

An economic tour of Georgia's MSAs

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*Although Georgia frequently is defined by its major economic powerhouse—Atlanta—six other metropolitan areas around the state also contribute to the state's general acclaim. This article is based on material contained in **The Economic Yearbook for Georgia's MSAs 2003**, published by the Selig Center for Economic Growth.*

■ Albany ■

Albany, the smallest metropolitan area in Georgia, increased its population by 7.3 percent between 1990 and 2000, the second smallest population growth of any MSA, except for Columbus. The population dynamics differed significantly, however, in two of the MSA's counties. While Daugherty County lost 0.3 percent of its population between 1990 and 2000, Lee County, with 52.4 percent increase, boosted its share of the MSA's total population to nearly a fifth, and made it one of the fastest growing counties in the state.

This is the only metropolitan area in Georgia with a shrinking population of school-age youth (under 18). About 75.2 percent of the MSA's residents have at least a high school diploma, compared to 78.6 percent for the state, and

17.7 percent have a college degree, compared to 24.3 percent in the state as a whole.

Compared to 1990, the number of individuals below poverty level remained virtually unchanged in Albany, but the area saw a relatively steep drop in the percentage of people below the poverty level. A 1.4 percent drop is less than the state's 1.7 percent decrease, but more than all metro areas except Columbus (-2.6 percent) and Savannah (-2 percent). Albany's 2000 median

household income, recorded by the 2000 Census at \$34,829, fell below the state's average of \$42,433, but Lee County's median family income (\$48,600) exceeded that average, and ranked 15th among the state's 45 metropolitan counties.

According to the Selig Center's forecast, after several years of severe job losses, Albany's labor market should stabilize in 2003, and the area will neither add nor lose a significant number of jobs. The low cost of doing business, an excellent telecommunications infrastructure, low crime rate, and a low cost of living will remain Albany's sources of strength.

Nonagricultural employment increased by 14.1 percent between 1991 and 2001, compared with 34.6 percent for the state as a whole. The decade brought the area in line with the general changes prevalent in other MSAs: shrinking employment in government and manufacturing, and expanding services. The 1991-2001 employment increase was second slowest among the state's metropolitan areas.



Albany**Athens****Atlanta****Augusta****Columbus****Macon****Savannah**

Services and transportation were the fastest growing sectors, however. Services provided 28 percent of Albany's jobs, and the average annual rate of growth in this sector was, in the last decade, second only to Atlanta. The number of jobs in the sector increased from 9,800 in 1991 to nearly 16,000 in 2001, with most of the growth occurring between 1991 and 1997. The number of service jobs grew at a much slower pace in the late 1990s, and dropped by 2.7 percent, to 15,300 jobs, in the first nine months of 2002, compared to the same period in 2001.

Wholesale and retail trade, the second largest sector in Albany, provides just under a quarter of the area's nonagricultural jobs. The sector added over 2,000 jobs between 1991 and 1996, when it peaked at 14,000 jobs, but declined every year since then, down to 12,700 in the first

nine months of 2002. Government provides 20.6 percent of the jobs in Albany, down from 25.9 percent in 1991. The sector's employment shrunk by 9.3 percent in the last decade, with the last three years bringing consecutive cut backs, and the trend continued in the first nine months of 2002.

Manufacturing's share of the total nonagricultural jobs in Albany also shrank in the last decade, and today provides 13.7 percent of the area's jobs (down from 15.9 percent in 1991). The net loss of manufacturing jobs between 1991 and 2001, however, was only 100 (1.3 percent). Since 1998 the number of manufacturing jobs declined every year, and the

In Brief

After several years of severe job losses, Albany's labor market should stabilize in 2003. Some sources of strength include a low cost of doing business and a low cost of living.

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sector lost an additional 400 jobs in the first nine months of 2002, which was 6.7 percent drop from the same period of 2001.

Transportation, the second fastest growing employment sector in Albany, added 600 jobs between 1991 and 2001, which represents a 20.7 percent jump in the sector that provides 3,500 (6.2 percent) of the area's jobs. Since 1998, the number of jobs in transportation and public utilities remained at the ten-year peak level, but the number of jobs shrank by 1.3 percent (100 jobs) in the first three quarters of 2002. Construction and finance, insurance and real estate provide 5.3 and 3 percent of the jobs, respectively, in this MSA. The construction sector, however, saw a decline in the number of jobs in the last two years, and the trend continued in the first nine months of 2002. Employment in finance and real estate has oscillated around 1,700 jobs since 1999.

Historically, unemployment levels in Albany have been higher than the state average, and higher than unemployment rates in other metropolitan areas in Georgia. In 1998, for example, the MSA saw unemployment rates almost twice as high as the state's (8 percent vs. 4.2 percent). Beginning in 1999, however, unemployment began to shrink, and reached 5.5 percent, only 1.5 percent higher than the state average. Good news continued in the first nine months of 2002, when

SELECTED DEMOGRAPHICS OF THE ALBANY MSA, 2000

Total Population	120,822
Sex	
Male	57,306
Female	63,516
Age	
Under 5	9,143
Under 18	34,165
18-62	71,403
62 and over	15,254
65 and over	12,778
Households	
Total households	43,781
Persons per household	2.64
Race and Hispanic Origin^a	
White	56,676
Black	61,600
American Indian, Eskimo, or Aleut	285
Asian or Pacific Islander	793
Other race	589
Two or more races	879
Hispanic origin (of any race)	1,592
Educational Attainment	
Persons 25 years old or over	73,060
Percent high school graduate or higher	75.2
Percent bachelor's degree or higher	17.7
Labor Force Status	
Persons 16 years and older	90,783
Percent in labor force	61.3
Civilian labor force	54,022
Percent unemployed c	5.1
Income in 1999	
Households	43,827
Less than \$10,000	7,019
\$10,000 to \$24,999	9,509
\$25,000 to 49,999	12,818
\$50,000 to \$99,999	10,832
\$100,000 or more	3,649
\$200,000 or more	670
Per capita income	17,312
Poverty Status in 1999	
Below poverty level	24,932
Percent below poverty level	
All persons	21.4
Persons 65 years and over	16.5
Related children under 18	29.8
All families	16.7
With related children under 18 years	23.8
Female householder families	41.6
With related children under 18 years	48.7

Note: The metropolitan area as defined by the Office of Management and Budget on June 30, 1993.

^aPersons of one race only.

Source: 2000 Census of Population and Housing; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

Albany	Athens	Atlanta	Augusta	Columbus	Macon	Savannah
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unemployment rate dropped by an additional 0.2 percent compared to the same period of 2001.

Personal income—the sum of earnings, dividends, interest, and rent, and transfer payments—responds both to local events and to general economic trends. As a result of Albany's declining employment, the earnings shrank, while the portion of personal income that is composed of transfer payments (which is the sum of pensions, workmen's compensation, unemployment insurance and income assistance, as well as income from other social programs) expanded. Dividends, interest, and rent's portion of personal income in Albany has been growing steadily throughout the Nineties, and, with 17.4 percent of total income, exceeds the state average of 16.6 percent.

Broken out by major industry category, services-producing industries provide 46.7 percent of earnings in Albany, the second lowest among the state's MSAs. Conversely, Albany's goods-producing industries provide a higher percentage of earnings than in any other MSA in Georgia, although the share of jobs provided by manufacturing, the main component of the sector, is slightly smaller than the statewide average. Earnings derived from government employment, at 23.5 percent of the total, is a steep decrease from the 1990 figure of 30 percent, however.

Per capita personal income, computed by dividing the personal income of an area by its population, offers a convenient way to compare areas of quite different sizes. Albany's per capita income increased at an average annual rate of 4.9 percent between 1990 and 2000, the third fastest rate of growth after Columbus (5.2 percent), and Atlanta (5.1 percent). The fast growth of per capita income combined with relatively slow population growth (second slowest among Georgia's MSAs) points to a rising concentration of higher income individuals in the area.

The number of housing permits issued in the Albany MSA peaked between 1995 and 1997 for both single and multi-unit residences. The number of single units dropped steeply in 2001, and increased only slightly by 5.7 percent, or 22 homes in the first nine months of 2002.

■ Athens ■

The total population of Athens increased from 126,262 to 153,444, or by 21.5 percent, between the 1990 and 2000 Census, the second fastest population increase behind Atlanta. Much of the growth was fueled by the population increase in Oconee County, which grew by 8,607, or 48.9 percent. Madison, the least populous of the MSA's counties, added 4,680 residents between 1990 and 2000, which

constituted a 22.2 percent growth. Clarke County added 13,895 residents, which amounted to 15.9 percent growth.

The age composition of the Athens MSA's population is influenced by the presence of the University of Georgia. The 18-to-62 age group comprises a relatively larger portion of the general population here than in all other metropolitan areas in the state. The percentage of residents with a high school degree is second only to Atlanta's, but the group with a college degree is the highest among the state's MSAs.

Although the number of people below poverty level increased in Athens in the last ten years, the increase trailed

In Brief

Although UGA's presence spared Athens the worst of the recession, the MSA's weak performance is due to the fact that a large proportion of spending and jobs are university related.

the population growth in general. The percentage of residents below poverty level decreased slightly, by 0.8 percent. The largest drops occurred among the population aged 65 and over, and in families with children (5.7 and 6.5 percent, respectively).

On the opposite end of the scale, the increase in the inflation-adjusted median household income was once again fueled by Oconee County, where the 2000 median household income (\$55,211) was almost double that of Clarke (\$28,403), and almost \$20,000 more than Madison County's income (\$36,347). In 2000, Oconee County had the eighth highest median household income among metropolitan counties in Georgia.

Jobs are another crucial factor in an MSA's well-being, and the Selig Center forecasts a slight increase in the number of jobs in the Athens area in 2003. Athens, like all other MSAs in Georgia, except Atlanta, lost jobs in 2001, but over the last ten years, it added jobs at an average annual rate second only to Atlanta's (1.8 percent and 3.3 percent, respectively). The first nine months of 2002 saw a 0.6 percent increase in the number of jobs, compared to the same period of 2001. The 11.8 percent drop in manufacturing employment

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SELECTED DEMOGRAPHICS OF THE ATHENS MSA, 2000

Total Population	153,444
Sex	
Male	75,098
Female	78,346
Age	
Under 5	8,872
Under 18	32,803
18-62	104,721
62 and over	15,920
65 and over	13,273
Households	
Total households	58,557
Persons per household	2.47
Race and Hispanic Origin^a	151,533
White	112,247
Black	31,515
American Indian, Eskimo, or Aleut	310
Asian or Pacific Islander	3,685
Other race	3,776
Two or more races	1,911
Hispanic origin (of any race)	7,776
Educational Attainment	
Persons 25 years old or over	85,196
Percent high school graduate or higher	80.1
Percent bachelor's degree or higher	34.1
Labor Force Status	
Persons 16 years and older	124,063
Percent in labor force	65.8
Civilian labor force	81,153
Percent unemployed c	5.2
Income in 1999	
Households	58,541
Less than \$10,000	9,659
\$10,000 to \$24,999	13,290
\$25,000 to 49,999	16,436
\$50,000 to \$99,999	13,750
\$100,000 or more	5,406
\$200,000 or more	1,031
Per capita income	18,303
Poverty Status in 1999	
Below poverty level	30,989
Percent below poverty level	
All persons	21.4
Persons 65 years and over	13.8
Related children under 18	18.3
All families	11.5
With related children under 18 years	16.4
Female householder families	34.6
With related children under 18 years	43

Note: The metropolitan area as defined by the Office of Management and Budget on June 30, 1993.

