

# Georgia Business AND Economic Conditions

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TERRY COLLEGE OF BUSINESS

MAY-JUNE 2000

## A Special Economic Impact Study

# THE UNIVERSITY TOWN ECONOMY

Jeffrey M. Humphreys

**H**ow much does a region benefit economically from hosting an institution of higher education? Traditionally, the benefits are discussed in broad, qualitative terms that 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 34 institutions convey to the communities in which they are located.

The benefits are estimated for three important categories of college/university-related expenditures:

(1) spending by the institutions themselves for salaries and fringe benefits, operating supplies and expenses, and other budgeted expenditures;

(2) spending by the institutions for capital projects (construction); and

(3) spending by the students who attend these institutions.

The economic impact estimates are based on regional input-output models of each institution's regional

economy, certain necessary assumptions, and readily available data regarding annual spending in the three specified categories. Moreover, the emphasis is on funds received by residents of the region that hosts each institution of higher education. The study reports expenditures and impacts for fiscal years 1998 (July 1, 1997 through June 30, 1998) and 1999 (July 1, 1998 through June 30, 1999).

The study does not account for all of the short-term impacts of the 34 institutions on their host communities, however. For example, several sources of college/university-related spending are identified, but no dollar amounts are estimated for them, because this would require collecting survey data, a task beyond the resources available to this project. It also does not quantify the many long-term benefits flowing to the economic development of the host communities through the presence of an institution of higher education, or measure intangible benefits (such as cultural opportunities, intellectual stimulation, and volunteer work) to residents of their host communities. 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.

The five-part study discusses economic impact highlights, describes the economic impact concept, and summarizes methodology and results, limitations, and conclusions.

## ECONOMIC IMPACT HIGHLIGHTS

In the simplest and broadest terms, the total economic impact of all 34 institutions of the University System of Georgia on their host communities was \$7.7 billion in FY 1999, up by 6.4 percent or \$464 million, from the FY 1998 total of \$7.3 billion. The output impact of each institution is the change in regional output that is due to spending by the institution (including capital projects) and spending by the students who attend the institution. Of the FY 1999 total, \$4.9 billion (64 percent) is the initial spending by the institutions and students; \$2.8 billion (36 percent) is the induced or re-spending (multiplier) impact. Dividing the FY 1999 total output impact (\$7.7 billion) by initial spending by the

institutions and students (\$4.9 billion) yields an average multiplier value of 1.56. On average, therefore, every dollar of initial spending generates an additional 56 cents for the economy of the region hosting the institution.

In FY 1999, value added comprises \$4.5 billion (59 percent) of the \$7.7 billion output impact, with domestic and foreign trade comprising the remainder \$3.2 billion (41 percent) of the output impact. The \$4.5 billion value-added impact reported for FY 1999 equals almost 2 percent of Georgia's gross state product. Labor income received by residents of the communities that host one or more institutions equals \$3.6 billion, and represents 78 percent of the value-added impact.

The collective or rolled-up employment impact of all 34 institutions on their host communities in FY 1999, including multiplier effects, is 99,965 jobs. Approximately 42 percent of these positions are on campus—employees of the University System of Georgia—and 58 percent are off-campus jobs in either the private or public sectors. On average, for each job created on campus, there are 1.4 off-campus jobs that exist because of spending related to the institution. The 99,965 jobs generated by the University System of Georgia account for 2.7 percent of all the jobs in Georgia, or about one job in 37.

## UNDERSTANDING THE CONCEPT OF ECONOMIC IMPACT

Short-term economic impacts are the net changes in regional output, value added, labor income, and employment that are due to new dollars flowing into a region from a given enterprise or event of economic development. In this study, the enterprises or events of economic development are the 34 institutions of the University System of Georgia and the regions are the host communities, which include the surrounding counties from which most employees and students commute. The effects of expenditures that go to people, businesses, or governments located outside the region are not included in the value added, labor income, and employment impact estimates, but the output impacts include both domestic and foreign trade.

Economists speak of economic impacts in terms of the changes in output, value added, labor income, or employment that occur in the region's industries (including households) when they produce goods and services to satisfy demand by consumers, businesses, investors, or governments that are from outside the region. Throughout this study, expenditures that represent the regional repercussions of spending originating from outside the region are counted as economic impacts. Because local residents who want to attend a college or university often would have to relocate to another area, the spending of the area's residents who are students at an institution of the University System of Georgia also counts as an economic impact. Expenditures that immediately flow to recipients located outside the region, however, are not counted as economic impacts.

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TABLE 1

**Total Economic Impact of all 34 Institutions of the University System of Georgia  
on their Regional Economies in Fiscal Years 1998 and 1999 <sup>1</sup>**

Total for All 34 Institutions in 1997-98	Initial Spending <sup>2,3,4</sup> (millions of current dollars)	Output <sup>5</sup> Impact (millions of current dollars)	Value Added <sup>6</sup> Impact (millions of current dollars)	Labor Income <sup>7</sup> Impact (millions of current dollars)	Employment <sup>8</sup> Impact (jobs)
System Total	4,689.0	7,262.9	4,179.8	3,232.9	94,703
Budget Unit "A" and Unit "B"	3,062.5	5,077.5	3,091.9	2,613.3	67,678
Capital Projects Funded	140.5	218.6	106.0	85.4	2,419
Students Personal Expenditures	1,489.0	1,996.7	982.0	534.3	24,605
Total for All 34 Institutions in 1998-99	Initial Spending <sup>2,3,4</sup> (millions of current dollars)	Output <sup>5</sup> Impact (millions of current dollars)	Value Added <sup>6</sup> Impact (millions of current dollars)	Labor Income <sup>7</sup> Impact (millions of current dollars)	Employment <sup>8</sup> Impact (jobs)
System Total	4,964.4	7,727.0	4,537.5	3,559.1	99,965
Budget Unit "A" and Unit "B"	3,246.6	5,344.7	3,328.5	2,827.9	70,853
Capital Projects Funded	356.6	569.2	279.1	224.5	6,127
Students Personal Expenditures	1,361.2	1,813.0	929.9	506.7	22,985

<sup>1</sup> The impacts of spending on Output, Value-Added, Labor Income, and Employment were estimated using the IMPLAN system, version 2.0 and Type SAM multipliers.

<sup>2</sup> Initial spending for Budget Unit "A" and Unit "B" were obtained from the report entitled, "The University System of Georgia Budget 1998-99," published by the Board of Regents of the University System of Georgia.

<sup>3</sup> Initial spending for Capital Projects Funded were obtained from the Board of Regents of the University System of Georgia, Capital Projects Recent State Funding History (diskette).

<sup>4</sup> Initial spending for Students Personal Expenditures were estimated by the author based on data obtained from the Quarterly and Semester Enrollment Reports issued by the Board of Regents of the University System of Georgia; the Bureau of Labor Statistics' 1997 Consumer Expenditure Survey; and Personal Consumption Expenditures issued by the Bureau of Economic Analysis.

<sup>5</sup> Output refers to the value of total production, including domestic and foreign trade.

