other lodging do not have margins.

The model's default estimates of the local economy's regional purchase coefficients were used to derive the ratio of locally purchased to imported goods. The regional purchase coefficient represents the proportion of the total demands for a given commodity that is supplied by the region to itself. The regional purchase coefficients were estimated with an econometric equation that predicts local purchases based on each region's unique characteristics. In addition, the entire analysis was conducted using the full range of industrial sectors in order to avoid aggregation bias.

■ Initial Spending by the Institutions ■

Initial spending is the combination of several types of spending, including spending by USG institutions for personnel services (wages, salaries, and benefits), spending by USG institutions for operating expenses, and spending by students.

The author is grateful to Jason Matt, Associate Vice Chancellor for Budget, Board of Regents, who provided institution-specific data on expenditures for personnel services, operations, capital projects, and the number of positions. It should be noted that USG institutions received three rounds of funding from the Higher Education Emergency Relief Fund (HEERF). These funds will be used between fiscal years 2020-2023, with the majority of the spending occurring in FYs 2021 and 2022. To a minor extent, HEERF funds may limit the comparability of the FY 2021 economic impact estimates to those for other fiscal years.

The expenditure amounts are industry changes and are reported in the first column of Tables 1 and 2, respectively. These amounts are allocated to various economic sectors recognized by IMPLAN on the typical expenditure pattern for households of moderate income.

Institution-specific data on expenditures for operating expenses (non-personnel services) for FY 2021 were obtained from the Board of Regents. These amounts are industry changes and are reported in the first column of Tables 1 and 2, respectively.

To avoid double-counting, the estimates of initial spending do not include expenditures arising from two budgetary classes: auxiliary enterprise funds (self-supporting activities for housing, food service, bookstore, athletics, and other)

and student activity funds (cultural and recreational programs operated by students). The spending associated with such activities is included in the student's personal expenditures, however.

The expenditures and impact reported in Tables 1-3 for Augusta University do not account for spending by the hospital and clinics operating by the AU Health System, Inc. Expenditures and impacts for the AU Health System, Inc. are reported in Appendix 3, however. Appendix 4 reports the combined impacts of Augusta University and the AU Health System, Inc. on the Augusta MSA (including the two out-of-state counties) rather than that portion of the local economy that lies within Georgia (defined in Appendix 1).

Since a detailed analysis of spending patterns at each institution was not practical, budgeted expenditures for operating expenses were allocated to various economic sectors based on a typical expenditure pattern estimated for U.S. colleges that was developed by the IMPLAN modelers.

Institution-specific data on capital projects (construction) also were obtained from the Board of Regents. The expenditures were allocated to the fiscal year of reported funding, regardless of whether or not all of the funds were actually spent during fiscal year 2021. Therefore, the amounts for capital expenditures and their impacts are not included in the economic impacts expressed in Tables 1-3, but they are reported in Appendix 2.

It should be noted that some previous editions of this study did not include the impacts of public/private ventures. The FY 2021 capital project impacts therefore are not directly comparable to those for FY 2004 or earlier fiscal years.

■ Students' Personal Expenditures ■

College students spend significant amounts of money in the local economy as a part of their living expenses, so the dollar value of this spending was estimated. Since a detailed survey of students' spending habits at each institution was not practical, typical expenditure levels per student per semester were estimated based on data obtained from several sources: (1) The College Board Annual Survey of Colleges; (2) various annual *Consumer Expenditure Surveys* conducted by the U.S. Bureau of Labor Statistics (BLS); (3) a special BLS study that appeared in the July 2001 issue of the *Monthly Labor Review* that examined the expenditures of college-age students and non-students; and (4) a sample of recent estimated costs of attendance prepared by individual institutions. Although the estimated costs of attendance prepared by the College Board and individual institutions were not detailed enough to be used by the IMPLAN modeling system, they did provide information for a profile of average expenditures for some of the items typically purchased by students.

Although the *Consumer Expenditure Surveys* cover households consisting of one person at various income levels, no recent data are available specifically for college students; therefore, to adapt the data for this study, spending estimates for several categories of goods or services were increased, decreased, or eliminated. For example, compared to a weighted average of lower-income households, students' expenditures for books and for eating out were increased substantially, while students' expenditures for groceries, cash contributions, insurance and pensions, and health care were reduced. Because spending for vacation and travel do not take place locally, these expenditures were eliminated. In addition, expenditures for tuition were eliminated because of possible double counting. Institutions receive payments from students for tuition, which in turn support the institutions' expenditures, which has already been estimated. After adjustment, the average expenditure per student by semester was estimated at $4,065 for Summer 2020, $8,130 for Fall 2020, and at $8,130 for Spring 2021. The amount for Summer 2020 reflects a substantial reduction in the average expenditure per student due to the continuation of virtual instruction for many classes as well as the relative brevity of Summer Semester. The final step in estimating students' personal expenditures was to multiply the number of semesters of student spending by the average spending per semester. For FY 2021, these amounts are reported in the first column of Tables 1 and 2. The number of semesters of students' spending equals each institution's FTE enrollment as reported in the *Semester Enrollment Report* issued by the Board of Regents.

Results

This section describes the economic benefits that the University System of Georgia's 26 institutions conveyed to their host communities in FY 2021. The estimates represent the economic impact of spending by an institution, its faculty and staff, and its students. Based on the methodology and available data described earlier, the IMPLAN modeling system was used to calculate four indicators of impact—total output, total value-added, total income, and total employment—for each category of initial spending. All dollar amounts are reported in 2021 dollars.

■ Total Initial Spending ■

For each institution, total initial spending accruing to the institution's regional economy is the combination of three types of spending—spending by the institution for personnel services, spending by the institution for operating expenses, and spending by that institution's students. Estimates of initial spending for FY 2021 are reported in the first column of Tables 1 and 2. Spending by the institutions for capital projects is reported in Appendix 2.

For FY 2021, total initial spending for all 26 institutions was $13.1 billion. Spending originating from personnel services accounted for 37 percent ($4.9 billion) of initial spending, spending due to operating expenses accounted for 25 percent ($3.3 billion) of initial spending, and students' personal expenditures accounted for 38 percent ($5 billion) of initial spending.

■ Total Output Impact ■

The output impact was calculated for each category of initial spending, based on the impact of the first round of spending and the impacts generated by the re-spending of these amounts—the multiplier effect. Total output impacts are the most inclusive, largest measures of economic impact. Conceptualized as the equivalent of business revenue, sales, or gross receipts, total output is the value of productions by all industries, including households. Output impacts for FY 2021 are reported in the second column of Tables 1 and 2.