^aPersons of one race only.

Source: 2000 Census of Population and Housing; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

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How Poor Is Clarke County?

Clarke County has an alarmingly high percentage of the population whose income falls below poverty level, according to the 2000 Census of Population and Housing. Standing at 28.3 percent below poverty level, this is more than twice the percentage for the state as a whole (13 percent), and is the eighth highest poverty rate among Georgia's 159 counties. A closer look at family and non-family households reveals, however, that much of the reported low income can be attributed to student households.

Compared to other counties in Georgia, Clarke County has the highest proportion of population living in non-family households, which at 32 percent is more than twice the 13.6 percent state average. Non-family households make up a full 50 percent of all households in Clarke County, again, the highest proportion among Georgia's 159 counties, and significantly higher than the 29.3 percent state average. A whopping 40.2 percent of these households (more than twice the state's 19.3 percent average) reported income below the poverty level.

The number of persons in non-family households (32,478) as recorded by the 2000 Census, corresponds closely to the year 2000 University of Georgia enrollment of 31,288. The characteristics of non-family households in Athens also suggests that students living off-campus make up the majority of non-family households: nearly 40 percent of these householders are younger than 24, compared to the 9 percent of non-family householders in Georgia as a whole. While 81 percent of non-family householders in Georgia live by themselves, only 60 percent live by themselves in Clarke County. The number of non-family households with 3 to 4 people living together stacks up to 3.3 percent for Georgia, and 13.2 percent in Clarke County.

With 50 percent of households in Athens falling within the 'non-family household' category, and over 40 percent of these households reporting income below poverty level, it is essential to note that the percentage of individuals living below poverty level in Athens is significantly inflated. This is because the majority of students report income derived from low paying, part-time jobs. Also, income of unrelated individuals living together does not add up to household income, so only the income of the householder is recorded, which further lowers the non-family household income figures.

Compared to total population statistics, according to which Clarke County has the eighth highest poverty rate in the state, the Athens poverty rate for family households ranks 66 among Georgia's 159 counties. Of the family households in Clarke County, 14.8 percent fall below the poverty level, which is still higher than the 9.9 percent state average, but not nearly as high as the 28.3 percent below poverty level registered for all households in the county.

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Poverty Levels

	Georgia	Athens-Clarke County
Population with income in 1999 below poverty level		
Number	1,033,793	26,337
Percent	13	28.3
County rank*		8
Families below poverty level		
Number	210,138	2,939
Percent of all families	9.9	14.8
County rank*		66
Non-family households		
Number	881,318	19,818
Percent of all households	29.3	49.9
County rank*		1
Below poverty	170,102	7,971
Percent of nonfamily households	19.3	40.2
County rank*		7
Population in non-family households		
Number	1,109,616	32,478
Percent of total population	13.6	32
County rank*		1

Rank among Georgia's 159 counties, highest percentage value ranks 1.

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

Albany	Athens	Atlanta	Augusta	Columbus	Macon	Savannah
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was offset by gains in wholesale trade, services, government, and the financial sector.

The government sector, the largest employer in Athens, provided 27.8 percent of jobs in the area, the largest share of government jobs among the MSAs. Government employment increased by 6.8 percent (1,300 jobs) in the last decade. This stable sector provides a much needed cushion for the local economy, and, in recent months, helped it weather the recession.

Services, the second largest employment sector, provides jobs for 17,400 people, and, with a 72.3 percent increase, was the area's fastest growing sector in the last decade. Remarkably, the number of jobs in services has not registered a single drop between 1991 and 2001. Over the last two years, however, employment growth was minimal (0.6 percent in 2000 and 2001). The first nine months of 2002 saw 700 new service jobs, which represent a 4.7 percent growth compared to the first three quarters of 2001.

The trade sector, almost equal in size to services, has the third fastest growing employment in Athens. Between 1991 and 2001, the number of jobs in wholesale and retail trade increased by 27.6 percent (3,700 jobs). Unlike services, though, the trade sector saw three consecutive years of shrinking employment (1998-2001), followed by another loss of 200 jobs in the first nine months of 2002. Jobs were cut in the retail sector, while the number of jobs in wholesale trade has actually increased.

Manufacturing employment, which peaked in 1999 with 11,900 jobs, dropped down to 10,700 jobs in 2001, and lost another 1,200 jobs in the first nine months of 2002, which represents a painful 11.8 percent year-over-year drop. In 2001 the sector provided 14.7 percent of the area's jobs. The loss of manufacturing jobs in the last several months was, percentage-wise, the most severe among the state's metropolitan areas.

Construction, finance, and transportation together provide about 7,300 jobs in Athens. The number of construction jobs increased consistently through most of the 1990s, and steadied at 3,100 in 2001. About 100 construction jobs were added in the first nine months of 2002, however. Finance and transportation and public utilities provide 3.2 and 2.6 percent of local jobs, respectively, and employment in these sectors remained relatively steady, wavering by not more than 100 jobs annually in the last several years.

Athens' unemployment, the lowest among the state's metropolitan areas, climbed from 2.4 percent in 2000 to 3.1 percent in 2001, but dropped back to 2.9 percent in the first nine months of 2002. Savannah and Macon also have unemployment rates below the state average (4.6 percent).

Personal income—the sum of earnings, dividends, interest and rent, and transfer payments—responds both to local events and to general economic trends. The latest recession shrank earnings and slightly elevated the amount of money provided by transfer payments. Given the historically low unemployment rates, however, earnings still provide a relatively large portion of personal income in Athens. In fact, Athens' 68.3 percent is second only to Atlanta (77 percent) in percentage of personal income provided by earnings. Conversely, transfer payments, which is the sum of pensions, workmen's compensation, unemployment insurance and income assistance, as well as income from other social programs, provided a relatively small portion of the MSA's personal income. Among the state's metro areas, Athens' 11.7 percent is the second smallest portion of personal income provided by transfer payments. Dividends, interest, and rent provides about 20 percent of personal income in Athens, second only to Savannah's 20.6 percent.

Broken out by major industry groupings, goods-producing industries provide 21 percent of earnings in Athens, one of the three lowest portions, next to Atlanta and Columbus. Services-producing industries provide 46.5 percent of the area's earnings, the lowest among the state's metropolitan areas. Government employment, on the other hand, provides a larger portion of earnings in Athens than in any other metropolitan area in the state.

Per capita personal income, computed by dividing the personal income of an area by its population, offers a convenient way to compare areas of quite different sizes. In 2000, Athens' per capita personal income (\$23,311) was just above Albany's. Unlike Albany, however, per capita personal income in Athens displayed a relatively slow pace of growth, with an average annual rate of 4.4 percent between 1990 and 2000. The relatively low per capita income reflects the large influence of government employment in the area, and the presence of students.

Traits endemic to a college town really show up in the review of housing characteristics, recently released by the Bureau of the Census. For example, only 54.4 percent of residences in Athens are owner occupied, compared to the 67.5 percent statewide average. On the other hand, the median value of a home in Athens is second only to Atlanta's (\$114,900 and \$135,300, respectively) pointing to the relatively high income of homeowners.

Residential construction activity in Athens surged in 1998, and continued at high levels through 2001, with 959 permits for single-family homes, and 468 permits for multi-family units issued. The construction of multi-family units slowed down in 2000, recovered by the end of 2001, and the growth continued in the first nine months of 2002.

Albany	Athens	Atlanta	Augusta	Columbus	Macon	Savannah
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■ Atlanta ■

Atlanta's ten-year population growth of 38.9 percent, as recorded by the 2000 Census, was one of the highest in the nation. Young adults under 18 years of age increased its share of total population by almost a full percentage point, and was the fastest growing age group in the area. The Hispanic population increased its share to 6.5 percent, the most dramatic population shift in Atlanta between 1990 and 2000. Most of Atlanta's metropolitan counties grew by at least 35.4 percent, and some areas, such as Forsyth County with 123.2 percent, Henry County with 103.2 percent, and Paulding County with 96.3 percent growth ranked 2nd, 4th, and 7th, respectively, among the fastest growing counties in the nation.

Among Georgia's metropolitan areas, Atlanta has the highest proportion of residents who completed at least a high school education (84 percent), which also exceeds the national average of 80.4 percent. Metropolitan Atlanta also exceeds the national average of persons with a bachelor's degree or higher (32 percent for Atlanta versus 24.4 percent for the nation as a whole), although, in Georgia, Atlanta is second to Athens, where 34.1 percent of residents have at least a bachelor's degree. A young and well-educated population is one of the main factors behind Atlanta's spectacular economic performance in the recent years, and the area is certain to continue as an economic powerhouse in the state.

The number of people living below the poverty level increased by 28.8 percent between 1990 and 2000, however. Nonetheless, poverty rates decreased across all of the social categories recorded by the decennial census, with the most remarkable drops occurring among families headed by females and among individuals over 65 years of age.

The Atlanta MSA's median household income of \$51,948 beats the state average by a whopping \$9,515. Savannah, which has the second highest median household income among the state's metropolitan areas, trails Atlanta by \$12,326. Median household income in Forsyth, Coweta, and Walton counties jumped by 39.9, 22.9, and 22.7 percent, respectively, while Fayette County registered the highest median household income among the state's metropolitan counties (\$71,227). Clayton County was the only metro-area county in which inflation-adjusted median household income dropped between 1990 and 2000.

Nonagricultural employment in Atlanta expanded by 45.4 percent between 1991 and 2001, faster than the rate of population growth. Atlanta was the only metropolitan area in Georgia with an uninterrupted employment growth between 1991 and 2001. Employment growth almost hit a standstill at 0.4 percent growth in 2001, but the pace picked up a notch in the first nine months

of 2002 (1.2 percent growth). The Selig Center forecasts a 1.3 percent employment increase in 2003.