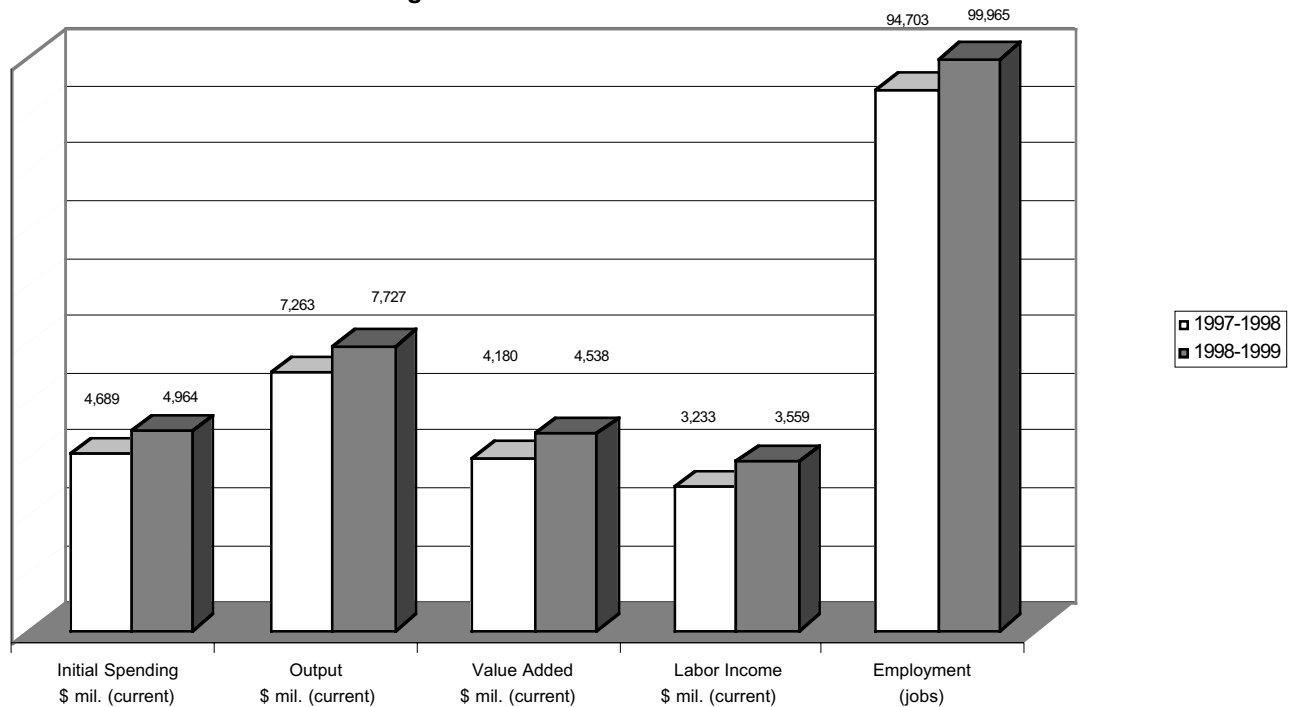
<sup>6</sup> Value Added includes employee compensation (including fringe benefits), proprietary income, other property type income (e.g., rents, royalties, dividends), and indirect business taxes (e.g., excise taxes, property taxes, fees, licenses, and sales taxes paid by businesses).

<sup>7</sup> 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.

<sup>8</sup> Employment includes both full-time and part-time jobs.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, February 1, 2000.

### Total Economic Impact of all 34 Institutions of the University System of Georgia on their Regional Economies in Fiscal Years 1998 and 1999



Source: Selig Center for Economic Growth, Terry College of Business, February 2000.

For goods made outside of the region, local value is created by wholesale and retail firms within the region, but not by the manufacturing firms that originally produced the goods elsewhere. So when these goods are purchased locally, the benefit to the region's economy consists only of the wholesale and retail margins. For example, since the petroleum production and refining industry is not present in the host regions, the portion of students' expenditures for gasoline that represents a payment to producers and refiners is not a local economic impact, but the portion that represents payments to local retail, wholesale, and distribution companies is counted as a local economic impact.

## METHODOLOGY AND RESULTS

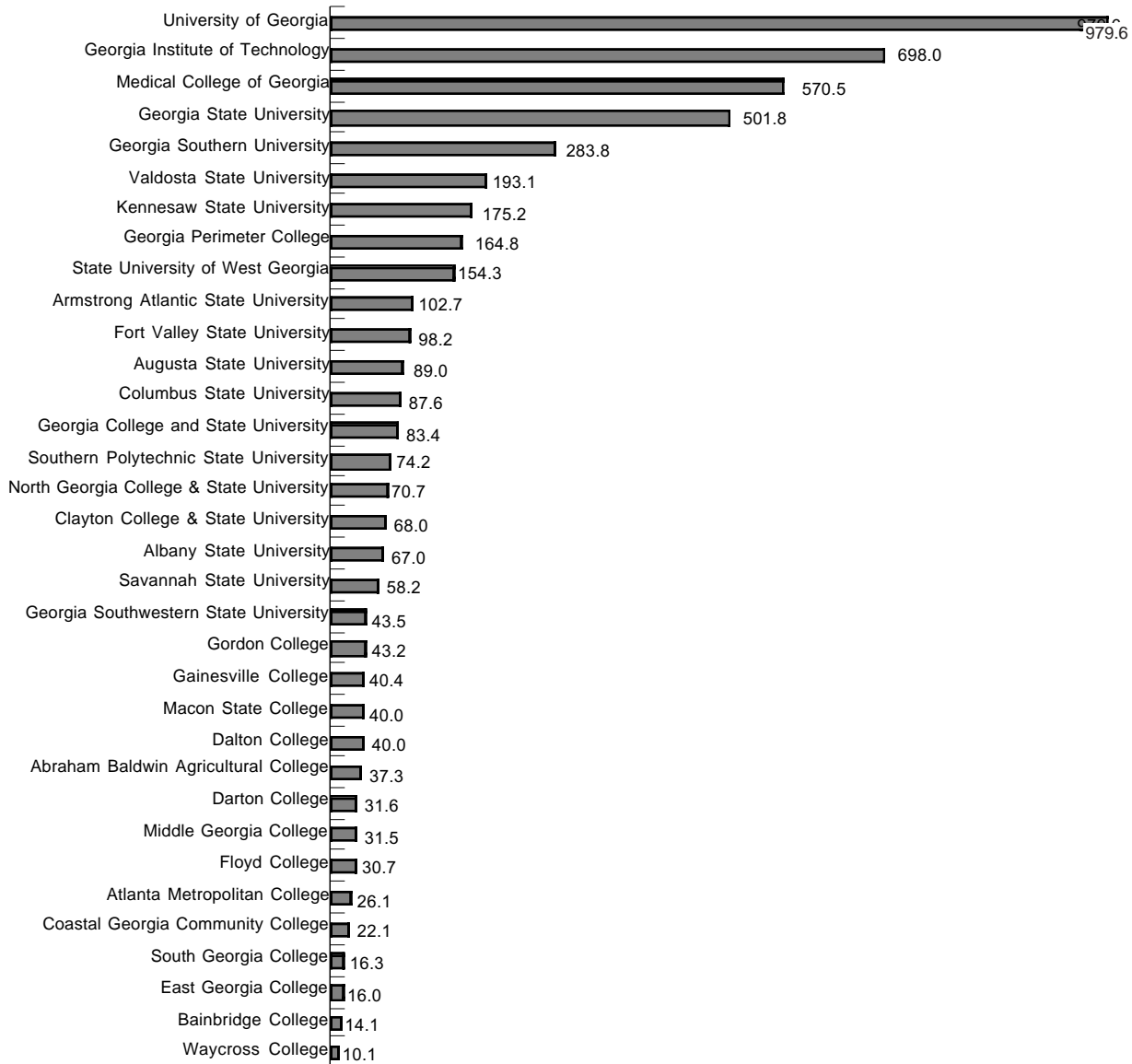
Estimating the economic impact of University System of Georgia institutions on their regional economies in FY 1998 and in FY 1999 involved four distinct steps. First, initial spending and employment for each institution were obtained for Budget Unit "A" and "Budget Unit "B"; and then the institutional expenditures were allocated to industrial sectors recog-

nized by the economic impact modeling system. Second, expenditures associated with capital projects (construction) funded were obtained for each institution and allocated to the appropriate industrial sector. Third, spending by students was estimated based on each institution's enrollment reports and on data obtained from both the U.S. Bureau of Labor Statistics and the U.S. Bureau of Economic Analysis. Students' personal expenditures then were allocated to industrial sectors. Finally, the IMPLAN Professional Version 2.0 modeling system was used to build regional economic models that are specific to each institution.