Measured in the simplest and broadest possible terms, the total economic impact of the 26 institutions of the University System of Georgia was $19.3 billion in FY 2021 (Table 1). This amount represents the combined impact of all 26 institutions on their host communities. Of the FY 2021 output impact, $13.1 billion (68 percent) was initial spending by the institutions and students, while $6.2 billion (32 percent) was the induced/re-spending impact or multiplier effect (i.e., the difference between output impact and initial spending). The multiplier captures the regional economic repercussions of the flows of re-spending that take place throughout the region until the initial spending has completely leaked to other regions. The average multiplier value for all institutions in FY 2021 was 1.47, obtained by dividing the total output impact ($19.3 billion) by initial spending ($13.1 billion). On average, therefore, every dollar of initial spending generated an additional 47 cents for the economy of the region hosting the institution. Thus, for all institutions combined, the output impact was 1.47 times greater than their initial spending, but the multiplier varies among the individual USG institutions.

It is no surprise that estimates for the various institutions show differing outcomes, given the differences in budgets, staffing, enrollment, and regional economies. Institutions located in the largest metropolitan areas (e.g., Georgia Tech in Atlanta)—where multipliers are the highest, or institutions that have the largest budgets, staffs, and enrollments—had the largest economic impacts. Thus, for the most part, institutions with large initial spending will rank highly on the various indicators of economic impact, including value-added, labor income, and employment impact described in the following subsections.

■ Total Value-Added Impact ■

Because value-added impacts exclude expenditures related to foreign and domestic trade, they provide a much more accurate measure of the actual economic benefits flowing to businesses and households in a region than the more inclusive output impacts. The value-added impacts for FY 2021 are reported in the third column of Tables 1 and 2.

The 26 institutions collectively generated a value-added impact of $13.1 billion on their host communities in FY 2021. For all institutions combined, the value-added impact equaled 68 percent of the $19.3 billion output impact

(with domestic and foreign trade comprising the remaining 32 percent of the output impact). The $13.1 billion value-added impact reported for FY 2021 equals 2.2 percent of Georgia's 2020 GDP.

■ Labor Income Impact ■

Collectively, the 26 University System institutions generated a labor income impact on their host communities of $8.9 billion in FY 2021. The labor income received by residents of the communities that host University System institutions represents 68 percent of the value-added impact. Labor income for each institution is reported in the fourth column of Table 2.

■ Employment Impact ■

The economic impact of hosting an institution of the University System of Georgia probably is most easily understood in terms of its effects on employment. Collectively, the 26 institutions generated an employment impact of 152,629 jobs on their host communities in FY 2021. Approximately 33 percent (50,888) of these positions are on-campus jobs at one of the institutions of the University System of Georgia, and 67 percent (101,741 jobs) are off-campus positions in either the private or public sectors. On average, for each job created on campus there are two off-campus jobs that exist because of spending related to the University System of Georgia. On average, 12 jobs were generated for each million dollars of initial spending by USG institutions and students in FY 2021—on average $86,045 in initial spending supports one job.

The employment impact associated with the University System equals 3.4 percent of all the nonfarm jobs held by Georgians, or about one job in 29. To provide perspective, the rolled-up employment impact of the USG's 26 institutions (152,629 jobs) is about the same as the combined number of jobs (155,484) with Georgia's top five employers —Fort Benning (40,000 jobs), Walmart (34,872 jobs), Delta Air Lines (30,813 jobs), U.S Army Signal Center and Fort Gordon (25,264 jobs), and Emory University (24,535 jobs).

Employment impacts in FY 2021 for the individual institutions are reported in the fifth column of Table 2. For each institution, a break-out of on-campus and off-campus jobs that exist due to institution-related spending is reported in Table 3.

Comparisons to FY 2020 Estimates

Table 4 reports the total economic impact of all USG institutions on their regional economies in FY 2021 and FY 2020. Initial spending for the fiscal year as a whole was 4.2 percent higher in FY 2021 than in FY 2020 – $13.1 billion versus $12.6 billion. The output (sales), value added (state GDP), and labor income impacts were 3.8 percent, 3.1 percent, and 1 percent higher in FY 2021 than reported for FY 2020. The employment impact was 1.5 percent lower in FY 2021 than reported for FY 2020. In sum, USG institutions were a vital source of economic stability.

Limitations and Topics for Future Research

Because the goal of this study was to estimate the economic impact of all 26 institutions, certain necessary assumptions were designed to work well for the average institution, but may lead to an over- or under-estimate of the economic contribution that a specific institution makes to its host community. For example, detailed surveys of actual spending by students at various institutions could help to refine estimates of initial spending by students.

Due to both resource and data limitations, several important types of short-term college or university-related expenditures were not estimated. For instance, studies could be conducted to measure spending by visitors to the institutions and spending by retirees who still live in the host communities. In addition, it would be worthwhile to investigate expenditures supported by the non-institutional income of each institution's employees. Such income may come from an employee's consulting, investments, and other personal business activities. Moreover, other members of an employee's household often supplement their total household income. Employees' household incomes also can be supplemented via transfers, inheritances or gifts. At least a portion of income derived from these sources would not come to the community that hosts the institution if that person's job at the college/university did not exist.

Since the focus here is only on the short-term impacts of several types of college- or university-related spending,

there was no attempt to evaluate the long-term impacts of the University System's institutions on the economic development of the host communities and the state. After all, colleges and universities not only spend money year by year, but also have long-term impacts on the labor force, local business and industry, nonprofits, and local government. It should be noted that a companion report "Lifetime Earnings for the University System of Georgia Class of 2021' was produced by the Selig Center and provides estimates of the increased earnings over a working lifetime associated with their USG degrees.

Local businesses benefit from easy access to a large pool of part-time and full-time workers. Moreover, companies and agencies that depend on highly specialized skills often cluster around universities. This may be particularly true of high-tech and innovation-based companies, which are expected to account for a disproportionately high share of future economic growth.

Finally, the outreach and service units of the college or university provide valuable services to local businesses and households. Cultural and educational programs and facilities often are available to the general public and provide intangible benefits to the host community by improving residents' quality of life.

