

**The Economic Impact
of University System of Georgia Institutions
on their Regional Economies in FY 2013**

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**A Study Commissioned by
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Executive Summary

The statewide economic impact of the University System of Georgia's institutions in fiscal year 2013 includes:

- \$14.1 billion in output (sales);
- \$9.9 billion in gross regional product;
- \$6.9 billion in income; and
- 136,834 full- and part-time jobs (3.5 percent of all 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 a pillar 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 2013 fiscal year—July 1, 2012 through June 30, 2013.

The study does not account for all of the short-term impacts of the 31 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 31 institutions on their host communities was \$14.1 billion in FY 2013. 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 2013 total, \$9.8 billion (70 percent) is initial spending by the institutions and students; \$4.3 billion (30 percent) is the induced or re-spending (multiplier) impact. Dividing the FY 2013 total output impact (\$14.1 billion) by initial spending (\$9.8 billion) yields an average multiplier value of 1.44. On average, therefore, every dollar of initial spending generates an additional 44 cents for the economy of the region that hosts the institution.

In FY 2013, value added comprises \$9.9 billion (71 percent) of the \$14.1 billion output impact, with domestic and foreign trade comprising the remaining \$4.1 billion (30 percent). The \$9.9 billion value-added impact equals 2.4 percent of Georgia's GDP. Labor income received by residents of the communities that host one or more institutions equals \$7 billion, and represents 70 percent of the value-added impact.

The collective or rolled-up employment impact of all institutions on their host communities in FY 2013, including multiplier effects, is 136,834 full- and part-time jobs. Approximately 33 percent of these positions are on campus (University System employees) and 67 percent 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 136,834 jobs generated by the University System account for 3.5 percent of all the jobs in Georgia, or about one job in twenty-nine.

Methodology

■ Short-Term Economic Impact Of a College or University ■

The total annual economic impact of college- or university-related spending is defined to consist 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—or 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 of time. 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 2013 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 Version 3.0 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 in 2013 dollars.

Type SAM (social accounting matrices) multipliers from the IMPLAN modeling system 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, the IMPLAN software 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 ■

Institution-specific data on expenditures for personnel services and number of positions were obtained from the Board of Regents for FY 2013. The expenditure amounts were treated as an industry change and are reported in the first column of Tables 1 and 2, respectively. These amounts were allocated to various economic sectors recognized by the IMPLAN software based on the typical expenditure pattern for households of moderate income.

Institution-specific data on expenditures for operating expenses (non-personnel services) for FY 2013 were obtained from the Board of Regents. These amounts were treated as an industry change 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 Georgia Regents University do not account for spending by the hospital and clinics operating by MCG Health, Inc., which became a not-for-profit corporation in July 2000.

Expenditures and impacts for MCG Health, Inc., are reported in Appendix 3, however. Appendix 4 reports the combined impacts of Georgia Regents University and MCG Health, 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 2013. 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 previous editions of this study did not include the impacts of public/private ventures. The FY 2013 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) annual *Consumer Expenditure Surveys* conducted by the U.S. Bureau of Labor Statistics (BLS); (2) 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 (3) a sample of recent estimated costs of attendance prepared by individual institutions. Although the estimated costs of attendance prepared by individual institutions were not detailed enough to be used in 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 entirely. 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 \$3,816 for Summer 2012, \$6,360 for Fall 2012, and at \$6,360 for Spring 2013.

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 2013, 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 31 institutions conveyed to their host communities in FY 2013. 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 Version 3.0 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 2013 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 2013 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 2013, total initial spending for all 31 institutions was \$9.8 billion. Spending originating from personnel services accounted for 37 percent (\$3.6 billion) of initial spending, spending due to operating expenses accounted for 25 percent (\$2.5 billion) of initial spending, and students' personal expenditures accounted for 38 percent (\$3.7 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 2013 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 31 institutions of the University System of Georgia was \$14.1 billion in FY 2013 (Table 1). This amount represents the combined impact of all 31 institutions on their host communities. Of the FY 2013 output impact, \$9.8 billion (70 percent) was initial spending by the institutions and students, while \$4.3 billion (30 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 2013 was 1.44, obtained by dividing the total output impact (\$14.1 billion) by initial spending (\$9.8 billion). On average, therefore, every dollar of initial spending generated an additional 44 cents for the economy of the region hosting the institution. Thus, for all institutions, the output impact was 1.44 times greater than their initial spending.

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., Atlanta)—where multipliers are the highest, or institutions 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 2013 are reported in the third column of Tables 1 and 2.