For analytical purposes, all dollar amounts were converted to inflation-adjusted 1996 dollars, but the amounts expressed in this report are re-inflated to current dollars. Using the IMPLAN model and Type SAM multipliers, impacts associated with all categories of initial spending then are estimated in terms of output, value added, labor income, and employment. Type SAM multipliers capture the original expenditures resulting from the impact, the indirect effects of industries buying from industries, and the induced effects of household

*continued on page 11*

**Total Economic Impact of University System of Georgia Institutions  
on their Regional Economies in Fiscal Year 1999 -  
Initial Spending (millions of current dollars)**



Source: Selig Center for Economic Growth, Terry College of Business, February 2000.

TABLE 2

**Total Economic Impact of University System of Georgia  
Institutions on their Regional Economies in the 1998-99 Fiscal Year<sup>1</sup>**

<u>Institution</u>	<u>Initial Spending<sup>2,3,4</sup> (current dollars)</u>	<u>Output<sup>5</sup> Impact (current dollars)</u>	<u>Value Added<sup>6</sup> Impact (current dollars)</u>	<u>Labor Income<sup>7</sup> Impact (current dollars)</u>	<u>Employment<sup>8</sup> Impact (jobs)</u>
<b>Research Universities and Regional Universities</b>					
Georgia Institute of Technology	698,012,934	1,204,218,961	748,114,618	597,740,142	13,331
Budget Unit "A" and Unit "B"	520,573,897	932,370,809	601,213,456	504,630,440	10,369
Capital Projects Funded	55,859,454	98,862,498	51,637,571	41,168,440	980
Students Personal Expenditures	121,579,583	172,985,653	95,263,591	51,941,263	1,982
Georgia State University	501,853,422	854,105,822	504,911,916	384,834,429	11,018
Budget Unit "A" and Unit "B"	324,258,564	591,330,525	361,661,184	299,955,117	8,087
Capital Projects Funded	29,075,000	51,458,202	26,877,496	21,428,286	510
Students Personal Expenditures	148,519,858	211,317,095	116,373,236	63,451,027	2,421
Medical College of Georgia	570,529,668	906,711,485	591,370,362	500,052,613	13,173
Budget Unit "A" and Unit "B"	535,082,020	858,682,309	567,197,504	486,056,849	12,537
Capital Projects Funded	4,150,000	6,314,186	3,049,385	2,462,523	70
Students Personal Expenditures	31,297,648	41,714,990	21,123,473	11,533,240	566
University of Georgia	979,633,212	1,474,713,872	886,840,380	704,216,358	19,708
Budget Unit "A" and Unit "B"	706,260,553	1,102,983,094	684,668,954	586,913,453	14,433
Capital Projects Funded	48,980,000	73,189,329	34,269,919	27,395,147	828
Students Personal Expenditures	224,392,659	298,541,449	167,901,506	89,907,758	4,447
Georgia Southern University	283,870,336	384,847,988	183,571,519	141,883,191	4,970
Budget Unit "A" and Unit "B"	179,844,658	260,148,225	131,648,098	113,298,886	3,328
Capital Projects Funded	2,755,000	3,736,140	1,648,196	1,363,767	43
Students Personal Expenditures	101,270,678	120,963,623	50,275,225	27,220,538	1,599
Valdosta State University	193,113,540	281,529,255	144,430,408	111,661,735	3,786
Budget Unit "A" and Unit "B"	101,247,250	158,816,457	87,944,594	75,287,105	2,202
Capital Projects Funded	26,750,000	40,786,571	18,780,891	15,319,332	483
Students Personal Expenditures	65,116,290	81,926,227	37,704,923	21,055,298	1,101
<b>Colleges and State Universities</b>					
Albany State University	67,074,597	100,870,523	53,061,602	40,781,898	1,280
Budget Unit "A" and Unit "B"	44,009,781	71,519,419	39,559,792	33,400,260	905
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	23,064,816	29,351,104	13,501,810	7,381,639	375
Armstrong Atlantic State University	102,753,543	153,834,882	85,740,465	65,223,280	1,957
Budget Unit "A" and Unit "B"	40,435,534	64,628,521	41,659,600	35,683,618	901
Capital Projects Funded	28,000,000	44,144,912	21,475,699	17,420,420	491
Students Personal Expenditures	34,318,009	45,061,449	22,605,166	12,119,242	565

(continued)



Table 2 (continued)

Total Economic Impact of University System of Georgia  
Institutions on their Regional Economies in the 1998-99 Fiscal Year<sup>1</sup>

Institution	Initial Spending <sup>2,3,4</sup> (current dollars)	Output <sup>5</sup> Impact (current dollars)	Value Added <sup>6</sup> Impact (current dollars)	Labor Income <sup>7</sup> Impact (current dollars)	Employment <sup>8</sup> Impact (jobs)
<b>Augusta State University</b>	89,095,297	132,575,084	76,732,936	58,182,121	1,849
Budget Unit "A" and Unit "B"	37,515,244	60,394,400	40,831,129	35,083,157	937
Capital Projects Funded	18,195,000	27,683,520	13,369,533	10,796,531	308
Students Personal Expenditures	33,385,053	44,497,165	22,532,274	12,302,433	603
<b>Clayton College &amp; State University</b>	68,045,469	112,914,755	67,207,752	49,997,043	1,389
Budget Unit "A" and Unit "B"	39,317,706	71,136,763	44,331,907	36,917,384	918
Capital Projects Funded	2,605,000	4,610,443	2,408,113	1,919,886	46
Students Personal Expenditures	26,122,763	37,167,549	20,467,732	11,159,773	426
<b>Columbus State University</b>	87,600,228	131,833,184	71,144,608	55,305,665	1,835
Budget Unit "A" and Unit "B"	52,164,618	86,131,932	50,577,586	43,422,039	1,257
Capital Projects Funded	880,000	1,309,791	612,797	499,856	15
Students Personal Expenditures	34,555,610	44,391,461	19,954,225	11,383,770	563
<b>Fort Valley State University</b>	98,205,470	158,147,822	83,512,288	64,477,567	2,025
Budget Unit "A" and Unit "B"	60,133,096	101,711,060	55,678,986	45,593,315	1,348
Capital Projects Funded	18,930,000	31,349,525	15,144,114	12,135,561	357
Students Personal Expenditures	19,142,374	25,087,237	12,689,187	6,748,692	320
<b>Georgia College and State University</b>	83,491,990	112,464,067	61,603,313	47,814,677	1,476
Budget Unit "A" and Unit "B"	48,819,260	67,730,884	41,470,232	36,168,367	910
Capital Projects Funded	940,000	1,399,095	654,579	533,937	16
Students Personal Expenditures	33,732,730	43,334,088	19,478,502	11,112,373	550
<b>Georgia Southwestern State University</b>	43,588,261	56,454,125	29,377,965	23,953,180	730
Budget Unit "A" and Unit "B"	23,740,667	33,182,296	20,840,950	18,671,950	458
Capital Projects Funded	2,700,000	3,641,822	1,629,160	1,353,485	41
Students Personal Expenditures	17,147,594	19,630,007	6,907,855	3,927,744	232
<b>Kennesaw State University</b>	175,205,736	283,329,634	170,054,127	123,445,927	3,424
Budget Unit "A" and Unit "B"	87,451,580	156,579,025	100,524,608	84,266,151	1,987
Capital Projects Funded	5,450,000	9,645,647	5,038,086	4,016,652	96
Students Personal Expenditures	82,304,156	117,104,962	64,491,433	35,163,124	1,342
<b>North Georgia College &amp; State Univ.</b>	70,730,773	107,309,739	60,035,770	45,581,361	1,402
Budget Unit "A" and Unit "B"	28,050,151	46,365,219	30,669,519	26,080,956	655
Capital Projects Funded	18,260,000	28,163,472	13,207,473	10,542,452	317
Students Personal Expenditures	24,420,622	32,781,047	16,158,778	8,957,953	429