Summary

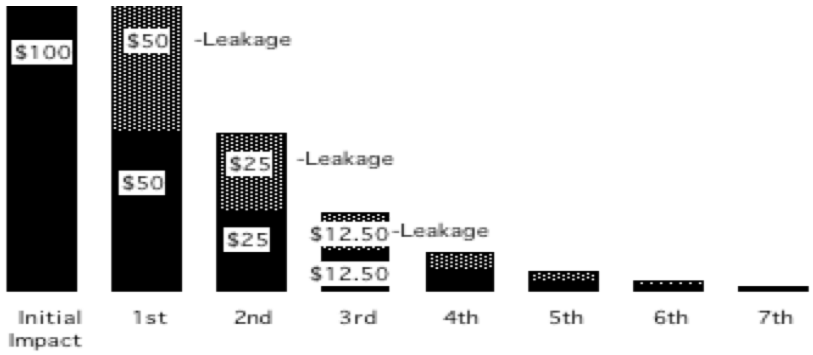
The fundamental finding of this study is that each of the University System of Georgia's institutions creates substantial economic impacts in terms of output, value added, labor income, and employment. The combined economic impact of the University System's institutions on their host communities in FY 2021 includes:

- $19.3 billion in output (sales);
- $13.1 billion in valued added (gross regional product);
- $8.9 billion in labor income; and
- 152,629 full- and part-time jobs.

These economic impacts demonstrate that continued emphasis on higher education as an enduring pillar of the regional economy translates into jobs, higher incomes, and greater production of goods and services for local households and businesses. In FY 2021, USG institutions were a vital source of economic stability.

Figure 1
Schematic Representation of Impact Relationship

Figure 2
How Multipliers Capture the Impact of Re-spending



Initial Direct or Indirect Impact	**$100**	
First Round of Re-spending	**$50 re-spent locally**	**$50 leakage***
Second Round of Re-spending	**$25 re-spent locally**	**$25 leakage**
Third Round of Re-spending	**$12.50 re-spent locally**	**$12.50 leakage**
Fourth Round of Re-spending	**$6.25 re-apent locally**	**$6.25 leakage**
Fifth Round of Re-spending	**$3.12 re-spent locally**	**$3.12 leakage**
Sixth Round of Re-spending	**$1.56 re-spent locally**	**$1.56 leakage**
Seventh Round of Re-spending	**$.78 re-spent locally**	**$.78 leakage**

Total Economic Impact $200 **Total Leakage $100**

*Leakage indicates amounts spent outside area and not re-circulated locally.

Table 1

Total Economic Impact of All Institutions of the University System of Georgia on their Regional Economies in Fiscal Year 2021

Total for All Institutions in 2021	Initial Spending (2021 dollars)	Output Impact (2021 dollars)	Value Added Impact (2021 dollars)	Labor Income Impact (2021 dollars)	Employment Impact (jobs)
System total	13,132,946,150	19,296,498,232	13,111,890,733	8,882,265,952	152,629
Personnel services	4,898,172,361	8,540,004,087	7,030,805,492	6,012,405,283	75,117
Operating expenses	3,261,124,339	3,947,584,880	1,929,836,804	969,317,956	22,728
Student spending	4,973,649,450	6,808,909,265	4,151,248,437	1,900,542,713	54,784

Notes:

The impacts of spending on Output, Value Added, Labor Income, and Employment were estimated using IMPLAN and production functions provided by IMPLAN.

Initial spending for personnel services and operating expenses were obtained from the Board of Regents of the University System of Georgia. The author estimated initial spending by students.

Output refers to the value of total production, including domestic and foreign trade. Value added includes employee compensation, proprietary income, other property income, and indirect business taxes. Labor income includes both the total payroll costs (including fringe benefits) of workers who are paid by employers and payments received by self-employed individuals. Employment includes both full-time and part-time jobs.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), 2022.

Table 2

Total Economic Impact of University System of Georgia Institutions on their Regional Economies in Fiscal Year 2021

Institution	Initial Spending (2021 dollars)	Output Impact (2021 dollars)	Value Added Impact (2021 dollars)	Labor Income Impact (2021 dollars)	Employment Impact (jobs)
Research Universities					
Augusta University	1,111,134,298	1,424,485,256	1,054,520,502	849,259,361	11,283
Personnel Services	640,818,805	1,001,594,430	845,119,256	746,706,892	8,204
Operating Expenses	320,695,038	234,137,518	99,265,582	52,017,837	1,506
Student Spending	149,620,455	188,753,308	110,135,664	50,534,632	1,573
Georgia Institute of Technology	2,491,240,979	4,191,622,850	2,892,082,306	2,023,554,909	28,105
Personnel Services	1,145,330,693	2,151,180,414	1,748,202,134	1,467,490,755	15,483
Operating Expenses	822,045,606	1,261,975,812	654,067,824	326,314,603	6,765
Student Spending	523,864,680	778,466,624	489,812,348	229,749,551	5,857
Georgia State University	1,749,467,400	2,831,478,423	1,914,709,826	1,235,884,466	19,677
Personnel Services	581,602,356	1,092,375,857	887,742,279	745,196,200	7,923
Operating Expenses	397,421,529	610,107,703	316,211,939	157,758,216	3,271
Student Spending	770,443,515	1,128,994,863	710,755,608	332,930,050	8,483
University of Georgia	2,172,953,212	3,077,423,571	2,128,183,697	1,524,956,032	25,871
Personnel Services	964,396,521	1,634,949,605	1,347,335,847	1,158,317,997	15,258
Operating Expenses	562,461,526	589,020,247	266,614,614	135,525,247	3,750
Student Spending	646,095,165	853,453,719	514,233,236	231,112,788	6,863
Comprehensive Universities					
Georgia Southern University	806,753,630	1,032,034,518	687,903,180	446,318,995	9,613
Personnel Services	235,513,929	377,924,744	317,418,302	276,762,151	4,285
Operating Expenses	161,882,006	141,368,832	61,814,550	30,667,424	905
Student Spending	409,357,695	512,740,942	308,670,328	138,889,420	4,423
Kennesaw State University	1,150,242,760	1,842,463,978	1,229,752,988	758,526,956	14,446
Personnel Services	312,254,253	586,481,474	476,616,540	400,085,523	5,720
Operating Expenses	218,063,812	334,763,977	173,504,392	86,561,385	1,795
Student Spending	619,924,695	921,218,527	579,632,056	271,880,048	6,931
University of West Georgia	388,490,190	626,706,803	420,815,641	264,860,143	4,917
Personnel Services	116,025,827	217,921,766	177,098,719	148,661,718	2,104
Operating Expenses	79,234,588	121,638,183	63,043,698	31,452,517	652
Student Spending	193,229,775	287,146,854	180,673,224	84,745,908	2,161
Valdosta State University	340,507,052	404,317,423	258,338,377	164,120,506	4,084
Personnel Services	93,632,875	138,998,836	119,143,252	105,229,443	1,758
Operating Expenses	68,595,472	53,466,029	20,902,283	10,004,353	361
Student Spending	178,278,705	211,852,558	118,292,842	48,886,710	1,965