The 31 institutions collectively generated a value-added impact of \$9.9 billion in FY 2013. For all institutions combined, the value-added impact equaled 71 percent of the \$14.1 billion output impact (with domestic and foreign trade comprising the remaining 29 percent of the output impact). The \$9.9 billion value-added impact reported for FY 2013 equals 2.3 percent of Georgia's gross domestic product.

Labor Income Impact

Collectively, the 31 University System institutions generated a labor income impact of \$6.9 billion in FY 2013. The labor income received by residents of the communities that host University System institutions represents 69 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 31 institutions generated an employment impact of 136,834 jobs in FY 2013. Approximately 33 percent of these positions are on-campus jobs at one of the institutions of the University System of Georgia, and 67 percent 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.

The employment impact associated with the University System accounts for 3.5 percent of all the jobs held by Georgians, or about one job in 29. For all institutions combined, 14 jobs were generated for each million dollars of initial spending in FY 2013.

Employment impacts in FY 2013 for the individual institutions are reported in the fifth column of Table 2. Table 3 shows a break out (by institution) of on- and off-campus jobs that exist due to institution-related spending.

Limitations and Topics for Future Research

Because the goal of this study was to estimate the economic impact of all 31 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 limitations 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. Also, it would be worthwhile to investigate expenditures supported by the non-institutional income of the 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 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 this study intentionally focused 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, and local government.

A college or university improves the skills of its graduates, thereby increasing their productivity and their lifetime earnings. 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 information-based companies, which despite the recent recession and sub-par recovery, are still 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 residents. 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 31 institutions on their host communities in FY 2013 includes:

- \$14.1 billion in output (sales);
- \$9.9 billion in valued added (gross regional product);
- \$6.9 billion in labor income; and
- 136,834 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.

Figure 1

**Schematic Representation
of Impact Relationships**

Direct
Expenditures

+

Indirect and Induced Impacts
(Multiplier Effects)

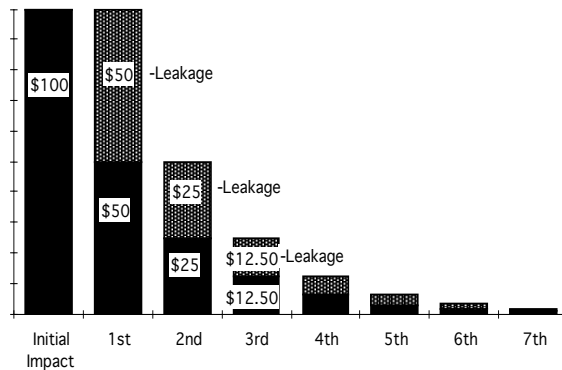
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Total Direct
Economic Impact

Figure 2

How Multipliers Capture the Impact of Re-spending Initial Impacts If the Output Multiplier Equals 2.0



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-spent 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 2013**

<u>Total for All Institutions in 2013</u>	<u>Initial Spending (current dollars)</u>	<u>Output Impact (current dollars)</u>	<u>Value Added Impact (current dollars)</u>	<u>Labor Income Impact (current dollars)</u>	<u>Employment Impact (jobs)</u>
System Total	9,804,936,452	14,073,564,756	9,937,494,295	6,889,129,850	136,834
Personal Services	3,617,490,003	6,752,643,502	5,521,290,647	4,636,180,835	70,426
Operating Expenses	2,454,060,305	2,447,796,354	1,469,217,532	700,273,231	16,485
Student Spending	3,733,386,144	4,873,124,900	2,946,986,116	1,522,675,784	49,923

Notes:

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

Initial spending for personal 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) March 2014.