Services, which provide 31.2 percent of jobs in the Atlanta MSA, are also the fastest growing sector of the area's economy. Between 1991 and 2001, sectoral employment increased by an astounding 79.4 percent. In 2001, and the first three quarters of 2002, employment in services nearly stalled at 0.6 percent growth, which—after a decade of annual growth consistently above 5 percent—feels like an employment loss. A similar pattern was evident in the wholesale and retail trade sector, responsible for over a quarter of Atlanta's jobs, although the slowdown in this case was more gradual: 3.4 percent growth in 1998, 3 percent in 1999, 1.7 percent in 2000, and 0.4 percent in 2001. The real crunch came in the first three quarters of 2002, however, with over 24,000 jobs lost (5.7 percent in wholesale and 3.6 percent in retail).

In Brief

The twenty-county Atlanta MSA will add an annual average of 27,000 jobs this year, but the lackluster performance of the high tech, airline, and hospitality industries will postpone the area's full-fledged recovery.

Government employment provides 12.5 percent of nonagricultural jobs in the Atlanta MSA, the smallest portion among Georgia's metropolitan areas, which, except for Savannah, depend on government for at least a fifth of their non-farm jobs. Government employment increased by 2.6 percent in 2000, and by 2.8 percent in 2001, significantly higher than the 1991-2001 average annual growth rate of 1.6 percent. In the first nine months of 2002, an additional 1,900 government jobs were added (2.3 percent growth). The federalization of security at Hartsfield Airport in October and November 2002 added even more jobs to this sector.

The manufacturing sector, smaller in Atlanta than in all other metropolitan areas in the state, provides about 10 percent of the area's non-farm jobs. Since 2000, 15,500 manufacturing jobs were lost in consecutive drops of 1.7,

SELECTED DEMOGRAPHICS OF THE ATLANTA MSA, 2000

Total Population	4,112,198
Sex	
Male	2,029,553
Female	2,082,645
Age	
Under 5	308,723
Under 18	1,095,702
18-62	2,636,322
62 and over	380,174
65 and over	310,703
Households	
Total households	1,504,871
Persons per household	2.68
Race and Hispanic Origin^a	4,043,588
White	2,589,888
Black	1,189,179
American Indian, Eskimo, or Aleut	10,324
Asian or Pacific Islander	137,640
Other race	116,557
Two or more races	68,610
Hispanic origin (of any race)	268,851
Educational Attainment	
Persons 25 years old or over	2,630,798
Percent high school graduate or higher	84
Percent bachelor's degree or higher	32
Labor Force Status	
Persons 16 years and older	3,130,486
Percent in labor force	70.6
Civilian labor force	2,203,490
Percent unemployed c	3.5
Income in 1999	
Households	1,505,564
Less than \$10,000	100,213
\$10,000 to \$24,999	201,957
\$25,000 to 49,999	413,289
\$50,000 to \$99,999	526,236
\$100,000 or more	263,869
\$200,000 or more	50,550
Per capita income	25,033
Poverty Status in 1999	
Below poverty level	379,924
Percent below poverty level	
All persons	9.4
Persons 65 years and over	10
Related children under 18	11.7
All families	6.9
With related children under 18 years	9.6
Female householder families	20.7
With related children under 18 years	25.9

Note: The metropolitan area as defined by the Office of Management and Budget on June 30, 1993.

^aPersons of one race only.

Source: 2000 Census of Population and Housing; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

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4.2, and 1.9 percent. Even with the employment cuts, however, Atlanta still had more manufacturing jobs in 2001 than it had in 1991. Atlanta’s transportation sector, the largest among Georgia’s metropolitan areas, provides 8.7 percent of jobs. After expanding at an average annual rate of 3.5 percent in the last ten years, employment in transportation stalled at 191,100 jobs in 2001 (0.1 percent growth from previous year), and dropped to 178,100 in the first nine months of 2002. Moreover, additional job cuts announced by Delta Air Lines in the fall of 2002 may reverse the decade-long pattern of uninterrupted transportation employment growth.

Finance and construction together provide 12 percent of Atlanta’s jobs. While the financial sector expanded at a brisk average annual rate of 2.5 percent since 1990, employment in construction exploded at an average annual rate of 5 percent. Employment growth in both sectors slowed down to rates below their 10-year average by 2001, but the drop was much more dramatic in construction, with 10.4 percent growth in 1999 and a mere 1.9 percent in 2001. Employment in finance expanded by 3.3 percent in 1999 and by only 1.4 percent in 2001. In the first nine months of 2002, employment in these two sectors decreased by 0.8 percent and 0.5 percent, respectively.

Unemployment rates in Atlanta historically have been the second lowest among metropolitan areas in the state, second only to Athens, where close to a third of the jobs are in the government sector. Atlanta’s unemployment rate climbed from 3 percent in 2000 to 3.5 percent in 2001, and then jumped to 4.8 percent in the first nine months of 2002. This 1.5 increase is the steepest among metropolitan areas in Georgia, none of which saw unemployment rates climb by more than 0.5 in the first three quarters of 2002, compared to the same period in 2001.

Personal income—the sum of earnings, dividends, interest and rent, and transfer payments—responds both to local events and to general economic trends. The economic boom of the Nineties and increasing employment pushed the earnings portion of personal income in Atlanta to 77 percent, surpassing other metropolitan areas in Georgia by at least 8 percent. Conversely, the portion of personal income derived from transfer payments, which is the sum of pensions, workmen’s compensation, unemployment insurance and income assistance, as well as income from other social programs, was by far the lowest in the state (7.3 percent). These numbers, which reflect the state of Atlanta’s employment in 2000, are likely to change due to rising unemployment levels in the area. The portion of income derived from dividends, interest and rent is smaller in Atlanta than in other metro areas in the state, due to the relatively young population. The uncertainty in stock markets is also likely to affect that portion of income.

Broken out by major industry groupings, goods-producing industries—primarily manufacturing and construction—provide 16.9 percent of earnings in Atlanta, the smallest portion among the state’s metropolitan areas. Atlanta’s government sector also provides the lowest percentage of earnings compared to other metropolitan areas in Georgia (10.6 percent). The balance belongs to services-producing industries, which were responsible for 71.9 percent of earnings in Atlanta in 2000. Savannah follows Atlanta with the second largest portion of personal income derived from services (57 percent), while other metropolitan areas only reach about 50 percent of earnings delivered by jobs in services.

Residential construction activity in Atlanta was on a continuous upswing throughout the Nineties. Construction of multi-family units surged in 2000 and 2001 with 17,469 and 16,846 permits issued, respectively, but slowed down in the first nine months of 2002. The number of single-family housing permits continues a steady climb, however.

■ **Augusta** ■

Augusta’s population increased by 15 percent between 1990 and 2000—slower than the state average, but faster than Albany’s, Columbus’s, Macon’s, and Savannah’s. The fastest growth (35.2 percent) and the largest numeric increase (23,257) occurred in Columbia County, Georgia. Edgefield County, on the South Carolina side, also saw a steep increase (33.9 percent), which amounted to 6,220 new residents. The age composition of Augusta’s population remained virtually unchanged in between 1990 and 2000, however, with the population over age 62 growing slightly faster than other age groups.

As in other metropolitan areas, the percentage of those living below poverty level decreased for all age and social categories. The most marked decrease occurred among persons over 65 and among female-headed households. The 0.4 percentage drop was the smallest decrease shown in all of the state’s metro areas

Edgefield and McDuffie counties experienced the highest increase in inflation-adjusted median household income between 1990 and 2000, but it is Columbia County that has the highest median household income in the Augusta MSA (\$55,682). Aiken County, on the South Carolina side, has the second highest median household income in the metropolitan area, even though it decreased by an inflation-adjusted 6 percent between 1990 and 2000. Richmond County’s inflation-adjusted median household income also decreased, but only by 2.5 percent.

Albany	Athens	Atlanta	Augusta	Columbus	Macon	Savannah
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Augusta's total non-farm employment shrank by 0.8 percent in the first nine months of 2002, and the losses occurred across all economic sectors except for trade and finance, insurance, and real estate. According to the Selig Center's forecast, the MSA can expect a 1 percent increase in employment in 2003.

Here, too, services provide the most substantial portion of jobs but the pace of growth in this sector lagged behind other MSAs in Georgia, with 3.1 percent average annual growth, compared to the 5.5 percent state average. The number of jobs in services increased at a faster pace in 1998 and 1999 (5.2 percent), but tapered off to 1.1 percent in 2001. About 300 jobs (0.4 percent) were lost in the first nine months of 2002.

The wholesale and retail trade sector provides just about 20 percent (41,900) of the jobs in Augusta. The number of these jobs has remained relatively constant, and increased at an average annual rate of 0.5 percent, the slowest among the state's MSAs. The number of jobs in wholesale and retail trade dropped by 2.6 percent in 2001, but some of the losses were recovered in the first nine months of 2002. Government provides 19.8 percent of jobs in Augusta, almost the same as wholesale and retail trade. The size of the government sector also did not change much between 1991 and 2001, but in 2001, 3.2 percent or 1,300 jobs were lost, and another 400 jobs were cut in the first nine months of 2002.

The transportation sector provides 8.7 percent (17,300) of Augusta's jobs. With the 11,100 jobs increase that occurred when one local manufacturer switched its operations to transportation, Augusta is now on a par with Atlanta in this aspect. The sector did lose 300 jobs in the first three quarters of 2002, however. Even with this shift, manufacturing still provides 14.3 percent of non-farm jobs in Augusta, the third highest share of total nonagricultural jobs after Columbus and Athens. The number of manufacturing jobs in Augusta has declined almost every year since 1995, and 2,100 jobs were lost between 1999 and the first nine months of 2002. The steepest decline occurred in 2001 and 2002 (4.4 and 5.5 percent, respectively).

With 6.5 percent of all nonagricultural jobs, Augusta's construction sector provides the largest share of jobs among the state's metropolitan areas, and the 13,000 construction jobs put Augusta in second place after Atlanta in this dimension. After several years of decline and stagnation, construction activity in Augusta picked in 1997 with an 8.1 percent jump, followed by another 8.9 percent jump in 1999. Overall, in the last five years, almost 2,000 construction jobs were added, but the growth halted in 2000 when 500 jobs were lost. The first nine months of 2002 brought yet another, albeit smaller decline (200 jobs).

Finance, insurance and real estate provide 3.1 percent of nonagricultural jobs. After several years of unchanged employment levels, 300 jobs were added to Augusta's financial sector in the first nine months of 2002, the boost that has pushed the number of jobs in the sector close to the 1991-2001 peak levels.

Although consistently decreasing throughout the Nineties, unemployment levels in the MSA remained above both the state average and the unemployment rates in other metropolitan areas in Georgia. In 2001 the unemployment rate in

In Brief

Augusta's location astride I-20 makes it perfect as a center for regional distribution and manufacturing because the interstate links the city to markets in Atlanta and South Carolina.