(continued)

Table 2 (continued)

Total Economic Impact of University System of Georgia Institutions on their Regional Economies in Fiscal Year 2021

Institution	Initial Spending (2021 dollars)	Output Impact (2021 dollars)	Value Added Impact (2021 dollars)	Labor Income Impact (2021 dollars)	Employment Impact (jobs)
State Universities					
Albany State University	205,697,063	231,145,754	146,836,092	95,354,648	2,278
Personnel Services	52,709,261	82,426,078	69,341,742	60,787,047	957
Operating Expenses	59,883,042	36,641,042	14,594,204	7,685,277	250
Student Spending	93,104,760	112,078,634	62,900,146	26,882,324	1,071
Clayton State University	190,844,709	306,712,742	204,846,255	127,539,295	2,456
Personnel Services	53,977,923	101,382,292	82,390,458	69,160,901	1,042
Operating Expenses	39,575,076	60,754,280	31,488,258	15,709,500	326
Student Spending	97,291,710	144,576,170	90,967,539	42,668,894	1,088
Columbus State University	232,187,021	283,182,500	189,108,362	124,286,732	2,711
Personnel Services	70,775,779	110,953,204	93,179,630	82,099,262	1,207
Operating Expenses	42,879,907	31,124,137	12,624,934	5,915,376	204
Student Spending	118,531,335	141,105,159	83,303,798	36,272,094	1,300
Fort Valley State University	130,797,325	147,465,579	97,492,248	66,836,147	1,505
Personnel Services	39,353,396	62,679,855	52,534,073	46,045,478	780
Operating Expenses	47,712,659	31,849,771	13,811,322	7,241,001	231
Student Spending	43,731,270	52,935,953	31,146,853	13,549,668	494
Georgia College & State University	224,897,924	285,281,637	194,938,206	133,222,375	2,791
Personnel Services	79,963,679	129,394,468	107,549,562	94,133,137	1,391
Operating Expenses	35,915,010	24,083,971	10,232,557	5,336,317	171
Student Spending	109,019,235	131,803,198	77,156,087	33,752,921	1,229
Georgia Southwestern State University	89,926,582	103,180,597	62,809,083	39,576,796	1,102
Personnel Services	26,212,049	36,421,352	31,703,315	28,553,495	454
Operating Expenses	19,483,268	17,961,916	7,919,445	3,910,077	114
Student Spending	44,231,265	48,797,329	23,186,323	7,113,224	534
Middle Georgia State University	220,157,441	267,738,078	172,532,009	109,754,715	2,644
Personnel Services	57,598,334	92,144,910	76,694,564	67,188,860	1,050
Operating Expenses	45,178,167	30,665,851	12,594,847	6,577,093	222
Student Spending	117,380,940	144,927,317	83,242,598	35,988,762	1,372
Savannah State University	128,445,498	161,184,100	105,442,010	69,103,002	1,342
Personnel Services	36,473,972	58,892,000	49,495,836	43,097,565	549
Operating Expenses	40,016,761	36,892,051	16,265,779	8,030,922	234
Student Spending	51,954,765	65,400,049	39,680,395	17,974,515	559
University of North Georgia	509,886,861	722,791,683	474,473,985	305,428,770	6,325
Personnel Services	150,867,210	257,934,356	211,737,957	182,288,362	2,746
Operating Expenses	80,461,461	90,075,837	39,632,366	20,836,816	576
Student Spending	278,558,190	374,781,490	223,103,662	102,303,592	3,003

(continued)

Table 2 (continued)

Total Economic Impact of University System of Georgia Institutions on their Regional Economies in Fiscal Year 2021

Institution	Initial Spending (2021 dollars)	Output Impact (2021 dollars)	Value Added Impact (2021 dollars)	Labor Income Impact (2021dollars)	Employment Impact (jobs)
State Colleges					
Abraham Baldwin Agricultural College	105,423,481	119,696,860	75,087,596	49,780,960	1,162
Personnel Services	26,899,656	39,264,967	33,664,423	30,124,645	448
Operating Expenses	24,386,155	15,445,455	5,675,846	3,017,681	106
Student Spending	54,137,670	64,986,438	35,747,327	16,638,634	608
Atlanta Metropolitan State College	46,306,736	73,875,746	47,639,790	28,710,763	549
Personnel Services	10,665,727	20,032,557	16,279,881	13,665,796	192
Operating Expenses	14,124,964	21,864,153	11,238,652	5,606,966	116
Student Spending	21,516,045	31,979,036	20,121,257	9,438,001	241
College of Coastal Georgia	82,049,302	98,748,886	63,411,391	39,858,352	968
Personnel Services	21,795,600	34,026,467	28,744,131	25,078,811	390
Operating Expenses	14,737,897	11,001,560	4,212,156	2,066,509	76
Student Spending	45,515,805	53,720,859	30,455,104	12,713,032	502
Dalton State College	113,977,515	130,673,091	82,263,902	52,897,601	1,178
Personane Services	26,371,466	38,757,394	33,360,698	29,794,101	378
Operating Expenses	22,346,539	14,664,285	5,372,158	2,855,876	101
Student Spending	65,259,510	77,251,412	43,531,046	20,247,624	699
East Georgia State College	60,226,720	63,927,337	40,006,338	25,359,962	652
Personnel Services	14,079,591	20,560,800	17,639,763	15,716,268	272
Operating Expenses	15,492,964	6,898,902	2,735,388	1,388,420	46
Student Spending	30,654,165	36,467,635	19,631,187	8,255,274	334
Georgia Gwinnett College	321,401,627	512,945,913	338,704,509	206,480,355	3,716
Personnel Services	81,245,106	152,595,999	124,010,357	104,097,832	1,239
Operating Expenses	70,702,931	108,540,680	56,255,410	28,065,838	582
Student Spending	169,453,590	251,809,234	158,438,742	74,316,685	1,895
Georgia Highlands College	128,636,464	175,687,450	111,894,258	67,165,823	1,635
Personnel Services	27,267,619	46,098,083	38,256,186	32,903,306	640
Operating Expenses	29,015,910	31,728,572	14,468,236	6,989,875	193
Student Spending	72,352,935	97,860,795	59,169,836	27,272,642	802
Gordon State College	76,835,902	122,148,230	80,386,374	48,419,209	998
Personnel Services	18,268,902	34,312,975	27,885,163	23,407,602	391
Operating Expenses	16,238,155	24,928,251	12,920,031	6,445,807	134
Student Spending	42,328,845	62,907,004	39,581,180	18,565,800	473