Table 2

**Total Economic Impact of University System of Georgia
Institutions on their Regional Economies in Fiscal Year 2013**

<u>Institution</u>	Initial Spending (current dollars)	Output Impact (current dollars)	Value-Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (jobs)
Research Universities					
Georgia Institute of Technology	1,621,299,973	2,687,142,018	1,937,697,195	1,382,755,017	21,799
Personal Services	747,529,998	1,493,551,831	1,208,962,702	1,007,300,832	13,012
Operating Expenses	599,966,887	791,556,418	479,709,086	237,686,592	5,031
Student Spending	273,803,088	402,033,769	249,025,407	137,767,593	3,756
Georgia Regents University	862,206,138	1,200,323,047	904,082,740	680,775,686	12,179
Personal Services	481,933,280	863,989,339	707,365,350	593,978,615	9,157
Operating Expenses	262,948,666	194,629,173	113,580,850	46,263,978	1,441
Student Spending	117,324,192	141,704,535	83,136,540	40,533,094	1,580
Georgia State University	992,307,570	1,609,337,678	1,127,848,513	774,027,054	13,623
Personal Services	356,395,365	712,071,728	576,389,872	480,244,749	6,206
Operating Expenses	244,728,957	322,879,151	195,675,327	96,953,348	2,051
Student Spending	391,183,248	574,386,799	355,783,314	196,828,956	5,366
University of Georgia	1,509,388,374	2,147,266,890	1,575,118,384	1,150,506,493	21,879
Personal Services	691,637,573	1,269,643,583	1,040,619,049	875,420,433	13,802
Operating Expenses	375,529,825	312,726,257	190,796,916	92,000,296	2,304
Student Spending	442,220,976	564,897,050	343,702,419	183,085,765	5,773
Comprehensive Universities					
Georgia Southern University	504,145,905	534,818,670	372,782,193	247,773,060	6,485
Personal Services	155,429,116	222,880,887	195,103,409	172,162,867	2,784
Operating Expenses	98,560,181	48,676,463	27,441,223	9,584,133	371
Student Spending	250,156,608	263,261,320	150,237,562	66,026,061	3,330
Kennesaw State University	567,033,788	911,165,023	629,447,766	423,349,520	8,335
Personal Services	175,898,884	351,442,908	284,477,145	237,024,732	3,492
Operating Expenses	97,945,264	129,222,465	78,313,042	38,802,599	821
Student Spending	293,189,640	430,499,650	266,657,579	147,522,188	4,022
University of West Georgia	286,446,631	455,593,962	312,749,013	207,910,607	4,338
Personal Services	83,299,976	166,431,899	134,719,098	112,247,184	1,878
Operating Expenses	61,239,791	80,795,704	48,964,840	24,261,132	513
Student Spending	141,906,864	208,366,359	129,065,074	71,402,291	1,947
Valdosta State University	292,349,163	354,702,799	240,425,629	157,954,730	3,851
Personal Services	82,925,278	144,304,147	118,602,820	99,664,665	1,572
Operating Expenses	57,597,965	33,106,364	18,838,559	7,948,525	260
Student Spending	151,825,920	177,292,288	102,984,251	50,341,540	2,019

(continued)

Table 2 (continued)

**Total Economic Impact of University System of Georgia
Institutions on their Regional Economies in Fiscal Year 2013**

Institution	Initial Spending (current dollars)	Output Impact (current dollars)	Value-Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (jobs)
State Universities					
Albany State University	117,189,415	140,908,113	97,392,269	66,423,438	1,662
Personal Services	38,215,234	66,967,579	54,978,734	46,361,176	862
Operating Expenses	27,984,789	16,245,171	8,935,801	3,910,902	121
Student Spending	50,989,392	57,695,363	33,477,734	16,151,360	680
Armstrong Atlantic State University	175,313,512	210,026,697	144,549,533	96,509,534	2,268
Personal Services	46,020,176	81,605,811	67,549,927	57,095,307	1,013
Operating Expenses	42,082,472	26,272,656	15,846,770	6,917,984	197
Student Spending	87,210,864	102,148,230	61,152,835	32,496,243	1,058
Clayton State University	160,568,811	255,349,132	175,100,817	116,247,913	2,324
Personal Services	46,109,124	92,125,219	74,571,201	62,132,301	926
Operating Expenses	32,489,463	42,864,429	25,977,246	12,871,225	274
Student Spending	81,970,224	120,359,484	74,552,369	41,244,387	1,124
Columbus State University	195,461,445	242,123,455	166,480,642	112,800,579	2,643
Personal Services	59,468,522	105,316,105	86,534,303	73,172,100	1,231
Operating Expenses	41,415,907	25,786,966	14,883,249	6,651,420	184
Student Spending	94,577,016	111,020,384	65,063,090	32,977,059	1,228
Fort Valley State University	117,038,926	144,150,239	100,827,082	68,017,302	1,659
Personal Services	38,628,356	68,862,305	56,466,094	47,461,445	899
Operating Expenses	35,140,946	24,006,787	14,348,060	5,816,016	184
Student Spending	43,269,624	51,281,147	30,012,929	14,739,841	576
Georgia College and State University	169,530,394	199,936,511	140,283,095	98,300,954	2,314
Personal Services	61,963,184	102,153,141	85,152,441	72,704,719	1,176
Operating Expenses	26,004,026	10,819,620	5,739,041	2,443,167	79
Student Spending	81,563,184	86,963,750	49,391,612	23,153,068	1,059
Georgia Southwestern State University	72,629,661	70,803,599	49,448,730	33,475,395	821
Personal Services	20,545,490	28,175,584	25,074,544	22,514,683	308
Operating Expenses	15,631,195	6,042,183	3,300,366	1,314,282	47
Student Spending	36,452,976	36,585,832	21,073,820	9,646,430	466
Savannah State University	125,610,392	148,952,604	104,004,623	69,659,826	1,640
Personal Services	34,685,313	61,506,123	50,912,241	43,032,616	797
Operating Expenses	34,832,423	21,746,350	13,116,657	5,726,139	163
Student Spending	56,092,656	65,700,131	39,975,725	20,901,072	680
Southern Polytechnic State University	142,365,483	227,023,880	155,978,909	103,910,544	2,065
Personal Services	41,730,843	83,377,491	67,490,311	56,232,543	832
Operating Expenses	27,642,192	36,469,263	22,101,568	10,950,899	231
Student Spending	72,992,448	107,177,126	66,387,030	36,727,102	1,001
University of North Georgia	309,761,590	415,297,763	284,803,461	190,114,441	4,306
Personal Services	83,412,103	153,041,140	125,482,924	105,736,807	1,753
Operating Expenses	51,462,207	41,230,597	24,897,040	12,244,778	295
Student Spending	174,887,280	221,026,027	134,423,498	72,132,857	2,258

