

# **The Economic Benefits of the Governor's Road Improvement Program (GRIP)**

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**Executive Summary:**  
**A Study of the Economic Benefits of the Governor's Road Improvement  
Program (GRIP)**

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*This summary highlights of some of the findings regarding the economic benefits of the Governor's Road Improvement Program (GRIP). The chapters that follow this summary contain the comprehensive technical report.*

**Description of Phase I: Secondary Data Analysis**

Phase I of the 2003 *GRIP Analysis* updates the data and analysis presented in the 1997 *GRIP Analysis Study* to determine whether or not location on a major multi-lane highway fosters economic growth. The relative economic status and performance of four mutually exclusive groups of rural counties were investigated. To ensure that the analysis was not biased by the selection of a particular subset of counties, all of Georgia's rural counties were assigned to one of the following groups.

- (1) GRIP Counties: Non-metropolitan counties and non-Interstate counties that contain either a portion of a completed GRIP corridor or a finished section of an incomplete GRIP corridor that feeds into a finished GRIP corridor or to an Interstate.
- (2) Non-GRIP Counties: Non-metropolitan counties and non-Interstate counties with no GRIP corridor or ones with a completed portion of a corridor that does not connect to either a finished corridor or to an Interstate.
- (3) GRIP Rural Interstate Counties: Non-metropolitan counties with one or more interchanges on an Interstate that contain either a portion of a completed GRIP corridor or a finished section of an incomplete one that ultimately feeds to an existing GRIP corridor or to an Interstate.
- (4) Non-GRIP Rural Interstate Counties: Non-metropolitan counties with one or more interchanges on an Interstate that either lack a GRIP corridor or contain a finished portion of one that does not connect to an existing corridor or to an Interstate.

The analysis evaluates the performance of these groups of counties by calculating and comparing the 1990-to-2000 percentage changes in the groups' population, total personal income, labor force, employment, and unemployment. The 1990-to-2000 change in the unemployment rate also is estimated. The percentage changes for GRIP counties were compared to those for non-GRIP counties. In order to better account for regional differences in development patterns, separate analyses were conducted for North Georgia (Service Delivery Regions 1 and 2), Middle Georgia (Service Delivery Regions

3, 4, 5, and 6), and South Georgia (Service Delivery Regions 8, 9, 10, 11, and 12). Similarly, percentage changes for GRIP rural interstate counties were compared to those for non-GRIP rural interstate counties, but separate regional analyses were not conducted.

### **Major Findings of Phase I Analysis**

Executive Summary Tables 1 and 2 show that the 1990-2000 percentage changes in selected series of demographic and economic data varied considerably by county group and by region. The major findings of Phase I Analysis indicate that:

- In South Georgia, GRIP counties—as a group—experienced larger percentage increases in every measure of economic performance (personal income, employment, and labor force) than non-GRIP counties. Also, both the number of unemployed persons and the unemployment rate dropped more sharply for the GRIP group than for the non-GRIP group.
- In Middle Georgia, GRIP counties—as a group—experienced larger percentage increases in employment and labor force than the non-GRIP group, but this was not the case for total personal income. The number of unemployed persons and the unemployment rate did not drop more for the GRIP group than for the non-GRIP group.
- In North Georgia, GRIP counties—as a group—did not experience larger percentage changes in personal income, employment, or labor force. Nonetheless, the number of unemployed persons and the unemployment rate dropped more sharply for the GRIP group than for the non-GRIP group.
- GRIP counties did not experience larger percentage changes in population in any region of the state.
- GRIP rural interstate counties—as a group—experienced larger percentage changes in employment and labor force than the comparison group of non-GRIP rural interstate counties. The GRIP rural interstate group did not experience a larger percentage increase in total personal income or population, however. Also, the number of unemployed persons and the unemployment rate did not drop more for the GRIP rural interstate group than for the non-GRIP rural interstate group.