(continued)

Table 2 (continued)

Total Economic Impact of University System of Georgia  
Institutions on their Regional Economies in the 1998-99 Fiscal Year<sup>1</sup>

Institution	Initial Spending <sup>2,3,4</sup> (current dollars)	Output <sup>5</sup> Impact (current dollars)	Value Added <sup>6</sup> Impact (current dollars)	Labor Income <sup>7</sup> Impact (current dollars)	Employment <sup>8</sup> Impact (jobs)
<b>Savannah State University</b>	58,206,446	89,300,169	50,033,721	38,756,407	1,196
Budget Unit "A" and Unit "B"	37,386,171	60,720,879	35,809,388	30,136,975	849
Capital Projects Funded	4,709,000	7,424,229	3,611,752	2,929,741	83
Students Personal Expenditures	16,111,275	21,155,061	10,612,580	5,689,692	265
<b>Southern Polytechnic State Univ.</b>	74,221,824	124,341,536	73,596,049	55,837,861	1,446
Budget Unit "A" and Unit "B"	37,486,083	67,289,969	42,868,718	35,873,589	830
Capital Projects Funded	13,781,000	24,390,215	12,739,426	10,156,602	242
Students Personal Expenditures	22,954,741	32,661,352	17,987,904	9,807,669	374
<b>State University of West Georgia</b>	154,334,611	224,677,773	122,715,867	92,242,938	2,845
Budget Unit "A" and Unit "B"	73,859,599	117,992,919	70,049,233	59,482,048	1,549
Capital Projects Funded	24,350,000	34,912,268	16,700,534	13,580,946	373
Students Personal Expenditures	56,125,012	71,772,587	35,966,099	19,179,944	923
<b>Associate Degree Colleges</b>					
<b>Abraham Baldwin Agric. College</b>	37,310,895	50,395,817	28,010,858	22,264,134	715
Budget Unit "A" and Unit "B"	17,109,756	25,283,527	17,358,033	15,498,932	391
Capital Projects Funded	3,220,000	4,611,451	2,020,345	1,651,938	55
Students Personal Expenditures	16,981,139	20,500,839	8,632,479	5,113,264	270
<b>Atlanta Metropolitan College</b>	26,143,958	42,579,187	25,160,013	18,148,344	515
Budget Unit "A" and Unit "B"	13,783,300	24,992,144	15,474,692	12,867,547	314
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	12,360,658	17,587,043	9,685,320	5,280,796	202
<b>Bainbridge College</b>	14,167,434	18,396,342	10,126,317	8,144,954	264
Budget Unit "A" and Unit "B"	8,212,625	11,495,405	7,377,521	6,617,862	175
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	5,954,809	6,900,937	2,748,797	1,527,092	89
<b>Coastal Georgia Community College</b>	22,127,582	31,429,566	18,797,674	13,944,061	450
Budget Unit "A" and Unit "B"	11,600,000	17,809,975	11,878,621	10,200,772	266
Capital Projects Funded	700,000	1,053,062	495,236	400,847	12
Students Personal Expenditures	9,827,582	12,566,530	6,423,817	3,342,442	172
<b>Dalton College</b>	40,019,772	55,142,940	28,603,002	22,607,682	719
Budget Unit "A" and Unit "B"	19,417,592	29,182,980	17,721,974	15,508,607	417
Capital Projects Funded	4,950,000	7,018,485	3,239,218	2,665,747	78
Students Personal Expenditures	15,652,180	18,941,475	7,641,810	4,433,328	224

(continued)



Table 2 (continued)

Total Economic Impact of University System of Georgia  
Institutions on their Regional Economies in the 1998-99 Fiscal Year<sup>1</sup>

Institution	Initial Spending <sup>2,3,4</sup> (current dollars)	Output <sup>5</sup> Impact (current dollars)	Value Added <sup>6</sup> Impact (current dollars)	Labor Income <sup>7</sup> Impact (current dollars)	Employment <sup>8</sup> Impact (jobs)
<b>Darton College</b>	31,659,655	45,706,626	25,554,179	19,396,388	664
Budget Unit "A" and Unit "B"	16,912,957	27,027,545	17,106,710	14,750,777	424
Capital Projects Funded	155,000	235,102	114,214	92,960	3
Students Personal Expenditures	14,591,698	18,443,979	8,333,255	4,552,650	237
<b>East Georgia College</b>	16,060,923	20,500,606	9,624,206	7,715,002	267
Budget Unit "A" and Unit "B"	5,689,659	7,572,336	4,857,581	4,408,580	125
Capital Projects Funded	4,250,000	6,058,174	2,518,600	2,087,635	71
Students Personal Expenditures	6,121,264	6,870,097	2,248,025	1,218,787	71
<b>Floyd College</b>	30,701,756	43,813,476	24,473,760	18,875,613	623
Budget Unit "A" and Unit "B"	18,672,378	28,786,666	17,485,124	15,101,362	439
Capital Projects Funded	7,000	9,947	4,685	3,839	0
Students Personal Expenditures	12,022,378	15,016,862	6,983,951	3,770,412	184
<b>Gainesville College</b>	40,409,278	62,529,380	36,637,063	27,460,533	780
Budget Unit "A" and Unit "B"	14,996,109	24,919,406	17,350,821	14,908,607	353
Capital Projects Funded	8,922,000	15,178,572	7,750,822	6,220,774	156
Students Personal Expenditures	16,491,169	22,431,402	11,535,420	6,331,152	271
<b>Georgia Perimeter College</b>	164,883,871	266,068,039	159,777,644	115,983,481	3,453
Budget Unit "A" and Unit "B"	78,645,248	140,307,619	90,962,047	76,410,175	2,036
Capital Projects Funded	8,810,000	15,592,323	8,144,136	6,492,974	155
Students Personal Expenditures	77,428,623	110,168,097	60,671,460	33,080,332	1,262
<b>Gordon College</b>	43,236,237	58,550,510	29,742,090	22,748,218	733
Budget Unit "A" and Unit "B"	12,920,437	19,239,554	12,223,036	10,713,756	274
Capital Projects Funded	14,720,000	20,392,937	9,280,153	7,627,545	231
Students Personal Expenditures	15,595,800	18,918,019	8,238,902	4,406,918	228
<b>Macon State College</b>	40,093,301	60,604,516	36,065,203	26,091,193	821
Budget Unit "A" and Unit "B"	21,360,353	35,703,289	22,895,307	19,256,271	502
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	18,732,948	24,901,226	13,169,896	6,834,922	319
<b>Middle Georgia College</b>	31,596,393	41,984,592	22,603,078	18,145,499	602
Budget Unit "A" and Unit "B"	14,848,767	21,470,105	14,066,421	12,538,447	345
Capital Projects Funded	4,540,000	6,075,151	2,700,665	2,232,638	69
Students Personal Expenditures	12,207,626	14,439,335	5,835,992	3,374,414	188

(continued)

Table 2 (continued)

Total Economic Impact of University System of Georgia  
Institutions on their Regional Economies in the 1998-99 Fiscal Year<sup>1</sup>

Institution	Initial Spending <sup>2,3,4</sup> (current dollars)	Output <sup>5</sup> Impact (current dollars)	Value Added <sup>6</sup> Impact (current dollars)	Labor Income <sup>7</sup> Impact (current dollars)	Employment <sup>8</sup> Impact (jobs)
<b>South Georgia College</b>	16,319,551	21,533,835	11,429,651	9,246,514	308
Budget Unit "A" and Unit "B"	9,234,456	13,138,567	8,065,178	7,250,480	198
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	7,085,095	8,395,268	3,364,473	1,996,035	110
<b>Waycross College</b>	10,111,724	13,615,935	6,795,114	6,330,391	209
Budget Unit "A" and Unit "B"	5,555,678	8,097,368	4,421,567	4,977,483	137
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	4,556,046	5,518,567	2,373,547	1,352,908	73

<sup>1</sup> The impacts of spending on Output, Value-Added, Labor Income, and Employment were estimated using the IMPLAN system, version 2.0 and Type SAM multipliers.