(continued)

Table 2 (continued)

**Total Economic Impact of University System of Georgia
Institutions on their Regional Economies in Fiscal Year 2013**

Institution	Initial Spending (current dollars)	Output Impact (current dollars)	Value-Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (jobs)
State Colleges					
Abraham Baldwin Agricultural College	75,065,943	73,656,009	49,289,930	30,664,370	897
Personal Services	16,504,700	23,810,212	20,794,059	18,327,238	343
Operating Expenses	22,645,051	11,603,607	6,341,787	2,328,886	87
Student Spending	35,916,192	38,242,190	22,154,084	10,008,246	468
Atlanta Metropolitan State College	64,221,115	99,949,527	67,322,716	43,315,725	984
Personal Services	14,964,677	29,899,166	24,202,023	20,164,987	389
Operating Expenses	15,264,782	20,139,333	12,205,096	6,047,393	129
Student Spending	33,991,656	49,911,028	30,915,597	17,103,345	466
Bainbridge State College	64,237,067	64,344,894	42,078,350	26,562,717	789
Personal Services	13,840,897	23,008,926	19,016,947	16,212,416	304
Operating Expenses	16,136,122	6,573,974	3,437,542	1,444,549	47
Student Spending	34,260,048	34,761,994	19,623,862	8,905,753	438
College of Coastal Georgia	67,050,709	78,935,814	53,664,437	34,580,193	886
Personal Services	18,099,328	31,038,338	25,738,381	21,694,444	373
Operating Expenses	14,397,501	8,449,025	4,896,813	1,920,534	63
Student Spending	34,553,880	39,448,451	23,029,243	10,965,215	450
Dalton State College	96,638,016	104,397,085	69,936,264	45,712,678	1,272
Personal Services	22,848,779	38,927,076	32,168,243	27,379,075	506
Operating Expenses	19,042,357	7,905,533	4,338,932	2,062,612	63
Student Spending	54,746,880	57,564,476	33,429,089	16,270,991	703
Darton State College	119,649,697	137,030,321	89,720,895	56,034,624	1,625
Personal Services	25,261,531	44,267,780	36,342,758	30,646,267	596
Operating Expenses	25,478,838	14,790,468	8,134,840	3,560,691	110
Student Spending	68,909,328	77,972,073	45,243,297	21,827,666	919
East Georgia State College	58,679,138	60,588,598	38,967,643	23,379,102	760
Personal Services	10,788,663	15,699,191	13,666,897	12,068,349	249
Operating Expenses	13,316,243	6,427,055	3,561,730	1,412,089	47
Student Spending	34,574,232	38,462,353	21,739,016	9,898,664	464
Georgia Gwinnett College	211,257,901	333,795,358	227,444,025	149,434,575	3,290
Personal Services	56,446,618	112,779,358	91,289,865	76,062,133	1,391
Operating Expenses	42,271,083	55,769,650	33,798,233	16,746,372	355
Student Spending	112,540,200	165,246,350	102,355,928	56,626,069	1,544
Georgia Highlands College	100,526,754	118,931,985	78,095,653	47,930,539	1,426
Personal Services	22,184,777	38,877,664	31,901,636	26,825,339	542
Operating Expenses	18,816,193	11,770,486	6,721,872	2,530,231	92
Student Spending	59,525,784	68,283,835	39,472,144	18,574,969	792

(continued)

Table 2 (continued)