Augusta increased to 5 percent from 4.6 percent in the previous year. The first nine months of 2002 brought no changes in unemployment levels, compared to the corresponding period of the previous year. The highest unemployment levels persisted in McDuffie and Richmond counties, on the Georgia side. Columbia County, also in Georgia, had by far the lowest unemployment levels in the MSA, and one of the lowest unemployment levels in the state.

Total personal income—the sum of earnings, dividends, interest, and rent, and transfer payments—is key to local economic health. The portion of total personal income comprised by earnings was 5.9 percent lower in 2000 than it was in 1990, while the portion contributed by transfer payments, which consists of pensions, workmen's compensation, unemployment insurance and income assistance, as well as income from other social programs, increased by 3.1 percent—both trends consistent with relatively high unemployment and slow employment growth. The amount contributed by dividends, interest and rent increased at the rate almost equal to transfer payments (3.2 percent). The 18.4 percent contributed to Augusta's personal income by dividends, interest, and rent is the third highest portion among MSAs, and the 1990-2000 increase is the steepest overall—facts that are attributed to the aging, but fairly wealthy population in the area.

SELECTED DEMOGRAPHICS OF THE AUGUSTA MSA, 2000

Total Population	477,441
Sex	
Male	231,731
Female	245,710
Age	
Under 5	32,917
Under 18	129,233
18-62	285,741
62 and over	62,467
65 and over	52,259
Households	
Total households	176,867
Persons per household	2.61
Race and Hispanic Origin^a	470,489
White	293,432
Black	164,019
American Indian, Eskimo, or Aleut	1,537
Asian or Pacific Islander	7,410
Other race	4,091
Two or more races	6,952
Hispanic origin (of any race)	11,670
Educational Attainment	
Persons 25 years old or over	301,745
Percent high school graduate or higher	78.9
Percent bachelor's degree or higher	20.9
Labor Force Status	
Persons 16 years and older	362,660
Percent in labor force	63
Civilian labor force	219,294
Percent unemployed c	4.1
Income in 1999	
Households	176,872
Less than \$10,000	20,473
\$10,000 to \$24,999	36,911
\$25,000 to 49,999	54,358
\$50,000 to \$99,999	49,544
\$100,000 or more	15,586
\$200,000 or more	2,649
Per capita income	18,744
Poverty Status in 1999	
Below poverty level	68,597
Percent below poverty level	
All persons	14.8
Persons 65 years and over	13.3
Related children under 18	20
All families	11.8
With related children under 18 years	16.9
Female householder families	33.2
With related children under 18 years	40.8

Note: The metropolitan area includes Aiken County, South Carolina.

^aPersons of one race only.

Source: 2000 Census of Population and Housing; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

Albany	Athens	Atlanta	Augusta	Columbus	Macon	Savannah
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Broken out by broad industry groups, 23.4 percent of earnings in the Augusta MSA is contributed by goods-producing industries, 49.9 percent by services-producing industries, and 26.7 percent by government.

Per capita personal income, derived by dividing total personal income by population, offers a convenient way to compare areas of different sizes. In Augusta, per capita personal income increased by 36 percent between 1990 and 2000, the smallest increase in all of Georgia's MSAs. Augusta's per capita personal income of \$23,816 is higher than Albany's and Athens', but lower than in the remaining metropolitan areas in the state, and ranges from \$26,080 in Columbia County (Georgia), to \$16,221 in Edgefield County (South Carolina).

After a few years of a relative lull, residential construction in Augusta gained speed in 1998, with a surge in the number of permits for both single and multi-unit construction. The high level of activity continued for single-family residential construction, which represents the majority of permits issued. The number of permits for multi-unit construction plummeted from 733 units in 1999 to 46 in 2000, but climbed up to 200 in 2001. In the first nine months of 2002, 203 additional permits for multi-unit construction were issued.

■ Columbus ■

Columbus's population increased by just 5.3 percent between 1990 and 2000, the lowest increase among Georgia's metropolitan areas. The number and the percentage of children under 5 years of age have both dropped, but the population over 65 was the fastest growing age group in the area (12.7 percent growth). The share of total population comprised by seniors increased more than any other age group, while the share of working-age population (18 to 62 years) decreased slightly.

About 76.9 percent of Columbus's population has at least a high school education, and 18.6 percent has a college or graduate degree. Both percentages are below the state average, but are above the corresponding figures in the Albany MSA.

Moreover, with the slow population growth, there were fewer people below poverty level in Columbus in 2000 than there were in 1990. As in other metropolitan areas in the state, the steepest percentage drop occurred in the number of poverty-level families headed by females. The percentage of the elderly population below poverty level also decreased.

Within the MSA, Harris County had the highest median household income in 2000 (\$47,763), and also the highest

inflation-adjusted percentage increase since 1990. In fact, the 28.7 percent jump in median household income was the second highest among the state's metropolitan counties, second only to Atlanta's Forsyth County. Chattahoochee County saw its median household income increase by 9.1 percent (to \$37,106); Muscogee County's median household income in 2000 was up by 7.7 percent compared to 1990, but Russell County, on the Alabama side, saw its median household income shrink by an inflation-adjusted 2.5 percent, although the nominal figure rose from \$20,995 to \$27,492.

In Brief

Employment in the Columbus MSA will rise by a healthy 1.9 percent this year, largely because of the public and private sectors' unwavering commitment to economic development.

Nonagricultural employment in Columbus expanded by 20.8 percent between 1991 and 2001, a relatively high jump, compared to other Georgia MSAs. The area can also expect a healthy, 1.9 percent increase in employment in 2003, according to the Selig Center's forecast.

Services, construction, and finance were the fastest growing industry sectors between 1991 and 2001, with services also providing the largest share of nonagricultural jobs in the area. The government sector remained virtually unchanged in size in the last decade, but employment in manufacturing shrank by 7.8 percent.

Employment in services increased every year beginning with 1992, and today amounts to 35,100 jobs, or 29.6 percent of Columbus's total nonagricultural employment, the third largest share of non-farm jobs among the state's metropolitan areas. The growth continued in the first three quarters of 2002, with 200 new jobs in services.

The wholesale and retail trade sector provides 25,000, or 21.1 percent of non-farm jobs in Columbus. Although it expanded at a relatively brisk pace between 1991 and 2001, the number of trade-related jobs dwindled in 2000 and 2001 with 1,100 jobs cut, and the trend continued in the first three quarters of 2002 with an additional 800 jobs lost.

The government sector provides 21,300, or 18 percent of total non-farm jobs in Columbus. Although remarkably

SELECTED DEMOGRAPHICS OF THE COLUMBUS MSA, 2000

Total Population	274,624
Sex	
Male	135,427
Female	139,197
Age	
Under 5	19,838
Under 18	73,487
18-62	164,000
62 and over	37,137
65 and over	31,456
Households	
Total households	101,314
Persons per household	2.56
Race and Hispanic Origin^a	269,839
White	149,372
Black	110,874
American Indian, Eskimo, or Aleut	1,102
Asian or Pacific Islander	3,812
Other race	4,679
Two or more races	4,785
Hispanic origin (of any race)	10,927
Educational Attainment	
Persons 25 years old or over	168,800
Percent high school graduate or higher	76.9
Percent bachelor's degree or higher	18.6
Labor Force Status	
Persons 16 years and older	209,377
Percent in labor force	63.9
Civilian labor force	117,322
Percent unemployed c	3.6
Income in 1999	
Households	101,317
Less than \$10,000	13,297
\$10,000 to \$24,999	23,212
\$25,000 to 49,999	32,106
\$50,000 to \$99,999	25,288
\$100,000 or more	7,414
\$200,000 or more	1,377
Per capita income	17,559
Poverty Status in 1999	
Below poverty level	40,464
Percent below poverty level	
All persons	15.6
Persons 65 years and over	13.8
Related children under 18	21.2
All families	12.8
With related children under 18 years	18.1
Female householder families	33.8
With related children under 18 years	40.9

Note: The metropolitan area includes Russell County, Alabama.

^aPersons of one race only.

Source: 2000 Census of Population and Housing; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

Albany	Athens	Atlanta	Augusta	Columbus	Macon	Savannah
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stable throughout the last decade, government has added 200 jobs in Columbus in the first nine months of 2001.

Manufacturing jobs comprise a 15.9 percent share of the area's nonagricultural employment, a significant drop from the 20.9 percent of jobs provided in 1991. Employment in manufacturing plummeted from 20,500 in 1991 to 18,900 in 2001, with most of the losses occurring in 1999, 2000, and 2001. In the first nine months of 2002, however, 200 manufacturing jobs were added.

In 2001, the finance, insurance, and real estate provided 8,600, or 7.3 percent of non-farm jobs here, the highest percentage among the state's metropolitan areas. Finance jobs were added between 1991 and 2001 at a faster average annual rate in Columbus than in any other metropolitan area in the state. This virtually uninterrupted string of annual increases continued in the first nine months of 2002, with an addition of 200 jobs.

Construction and mining provided 5,800, or 4.9 percent of jobs in Columbus in 2001, an impressive 34.9 percent increase since 1991. A seven-year stretch of uninterrupted annual employment growth ended in 2000, however, when construction jobs dropped by 1.8 percent. Another 200 jobs were lost in the first nine months of 2002. Employment in transportation and public utilities, the smallest of Columbus's industry sectors, peaked in 1999 with 4,300 jobs, but continued to decline in 2000, 2001, and the first nine months of 2002. Nevertheless, the number of jobs in transportation remained higher in 2002 than it was in 1991. Unemployment levels in Columbus, however, ranged between 4.7 and 4.9 percent, and above the state average in the last five years.

The composition of total personal income—the sum of earnings, dividends, interest, and rent, and transfer payments—are important factors that shape the local economy. In 2000, earnings contributed 67.3 percent of earnings in Columbus, and transfer payments (the sum of pensions, workmen's compensation, unemployment insurance and income assistance, as well as income from other social programs) provided 14.8 percent. With unemployment rates inching up, the portion of earnings provided by transfer payments is likely to increase. Dividends, interest, and rent make up 18 percent of earnings in Columbus, less than in Athens, Augusta, Macon, and Savannah, but more than in Atlanta and Albany.

Broken out by major industry category, Columbus's services-producing industries, which employ a relatively large portion of nonagricultural workers, provide 48 percent of earnings, more than the portion of earnings provided by services in Albany and Athens, but less than in the remaining metropolitan areas. On the other hand, Columbus's relatively small government sector produces 31.7 percent of earnings, second only to Athens, where government is the

largest employer. Goods-producing industries are responsible for 18.8 percent of earnings in Columbus, which, after Atlanta, is the second smallest share among Georgia's metropolitan areas.

Columbus's 2000 per capita personal income of \$24,813 is less than Atlanta's, Savannah's, and Macon's, but more than Albany's, Athens', and Augusta's. The area's 1990-2000 compound annual rate of growth, however, exceeds the rate of growth in the state, and in all other metropolitan areas in Georgia. Per capita personal income in Columbus ranges from \$27,274 in Chattahoochee County to \$19,582 in Alabama's Russell County.