<sup>2</sup> Initial spending for Budget Unit "A" and Unit "B" were obtained from the report entitled, "The University System of Georgia Budget 1998-99," published by the Board of Regents of the University System of Georgia.

<sup>3</sup> Initial spending for Capital Projects Funded were obtained from the Board of Regents of the University System of Georgia, Capital Projects Recent State Funding History (diskette).

<sup>4</sup> Initial spending for Students Personal Expenditures were estimated by the author based on data obtained from the Quarterly and Semester Enrollment Reports issued by the Board of Regents of the University System of Georgia; the Bureau of Labor Statistics' 1997 Consumer Expenditure Survey; and Personal Consumption Expenditures issued by the Bureau of Economic Analysis.

<sup>5</sup> Output refers to the value of total production, including domestic and foreign trade.

<sup>6</sup> Value Added includes employee compensation (including fringe benefits), proprietary income, other property type income (e.g., rents, royalties, dividends), and indirect business taxes (e.g., excise taxes, property taxes, fees, licenses, and sales taxes paid by businesses).

<sup>7</sup> 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.

<sup>8</sup> Employment includes both full-time and part-time jobs.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, February 1, 2000.

*continued from page 4*

expenditures based on information in the social account matrix; and also account for Social Security and income tax leakage, institutional savings, commuting, and inter-institutional transfers. Wherever appropriate, the IMPLAN software applied margins to convert purchaser prices to producer prices. 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: Budget Unit “A” and Unit “B”

Institution-specific data on total budgeted expenditures, travel, operating supplies and expenses, equipment, salaries and fringe benefits, and EFT positions (employment) were obtained from the University System’s budget report for 1998-99, published by the Board of Regents. Data were obtained for Budget Unit “A” and Budget Unit “B” for FY 1998 and 1999. These amounts were treated as an industry change and are reported in the first column of Tables 2 and 3, respectively. Expenditures include spending for general operations, special initiative funds, lottery funds, research consortium, departmental services, and sponsored operations. To avoid double counting, the estimates of initial spending exclude 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 recreations programs operated by students). The spending associated with such activities is included in the students’ personal expenditures, however.

Since a detailed analysis of spending patterns at each institution is not practical, budgeted expenditures are allocated to various economic sectors based on a typical expenditure pattern estimated for U.S. colleges that was developed by the IMPLAN 2.0 modelers. For each institution, however, the “typical” sectoring scheme is modified to reflect that institution’s EFT positions and its spending for personnel services.

### ■ Capital Projects Funded

Institution-specific data on capital projects (construction) funded were obtained on diskette from the Board of Regents. The expenditures were allocated to the year of reported funding, regardless of whether or not all of the funds actually were spent during that fiscal year. The amounts for FY 1998 and FY 1999 are reported in the first column of Tables 2 and 3, respectively. Budgeted funds were allocated to the appropriate IMPLAN 2.0 industrial sector.

## ■ Students’ Personal Expenditures

The students who attend an educational institution spend significant amounts of money in the local economy as a part of their living expenses, so the dollar value of this spending—based on average spending per quarter or semester for all items except tuition and fees—also is estimated. Since a detailed survey of students’ spending habits at each institution is impossible, the expenditure estimates primarily are based on data obtained from the 1997 Consumer Expenditure Survey released on the Internet by the U.S. Bureau of Labor Statistics (BLS) on September 8, 1998. Although expenditure data cover consumer units consisting of one person at the lowest income level, no data are available expressly for college students; therefore, in order to adapt the data for this study, spending estimates for several categories of goods or services are increased, decreased, or eliminated. For example, expenditures for books are increased substantially, while expenditures for education are eliminated because of possible double counting. (System institutions receive payments from students for tuition and fees, which in turn support the institutions’ expenditures, which has already been estimated.) After adjustment, the average expenditure per student is estimated at \$2,804 per quarter in FY 1998. For Summer Quarter 1998, the average expenditure per student is estimated at \$2,827. For both Fall Semester 1998 and Spring Semester 1999, the average expenditure per student is estimated at \$4,240. These amounts do not include tuition and fees.

Many institutions also prepare annual estimates of the estimated cost of attendance, and although such estimates are not detailed enough to be used in the IMPLAN modeling system, they do provide useful comparisons. For example, The University of Georgia’s Office of Student Financial Aid indicates that the cost of attendance for an undergraduate who lived off campus in FY 1998 (the 1997-98 academic year) was \$3,004 per quarter (excluding tuition and fees). Similarly, the estimate for a graduate student was \$3,012 per quarter. For students who live on campus, the Financial Aid Office estimates costs of \$2,221 per quarter for undergraduates and \$2,216 for graduate students.

Moreover, students residing in the study area are assumed to make all of their attendance-related purchases in the local economy, while those who lived outside the study area are assumed to make no attendance-related purchases (except for tuition and fees) locally. For all institutions, it is assumed that 95 percent of the students reside in the study area and 5 percent live outside it. Expenditures are distributed to the IMPLAN sectoring scheme based on both national average expenditure patterns and data provided by the 1997 Consumer Expenditure Survey already described.

The final step in estimating students' personal expenditures is to multiply the number of quarters or semesters of student spending by the average spending per respective quarter or semester. For FY 1999 and FY 1998, these amounts are reported in the first column of Tables 2 and 3. The number of quarters or semesters of students' spending equals 95 percent of each institution's EFT enrollment as reported in the Quarterly and Semester Enrollment Reports issued by the Board of Regents.

### ■ Total Initial Spending

For each institution, total initial spending accruing to the institution's regional economy is the sum of spending originating from Budget Unit "A" and Budget Unit "B", spending due to capital projects funded, and students' personal expenditures. For FY 1998 and FY 1999, total initial spending for all 34 institutions is \$ 4.7 billion and \$5 billion, respectively—a year-over-year percentage increase of 5.9 percent.

In FY 1999, spending originating from Budget Unit "A and Budget Unit "B" accounted for 65.3 percent (\$3.2 billion) of initial spending, spending due to capital project funded accounted for 7.2 percent (\$357 million), and students' personal expenditures accounted for 27.4 percent (\$1.4 billion) of initial spending. In FY 1998, spending originating from Budget Unit "A" and Budget Unit "B" accounted for 65.3 percent (\$3.1 billion) of initial spending, spending due to capital projects funded accounted for 3 percent (\$141 million), and students' personal expenditures accounted for 31.7 percent (\$1.5 billion).

Initial spending for each University System institution for the two fiscal years is reported in the first column of Tables 2 and 3, respectively.

### ■ Total Output Impact

Output impacts, which are the most inclusive, largest, measure of economic impact, include both initial spending and the impacts generated by the re-spending of these amounts. Because of their size, output impacts typically are emphasized in economic impact studies and receive much media attention.

For each category of initial spending, an IMPLAN 2.0 model of the institution's regional economy is used to calculate the total output impact of that institution (shown in the second column of Tables 2 and 3, respectively). Collectively, the 34 institutions of the University System of Georgia generated an output impact on their host regions of \$7.7 billion in FY 1999 and \$7.3 billion in FY 1998—a year-over-year percentage increase of 6.4 percent. For all institutions combined, the output impact of

the 34 institutions was 1.6 times greater than their initial spending.