**Total Economic Impact of University System of Georgia
Institutions on their Regional Economies in Fiscal Year 2013**

<u>Institution</u>	<u>Initial Spending (current dollars)</u>	<u>Output Impact (current dollars)</u>	<u>Value Added Impact (current dollars)</u>	<u>Labor Income Impact (current dollars)</u>	<u>Employment Impact (jobs)</u>
Georgia Perimeter College	400,440,479	627,044,756	422,275,202	272,355,690	6,092
Personal Services	92,276,105	184,366,035	149,235,973	124,342,563	2,216
Operating Expenses	65,831,838	86,854,148	52,636,454	26,080,348	552
Student Spending	242,332,536	355,824,573	220,402,775	121,932,779	3,324
Gordon State College	80,991,275	126,256,564	84,879,167	54,517,229	1,264
Personal Services	18,315,771	36,594,588	29,621,666	24,680,603	488
Operating Expenses	15,882,440	20,954,233	12,698,952	6,292,086	134
Student Spending	46,793,064	68,707,742	42,558,549	23,544,540	642
Middle Georgia State College	182,582,345	227,527,408	152,569,236	98,025,869	2,537
Personal Services	47,250,919	84,289,284	68,975,117	57,919,032	1,016
Operating Expenses	36,393,994	24,843,485	14,483,378	6,107,181	187
Student Spending	98,937,432	118,394,639	69,110,741	33,999,656	1,334
South Georgia State College	62,948,842	66,184,358	42,230,182	26,104,447	821
Personal Services	12,879,423	21,639,065	17,884,918	15,370,617	315
Operating Expenses	15,380,707	6,639,340	3,496,262	1,392,845	50
Student Spending	34,688,712	37,905,952	20,849,003	9,340,984	456

Notes:

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

Initial spending for personal 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 Georgia Regents University do not include impacts associated with MCG Health Inc., but such estimates are reported in Appendix 3.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), March 2014.

Table 3

**On-Campus and Off-Campus Jobs that Exist
Due to Institution-Related Spending in Fiscal Year 2013**

<u>Institution</u>	<u>Total Employment Impact</u>	<u>On-Campus Jobs</u>	<u>Off-Campus Jobs That Exist Due to Institution-Related Spending</u>
System Total	136,834	45,259	91,575
Research Universities	69,480	25,800	43,680
Georgia Institute of Technology	21,799	7,418	14,381
Georgia Regents University	12,179	5,798	6,381
Georgia State University	13,623	3,539	10,084
University of Georgia	21,879	9,045	12,834
Comprehensive Universities	23,009	6,616	16,393
Georgia Southern University	6,485	2,173	4,312
Kennesaw State University	8,335	2,176	6,159
University of West Georgia	4,338	1,255	3,083
Valdosta State University	3,851	1,012	2,839
State Universities	21,703	6,666	15,037
Albany State University	1,662	606	1,056
Armstrong Atlantic State University	2,268	706	1,562
Clayton State University	2,324	581	1,743
Columbus State University	2,643	837	1,806
Fort Valley State University	1,659	632	1,027
Georgia College & State University	2,314	792	1,522
Georgia Southwestern State University	821	240	581
Savannah State University	1,640	566	1,074
Southern Polytechnic State University	2,065	520	1,545
University of North Georgia	4,306	1,186	3,120
State Colleges	22,643	6,177	16,466
Abraham Baldwin Agricultural College	897	279	618
Atlanta Metropolitan State College	984	277	707
Bainbridge State College	789	219	570
College of Coastal Georgia	886	260	626
Dalton State College	1,272	359	913
Darton State College	1,625	427	1,198
East Georgia State College	760	204	556
Georgia Gwinnett College	3,290	968	2,322
Georgia Highlands College	1,426	389	1,037
Georgia Perimeter College	6,092	1,525	4,567
Gordon State College	1,264	351	913
Middle Georgia State College	2,537	686	1,851
South Georgia State College	821	233	588

Notes: Employment includes both full-time and part-time jobs. Estimates for Georgia Regents University exclude impacts associated with MCG Health, Inc., which are reported in Appendix 3.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), March 2014.