(continued)

Table 2 (continued)

Total Economic Impact of University System of Georgia Institutions on their Regional Economies in Fiscal Year 2021

Institution	Initial Spending (2021 dollars)	Output Impact (2021 dollars)	Value Added Impact (2021 dollars)	Labor Income Impact (2021 dollars)	Employment Impact (jobs)
South Georgia State College	54,458,458	59,579,227	37,711,809	25,009,081	622
Personnel Services	14,071,832	20,699,204	17,661,425	15,812,138	257
Operating Expenses	12,573,896	5,985,865	2,370,333	1,337,023	41
Student Spending	27,812,730	32,894,158	17,680,051	7,859,920	324

Notes:

The impacts of spending on Output, Value Added, Labor Income, and Employment were estimated using IMPLAN and production functions provided by IMPLAN.

Initial spending for personnel services and operating expenses were obtained from the Board of Regents of the University System of Georgia. The author estimated initial spending by students.

Output refers to the value of total production, including domestic and foreign trade. Value added includes employee compensation, proprietary income, other property income, and indirect business taxes. Labor income includes both the total payroll costs (including fringe benefits) of workers who are paid by employers and payments received by self-employed individuals. Employment includes both full-time and part-time jobs.

Expenditures and impacts for Augusta University do not include impacts associated with the AU Health System, Inc., which are reported in Appendix 3.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), 2022.

Table 3

On-Campus and Off-Campus Jobs that Exist Due to Institution-Related Spending in Fiscal Year 2021

Institution	Total Employment Impact	On-Campus Jobs	Off-Campus Jobs That Exist Due to Institution-Related Spending
System Total	**152,629**	**50,888**	**101,741**
Research Universities	**84,935**	**30,070**	**54,865**
Augusta University	11,283	5,541	5,742
Georgia Institute of Technology	28,105	9,256	18,849
Georgia State University	19,677	4,760	14,917
University of Georgia	25,871	10,513	15,358
Regional Universities	**33,059**	**10,151**	**22,908**
Georgia Southern University	9,613	3,250	6,363
Kennesaw State University	14,446	4,022	10,424
University of West Georgia	4,917	1,473	3,444
Valdosta State University	4,084	1,406	2,678
State Universities	**23,154**	**7,559**	**15,595**
Albany State University	2,278	736	1,542
Clayton State University	2,456	748	1,708
Columbus State University	2,711	913	1,798
Fort Valley State University	1,505	601	904
Georgia College & State University	2,791	1,013	1,778
Georgia Southwestern State University	1,102	378	724
Middle Georgia State University	2,644	783	1,861
Savannah State University	1,342	387	955
University of North Georgia	6,325	2,000	4,325
State Colleges	**11,481**	**3,108**	**8,373**
Abraham Baldwin Agricultural College	1,162	356	806
Atlanta Metropolitan State College	549	134	415
College of Coastal Georgia	968	300	668
Dalton State College	1,178	288	890
East Georgia State College	652	222	430
Georgia Gwinnett College	3,716	797	2,919
Georgia Highlands College	1,635	513	1,122
Gordon State College	998	292	706
South Georgia State College	622	206	416

Notes: On-campus and off-campus jobs reported for Augusta University exclude employment impacts for the AU Health System, Inc., which are reported in Appendix 3.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), 2022.

Table 4

Total Economic Impact of All USG Institutions on Their Regional Economies in FY 2021 Compared to FY 2020

Impact Category	Fiscal Year 2021 (2021 dollars/jobs)	Fiscal Year 2020 (2020 dollars/jobs)	Percent Change
Initial Spending	13,132,946,150	12,606,286,003	4.2
Output Impact	19,296,498,232	18,584,935,804	3.8
Value Added Impact	13,111,890,733	12,714,706,137	3.1
Labor Income Impact	8,882,265,952	8,798,237,646	1.0
Employment Impact	152,629	155,010	-1.5

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), 2022.

Table 5

Output Impact For All USG Institutions
in FY 2021 Compared to FY 2020, With Percent Change

Institution	Output Impact in FY 2021 (2021 dollars)	Output Impact in FY 2020 (2020 dollars)	Percent Change
System Total	**19,296,498,232**	**18,584,935,802**	**3.8**
Research Universities	**11,525,010,099**	**11,212,559,998**	**2.8**
Augusta University	1,424,485,256	1,452,453,819	-1.9
Georgia Institute of Technology	4,191,622,850	4,008,439,560	4.6
Georgia State University	2,831,478,423	2,786,822,976	1.6
University of Georgia	3,077,423,571	2,964,843,643	3.8
Comprehensive Universities	**3,905,522,721**	**3,606,538,422**	**8.3**
Georgia Southern University	1,032,034,518	961,126,047	7.4
Kennesaw State University	1,842,463,978	1,650,279,707	11.6
University of West Georgia	626,706,803	626,323,337	0.1
Valdosta State University	404,317,423	368,809,331	9.6
State Universities	**2,508,682,671**	**2,396,145,672**	**4.7**
Albany State University	231,145,754	214,895,053	7.6
Clayton State University	306,712,742	292,455,756	4.9
Columbus State University	283,182,500	272,665,158	3.9
Fort Valley State University	147,465,579	140,985,030	4.6
Georgia College & State University	285,281,637	282,507,363	1.0
Georgia Southwestern State University	103,180,597	89,737,776	15.0
Middle Georgia State University	267,738,078	247,992,739	8.0
Savannah State University	161,184,100	162,883,237	-1.0
University of North Georgia	722,791,683	692,023,560	4.4
State Colleges	**1,357,282,741**	**1,369,691,710**	**-0.9**
Abraham Baldwin Agricultural College	119,696,860	115,093,083	4.0
Atlanta Metropolitan State College	73,875,746	74,647,381	-1.0
College of Coastal Georgia	98,748,886	99,716,374	-1.0
Dalton State College	130,673,091	132,070,425	-1.1
East Georgia State College	63,927,337	70,056,633	-8.7
Georgia Gwinnett College	512,945,913	508,419,001	0.9
Georgia Highlands College	175,687,450	174,859,790	0.5
Gordon State College	122,148,230	129,708,936	-5.8
South Georgia State College	59,579,227	65,120,087	-8.5

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), 2022.