The major implications of Phase I Analysis include:

- Simple comparisons among groups of similar counties provide varying degrees of evidence of a linkage between the GRIP program and rural economic development.
- There is strong evidence that GRIP facilitates economic development in rural South Georgia.
- There is reasonable evidence that GRIP facilitates economic development—particularly employment growth—in rural Middle Georgia.
- There is slight evidence that GRIP facilitates economic development in rural North Georgia.

- There is reasonable evidence that GRIP facilitates economic development—particularly employment growth—in rural counties on Interstates because GRIP may allow the advantages of an Interstate to penetrate more deeply into the host county.
- There is no evidence that GRIP facilitates population growth.
- Over 71 percent of rural Georgians live in the areas—South Georgia or rural interstate—that benefit the most from the GRIP system.
- The economic benefits of GRIP appear to be going to precisely those rural Tier 1 and Tier 2 counties that most need to stimulate economic growth and development.
- Four prior studies conducted in the 1980s and 1990s provide evidence of a linkage between developmental highways—such as the GRIP corridors—and economic growth.

### **Description of Phase II: Short-Term Economic Impacts of Representative GRIP Road Construction Projects**

Phase II of the *2003 GRIP Analysis* estimated the short-term economic impacts of spending by the Georgia Department of Transportation on GRIP road construction projects. In consultation with them, three representative GRIP projects were selected for analysis:

- Wayne County – Project Description: SR 27/US 341 from US 25 to one mile west of CR 394, four lanes with a 44-foot median, widening from two to four lanes.
- Stewart County – Project Description: US 27 from branch at MP 10.47 to SR 1 at CR 43 (on partially new location), four lanes with a 44-foot median, new construction roadway project.
- Wilkinson County – Project Description: SR 29/US 441 from Irwinton Bypass to N. CR 182 near McIntyre, four lanes with a 44-foot median, widening from two to four lanes.

The costs of engineering, rights-of-way, and construction were provided by the Georgia Department of Transportation. Expenditures were reduced to reflect amounts that were not spent in the county (e.g., payment to engineers who do not live or work in the local area). For analytical purposes, all dollar amounts were converted to inflation-adjusted 1999 dollars, and unless otherwise indicated, the amounts shown in this report are expressed in 1999 dollars.

The IMPLAN (Impact Analyses and Planning) Professional Version 2.0.1020 modeling system was used to build detailed regional input-output models of Wayne, Stewart, and Wilkinson counties. The county-specific models were used to quantify the economic impact of road constructing expenditures on each county's economy.

The impacts were estimated in terms of output (gross receipts or sales), value added (or regional product), labor income, and employment. Output impacts, which are the most inclusive, largest, measure of economic impact, encompass both initial spending

and the impacts generated by re-spending of these amounts. Because of their size, output impacts typically are emphasized in economic impact studies and receive much media attention.

In addition to the total economic impacts of project expenditures, impacts per dollar of spending were estimated for output, value added, and labor income. Also, the number of jobs created per million dollars of expenditures was estimated.

### **Major Findings of Phase II Analysis**

Executive Summary Tables 3, 4, 5, and 6 show the economic impacts of expenditures associated with GRIP road construction projects in Wayne, Stewart, and Wilkinson counties. The major findings of Phase II Analysis are:

- Wilkinson County: Local outlays of \$23 million produced a total output impact of \$27.9 million, a value-added impact of \$11.7 million, and a labor income impact of \$7.6 million. The employment impact was 281 jobs. Considering that the county's total employment was 4,399 in 2000, expenditures by the Georgia Department of Transportation for the GRIP road construction project provided a significant short-term boost to the local economy.
- Stewart County: Local outlays of \$12.3 million produced a total output impact of \$14.2 million, a value-added impact of \$5.8 million, and a labor income impact of \$3.7 million. The employment impact was 146 jobs. Considering that the county's total employment was 2,258 in 2000, expenditures by the Georgia Department of Transportation for the GRIP road construction project provided a significant short-term boost to the local economy.
- Wayne County: Local outlays of \$10.5 million produced a total output impact of \$13.3 million, a value-added impact of \$5.6 million, a labor income impact of \$3.9 million, and an employment impact of 143 jobs.
- The output impact per dollar spent locally varied from \$1.26 in Wayne County to \$1.15 in Stewart County. Similarly, value-added impacts per dollar spent locally varied from 53 cents in Wayne County to 47 cents in Stewart County. Labor income impacts per dollar spent locally varied from 37 cents in Wayne County to 30 cents in Stewart County.
- The jobs created per million dollars in spending varied from 13.6 jobs in Wayne County to 11.9 jobs in Stewart County.

The major implications of Phase II Analysis show that:

- Local outlays for GRIP projects generate positive benefits for rural counties in terms of output, value added, labor income, and employment.
- The short-term economic impacts of spending by the Georgia Department of Transportation for GRIP road construction projects can be very significant in rural counties where the overall economic base is small.

- Output impacts exceed initial outlays, but the multiplier effects are relatively small. The low multiplier values reflect the rapid leakage of dollars from the local economy to other areas.
- The Phase II impact amounts capture only the short-term impacts of outlays by the Georgia Department of Transportation for road construction and do not include any of the benefits of the road improvements on the area's economic development or quality of life. The actual impact therefore is much higher than these estimates.

### **Description of Phase III: Illustrative Case Studies**

Phase III consists of illustrative case studies of four GRIP corridors – US 441, the Fall Line Freeway, US 19, and the South Georgia Parkway—to provide anecdotal evidence of the program's development benefits and potential. The commentary and opinions, however, sometimes are augmented with references to readily available data.

### **Major Findings of Phase III Analysis**

#### US 441 Corridor

The US 441 corridor begins in North Carolina, traverses the length of South Carolina and Georgia, and terminates in Florida. The 371-miles long Georgia portion of US 441 passes through sixteen rural and two metropolitan counties, and is the state's longest GRIP corridor. Approximately 47 percent of the corridor is four-laned and is open to traffic. Although this route is predominately rural, it is very well traveled because it connects some major towns, including Athens, Douglas, Dublin, and Milledgeville. More-over, the economic development benefits and potential of US 441 are substantial and varied.

- Manufacturers operating in rural areas as well as professionals involved in selecting sites for new plants consistently emphasize the importance of easy access to four-lane highways.
- Multi-lane highways reduce costs of production and distribution, especially as manufacturers increase their use of just-in-time production practices.
- In 2000, manufacturers located within a six-mile radius of rural portions of US 441 employed over 25,000 people. According to the US 441 Development Council, there are over 500 manufacturers and over 50,000 manufacturing jobs in the 44-county region surrounding the corridor.
- Industrial parks are sited along US 441, because the highway allows large trucks to access the plants, and makes it easy for employees to commute to and from work.
- Georgia's manufactured housing industry depends on US 441 to transport its raw materials and parts to the plants and its finished units to market.

- Agriculture, mining, and forestry rely heavily on it. Timber is a major industry in the counties that surround the US 441 corridor.
- US 441 provides tremendous impetus to retail-based economic development. The most compelling example is the Tanger Factory Outlet Center and Craven Pottery complex located at the US 441 and I-85 interchange.
- The four-laning of US 441 to the South Georgia Parkway made it possible for Douglas to attract and retain its largest employer – a massive Wal-Mart distribution center. When 441 is four laned to the Florida line, Douglas should benefit from improved access to the Orlando market area and to I-10, which will help the community to further solidify its role as a distribution center.
- The four-laning of US 441 to the South Georgia Parkway put Douglas within easy reach of the Port of Brunswick and the I-95 corridor, both of which local business and government leaders consider vital to the future growth of South Georgia. The upgrade also provided an excellent connection to Jacksonville, Florida.
- The US 441 Heritage Highway Inc. actively and aggressively promotes tourism along the highway, touting it as a more pleasant alternative to frequently congested north-south interstates.
- The construction of new bypasses around many of the historic towns help to preserve the rural and historic character of the road, further enhancing the prospects for cultural tourism along its path.
- Four laning the entire corridor will improve visitors' perceptions about the accessibility of the attractions along the corridor, stimulating additional trips. Also, attractions on major multi-lane highways probably are more likely to be included as stops on bus tours than are similar attractions located on two-lane highways.
- In Clayton, Clarkesville, Athens, Madison, Milledgeville, Dublin, Douglas, and other communities, US 441 brings travelers through or close to many historic squares and districts.
- There are many opportunities to shop for antiques and crafts, especially in Dillard, Clayton, Clarkesville, Madison, and Douglas.