Appendix 1

Study Areas for Institutions

Research Universities

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

Comprehensive Universities

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

State Universities

Albany State University – Dougherty, Lee, Worth, Mitchell, Terrell, Colquitt, Baker, Sumter, Calhoun, and Tift
Armstrong Atlantic State University – Chatham, Effingham, Bryan, Liberty, and Bulloch
Clayton State University – Atlanta MSA
Columbus State University – Muscogee, Harris, Chattahoochee, Marion, Talbot, Stewart, Troup, Meriwether
Fort Valley State University – Peach, Houston, Bibb, Crawford, Macon, and Taylor
Georgia College and State University – Baldwin, Hancock, Putnam, Wilkinson, Jones, and Washington
Georgia Southwestern State University – Sumter, Schley, Macon, Lee, Crisp, Marion, Webster, and Dooly
Savannah State University – Chatham, Effingham, Bryan, Liberty, and Bulloch
Southern Polytechnic State University – Atlanta MSA
University of North Georgia – Lumpkin, Hall, Dawson, White, Forsyth, Gwinnett, Jackson, Habersham, Banks, and Union

State Colleges

Abraham Baldwin Agricultural College – Tift, Berrien, Worth, Colquitt, Irwin, Cook, and Turner
Atlanta Metropolitan State College – Atlanta MSA
Bainbridge State College – Decatur, Seminole, Miller, Grady, Early, Mitchell, and Baker
College of Coastal Georgia – Glynn, Brantley, McIntosh, Camden, and Wayne
Dalton State College – Whitfield, Murray, Catoosa, Gordon, Walker, and Gilmer
Darton State College – Dougherty, Lee, Worth, Mitchell, Terrell, Colquitt, Baker, Sumter, Calhoun, and Tift
East Georgia State College – Emanuel, Candler, Bulloch, Johnson, Jefferson, Toombs, Treutlen, and Jenkins
Georgia Gwinnett College – Atlanta MSA
Georgia Highlands College – Floyd, Polk, Chattooga, Bartow, and Gordon
Georgia Perimeter College – Atlanta MSA
Gordon State College – Atlanta MSA
Middle Georgia State College – Bibb, Houston, Jones, Monroe, Peach, Crawford, Twiggs, Baldwin, Wilkinson, Bleckley, Dodge, Pulaski, and Laurens
South Georgia State College – Coffee, Atkinson, Bacon, Jeff Davis, Ware, Telfair, Ben Hill, Irwin, 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, U.S. Census Bureau, Internet release date March 6, 2003.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), March 2014.

Appendix 2

Economic Impact of Capital Outlays in Fiscal Year 2013

Institution	Initial Spending (current dollars)	Output Impact (current dollars)	Value Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (jobs)
System Total	372,968,000	607,226,286	325,449,878	253,108,748	5,641
Research Universities	167,700,000	284,507,446	156,636,397	122,819,796	2,564
Georgia Institute of Technology	59,000,000	111,275,889	63,911,963	49,897,491	918
Georgia Regents University	28,000,000	41,772,265	20,880,269	16,249,959	427
Georgia State University	0	0	0	0	0
University of Georgia	80,700,000	131,459,292	71,844,165	56,672,346	1,219
Comprehensive Universities	112,250,000	175,450,947	92,743,630	71,617,186	1,635
Georgia Southern University	26,160,000	33,366,105	14,226,581	10,493,467	378
Kennesaw State University	52,090,000	94,978,058	54,580,413	42,454,211	778
University of West Georgia	2,000,000	649,545	458,429	275,629	4
Valdosta State University	32,000,000	46,457,239	23,478,207	18,393,879	475
State Universities	12,403,000	15,508,156	7,332,757	5,549,057	180
Albany State University	0	0	0	0	0
Armstrong Atlantic State University	0	0	0	0	0
Clayton State University	0	0	0	0	0
Columbus State University	1,403,000	2,045,331	992,124	651,447	17
Fort Valley State University	0	0	0	0	0
Georgia College & State University	9,600,000	13,134,260	6,114,423	4,787,591	161
Georgia Southwestern State University	1,400,000	328,565	226,210	110,019	2
Savannah State University	0	0	0	0	0
Southern Polytechnic State University	0	0	0	0	0
University of North Georgia	0	0	0	0	0
State Colleges	80,615,000	131,759,737	68,737,094	53,122,709	1,262
Abraham Baldwin Agricultural College	1,500,000	365,273	243,696	106,465	3
Atlanta Metropolitan State College	0	0	0	0	0
Bainbridge State College	0	0	0	0	0
College of Coastal Georgia	1,100,000	271,095	184,377	87,038	2
Dalton State College	15,000,000	20,101,386	8,028,651	6,019,931	246
Darton State College	0	0	0	0	0
East Georgia State College	0	0	0	0	0
Georgia Gwinnett College	25,200,000	47,528,009	27,297,993	21,312,156	392
Georgia Highlands College	2,200,000	3,470,607	1,534,259	1,128,693	46
Georgia Perimeter College	0	0	0	0	0
Gordon State College	12,830,000	24,197,791	13,898,144	10,850,590	200
Middle Georgia State College	22,785,000	35,825,576	17,549,974	13,617,836	373
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 the IMPLAN Professional System and production functions provided by MIG, Inc. 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 Georgia Regents University exclude impacts associated with MCG Health Inc., which are reported in Appendix 3.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia (www.selig.uga.edu), March 2014.