Appendix 1

Study Areas for Institutions

Research Universities

Augusta University – Richmond, Columbia, Burke, McDuffie, Lincoln, Jefferson, Jenkins, and Warren
Georgia Institute of Technology – Atlanta MSA
Georgia State University – Atlanta MSA
University of Georgia – Clarke, Oconee, Madison, Jackson, Oglethorpe, Barrow, Gwinnett, Walton, and Elbert

Comprehensive Universities

Georgia Southern University – Bulloch, Screven, Candler, Emanuel, Evans, Tattnall, Jenkins, Chatham, Effingham, Bryan, and Liberty
Kennesaw State University – Atlanta MSA
University of West Georgia – Atlanta MSA
Valdosta State University – Lowndes, Brooks, Lanier, Berrien, Cook, and Echols

State Universities

Albany State University – Dougherty, Lee, Worth, Mitchell, Terrell, Sumter, Tift, and Crisp
Clayton State University – Atlanta MSA
Columbus State University – Muscogee, Harris, Chattahoochee, Marion, Talbot, Troup, and Stewart
Fort Valley State University – Peach, Houston, Crawford, Bibb, Taylor, and Macon
Georgia College & State University – Baldwin, Putnam, Hancock, Wilkinson, Washington, Jones, and Bibb
Georgia Southwestern State University – Sumter, Schley, Lee, Macon, Crisp, Webster and Marion
Middle Georgia State University – Bibb, Houston, Jones, Monroe, Peach, Crawford, Twiggs, Baldwin, Wilkinson, Dodge, Laurens, Lamar, Bleckley, and Pulaski
Savannah State University – Chatham, Effingham, Bryan, Liberty, and Bulloch
University of North Georgia – Lumpkin, Hall, Dawson, Forsyth, White, Oconee, Clarke, Barrow, Madison, Jackson, Gwinnett, Fannin, Gilmer, and Union

State Colleges

Abraham Baldwin Agricultural College – Tift, Worth, Cook, Colquitt, Irwin, Turner, Decatur, Seminole, Miller, Grady, Early, Thomas, Mitchell, and Baker
Atlanta Metropolitan State College – Atlanta MSA
College of Coastal Georgia – Glynn, Brantley, McIntosh, Camden, and Wayne
Dalton State College – Whitfield, Murray, Catoosa, Gordon, Walker, Bartow, and Gilmer
East Georgia State College – Emanuel, Bulloch, Candler, Jefferson, Johnson, Burke, and Toombs
Georgia Gwinnett College – Atlanta MSA
Georgia Highlands College – Floyd, Polk, Bartow, Chattooga, Gordon, Cobb, Paulding, Douglas, and Carroll
Gordon State College – Atlanta MSA
South Georgia State College – Coffee, Atkinson, Bacon, Jeff Davis, Ware, Pierce, Brantley, and Clinch

Note:

Study areas were defined by the author based on commuting data obtained from the Residence County to Workplace County Flows for Georgia, 5-Year ACS, 2009-2013, U.S. Census Bureau (data extracted on March 8, 2018).

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), 2022.

Appendix 2

Economic Impact of Capital Outlays in Fiscal Year 2021

Institution	Initial Spending (2021 dollars)	Output Impact (2021 dollars)	Value Added Impact (2021 dollars)	Labor Income Impact (2021dollars)	Employment Impact (jobs)
System Total	**183,330,000**	**267,710,136**	**157,751,910**	**102,619,782**	**1,804**
Research Universities	**110,370,000**	**162,248,479**	**97,013,210**	**63,387,050**	**1,115**
Augusta University	11,000,000	9,725,667	5,558,337	2,813,033	43
Georgia Institute of Technology	0	0	0	0	0
Georgia State University	4,800,000	8,643,359	5,433,216	3,537,856	56
University of Georgia	94,570,000	143,879,453	86,021,657	57,036,161	1,016
Comprehensive Universities	**30,160,000**	**48,501,622**	**27,616,630**	**17,664,313**	**287**
Georgia Southern University	7,500,000	11,643,178	5,450,173	2,877,461	61
Kennesaw State University	16,960,000	28,430,246	17,190,263	11,188,388	176
University of West Georgia	4,400,000	6,396,561	3,839,562	2,708,917	36
Valdosta State University	1,300,000	2,031,637	1,136,632	889,547	14
State Universities	**41,700,000**	**55,266,767**	**32,410,431**	**21,019,658**	**387**
Albany State University	800,000	1,314,444	614,782	473,581	11
Clayton State University	3,000,000	5,484,962	3,185,425	1,959,846	31
Columbus State University	0	0	0	0	0
Fort Valley State University	1,000,000	1,683,142	949,158	745,386	12
Georgia College & State University	4,100,000	3,978,295	2,266,337	1,372,560	29
Georgia Southwestern State University	0	0	0	0	0
Middle Georgia State University	11,000,000	10,455,722	5,810,186	3,502,679	74
Savannah State University	0	0	0	0	0
University of North Georgia	21,800,000	32,350,202	19,584,543	12,965,606	230
State Colleges	**1,100,000**	**1,693,268**	**711,639**	**548,761**	**15**
Abraham Baldwin Agricultural College	1,100,000	1,693,268	711,639	548,761	15
Atlanta Metropolitan State College	0	0	0	0	0
College of Coastal Georgia	0	0	0	0	0
Dalton State College	0	0	0	0	0
East Georgia State College	0	0	0	0	0
Georgia Gwinnett College	0	0	0	0	0
Georgia Highlands College	0	0	0	0	0
Gordon State College	0	0	0	0	0
South Georgia State College	0	0	0	0	0

Notes: The impacts of spending on Output, Value Added, Labor Income, and Employment were estimated using IMPLAN and production functions provided by IMPLAN. Initial spending for capital projects were obtained from the Board of Regents of the University System of Georgia. Output refers to the value of total production, including domestic and foreign trade. Value added includes employee compensation, proprietary income, other property income, and indirect business taxes. Labor income includes both the total payroll costs (including fringe benefits) of workers who are paid by employers and payments received by self-employed individuals. Employment includes both full- and part-time jobs. Estimates for Augusta University exclude impacts associated with the AU Health System, Inc., which are reported in Appendix 3.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), 2022.