### ■ 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.

Collectively, the 34 University System institutions generated a value-added impact of \$4.5 billion—almost 2 percent of Georgia's gross state product—in FY 1999 and \$4.2 billion in FY 1998, an increase of 8.6 percent. For all institutions combined, the value-added impact equaled 91 percent of initial spending in FY 1999 and 89 percent of initial spending in FY 1998. Value-added impacts for the individual institutions are reported in the third column of Tables 2 and 3, respectively.

### ■ Labor Income Impact

The IMPLAN 2.0 model also is used to calculate impacts in terms of labor income. Collectively, the 34 University System institutions generated a labor income impact of \$3.6 billion in FY 1999 and \$3.2 billion in FY 1998, an increase of 10 percent. For all institutions combined, the labor income impact equaled 72 percent of initial spending in FY 1999 and 69 percent of initial spending in FY 1998. Labor income by fiscal year for each institution is reported in the fourth column of Tables 2 and 3.

### ■ Employment Impact

The economic impact of hosting a unit of the University System of Georgia probably is most easily understood in terms of its effects on employment. Collectively, the 34 institutions generated an employment impact of 99,965 jobs in FY 1999 and 94,703 jobs in FY 1998—an increase of 5.6 percent. Approximately 42 percent of these positions are on campus (University System employees), and 58 percent are off-campus jobs in either the private or public sectors. On average, for each job created on campus there are 1.4 off-campus jobs that exist because of spending related to the University System of Georgia (Tables 4 and 5).

The employment impact associated with the University System accounts for 2.7 percent of all the jobs held

*continued on page 19*

TABLE 3

**Total Economic Impact of University System of Georgia  
Institutions on their Regional Economies in the 1997-98 Fiscal Year<sup>1</sup>**

<u>Institution</u>	<u>Initial Spending<sup>2,3,4</sup> (current dollars)</u>	<u>Output<sup>5</sup> Impact (current dollars)</u>	<u>Value Added<sup>6</sup> Impact (current dollars)</u>	<u>Labor Income<sup>7</sup> Impact (current dollars)</u>	<u>Employment<sup>8</sup> Impact (jobs)</u>
<b>Research Universities and Regional Universities</b>					
Georgia Institute of Technology	620,583,287	1,074,271,203	664,271,998	530,335,137	11,721
Budget Unit "A" and Unit "B"	485,064,452	873,056,050	555,161,927	464,549,475	9,459
Capital Projects Funded	27,260,000	47,694,359	24,910,127	19,858,157	482
Students Personal Expenditures	108,258,835	153,520,794	84,199,944	45,927,505	1,780
Georgia State University	489,815,645	836,219,183	478,167,048	356,286,540	11,040
Budget Unit "A" and Unit "B"	323,200,696	599,944,159	348,579,758	285,602,161	8,300
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	166,614,949	236,275,025	129,587,290	70,684,379	2,740
Medical College of Georgia	523,821,624	836,438,519	534,324,392	449,523,275	12,175
Budget Unit "A" and Unit "B"	489,257,238	789,711,489	510,914,509	435,864,127	11,550
Capital Projects Funded	4,586,000	6,896,952	3,330,707	2,689,696	78
Students Personal Expenditures	29,978,386	39,830,078	20,079,176	10,969,452	546
University of Georgia	921,899,282	1,387,955,170	807,758,691	639,642,255	18,376
Budget Unit "A" and Unit "B"	661,999,447	1,039,063,353	634,411,980	541,772,827	13,754
Capital Projects Funded	27,021,360	39,925,189	18,696,038	14,944,772	461
Students Personal Expenditures	232,878,475	308,966,628	154,650,673	82,924,656	4,161
Georgia Southern University	264,806,935	355,155,190	174,708,189	133,908,082	4,870
Budget Unit "A" and Unit "B"	151,985,434	220,158,367	118,706,881	102,985,432	3,073
Capital Projects Funded	3,500,000	4,692,627	2,070,444	1,713,012	56
Students Personal Expenditures	109,321,501	130,304,195	53,930,864	29,209,638	1,741
Valdosta State University	180,968,789	260,687,514	130,246,742	97,861,895	3,608
Budget Unit "A" and Unit "B"	102,134,229	160,927,549	84,511,804	71,723,601	2,260
Capital Projects Funded	3,300,000	4,972,951	2,290,003	1,867,812	60
Students Personal Expenditures	75,534,560	94,787,014	43,444,935	24,270,482	1,288
<b>Colleges and State Universities</b>					
Albany State University	73,341,578	110,140,051	55,699,444	42,229,502	1,435
Budget Unit "A" and Unit "B"	45,462,049	74,296,309	39,199,258	32,817,273	977
Capital Projects Funded	2,000,000	2,998,003	1,456,285	1,185,237	34
Students Personal Expenditures	25,879,529	32,845,739	15,043,901	8,226,992	424
Armstrong Atlantic State University	78,970,482	115,363,512	65,221,047	47,376,857	1,542
Budget Unit "A" and Unit "B"	39,715,735	63,965,516	39,552,751	33,609,215	890
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	39,254,747	51,397,996	25,668,296	13,767,642	652

(continued)



Table 3 (continued)

Total Economic Impact of University System of Georgia  
Institutions on their Regional Economies in the 1997-98 Fiscal Year<sup>1</sup>

<u>Institution</u>	<u>Initial Spending<sup>2,3,4</sup> (current dollars)</u>	<u>Output<sup>5</sup> Impact (current dollars)</u>	<u>Value Added<sup>6</sup> Impact (current dollars)</u>	<u>Labor Income<sup>7</sup> Impact (current dollars)</u>	<u>Employment<sup>8</sup> Impact (jobs)</u>
Augusta State University	79,842,494	117,652,433	67,766,484	49,761,524	1,650
Budget Unit "A" and Unit "B"	36,496,971	59,190,365	38,453,123	32,803,443	866
Capital Projects Funded	4,975,000	7,481,975	3,613,228	2,917,845	85
Students Personal Expenditures	38,370,523	50,980,093	25,700,133	14,040,236	699
Clayton College & State University	72,901,448	120,867,917	70,180,426	51,546,008	1,489
Budget Unit "A" and Unit "B"	38,783,366	70,841,064	42,969,854	35,562,821	922
Capital Projects Funded	4,960,000	8,678,064	4,532,436	3,613,223	88
Students Personal Expenditures	29,158,082	41,348,789	22,678,136	12,369,964	480
Columbus State University	105,831,467	158,784,357	81,276,919	62,460,058	2,059
Budget Unit "A" and Unit "B"	52,869,558	88,394,694	49,375,360	42,009,318	1,183
Capital Projects Funded	13,305,000	19,577,588	9,159,294	7,470,411	224
Students Personal Expenditures	39,656,909	50,812,074	22,742,265	12,980,329	652
Fort Valley State University	75,021,815	118,253,442	62,171,523	46,256,719	1,521
Budget Unit "A" and Unit "B"	51,587,218	87,623,440	46,744,724	38,045,864	1,126
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	23,434,597	30,630,002	15,426,799	8,210,855	395
Georgia College and State University	96,847,459	125,094,933	61,544,656	46,075,630	1,503
Budget Unit "A" and Unit "B"	51,321,526	71,706,843	40,227,943	34,628,800	934
Capital Projects Funded	4,825,000	7,099,727	3,321,578	2,709,112	81
Students Personal Expenditures	40,700,933	46,288,363	17,995,135	8,737,718	488
Georgia Southwestern State Univ.	42,278,754	54,353,433	27,413,073	22,041,800	714
Budget Unit "A" and Unit "B"	23,515,629	32,908,608	19,899,863	17,768,886	458
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	18,763,125	21,444,825	7,513,210	4,272,914	256
Kennesaw State University	170,624,183	271,924,389	162,982,262	116,498,617	3,412
Budget Unit "A" and Unit "B"	78,760,537	140,532,918	91,074,134	76,498,262	1,897
Capital Projects Funded	3,380,000	5,913,681	3,088,637	2,462,236	60
Students Personal Expenditures	88,483,646	125,477,790	68,819,491	37,538,119	1,455
North Georgia College & State Univ.	52,123,140	77,834,600	44,731,399	32,738,786	1,073
Budget Unit "A" and Unit "B"	25,311,447	41,957,411	27,126,818	22,973,903	598
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	26,811,693	35,877,189	17,604,581	9,764,883	476
Savannah State University	65,949,071	100,843,672	53,266,659	39,721,966	1,213
Budget Unit "A" and Unit "B"	41,672,668	68,627,943	37,210,685	30,745,744	808
Capital Projects Funded	1,750,000	2,726,065	1,326,179	1,075,637	31
Students Personal Expenditures	22,526,403	29,489,664	14,729,795	7,900,585	374
Southern Polytechnic State Univ.	62,431,200	102,564,673	61,433,185	45,370,352	1,272
Budget Unit "A" and Unit "B"	36,288,002	65,491,261	41,099,918	34,279,415	842
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	26,143,198	37,073,412	20,333,267	11,090,937	430