### Fall Line Freeway

The Fall Line Freeway will link Augusta, Macon, and Columbus, and become a major east-west connector through 215 miles of central Georgia. Approximately 78 percent of the highway is open to traffic now. Although a primary function of the Fall Line Freeway will be to provide a high capacity and relatively direct link between three of the state's major cities, the four-lane corridor also will vastly improve access to and from scores of communities located in the seven rural counties through which it passes. The economic development benefits and potential of the freeway therefore will flow to both major metropolitan areas and scores of rural communities in Middle Georgia.

- Columbus area businesses will benefit from much improved access to I-16 and to the Port of Savannah.

- Productive ties will be more likely to develop between business located in Columbus, Macon, and Savannah.
- Macon's central location is ideal for hosting statewide meetings or conventions, and more direct routes to Augusta and Columbus definitely will enhance this advantage.
- The freeway will make Macon an even better location from which to deliver government operations to clients located throughout Georgia. It will enhance the metropolitan areas role as a regional distribution center.
- Shorter commute times from outlying areas will allow employers located in Augusta, Columbus, and Macon to capitalize on locally available labor.
- The Macon Chamber of Commerce believes that the Fall Line Freeway will improve prospects for the Downtown Industrial District and reduce truck traffic at the intersection of I-16 and I-75.
- The freeway will connect three major military bases in Columbus, Macon, and Augusta, via I-16 or the Savannah River Parkway, to the Port of Savannah.
- The Fall Line Freeway will make the region much more accessible to tourists, enhancing the prospects for tourism-based economic development.
- Agriculture, agricultural support businesses, and the kaolin industry will benefit from both the wider roads and from more direct routes to the interstates, ports, and metropolitan areas.
- The freeway will make a broad swath of middle Georgia more attractive to industry, especially where it intersects other GRIP corridors.
- The freeway will reduce both the time and hassle associated with commuting from rural counties that lie just outside of the Columbus, Macon, and Augusta metropolitan areas, spurring residential and retail development in these counties.
- In 2000, manufacturers located within a six-mile radius of rural portions of the Fall Line Freeway employed 4,535 people.

### The US 19 Corridor

The GRIP portion of the US 19 corridor extends from Griffin in the southern portion of the Atlanta metropolitan area, and continues south through Thomaston, Butler, Americus, Albany, Camilla, and Thomasville before it crosses the Florida state line. Upgrading the highway from two to four lanes is considered vital to the economic development of the predominately rural region through which the corridor passes. Approximately 72 percent of the 194-miles long highway has been upgraded to four lanes and is open to traffic. This corridor is important particularly because:

- It makes it easier for rural counties at the northern end of the corridor to tap into the economic development potential of metropolitan Atlanta in general and specifically that of Hartsfield International Airport. Similarly, US 19 will help Southwest Georgia to benefit more fully from fast-paced growth in northern Florida, particularly the growth of the Tallahassee metropolitan area. The US 19 corridor serves as a multi-lane connection between Thomasville and I-10, which lies just south of the Georgia-Florida state line.