Construction activity, measured by the number of buildings permits issued in the area, slowed down in Columbus in 1998 and 1999, and again in the first nine months of 2002. While the declining number of building permits for single-unit construction held the total number of permits down in 1998, the decreased number of permits for multi-unit construction did the same in 1999. Construction activity in Columbus picked up in 2000, but the decreased number of permits for multi-unit construction in the first nine months of 2002 pushed the total below the previous year's levels.

■ Macon ■

Macon's population increased by 10.9 percent between 1990 and 2000, slower than any of the metropolitan areas in Georgia except Albany and Columbus. Most of the growth occurred in Houston County, the second most populous county in the Macon MSA, where the population increased by 24.2 percent. Population leader Bibb County experienced the slowest growth (2.6 percent). While none of the age groups decreased in number, the share of youth under 18 decreased slightly from 1990 to 2000, with the drop more pronounced among children under 5 (0.4 percent). Working-age residents increased their share of the total population by 0.2 percent, and the elderly boosted their share of the total by 0.3 percent.

The percentage of persons over 25 with at least a high school diploma rose from 71.1 percent in 1990 to 78.9 percent in 2000, and the percentage with a college or graduate degree climbed from 15.8 percent in 1990 to 19.5 percent in 2000. While the high school-educated group was comparable in relative size to the state average, the college-educated group lagged behind the state average by almost 5 percent.

Although the number of persons below poverty level increased in Macon between 1990 and 2000, the relative share of the population below poverty level decreased both for individuals (1 percent decrease) and families (1.4 percent

SELECTED DEMOGRAPHICS OF THE MACON MSA, 2000

Total Population	322,549
Sex	
Male	153,362
Female	169,187
Age	
Under 5	22,942
Under 18	87,529
18-62	191,833
62 and over	43,187
65 and over	35,883
Households	
Total households	121,505
Persons per household	2.58
Race and Hispanic Origin^a	319,018
White	190,999
Black	121,107
American Indian, Eskimo, or Aleut	787
Asian or Pacific Islander	3,756
Other race	2,369
Two or more races	3,531
Hispanic origin (of any race)	6,665
Educational Attainment	
Persons 25 years old or over	202,641
Percent high school graduate or higher	78.9
Percent bachelor's degree or higher	19.5
Labor Force Status	
Persons 16 years and older	244,291
Percent in labor force	62.9
Civilian labor force	147,965
Percent unemployed ^c	4.1
Income in 1999	
Households	121,456
Less than \$10,000	14,968
\$10,000 to \$24,999	24,777
\$25,000 to 49,999	36,074
\$50,000 to \$99,999	35,354
\$100,000 or more	10,283
\$200,000 or more	1,630
Per capita income	18,840
Poverty Status in 1999	
Below poverty level	48,441
Percent below poverty level	
All persons	15.5
Persons 65 years and over	12.5
Related children under 18	21.7
All families	12.3
With related children under 18 years	18.2
Female householder families	34.6
With related children under 18 years	42.4

Note: The metropolitan area as defined by the Office of Management and Budget on June 30, 1993.

^aPersons of one race only.

Source: 2000 Census of Population and Housing; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

Albany	Athens	Atlanta	Augusta	Columbus	Macon	Savannah
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decrease). As in other metropolitan areas in Georgia, the most dramatic drop in poverty levels occurred among the elderly, and female-headed families.

Inflation-adjusted median household income remained virtually unchanged in Peach and Bibb counties (0.2 percent and -0.4 percent, respectively), but it jumped by an impressive 22.4 percent in Twiggs County. Although Twiggs County still has the lowest median household income in the Macon MSA (\$31,608), the gap narrowed considerably between

In Brief

The Macon area has a diversified economic base, with trade, manufacturing, food services, and the insurance industry providing the most jobs. Its proximity to Atlanta is a big plus, too.

1990 and 2000. According to the 2000 Census, Houston and Jones counties have the highest median household incomes in the MSA, \$43,638 and \$43,301, respectively

Non-farm employment increased in Macon by 17.7 percent between 1991 and 2001, with employment in services and construction leading the way (55.4 percent and 35.7 percent growth, respectively). Although manufacturing was its slowest growing industry, Macon was one of only two metro areas in Georgia where manufacturing employment increased between 1991 and 2001. (The other was Atlanta.). According to the Selig Center's forecast, the MSA can expect a 1.4 percent employment increase in 2003.

The number of jobs in services rose from 26,700 in 1991 to 41,500 in 2001, and, with 28 percent of the area's total nonagricultural employment, is the largest employment sector in Macon. After a period of robust growth between 1996 and 1999, employment in services nearly stalled in 2000, 2001, and the first nine months of 2002 with job increases barely reaching 0.5 percent.

Government, the second largest employer in Macon, provides 33,700 jobs, which amount to 22.7 percent of the area's nonagricultural employment. This sector has been stable throughout the last ten years, although it started to shed jobs beginning in 1995. Between 1991 and 2001, government employment in Macon decreased by 3.2 percent, or 1,100

jobs. In the first nine months of 2002, 100 federal government jobs were added in the area.

Wholesale and retail trade provides 22.6 percent of the area's non-farm jobs, almost equal to the number of jobs provided by the government. The trade sector, the third largest employment sector in Macon, expanded by 15.9 percent between 1991 and 2001, but most of the growth occurred between 1991 and 1997. After a minimal employment increase of 0.3 percent in 2000, the sector shed 300 jobs (3.7 percent) in 2001, and the skid continued in the first nine months of 2002, with 2.1 percent of wholesale and 5.1 percent of retail trade jobs lost, compared to the same period of 2001.

Macon's relatively small manufacturing sector provides 12.6 percent of the area's non-farm jobs. Although there were more manufacturing jobs in Macon in 2001 than there were in 1991, the MSA suffered substantial cuts in manufacturing in the last five years. After three years of consecutive employment decreases, manufacturing retrieved some of the losses with 700 jobs added in 2001 (3.9 percent growth). Another 900 jobs added in the first three quarters of 2002 was more good news.

Finance, construction and transportation together provide 13.6 percent of Macon's nonagricultural jobs. The finance, insurance, and real estate sector, the largest of the three, is responsible for 5.9 percent (8,700) of the area's non-farm jobs. The number of jobs in this sector dropped by 5.4 percent (500 jobs) in 2001, and another 100 jobs were lost in the first nine months of 2002. These significant losses followed eight years of virtually uninterrupted employment increase.

Contract construction employment also saw a long period of consistent growth, but the number of jobs in this sector increased at a more rapid rate than in finance. Between 1991 and 2001, about 1,500 construction jobs were added. Employment peaked in 1999 with 6,700 jobs, but dropped to 5,700 by 2001. By the end of the third quarter of 2002, however, employment in construction exceeded its ten-year peak level, when it reached 6,900 jobs.

The transportation sector, equal in size to construction, grew more slowly. This sector saw several drops in employment levels between 1991 and 2001, the latest of which came in 2001 (a 1.7 percent drop) followed by a more serious 6 percent decline in the first nine months of 2002.

Unemployment rates in Macon remained slightly above the state average in recent years, but fell below that average in 2001 and the first nine months of 2002. Macon's five-year average unemployment rate was higher than in Athens, Atlanta, and Savannah, but lower than in Albany, Augusta, and Columbus.

The composition of total personal income—the sum of earnings, dividends, interest, and rent, and transfer

Albany	Athens	Atlanta	Augusta	Columbus	Macon	Savannah
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payments—explains much about the local economy. In 2000, earnings contributed 67.4 percent of personal income in Macon. Dividends, interest, and rent contributed 18.1 percent, and transfer payments 14.6 percent. The distribution of personal income in Macon remained relatively steady throughout the years, with the large government employment mitigating economic ups and downs. Earnings share is more than Albany, Augusta, Columbus, but less than Atlanta and Athens. Conversely, the portion contributed by transfer payments—the sum of pensions, workmen’s compensation, unemployment insurance and income assistance, as well as income from other social programs—was lower in Macon than in Albany, Augusta, Columbus, but higher than in Athens, Atlanta and Savannah.

Broken out by major industry groups, the largest share of earnings is provided by services-producing industries (49.1 percent). Government jobs supply 30 percent of earnings, the third largest share after Athens and Columbus. Goods-producing industries, with manufacturing and construction as main components, provide 19.2 percent of the area’s earnings—more than in Columbus and Atlanta, but less than in Albany, Athens, Augusta, and Savannah.

Per capita personal income increased in Macon at a compound annual rate of 4.6 percent between 1990 and 2000, faster than in Athens and Augusta, but slower than in the remaining MSAs. Macon’s \$25,474 per capita personal income in 2000 was, however, the third highest after Atlanta and Savannah. Bibb County leads Macon’s metropolitan counties with per capita personal income of \$28,097, while Twiggs County trails with per capita personal income of \$16,572.

Construction activity, measured by the number of permits issued for residential construction, remained in high gear in Macon in recent years, with three consecutive years of increase both in single and multi-unit construction. In the first nine months of 2002, however, construction activity slowed down in single-family housing with an 0.8 percent drop in the number of issued permits, and plunged by 78.7 percent in multi-unit construction. The total number of permits dropped by 18 percent in the first nine months of 2002, compared to the same period of 2001.

■ Savannah ■

Savannah’s population increased by 13.5 percent between 1990 and 2000, but both the number and percentage share of the population under 5 years of age decreased over the decade. The percentage share of the population under 18 years also decreased, although the number of

residents in that age category actually increased. The fastest growing and the largest age group—residents between 18 and 62—increased its share of the general population from 58.3 percent to 59.9 percent, while the share of those over 62 decreased slightly (0.5 percent). Even so, however, Savannah still has more senior citizens than do the other Georgia metropolitan areas.

According to the 2000 Census, 79.9 percent of Savannah’s residents had at least a high school education, while 23.3 percent had a bachelor’s degree or higher. While both of these percentages are close to the state average, Savannah saw the share of residents with college or graduate degrees

In Brief

This coastal MSA is remarkably resilient, primarily because it is a major tourist destination and home to a booming port. Savannah’s unique ambiance and transportation infrastructure make it an attractive place in which to do business.

jump by 6 percent over the decade, the steepest increase by far among the state’s metropolitan areas.

Savannah and Columbus are the only MSAs in Georgia where both the percentage and the number of persons below poverty level have decreased between 1990 and 2000. As in other metropolitan areas, the percentage of individuals and families below poverty level decreased in all social categories, with the steepest declines among female-headed households and the elderly population.