(continued)



Table 3 (continued)

Total Economic Impact of University System of Georgia  
Institutions on their Regional Economies in the 1997-98 Fiscal Year<sup>1</sup>

Institution	Initial Spending <sup>2,3,4</sup> (current dollars)	Output <sup>5</sup> Impact (current dollars)	Value Added <sup>6</sup> Impact (current dollars)	Labor Income <sup>7</sup> Impact (current dollars)	Employment <sup>8</sup> Impact (jobs)
State University of West Georgia	132,036,203	192,260,732	103,933,101	75,663,105	2,480
Budget Unit "A" and Unit "B"	71,552,092	115,123,439	65,432,817	55,124,993	1,476
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	60,484,111	77,137,293	38,500,284	20,538,112	1,003
<b>Associate Degree Colleges</b>					
Abraham Baldwin Agric. College	37,391,225	50,211,047	27,179,316	21,312,458	726
Budget Unit "A" and Unit "B"	18,529,557	27,487,767	17,643,206	15,663,826	424
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	18,861,668	22,723,280	9,536,110	5,648,632	302
Atlanta Metropolitan College	33,071,089	56,283,434	33,760,516	23,965,456	694
Budget Unit "A" and Unit "B"	13,145,793	24,160,062	14,392,318	11,860,745	294
Capital Projects Funded	5,815,000	10,173,980	5,313,734	4,236,067	103
Students Personal Expenditures	14,110,296	21,949,392	14,054,464	7,868,644	297
Bainbridge College	14,641,276	18,894,688	10,071,456	7,980,316	277
Budget Unit "A" and Unit "B"	7,998,943	11,210,447	7,021,889	6,286,185	176
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	6,642,333	7,684,242	3,049,567	1,694,131	100
Coastal Georgia Community College	22,928,194	32,503,593	18,857,513	13,710,109	468
Budget Unit "A" and Unit "B"	12,021,878	18,597,110	11,782,492	10,026,723	275
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	10,906,316	13,906,483	7,075,021	3,683,386	193
Dalton College	35,745,332	48,153,128	24,973,881	19,230,103	673
Budget Unit "A" and Unit "B"	17,094,067	25,633,783	15,930,779	13,982,214	403
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	18,651,265	22,519,345	9,043,102	5,247,889	270
Darton College	37,346,504	53,892,268	29,160,486	21,953,654	767
Budget Unit "A" and Unit "B"	16,105,925	25,793,113	16,084,183	13,837,366	417
Capital Projects Funded	4,965,000	7,442,542	3,615,227	2,942,351	84
Students Personal Expenditures	16,275,579	20,656,613	9,461,076	5,173,937	267
DeKalb College	166,453,220	262,976,770	156,529,624	110,087,755	3,543
Budget Unit "A" and Unit "B"	72,275,338	129,179,188	83,322,035	69,915,553	1,997
Capital Projects Funded	1,100,000	1,924,571	1,005,117	801,320	20
Students Personal Expenditures	93,077,882	131,873,011	72,202,472	39,370,882	1,527
East Georgia College	16,578,566	21,112,525	9,719,062	7,738,001	272
Budget Unit "A" and Unit "B"	5,163,923	6,871,142	4,442,602	4,034,314	112
Capital Projects Funded	5,020,000	7,074,092	2,940,616	2,437,279	85
Students Personal Expenditures	6,394,643	7,167,290	2,335,844	1,266,408	75

(continued)

Table 3 (continued)

Total Economic Impact of University System of Georgia  
Institutions on their Regional Economies in the 1997-98 Fiscal Year<sup>1</sup>

<u>Institution</u>	<u>Initial Spending<sup>2,3,4</sup> (current dollars)</u>	<u>Output<sup>5</sup> Impact (current dollars)</u>	<u>Value Added<sup>6</sup> Impact (current dollars)</u>	<u>Labor Income<sup>7</sup> Impact (current dollars)</u>	<u>Employment<sup>8</sup> Impact (jobs)</u>
Floyd College	35,051,842	49,099,741	26,660,416	19,878,337	691
Budget Unit "A" and Unit "B"	18,257,518	28,164,975	16,964,163	14,633,547	432
Capital Projects Funded	50,000	70,243	33,083	27,102	1
Students Personal Expenditures	16,744,324	20,864,523	9,663,170	5,217,688	259
Gainesville College	32,992,908	49,876,418	29,453,165	21,360,946	661
Budget Unit "A" and Unit "B"	15,308,430	25,892,102	17,172,580	14,617,044	367
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	17,684,478	23,984,316	12,280,585	6,743,902	294
Gordon College	26,657,866	35,474,054	17,780,658	12,659,715	491
Budget Unit "A" and Unit "B"	10,906,962	16,408,884	9,512,134	8,236,138	259
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	15,750,904	19,065,170	8,268,524	4,423,577	232
Macon State College	49,766,741	74,553,785	41,634,247	30,544,063	988
Budget Unit "A" and Unit "B"	19,482,085	32,401,011	21,351,841	18,050,741	494
Capital Projects Funded	8,757,000	14,437,282	7,024,030	5,600,741	167
Students Personal Expenditures	21,527,656	27,715,493	13,258,376	6,892,581	326
Middle Georgia College	36,360,228	47,966,171	24,403,401	19,330,302	670
Budget Unit "A" and Unit "B"	14,580,661	21,127,734	13,159,723	11,675,642	333
Capital Projects Funded	7,885,000	10,434,045	4,639,470	3,835,206	121
Students Personal Expenditures	13,894,567	16,404,393	6,604,208	3,819,454	216
South Georgia College	16,942,882	22,255,958	11,357,092	9,068,525	313
Budget Unit "A" and Unit "B"	9,200,596	13,099,796	7,701,070	6,899,616	192
Capital Projects Funded	0	0	0	0	0
Students Personal Expenditures	7,742,286	9,156,162	3,656,022	2,168,909	121
Waycross College	16,996,346	22,969,970	11,169,666	8,760,621	320
Budget Unit "A" and Unit "B"	5,489,846	8,005,443	4,725,810	4,182,985	134
Capital Projects Funded	6,060,000	8,381,340	3,622,518	2,969,486	99
Students Personal Expenditures	5,446,500	6,583,187	2,821,338	1,608,150	87

<sup>1</sup> The impacts of spending on Output, Value-Added, Labor Income, and Employment were estimated using IMPLAN version 2.0 and Type SAM multipliers.