Appendix 3

Combined Economic Impact of Georgia Regents University and MCG Health, Inc. in Fiscal Year 2013

<u>Institution</u>	<u>Initial Spending</u> (current dollars)	<u>Output Impact</u> (current dollars)	<u>Value Added Impact</u> (current dollars)	<u>Labor Income Impact</u> (current dollars)	<u>Employment Impact</u> (jobs)
Georgia Regents University	890,206,138	1,242,095,262	924,963,009	697,025,646	12,605
Personal Services	481,933,280	863,989,339	707,365,350	593,978,615	9,157
Operating Expenses	262,948,666	194,629,123	113,580,850	46,263,978	1,441
Student Spending	117,324,192	141,704,535	83,135,540	40,533,094	1,580
Capital Spending	28,000,000	41,772,265	20,880,269	18,249,959	427

<u>Institution</u>	<u>Initial Spending</u> (current dollars)	<u>Output Impact</u> (current dollars)	<u>Value Added Impact</u> (current dollars)	<u>Labor Income Impact</u> (current dollars)	<u>Employment Impact</u> (jobs)
MCG Health, Inc.	457,963,911	621,759,362	467,029,552	361,248,296	6,751
Wages, Salaries, and Benefits	246,721,000	442,310,817	362,128,717	304,081,500	4,989
Other Operating Expenditures	178,695,000	130,891,394	80,629,079	38,277,431	1,265
Student Spending	0	0	0	0	0
Capital Spending	32,547,911	48,557,141	24,271,756	18,889,365	497

Grand Total Economic Impact of Georgia Regents University and MCG Health, Inc.

<u>Institution</u>	<u>Initial Spending</u> (current dollars)	<u>Output Impact</u> (current dollars)	<u>Value Added Impact</u> (current dollars)	<u>Labor Income Impact</u> (current dollars)	<u>Employment Impact</u> (jobs)
GRU and MCG Health, Inc.	1,348,170,049	1,863,854,614	1,391,992,561	1,058,273,942	19,356
Wages, Salaries, and Benefits	728,654,280	1,306,300,156	1,069,494,067	898,060,115	14,146
Operating Expenses	441,643,666	325,520,517	194,209,929	84,541,115	2,706
Student Spending	117,324,192	141,704,535	83,136,540	40,533,094	1,580
Capital Spending	60,547,911	90,329,406	45,152,025	35,139,324	924

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 MCG Health, Inc., d/b/a Georgia Regents Medical Center (a component unit of MCG Health Systems, Inc.) Financial Statements and Report of Independent Certified Public Accountants (June 30, 2013 and 2012). Other operating expenditures does not include \$45.9 million in purchased services (a transfer) and \$26.9 million in depreciation and amortization. The impacts of spending on Output, Value Added, Labor Income, and Employment were estimated using the IMPLAN system, version 3.0, Type SAM multipliers, and consumption functions provided by MIG, Inc.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, (www.selig.uga.edu), March 2014.

Appendix 4

Combined Economic Impact of Georgia Regents University and MCG Health, Inc. on the Augusta MSA in Fiscal Year 2013

<u>Institution</u>	Output Spending (current dollars)	Value Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (current dollars)	Initial Impact (jobs)
Georgia Regents University	890,206,138	1,256,802,990	935,388,543	707,812,826	12,786
Personal Services	481,933,280	867,580,904	710,576,216	597,852,842	9,235
Operating Expenses	262,948,666	200,913,606	117,272,613	49,694,245	1,502
Student Spending	117,324,192	144,138,647	84,609,402	42,197,207	1,609
Capital Spending	28,000,000	44,169,833	22,930,313	18,068,533	440

<u>Institution</u>	Initial Spending (current dollars)	Output Impact (current dollars)	Value Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (jobs)
MCG Health, Inc.	457,963,911	630,515,496	473,580,723	367,956,492	6,800
Wages, Salaries, and Benefits	246,721,000	444,149,485	363,772,488	306,064,872	5,028
Other Operating Expenditures	178,695,000	135,021,877	83,153,456	40,888,299	1,261
Student Spending	0	0	0	0	0
Capital Spending	32,547,911	51,344,134	26,654,779	21,003,321	511

Grand Total Economic Impact of Georgia Regents University and MCG Health, Inc.