Appendix 3

Combined Economic Impact of Augusta University and AU Health System, Inc. in Fiscal Year 2021

Institution	Initial Spending (current dollars)	Output Impact (current dollars)	Value Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (jobs)
Augusta University	**1,122,134,298**	**1,434,210,923**	**1,060,078,839**	**852,072,394**	**11,326**
Personnel Services	640,818,805	1,001,594,430	845,119,256	746,706,892	8,204
Operating Expenses	320,695,038	234,137,518	99,265,582	52,017,837	1,506
Student Spending	149,620,455	188,753,308	110,135,664	50,534,632	1,573
Capital Spending	11,000,000	9,725,667	5,558,337	2,813,033	43
AU Health System, Inc.	**1,115,935,629**	**1,377,174,339**	**1,044,773,477**	**876,155,327**	**10,573**
Wages & Salaries and Benefits	645,608,310	1,009,392,985	851,699,471	752,520,857	7,643
Other Operating Expenditures	442,019,824	325,851,318	167,059,940	105,268,395	2,666
Student Spending	0	0	0	0	0
Capital Spending	28,107,495	40,930,036	26,014,064	18,366,075	264

Grand Total Economic Impact of Augusta University and AU Health System, Inc.

Grand Total	**2,238,069,927**	**2,811,385,262**	**2,104,852,316**	**1,728,227,722**	**21,898**
Wages & Salaries and Benefits	1,286,627,115	2,010,987,415	1,696,818,729	1,499,227,750	15,846
Operating Expenses	762,714,862	560,988,836	266,325,522	157,286,232	4,172
Student Spending	149,620,455	188,753,308	110,135,664	50,534,632	1,573
Capital Spending	39,107,495	50,655,703	31,572,401	21,179,108	307

Note: Output refers to the value of total production, including domestic and foreign trade. Value added includes employee compensation, proprietary income, other property type income, and indirect business taxes. Labor income includes both the total payroll costs of workers who are paid by employers and payment received by self-employed individuals. Employment includes both full-time and part-time jobs. Initial spending estimates are based on financial data obtained from AU Health System, Inc., (a component unit of the State of Georgia) Financial Statements and Report of Independent Certified Public Accountants (June 30, 2021 and 2020). Other operating expenditures do not include $37.1 million in depreciation and amortization. The impacts of spending on Output, Value Added, Labor Income, and Employment were estimated using IMPLAN, Type SAM multipliers, and consumption functions provided by IMPLAN.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, (www.selig.uga.edu), 2022.

Appendix 4

Combined Economic Impact of Augusta University and AU Health System, Inc. on the Augusta MSA in Fiscal Year 2021

Institution	Initial Spending (current dollars)	Output Impact (current dollars)	Value Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (jobs)
Augusta University	**1,122,134,298**	**1,460,705,926**	**1,072,128,975**	**862,131,002**	**11,553**
Personnel Services	640,818,805	1,012,497,301	850,514,759	752,047,871	8,317
Operating Expenses	320,695,038	243,582,763	103,680,023	55,292,081	1,557
Student Spending	149,620,455	194,708,658	112,336,155	51,949,242	1,634
Capital Spending	11,000,000	9,917,204	5,598,038	2,841,808	45
AU Health System, Inc.	**1,115,935,629**	**1,402,211,995**	**1,059,094,868**	**890,220,930**	**10,759**
Wages & Salaries and Benefits	645,808,310	1,020,380,746	857,136,986	757,903,421	7,756
Other Operating Expenditures	442,019,824	339,937,372	175,580,968	113,821,139	2,724
Student Spending	0	0	0	0	0
Capital Spending	28,107,495	41,893,877	26,376,914	18,496,370	279
Grand Total Economic Impact of Augusta University and AU Health System, Inc.					
Grand Total	**2,238,069,927**	**2,862,917,921**	**2,131,223,843**	**1,752,351,932**	**22,312**
Wages & Salaries and Benefits	1,286,627,115	2,032,878,047	1,707,651,745	1,509,951,292	16,073
Operating Expenses	762,714,862	583,520,135	279,260,991	169,113,220	4,281
Student Spending	149,620,455	194,708,658	112,336,155	51,949,242	1,634
Capital Spending	39,107,495	51,811,081	31,974,952	21,338,178	324

Note: Output refers to the value of total production, including domestic and foreign trade. Value added includes employee compensation, proprietary income, other property type income, and indirect business taxes. Labor income includes both the total payroll costs of workers who are paid by employers and payment received by self-employed individuals. Employment includes both full-time and part-time jobs. Initial spending estimates are based on financial data obtained from AU Health System, Inc., (a component unit of the State of Georgia) Financial Statements and Report of Independent Certified Public Accountants (June 30, 2021 and 2020). Other operating expenditures do not include $37.1 million in depreciation and amortization. The impacts of spending on Output, Value Added, Labor Income, and Employment were estimated using the IMPLAN, Type SAM multipliers, and consumption functions provided by IMPLAN.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, (www.selig.uga.edu), 2022.

Appendix 5

Augusta University's Albany, Savannah, and Rome Clinical Campuses: Economic Impact of FY 2021 Expenditures

Augusta University has established clinical campuses in Albany, Savannah, and Rome, which generate economic impacts for their host communities. Appendix 5 documents the economic impact that the Albany, Savannah, and Rome clinical campuses had on their host communities in FY 2021.

Albany: In FY 2021, total expenditures at the Albany clinical campus were $1,443,412, including $665,054 personnel expense, $160,478 operating expense, and $617,880 in student spending (Assistant Vice Chancellor for Fiscal Affairs/Budget Director, Board of Regents, University System of Georgia provided the estimates for personnel and operating expenses as well as enrollment).

The economic impact accruing to Albany includes:

- $1,443,412 in initial expenditures and 4 on-campus jobs,
- $1,882,682 in output (sales),
- $1,331,736 in gross regional product (value added),
- $966,109 in income, and
- 14 jobs.