Inflation-adjusted median household income in Bryan and Effingham counties increased by 25.7 percent and 17.6 percent, respectively, between 1990 and 2000. Bryan County’s increase was the third highest among metropolitan counties in Georgia, and at \$48,345, the fifteenth highest among metro counties in 2000. Effingham’s median household income of \$46,505 followed in eighteenth place. Chatham County’s median household income was significantly lower, \$37,752, and increased by only 5.2 percent between 1990 and 2000.

SELECTED DEMOGRAPHICS OF THE SAVANNAH MSA, 2000

Total Population	293,000
Sex	
Male	142,039
Female	150,961
Age	
Under 5	20,320
Under 18	76,606
18-62	175,423
62 and over	40,971
65 and over	34,489
Households	
Total households	111,105
Persons per household	2.56
Race and Hispanic Origin^a	289,315
White	179,441
Black	102,158
American Indian, Eskimo, or Aleut	773
Asian or Pacific Islander	4,540
Other race	2,403
Two or more races	3,685
Hispanic origin (of any race)	6,399
Educational Attainment	
Persons 25 years old or over	185,311
Percent high school graduate or higher	79.9
Percent bachelor's degree or higher	23.2
Labor Force Status	
Persons 16 years and older	224,613
Percent in labor force	63.6
Civilian labor force	137,907
Percent unemployed ^c	3.4
Income in 1999	
Households	111,080
Less than \$10,000	12,791
\$10,000 to \$24,999	23,182
\$25,000 to 49,999	32,265
\$50,000 to \$99,999	31,287
\$100,000 or more	11,555
\$200,000 or more	2,765
Per capita income	20,752
Poverty Status in 1999	
Below poverty level	41,216
Percent below poverty level	
All persons	14.5
Persons 65 years and over	11.6
Related children under 18	19.7
All families	11
With related children under 18 years	16.6
Female householder families	31.8
With related children under 18 years	39.6

Note: The metropolitan area as defined by the Office of Management and Budget on June 30, 1993.

^aPersons of one race only.

Source: 2000 Census of Population and Housing; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

Albany	Athens	Atlanta	Augusta	Columbus	Macon	Savannah
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Total nonagricultural employment in Savannah rose by 19.9 percent between 1999 and 2001 (or at an average annual rate of 1.5 percent.) Although the rate of employment increase fell below the state average, it was still above the commensurate increase in Macon, Augusta, and Albany. According to the Selig Center's forecast, the MSA's employment will increase by 2.1 percent in 2003—the largest percentage gain predicted for any of the state's metropolitan areas.

Services, which provide a larger share of nonagricultural jobs in Savannah than in any other metropolitan area in Georgia, was the fastest growing industry in the area in the Nineties. In 2001, 31.6 percent of Savannah's nonagricultural workers were employed in services and the number of these jobs climbed from 29,300 in 1991 to 43,200 in 2001. Savannah's services sector has added jobs every year since 1991, and the trend continued in the first nine months of 2002 with the addition of 2,000 new jobs.

Wholesale and retail trade, the second largest industry sector in Savannah, is second only to Atlanta's in the share of total jobs it provides (25.3 percent). Responsible for 34,600 of the MSA's jobs, this sector displayed the second largest employment increase between 1991 and 2001 (27.2 percent), but lost 600 jobs in 2001. Another 300 jobs were lost in the first nine months of 2002, with wholesale trade suffering a 4.9 percent job loss. The number of jobs in retail trade was virtually unchanged.

Savannah's government sector provides 14.8 percent jobs, which, except for Atlanta, is the second smallest portion of nonagricultural jobs. While government employment increased from 18,200 jobs in 1991 to 20,200 jobs in 2001, most of the growth occurred between 1991 and 1996, and the number of government jobs in Savannah either decreased or remained unchanged since 1997. In the first nine months of 2002, however, 100 new government jobs were added.

Continuing the pattern of similarities with Atlanta, Savannah's manufacturing industries provide 12 percent of jobs, which again is the second smallest after Atlanta's 9.7 percent. Unlike Atlanta, though, Savannah had fewer manufacturing jobs in 2001 than it had in 1991. Locally, these jobs were lost every year since 1999, and the trend continued in the first nine months of 2002.

In 2001, the transportation sector was responsible for 9,200 jobs, or 6.7 percent of nonagricultural jobs in Savannah, and was second only to Atlanta and Augusta (8.7 percent each) in the portion of nonagricultural jobs it provided. Despite its importance, however, 800 transportation jobs in Savannah had vanished between 1991 and 2001. The most severe employment losses took place in 1993 and 1998, with decreases of 7.6 and 6.2 percent, respectively. An additional

employment drop of 2.1 percent occurred in 2001, but the sector recovered that loss with a gain of 300 new jobs in the first nine months of 2002.

Almost equal to transportation in the number of jobs it provided in 2001, the construction industry was the third fastest growing sector in Savannah's economy. Between 1991 and 2001, a thousand new jobs were added in construction (which also includes a minuscule number of jobs in mining). While construction jobs were added to the Savannah's employment market in every year since 1994, the first nine months of 2002 saw the number of jobs remained unchanged compared to the 2001 annual average, although it was 1.3 percent short of the 2001 January-September average.

Savannah's finance, insurance, and real estate sector provided 4,500 jobs in 2001, which amounted to 3.3 percent of the area's total nonagricultural employment. Employment in the finance sector remained unchanged in the last two years, but lost 400 jobs between 1991 and 2001. In the first nine months of 2002, however, a major part of the losses were recovered with 200 new jobs, which amounted to a 4.2 percent increase compared to the same period of the previous year.

The area's unemployment rate is one of the lowest among Georgia's MSAs. In the first nine months of 2002, however, the jobless rate crept up for the first time since 1998. Nonetheless, Savannah's 3.7 percent average January-September unemployment rate was second lowest among the state's MSAs, and lower than the state average of 4.6 percent.

The composition of total personal income comprises part of the local economic picture, too. Although earnings contribute 65.9 percent to the area's personal income, which is lower than in any other metropolitan area in Georgia except Albany, the area's earnings grew at a rate just behind Athens and Atlanta. The relatively low share of earnings is counterbalanced by the 20.6 percent attributed to dividends, interest, and rent, a portion larger than in any other metropolitan area in the state. This undoubtedly is due to the presence of a large number of affluent, older residents. The portion contributed by transfer payments, which is the sum of pensions, workmen's compensation, unemployment insurance and income assistance, as well as income from other social programs, is the third lowest in the state.

Broken out by general earnings categories, the share of earnings derived from goods-producing industries (23.8 percent) is the second largest among Georgia's MSAs. The proportion of earnings provided by services-producing industries (57 percent) is second only to Atlanta's. Government jobs, on the other hand, provide only 18.6 percent of

Albany	Athens	Atlanta	Augusta	Columbus	Macon	Savannah
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earnings in Savannah, which is the smallest share excluding only Atlanta.

Per capita personal income, derived by dividing total personal income by population, offers a convenient way of comparing areas of different sizes. Savannah's per capita personal income in 2000 (\$27,289) was the second highest among the state's metropolitan areas. Per capita personal

income in this MSA ranges from \$23,016 in Effingham County to \$28,364 in Chatham County.

Construction activity, measured by the number of building permits issued for residential construction, remained in high gear in Savannah over the last five years, but the pace slowed down in 2001. It quickened again in the first nine months of 2002, with the total number of permits up by 22.7 percent compared to the same period of 2001. ❖

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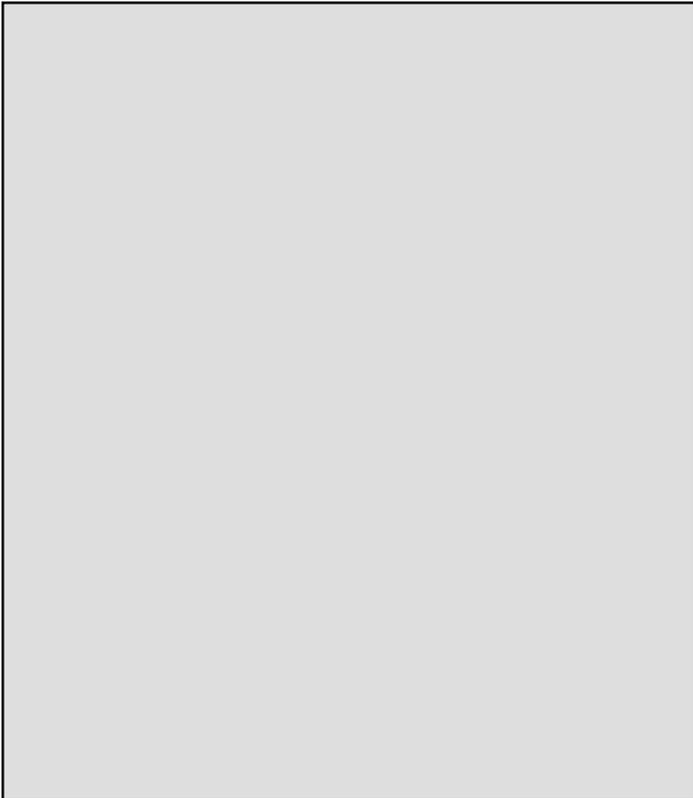
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Economic Impact of Manufacturing in the Savannah Area, 2001

Tschai Alemayehu
Barbara Bart
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Manufacturing has long been a key sector of the Savannah area economy. It represents a larger share of employment in Savannah's economy than in any other regional economy in Georgia. It also boasts average wages and salaries that are significantly higher than those in other economic sectors. For the past few years, however, employment in manufacturing has declined. This decline can have negative effects on the entire regional economy since manufacturing employment generates opportunities in services, construction, distribution, retail, finance, insurance, real estate, and more. Manufacturing businesses also contribute needed support to state and area municipalities through their tax payments.

Using 2001 as the year of record, this impact study provides a number of indicators of the role of manufacturing in the combined economies of Chatham, Effingham, Bryan and Liberty counties. Consider these key findings: The manufacturing sector provides jobs for 17,590 workers each earning approximately \$47,000 per year. It paid \$970 million in labor income including benefits, and realized \$4.5 billion in business revenue.

The Regional Manufacturing Sector

In concert with national trends, manufacturing activity declined in each of the three years from 1999 to 2001. Manufacturing employment peaked in 1998 and fell to its lowest level during the period in 2001. In 2001, manufacturing businesses employed 16,366 individuals in the Savannah MSA and a total of 17,590 in the four-county region.

Chatham County hosted, by far, the largest number of manufacturing establishments and jobs among the four counties studied. Two hundred seventeen of the 284 manufacturing establishments located in the region were in Chatham County. The remaining 24 percent of establishments were located in the three remaining counties of the study area.

Consistent with the concentration of plants in Chatham County, manufacturing employment in the county represented 84 percent of the regional total. Of the total 17,590 manufacturing jobs, over 14,000 were offered by Chatham County plants. The establishments in this county also tended to be larger with an average of 66 employees per establishment compared to the region average of 62 employees per establishment.