<sup>2</sup> Initial spending for Budget Unit "A" and Unit "B" were obtained from "The University System of Georgia Budget 1998-99," published by the Board of Regents.

<sup>3</sup> Initial spending for Capital Projects Funded were obtained from the Regents, Capital Projects Recent State Funding History (diskette).

<sup>4</sup> Initial spending for Students Personal Expenditures were estimated by the author based on data obtained from the Quarterly and Semester Enrollment Reports issued by the Board of Regents; the Bureau of Labor Statistics' 1997 Consumer Expenditure Survey; and Personal Consumption Expenditures issued by the Bureau of Economic Analysis.

<sup>5</sup> Output refers to the value of total production, including domestic and foreign trade.

<sup>6</sup> Value Added includes employee compensation (including fringe benefits), proprietary income, other property type income (e.g., rents, royalties, dividends), and indirect business taxes (e.g., excise taxes, property taxes, fees, licenses, and sales taxes paid by businesses).

<sup>7</sup> 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.

<sup>8</sup> Employment includes both full-time and part-time jobs.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, February 1, 2000.

TABLE 4

**On-Campus and Off-Campus Jobs that  
Exist Due to Institution-Related Spending  
in the 1998-99 Fiscal Year**

<u>Institution</u>	<u>Total Employment<sup>1</sup> Impact</u>	<u>On-Campus<sup>2</sup> Jobs</u>	<u>Off-Campus Jobs<sup>3</sup> that Exist Due to Institution-Related Spending</u>
<b>Research Universities and Regional Universities</b>			
Georgia Institute of Technology	13,331	5,438	7,893
Georgia State University	11,018	4,904	6,114
Medical College of Georgia	13,173	7,628	5,545
University of Georgia	19,708	8,390	11,318
Georgia Southern University	4,970	1,940	3,030
Valdosta State University	3,786	1,253	2,533
<b>Colleges and State Universities</b>			
Albany State University	1,280	481	799
Armstrong Atlantic State University	1,957	541	1,416
Augusta State University	1,849	589	1,260
Clayton College & State University	1,389	538	851
Columbus State University	1,835	737	1,098
Fort Valley State University	2,025	742	1,283
Georgia College and State University	1,476	618	858
Georgia Southwestern State University	730	294	436
Kennesaw State University	3,424	1,159	2,265
North Georgia College & State Univ.	1,402	384	1,018
Savannah State University	1,196	503	693
Southern Polytechnic State Univ.	1,446	473	973
State University of West Georgia	2,845	889	1,956
<b>Associate Degree Colleges</b>			
Abraham Baldwin Agric. College	715	251	464
Atlanta Metropolitan College	515	180	335
Bainbridge College	264	113	151
Coastal Georgia Community College	450	167	283
Dalton College	719	263	456
Darton College	664	267	397
East Georgia College	267	92	175
Floyd College	623	281	342
Gainesville College	780	225	555
Georgia Perimeter College	3,453	1,296	2,157
Gordon College	733	170	563
Macon State College	821	292	529
Middle Georgia College	602	230	372
South Georgia College	308	130	178
Waycross College	209	94	115

<sup>1</sup> The Total Employment Impact includes both full-time and part-time jobs.

<sup>2</sup> On-Campus Employment is expressed in full-time equivalents.

<sup>3</sup> Off-Campus Employment includes both full-time and part-time jobs.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, February 1, 2000.

TABLE 5

**On-Campus and Off-Campus Jobs that  
Exist Due to Institution-Related Spending  
in the 1997-98 Fiscal Year**

<u>Institution</u>	<u>Total Employment<sup>1</sup> Impact</u>	<u>On-Campus<sup>2</sup> Jobs</u>	<u>Off-Campus Jobs<sup>3</sup> that Exist Due to Institution-Related Spending</u>
<b>Research Universities and Regional Universities</b>			
Georgia Institute of Technology	11,721	4,784	6,937
Georgia State University	11,040	4,993	6,047
Medical College of Georgia	12,175	6,962	5,213
University of Georgia	18,376	7,968	10,408
Georgia Southern University	4,870	1,881	2,989
Valdosta State University	3,608	1,286	2,322
<b>Colleges and State Universities</b>			
Albany State University	1,435	530	905
Armstrong Atlantic State University	1,542	527	1,015
Augusta State University	1,650	519	1,131
Clayton College & State University	1,489	537	952
Columbus State University	2,059	637	1,422
Fort Valley State University	1,521	597	924
Georgia College and State University	1,503	620	883
Georgia Southwestern State University	714	294	420
Kennesaw State University	3,412	1,150	2,262
North Georgia College & State Univ.	1,073	349	724
Savannah State University	1,213	408	805
Southern Polytechnic State Univ.	1,272	490	782
State University of West Georgia	2,480	821	1,659
<b>Associate Degree Colleges</b>			
Abraham Baldwin Agric. College	726	270	456
Atlanta Metropolitan College	694	162	532
Bainbridge College	277	115	162
Coastal Georgia Community College	468	170	298
Dalton College	673	267	406
Darton College	767	265	502
DeKalb College	3,543	1,309	2,234
East Georgia College	272	82	190
Floyd College	691	276	415
Gainesville College	661	230	431
Gordon College	491	168	323
Macon State College	988	303	685
Middle Georgia College	670	219	451
South Georgia College	313	124	189
Waycross College	320	91	229

<sup>1</sup> The Total Employment Impact includes both full-time and part-time jobs.

<sup>2</sup> On-Campus Employment is expressed in full-time equivalents.

<sup>3</sup> Off-Campus Employment includes both full-time and part-time jobs.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, February 1, 2000.

*continued from page 12*

by Georgians, or about one job in 37. For all institutions combined, 20.1 jobs were generated for each million dollars of initial spending in FY 1999. Similarly, 20.2 jobs were generated for each million dollars of initial spending in FY 1998. Employment impacts for the individual institutions are reported in the fifth column of Tables 2 and 3.

## LIMITATIONS

**B**ecause the goal of this study is to estimate the economic impact of all 34 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.

Several important types of short-term college or university-related expenditures are not estimated, including spending by visitors and spending by retirees who live in the host communities. Expenditures supported by System employees' non-institutional income also are not estimated. Such income may result from an employee's consulting, investments, and other personal business activities, and often would not come to the host community if that person's job at the college/university did not exist.

Perhaps the greatest limitation of this report is that no attempt is made to evaluate the long-term impacts of the University System's institutions on the economic development of the host communities and the state. 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; and local businesses benefit from easy access to a large pool of part-time and full-time workers. These benefits are particularly important when unemployment rates are low and labor markets are tight. Moreover, companies and agencies that depend on highly specialized skills often cluster around universities, and this may

be particularly true of high-tech and information-based companies—which are expected to account for a disproportionately large share of future economic growth.

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

## CONCLUSIONS

**T**o the extent that currently available information allows, this report estimates some of the economic benefits that hosting a unit of the University System of Georgia brings to a community. In the simplest terms, the collective or rolled-up economic impact of all 34 institutions on their host communities was \$7.7 billion in FY 1999, up by 6.4 percent from the FY 1998 impact of \$7.3 billion. This amount represents the impact of spending by the institution (including capital projects) and spending by students. Of the \$7.7 billion output impact, \$5.9 billion was generated by the institutions' expenditures and \$1.8 billion by students' expenditures. In addition, the University System of Georgia added \$3.6 billion in labor income to the economies of the regions that host colleges/universities and nearly 100,000 jobs.

The actual impact is much higher than these estimates, however, because the study's limited scope does not include the short-term impacts of spending by visitors, retirees, and non-university-related income received by University System employees. Furthermore, the study does not measure any of the long-term benefits of the University System of Georgia to the state's economic development, quality of life, or the increased lifetime earnings of its graduates. ■