Savannah: Total expenditures at the Savannah clinical campus were $1,989,054, including $938,678 personnel expense, $123,556 operating expense, and $926,820 in student spending (Assistant Vice Chancellor for Fiscal Affairs/Budget Director, Board of Regents, University System of Georgia provided the estimates for personnel and operating expenses as well as enrollment).

The economic impact accruing to Savannah includes:

- $1,989,054 in initial expenditures and 4 on-campus jobs,
- $2,796,106 in output (sales),
- $2,031,827 in gross regional product (value added),
- $1,454,558 in income, and
- 20 jobs.

Rome: Total expenditures at the Rome clinical campus were $1,506,923, including $546,052 personnel expense, $261,691 operating expense, and $699,180 in student spending (Assistant Vice Chancellor for Fiscal Affairs/Budget Director, Board of Regents, University System of Georgia provided the estimates for personnel and operating expenses).

The economic impact accruing to Rome includes:

- $1,506,923 in initial expenditures and 5 on-campus jobs,
- $2,154,922 in output (sales),
- $1,468,346 in gross regional product (value added),
- $985,484 in income, and
- 18 jobs.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, (www.selig.uga.edu), 2022.

Appendix 6

Augusta University and UGA Medical Partnership's Athens Campus: Economic Impact of FY 2021 Expenditures

In partnership, Augusta University and the University of Georgia opened a new campus in Athens in FY 2011, which generates significant economic impacts for Athens' regional economy. Appendix 6 documents the economic impact that the Athens campus had on its host community in FY 2021.

Initial expenditures at the Athens campus (including St. Mary's) were $22,538,669, including $15,542,737 personnel expense, $2,402,612 operating expense, and $2,772,330 in student spending, and $1,820,990 in capital outlays (Assistant Vice Chancellor for Fiscal Affairs/Budget Director, Board of Regents, University System of Georgia provided expense data for personnel and operations as well as enrollment data).

The economic impact accruing to Athens includes:

- $22,538,669 in initial expenditures and 139 on-campus and St. Mary's jobs,
- $35,504,355 in output (sales),
- $26,504,242 in gross regional product (value added),
- $21,061,140 in income, and
- 276 jobs.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, (www.selig.uga.edu), 2022.

Appendix 7

Combined Economic Impact of UGA's Griffin Campus (Budget Unit "A" and Budget Unit "B") On Its Regional Economy in Fiscal Year 2021

UGA's Griffin Campus	Initial Spending (current dollars)	Output Impact (current dollars)	Value Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (jobs)
Total	22,725,962	39,555,376	28,759,673	21,560,272	340
Personnel Services	14,037,332	26,365,166	21,426,209	17,985,771	259
Operating Expenses	5,672,400	8,708,071	4,513,295	2,251,684	47
Student Spending	3,016,230	4,482,139	2,820,169	1,322,817	34

Notes: The impacts of spending on Output, Value Added, Labor Income, and Employment were estimated using IMPLAN and production functions provided by IMPLAN. Initial spending for personnel services and operating expenses were obtained from the Board of Regents of the University System of Georgia. The author estimated initial spending by students. Output refers to the value of total production, including domestic and foregin trade. Value added includes employee compensation, proprietary income, other property income, and indirect business taxes. Labor income includes both the total payroll costs (including fringe benefits) of workers who are paid by employers and payments received by self-employed individuals. Employment includes both full-time and part-time jobs. The total employment impact of 340 jobs consists of 183 on-campus jobs (expressed on a FTE basis) and 157 off-campus jobs. For each FTE job created on the Griffin campus, there are 0.9 off-campus jobs that exist because of spending related to UGA at Griffin.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), 2022.

Appendix 8

Total Economic Impact of Information Technology Services in Athens On the Regional Economy in Fiscal Year 2021

ITS in Athens	Initial Spending (current dollars)	Output Impact (current dollars)	Value Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (jobs)
Total	32,255,134	46,484,706	33,387,062	26,596,316	366
Personnel Services	19,606,121	33,238,423	27,391,253	23,548,533	282
Operating Expenses	12,649,013	13,246,283	5,995,809	3,047,783	84

Notes: The impacts of spending on Output, Value Added, Labor Income, and Employment were estimated using IMPLAN and production functions provided by IMPLAN. Initial spending for personal services and operating expenses were obtained from the Board of Regents of the University System of Georgia. ITS operating expenditures expensed by USG institutions ($52,098,913) are not included because this amount represents various contracts and software licenses with suppliers that are unlikely to be located in the Athens area. In addition, a substantial of this amount represents USG institutions' purchasing software directly through ITS due to its ability to obtain better pricing. Output refers to the value of total production, including domestic and foreign trade. Value added includes employee compensation, proprietary income, other property income, and indirect business taxes. Labor income includes both the total payroll costs (including fringe benefits) of workers who are paid by employers and payments received by self-employed individuals. Employment includes both full-time and part-time jobs.The total employment impact of 366 jobs consists of 185 USG jobs (expressed on a FTE basis) and 181 off-site jobs that are primarily in the private sector. For each FTE job created at ITS in Athens there are 1.0 off-site jobs that exist because of ITS-related spending.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), 2022.

Appendix 9

Total Economic Impact of the Shared Services Center in Sandersville On the Regional Economy in Fiscal Year 2021

SSC Sandersville	Initial Spending (current dollars)	Output Impact (current dollars)	Value Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (jobs)
Total	5,869,234	7,460,004	6,112,615	5,391,041	86
Personnel Services	4,790,676	6,899,068	5,921,418	5,293,264	82
Operating Expenses	1,078,558	560,936	191,197	97,777	4

Notes: The impacts of spending on Output, Value Added, Labor Income, and Employment were estimated using IMPLAN and production functions provided by IMPLAN. Initial spending for personal services and operating expenses were obtained from the Board of Regents of the University System of Georgia. Output refers to the value of total production, including domestic and foreign trade. Value added includes employee compensation, proprietary income, other property income, and indirect business taxes. Labor income includes both the total payroll costs (including fringe benefits) of workers who are paid by employers and payments received by self-employed individuals. Employment includes both full-time and part-time jobs. The total employment impact of 86 jobs consists of 65 USG jobs at the Shared Services Center (expressed on a FTE basis) and 21 off-site jobs that are primarily in the private sector. For each FTE job created at the Shared Services Center, there are 0.3 off-site jobs that exists because of Center-related spending.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, (www.selig.uga.edu), 2022.