Manufacturing's presence was smallest in Bryan County, which had the fewest number of establishments and workers. The plants were also significantly smaller, with 17 employees per establishment. Manufacturing had a more significant presence in Effingham and Liberty counties, with 1,823 jobs in Effingham and 1,224 jobs in Liberty. Moreover, the size of manufacturing establishments in these two counties, as measured by employment per site, was not significantly different from those in Chatham County.

As of the second quarter of 2001 (the most recent comprehensive data available), manufacturing employment is concentrated in the transportation equipment, paper, chemicals, and food products industries. Combined, these four industries account for almost three-fourths of all manufacturing employment in the region but only 28 percent of the region's manufacturing establishments. Operations in these industries are significantly larger than in other manufacturing sectors in the region. Overall, the average annual wage was \$47,000 per worker. The paper and transportation equipment industries paid the highest wages at \$57,200 and \$53,600, respectively.

Measures of Economic Impact

The economic impact of the manufacturing sector in the Savannah area was estimated using an input-output model that tracks the flow of dollars and economic activity in an area. Dollars are initially injected into an economy through an industry's purchases of inputs from local firms and households. These firms and households then spend a portion of their income purchasing goods and services from other local businesses, thus generating a second round of economic activity. Each subsequent round of spending re-

Methodology

The economic and fiscal impact estimates are based on two models of the region's economy, a comprehensive survey of all manufacturing enterprises in the region, data provided by municipalities in the region, and data from other sources. Models from two different vendors were secured for use in deriving the economic impact. The first, MIG Incorporated, provided IMPLAN, a model based on the economic structure of the region's counties. IMPLAN is an input-output model that tracks the flow of expenditures and output through the economy and provides a ready way of assessing the economic effects of an event, business, or industry. The baseline data built into the IMPLAN model was augmented with data made available to Armstrong Atlantic State University from the Georgia Department of Labor by special arrangement.

Fiscal impact estimates were obtained from a model of the region available from REMI, Incorporated through a licensing agreement with Georgia Southern University. The REMI model was further calibrated using data gathered from the fiscal offices of regional municipalities, the Georgia Department of Education, and the Georgia Department of Community Affairs.

sults in a smaller impact as a portion of the spending leaks out of the local economy through the purchase of non-local goods and services. An input-output model tracks each of these waves of spending and yields an economic multiplier that can be applied to the initial dollar infusion to estimate the total impact of the economic activity.

Economic activity associated with the manufacturing sector produces both direct and secondary impacts in the Savannah area economy. Direct impacts are the results of activity within the manufacturing industry itself. Secondary impacts are commonly referred to as 'ripple' effects, and can be both indirect and induced. Indirect impacts arise from supply linkages in the regional economy. The indirect impact arises as companies provide inputs to local manufacturers and as these suppliers buy their own inputs from other local businesses.

Induced impacts result from local expenditures by individuals who are employed by regional manufacturers and their suppliers. These companies hire workers who spend their income at local businesses and thereby induce additional economic activity. This increased spending flows through the regional market, further stimulating economic

activity and increasing employment, labor income and business revenue. The total economic impact of Savannah area manufacturers is the sum of its direct, indirect, and induced impacts on the local economy.

Overview of the Economic Impact

Savannah area manufacturers employed 17,590 workers, approximately 860 of which were supported as a result of sales to other manufacturers in the region. Thus the direct employment impact in manufacturing is 16,730 workers. The indirect employment impact from supplier enterprises amounted to 11,710 workers (again, 860 of these jobs were at manufacturers supplying other manufacturers). Finally, additional employment of 10,130 workers was induced by the presence of manufacturing as payroll income recycled through the regional economy. The total employment impact was 38,570 jobs, implying an employment multiplier of 2.3. The multiplier indicates that every ten jobs in manufacturing support 13 other jobs in the region.

Labor income, including benefits, earned by workers directly employed by manufacturers in the region was \$970 million. Income earned by workers at firms in manufacturing's supply chain was \$380 million. The ripple effect generated as this income recycled through the region supported other workers who earned \$260 million. In total, \$1.6 billion in labor income was directly or indirectly linked to manufacturing activity. This yields an estimated multiplier of 1.7 for labor income. This means that for every \$1 earned by workers in manufacturing, an additional 70 cents was earned by other workers in the region.

Manufacturing establishments also serve as markets to other businesses located in the region. Area manufacturers

themselves earned approximately \$4.5 billion in business revenue (sales). As a result of linkages to manufacturers, indirect suppliers earned \$1 billion in business revenue. As income recycled through the region, another \$650 million in revenue was generated for other businesses in the region. The multiplier for business revenue is 1.4. This implies that for every \$1 in sales by a manufacturer, an additional 40 cents in revenue was generated for other businesses in the region. (See Table 1.)

Employment Impact

Although 17,590 workers are employed in the manufacturing sector, only 16,734 are considered to be a 'direct' impact. The remaining 860 workers in manufacturing are considered to have jobs 'indirectly' since they hold these jobs as a result of supplier linkages to other manufacturers. Table 2 provides a comprehensive listing of employment in each manufacturing sector.

Two historically important manufacturing sectors in Savannah, transportation equipment and pulp and paper, account for the majority of the direct employment impact. As indicated in Table 3, these two sectors generate 57 percent of direct manufacturing employment in the area. The chemical and food production sectors account for another 18 percent of manufacturing jobs. Other important job creators in manufacturing are stone, glass, and clay; industrial machinery, publishing, and wood products.

Table 4 reports the indirect employment impact of manufacturing. This is employment that is supported as a result of supplier linkages to the manufacturing sector. Indirect employment totals 11,710 jobs, primarily in business services, wholesale trade, and trucking and warehousing. Note that

TABLE 1

Economic Impact of Manufacturing, 2001

	Direct Impact	Indirect Impact	Induced Impact	Total Impact	Multiplier
Employment	16,730	11,710	10,130	38,570	2.3
Business Revenue* (\$ mil.)	4,460	1,030	650	6,140	1.4
Labor Income* (\$ mil.)	970	380	260	1,610	1.7

*Notes: Business Revenue and Labor Income are in millions of 2001 dollars. Labor Income includes salaries, wages, and benefits. Indirect impacts represent the activity of entities in manufacturing's supply chain. Combined, indirect and induced impacts are the economic ripple effect.

TABLE 2

**Manufacturing Establishments and Employment in Savannah
Second Quarter, 2001**

Manufacturing Sector	Establishments	Employment	Average Annual Pay Per Worker*
Food and kindred products	21	1,315	36,460
Textile mill products	**	**	**
Apparel and other textile products	8	76	23,390
Lumber and wood products	40	829	37,610
Furniture and fixtures	5	18	22,410
Paper and allied products	11	3,702	57,170
Printing and publishing	47	882	31,590
Chemicals and allied products	21	1,781	45,600
Petroleum and coal products	6	298	47,580
Rubber and miscellaneous plastic products	4	29	26,010
Stone, clay, and glass products	28	1,067	34,020
Primary metal industries	**	**	**
Fabricated metal products	16	389	33,890
Machinery and computer equipment	31	940	40,640
Electronic equipment ex. computer equipment	**	**	**
Transportation equipment	25	5,933	53,640
Instruments and related products	5	20	28,950
Miscellaneous manufacturing industries	8	218	12,370
Total Manufacturing	284	17,590	47,000

*Average annual pay per worker is estimated from second quarter data.

**Indicates that data is suppressed to preserve confidentiality of reporting units.

Source: Georgia Department of Labor Covered Employment (ES-202) program, second quarter 2001.

TABLE 3

Direct Employment Impact

	Employment	Percent of Total
Transportation equipment	5,897	35
Pulp and paper	3,683	22
Chemicals	1,674	10
Food processing	1,296	8
Stone, glass and clay	1,063	6
Industrial machinery	771	5
Printing and publishing	741	4
Wood products	593	4
Fabricated metal	387	2
Other	629	4
Total Direct Employment	16,734	100

TABLE 4

Indirect* Employment Impact

	Indirect Employment	Percent of Total
Business services	2,844	24
Wholesale trade	1,817	16
Trucking and warehousing	1,312	11
Retail trade	518	4
Professional services	481	4
Hotels and lodging places	477	4
Construction	470	4
State and local government	405	3
Automotive services	346	3
Credit agencies	255	2
Other	2785	24
Total Indirect Employment	11,710	100

*Note: This employment is supported as a result of supplier linkages to the manufacturing sector.

indirect employment in retail trade, which is a major overall beneficiary, is relatively small (518), consistent with the fact that manufacturers generally purchase from wholesalers rather than retailers.

Table 5 reports the combined effect of direct, indirect and induced employment impacts. A comparison of this table with Tables 3 and 4 provides a gauge of the significant economic effect resulting from the circulation of manufacturing related payroll income through the region. While transportation equipment (5,933 jobs) remains the single most important source of manufacturing-related employment, other non-manufacturing sectors move up the list in terms of manufacturing-related employment effects.

In particular, manufacturing activity supports nearly 4,500 jobs in the retail trade sector or 12 percent of all manufacturing-related jobs. Recall that since manufacturers buy very little directly from retailers, this implies that the circulation of manufacturing-related payroll income supports approximately 4,000 jobs in retail trade. Wholesale trade remains among the top five sectors overall, but is surpassed by business services with 3,361 jobs (9 percent of the total). Other non-manufacturing sectors drawing important economic benefits from the presence of manufacturing activity include trucking and warehousing (1,428 jobs) and health services (1,227 jobs). Indeed, the employment multiplier of 2.3 cited earlier indicates that each manufacturing job supports an additional 1.3 jobs in other sectors.

Labor Income Impact

Table 6 shows the combined direct, indirect and induced impacts on labor income earned by workers in the area who have jobs as a result of the presence of manufacturing. This includes employees in sectors influenced by manufacturing's economic ripple effect. A total of \$1.6 billion in wages, salaries, and benefits were earned by workers as a result of manufacturing's economic impact. The top three sectors, all of which were manufacturing, generated \$763 million in labor income. Income accruing to workers in five of the remaining top ten sectors was in non-manufacturing enterprises and accounted for 21 percent of labor income.