- Four laning US 19 reduces the time and hassle associated with commuting from rural counties that are close to the Atlanta, Albany, and Tallahassee metropolitan areas, spurring residential and retail development in rural Georgia.
- The completion of this multi-lane corridor will help Albany to solidify its role as Southwest Georgia's major trade, services health care, and industrial center.
- The highway improvements will improve the efficiency of the Marine Corps Logistics facility in Albany, which helps to ensure its survival and enhances its prospects for expansion.
- In 2002, the highway's presence helped Thomasville become the site for American Signature Furniture's regional distribution center.
- The improved highway will help the region retain its existing manufacturing base and attract new manufacturers. In 2000, manufacturers located within a six-mile radius of rural portions of US 19 employed over 15,000 people.
- US 19 will help Thomasville develop as a center for Georgia's emerging biotechnology industry.
- The four-lane highway is vital to the economic well being of the region's large agriculture, lumber, wood, pulp, and forest products industries.
- Because the highway is viewed as a more leisurely north-south alternative to I-75, upgrades to US 19 will increase the flow of traffic through the area and improve access to the region's tourist destinations, enhancing the prospects for tourism-based economic development.
- The highway will further Thomasville's development as a retirement center, particularly with respect to attracting retirees back to Georgia from Florida.

### The South Georgia Parkway

The South Georgia Parkway (US 82 and GA 520) is a completed GRIP corridor that passes through fifteen mostly rural counties in South Georgia. The major cities along the multi-lane corridor are Brunswick, Waycross, Tifton, Albany, and Columbus. This strategic corridor stimulates the economic development of the southern third of the state.

- The South Georgia Parkway connects the region to the state's major ports, to the barge terminal in Columbus, and to major north-south interstates, making a wealth of transportation infrastructure accessible to Albany, Columbus, and many other South Georgia communities.
- The highway provides access to the East Coast's largest switching rail yard in Waycross. Also, the corridor puts the Port of Jacksonville within easy reach of shippers in South Georgia.
- In 2000, manufacturers located within a six-mile radius of rural portions of the South Georgia Parkway employed nearly 7,000 people.
- The region's large manufactured housing industry depends on the Parkway as well as other high-capacity roads to transport its raw materials to the plants and to take its finished products to market.

- The four-lane highway allows employees who live in outlying areas to commute to jobs in the region's cities more easily. It also provides rural residents with better access to shopping, health care, recreation, cultural activities, and schools.
- The corridor is vital to the continued success of the region's important timber, agriculture, and food processing industries, because it helps to keep production and shipping costs low.
- The Parkway advances Georgia's development as a major distribution and transportation hub.
- It provides Waycross and other communities with better access to rapidly growing markets in northern Florida (e.g., Jacksonville). The highway therefore increases the potential for development based on distribution centers, manufacturing, and tourism.
- The Parkway provides access to the region's tourist destinations, enhancing the prospects for tourism-based economic development.
- The corridor provides access to the Coastal Plain Experiment Station, the Georgia Agrirama, and the Coastal Plain Research Arboretum in Tifton. By developing ways to improve crop growth, these facilities help to bring new business to rural areas of the state.

### **Implications of Phase III Analysis**

The anecdotal evidence of the GRIP program's economic development benefits and potential is extensive and varied.