<u>Institution</u>	Initial Spending (current dollars)	Output Impact (current dollars)	Value Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (jobs)
GRU and MCG Health, Inc.	1,348,170,049	1,887,318,486	1,408,969,267	1,075,769,318	19,586
Wages, Salaries, and Benefits	728,654,280	1,311,730,390	1,074,348,704	903,917,714	14,263
Operating Expenses	441,643,666	335,935,483	200,426,069	90,582,543	2,763
Student Spending	117,324,192	144,138,647	84,609,402	42,197,207	1,609
Capital Spending	60,547,911	95,513,967	49,585,092	39,071,854	951

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 MCG Health, Inc., d/b/a Georgia Regents Medical Center (a component unit of MCG Health Systems, Inc.) Financial Statements and Report of Independent Certified Public Accountants (June 30, 2013 and 2012). Other operating expenditures does not include \$45.9 million in purchased services (a transfer) and \$26.9 million in depreciation and amortization. The impacts of spending on Output, Value Added, Labor Income, and Employment were estimated using the IMPLAN system, version 3.0, Type SAM multipliers, and consumption functions provided by MIG, Inc.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, (www.selig.uga.edu), March 2014.

Appendix 5

Georgia Regents University's Albany, Savannah, and Rome Clinical Campuses: Economic Impact of FY 2013 Expenditures

Georgia Regents 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 2013, providing base levels of impact that can be referenced in future years as the programs expand. Although the economic impacts in FY 2013 are not large, the impacts should expand rapidly once more students are enrolled at these branch campuses.

Albany: In FY 2013, total expenditures at the Albany clinical campus were \$1,964,0914, including \$524,097 personnel expense, \$307,914 operating expense, and \$1,132,080 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:

- \$1,964,091 in initial expenditures and 5 on-campus jobs,
- \$2,378,127 in output (sales),
- \$1,595,599 in gross regional product (value added),
- \$1,037,442 in income, and
- 26 jobs.

Savannah: Total expenditures at the Savannah clinical campus were \$1,859,720, including \$668,768 personnel expense, \$542,232 operating expense, and \$648,720 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:

- \$1,859,720 in initial expenditures and 5 on-campus jobs,
- \$2,284,256 in output (sales),
- \$1,648,150 in gross regional product (value added),
- \$1,160,575 in income, and
- 20 jobs.

Rome: Total expenditures at the Rome clinical campus were \$370,446, including \$348,666 personnel expense, and \$21,780 operating expense (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:

- \$370,446 in initial expenditures and 3 on-campus jobs,
- \$624,650 in output (sales),
- \$509,160 in gross regional product (value added),
- \$424,529 in income, and
- 5 jobs.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, (www.selig.uga.edu), March 2014.

Appendix 6

GRU/UGA Medical Partnership's Athens Campus: Economic Impact of FY 2013 Expenditures

In partnership, Georgia Regents 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 2013.

In FY 2013, initial expenditures at the Athens campus were \$12,739,390, including \$8,299,997 personnel expense, \$2,404,193 operating expense, and \$2,035,200 in student spending (Assistant Vice Chancellor for Fiscal Affairs/Budget Director, Board of Regents, University System of Georgia provided expense data for personnel, operations, and capital projects as well as enrollment data).

The economic impact accruing to Athens includes:

- \$12,739,390 in initial expenditures and 58 on-campus jobs,
- \$19,838,257 in output (sales),
- \$15,291,258 in gross regional product (value added),
- \$11,937,084 in income, and
- 158 jobs.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, (www.selig.uga.edu), March 2014.

Appendix 7

Combined Economic Impact of UGA's Griffin Campus (Budget Unit "A" and Budget Unit "B") On Its Regional Economy in Fiscal Year 2013

<u>UGA's Griffin Campus</u>	Initial Spending (current dollars)	Output Impact (current dollars)	Value Added Impact (current dollars)	Labor Income Impact (current dollars)	Employment Impact (jobs)
Total	21,331,116	38,261,427	28,129,616	21,597,053	413
Personal Services	12,433,314	24,861,520	20,124,277	16,767,434	310
Operating Expenses	4,661,698	6,150,334	3,727,304	1,846,807	39
Student Spending	1,726,104	2,534,493	1,569,901	868,512	24
Capital Spending	2,500,000	4,715,080	2,708,134	2,114,300	39

Notes: The impacts of spending on Output, Value Added, Labor Income, and Employment were estimated using the IMPLAN Professional System and production functions provided by MIG, Inc. Initial spending for personal 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. The total employment impact of 382 jobs consists of 217 on-campus jobs (expressed on a FTE basis) and 196 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), March 2014.