Business Revenue Impact

Table 7 shows the combined direct, indirect and induced impacts on revenue earned by regional businesses as a result of the presence of manufacturing. This also includes revenue earned by sectors influenced by manufacturing's economic ripple effect. The total revenue impact in 2001 was \$6.15 billion. With the exception of the trade and distribution sectors, most of the revenue was earned by manufacturing operations. The implied business revenue multiplier was 1.4. This means that for every dollar

TABLE 5

Total Employment Impact

	Employment	Percent of Total
Transportation equipment	5,933	15
Retail trade	4,487	12
Pulp and paper	3,702	10
Business services	3,361	9
Wholesale trade	2,110	5
Chemicals	1,781	5
Trucking and warehousing	1,428	4
Food processing	1,315	3
Health services	1,227	3
Other	13,228	34
Total	38,570	100

TABLE 6

Labor Income: Total Impact

	\$ Millions	Percent of Total
Transportation equipment	417	26
Pulp and paper	237	15
Chemicals	109	7
Wholesale trade	85	5
Retail trade	75	5
Business services	71	4
Health services	57	4
Food processing	56	3
Stone, glass and clay	49	3
Trucking and warehousing	44	3
Other	406	25
Total	1,605	100

in sales by manufacturers, an additional 40 cents in business revenue was earned by other businesses in the region. The additional money was earned as a result of supplier linkages to manufacturing and as a result of the circulation of manufacturing-related payroll income through the regional economy.

TABLE 7

Business Revenue: Total Impact

	\$ Millions	Percent of Total
Transportation equipment	1,510	25
Pulp and paper	1,196	19
Chemicals	570	9
Food processing	413	7
Stone, glass and clay	246	4
Wholesale trade	206	3
Industrial machinery	173	3
Retail trade	167	3
Wood products	147	2
Trucking and warehousing	146	2
Other	1,376	22
Total	6,150	100

Fiscal Impact of Manufacturing

A full account of the economic impact of manufacturing includes the effect of the location of plants in a particular state or municipality on that area's fiscal ledger. The location of a manufacturing plant or any other business operation affects the budget of the local jurisdiction because such a firm is a taxpaying corporate citizen that needs public services. Thus, while the firms generate tax revenue for the state and municipality, their presence also requires host governments to make expenditures.

These induced government expenditures arise as employees place their children in public schools, connect to public utilities, seek fire and police protection, make use of public health services, or draw on other government-provided services. The citizen-employees of manufacturing establishments do provide tax revenue to their host governments as they pay income taxes to the state or property taxes to municipalities, for example. Thus, the manufacturing establishments and their employees have an impact on both the revenue and expenditure sides of the ledger.

Figure 1 summarizes the estimated fiscal impacts in 2001 for both the state and municipal governments in the region. At the state level, the gain in tax revenue of \$248 million was partially offset by an increase in induced expenditures of \$44 million, yielding a net gain to the state of \$204 million. With respect to net revenue collected by the Georgia Department of Revenue in 2001 (\$14 billion), this is a relatively small proportion (1.5 percent), but nonetheless a significant source of revenue.

The region's municipal governments also realized a net benefit. The presence of manufacturing plants resulted in an increase of \$166 million in tax revenue to local governments and an increase of \$74 million in induced government expenditures. The net benefit to local government finance was \$92 million. Although this is less than the dollar amount realized by the state, it is more substantial when compared to the expenditures of local government entities. The net benefit of \$92 million is approximately equal to 8 percent of expenditures by municipalities and school districts in the region.

Local Government Fiscal Impact

The gross gain in tax revenue collected by municipalities in the region was \$166 million. Of this total, sales tax revenue was \$55 million while utility and liquor taxes were approximately \$20 million. Property taxes generated an additional \$9 million for local governments while transfers from the state accounted for \$18 million.

As discussed above, employees of business establishments are also citizens with expectations and needs for public services provided by local governments. The induced expenditures for government services total \$74 million. Approximately half of these expenditures are associated with schools and libraries (\$31 million) while expenditures on utilities, health, and safety services are approximately \$9 million each.

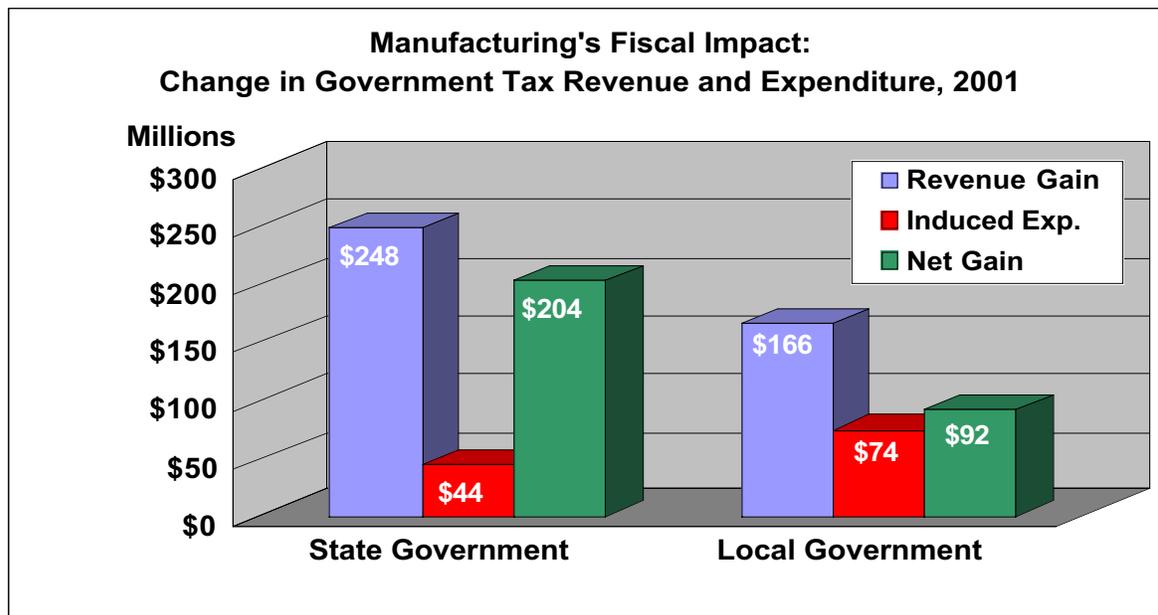
State Government Fiscal Impact

Of the total of \$248 million in revenue accruing to the state, sales tax revenue was \$98 million while individual income taxes generated \$44 million. Contributions for employee retirement yielded \$29 million while corporate income taxes generated \$10 million for the state.

The state also faces additional needs for public services as a result of manufacturing's presence in the region. The state's induced expenditures total \$44 million. Approximately half (\$18 million) of these expenditures are simply transfers of state funds to local government entities in the region. Induced state expenditures on higher education in the region equal \$11 million while expenditures on transportation and police and corrections are approximately \$4 million each.

The data provided above suggests that manufacturing was a net contributor to the budgets of both state and local entities, with state government realizing a net gain of \$204 million and municipal governments realizing a combined net gain of \$92 million. It should be noted, however, that induced local government expenditures do not include idiosyncratic expenditures made directly on behalf of manufacturing for

Figure 1



infrastructure such as industrial park development, water or sewer line extensions, or road construction serving manufacturing establishments. These may be rather substantial amounts, but are not captured in this study because the data necessary to apportion the expenditures to manufacturing or other sectors such as distribution or the general public is not available in a meaningful form.

Epilogue

Manufacturing employment in the Savannah MSA experienced further declines in 2001 to 16,000 jobs by the end of the fourth quarter. In 2002, however, employment in manufacturing improved. By the end of the fourth quarter 1,000 jobs had been recovered and employment reached the 17,000 level. Although this is welcome news for the area's economy, it pales in comparison to the news and excitement that has been generated about the construction of the \$750 million Sprinter and Vito Van manufacturing facility by Daimler-Chrysler and the expanded growth in volume and capability at the Georgia Ports Authority. Both are expected to contribute to employment growth in manufacturing and growth in every sector for years to come.

Currently, land at the intersection of I-16 and I-95 is being cleared for the first phase of the construction that is

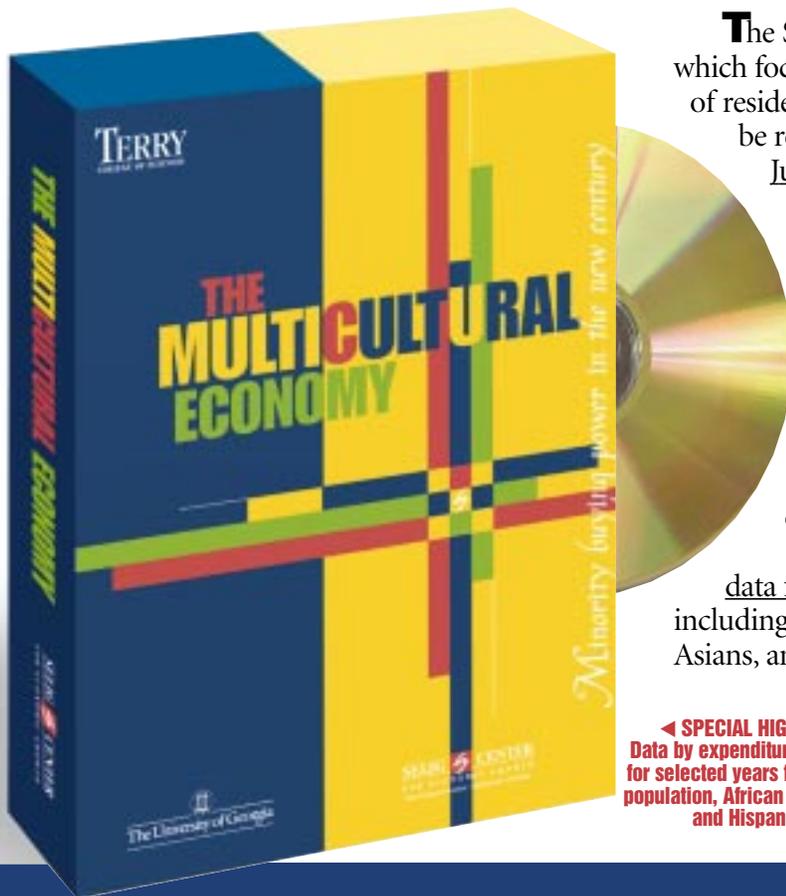
scheduled to begin in July 2003. Two phases of development are planned. Phase I of the project will represent a \$450 million investment and provide employment for 1,800. Phase II will represent another \$300 million investment and provide an additional 1,500 jobs. Studies reported at the state level point to an employment impact of 10,000 jobs. The full incentive package—that includes state incentives of \$220 million—totals \$320 million. This commitment is within the range of incentive packages offered to other automakers that have located in neighboring states. The state anticipates that this investment will be recouped in new revenues in less than 10 years.

Explosive growth in volume at the Georgia Ports Authority in Garden City and Brunswick, Georgia also bodes well for manufacturing employment. Initially, the growth has been in the transportation and distribution sectors as 12 major distribution centers have located in the Savannah area. Increasingly, however, the port has been a major factor contributing to the area's ability to attract new manufacturers as well.

Tsehai Alemayehu is professor of economics and finance, and Barbara Bart is professor of marketing at Savannah State University; Joseph Hodges is a research assistant in the Center for Regional Analysis, and Michael Toma is director of the Center for Regional Analysis at Armstrong Atlantic State University.

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