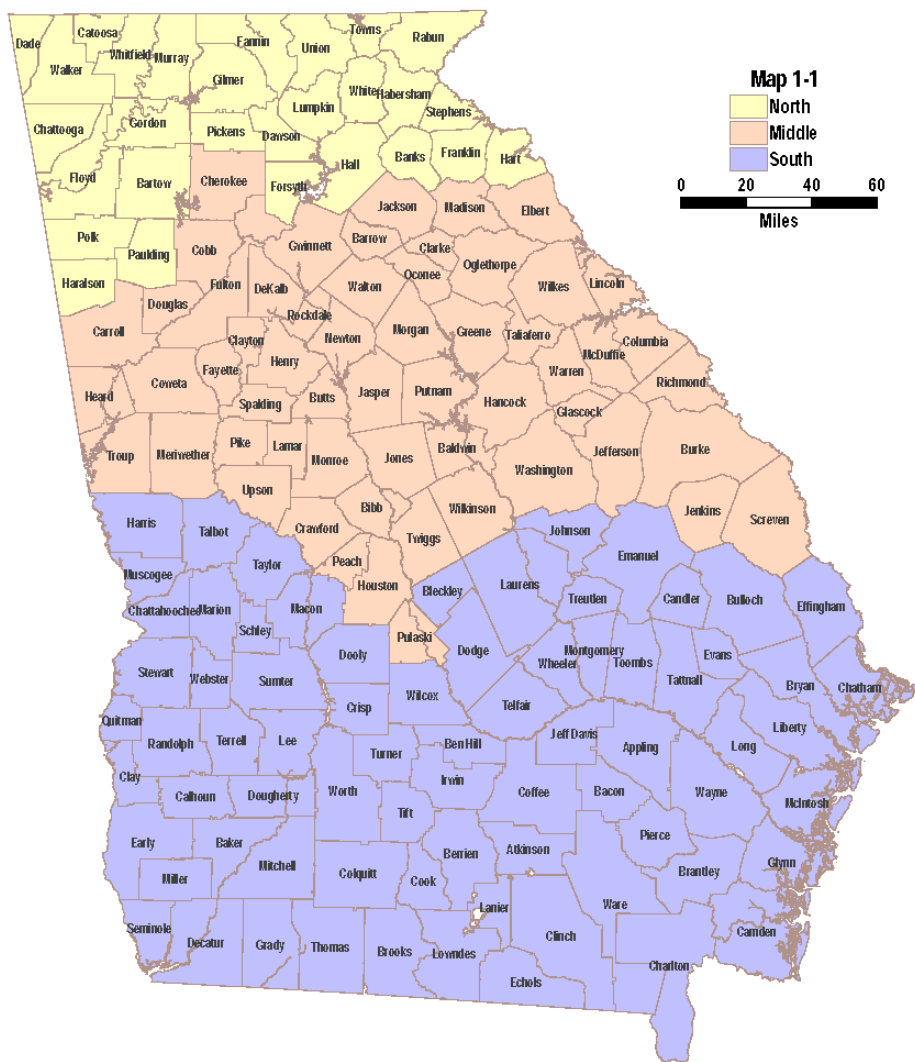
- Easy access to four-lane highways or interstates is vital to manufacturers, and it is an important factor considered by professionals involved in selecting sites for new plants. Georgia's manufactured housing, mining, forestry, and agricultural industries depend on excellent highways to transport their products to processors and consumers.
- Multi-lane highways make it easy for employees to commute to and from work.
- Multi-lane highways stimulate retail-based economic development, ranging from massive agglomerations of outlet stores at major interchanges, to national chain stores, to antique shops and craft stores.
- Multi-lane highways stimulate tourism-based economic development by providing a more pleasant alternative to busy and frequently congested north-south interstates. New bypasses around many historic towns, which help to preserve the rural and historic character of the corridor, enhance the prospects for cultural tourism. Multi-lane highways improve visitors' perceptions about the accessibility of the state's most important natural and recreational sites.
- Multi-lane highways enhance the prospects for developing productive synergies between businesses located in various cities traversed by the corridors.
- Multi-lane highways improve access to major statewide infrastructure investments, such as the ports in Savannah or Brunswick, rail hubs, or major airports.
- Multi-lane highways improve access to Georgia's major military bases, enhancing both their productivity and prospects for survival.

- Multi-lane highways make it easier for rural areas to tap into the economic development potential of major urban areas located in Georgia as well as in neighboring states.
- Multi-lane highways advance Georgia's development as a major distribution and transportation hub.

**Figure 1-1**

**GRIP Study Areas:**

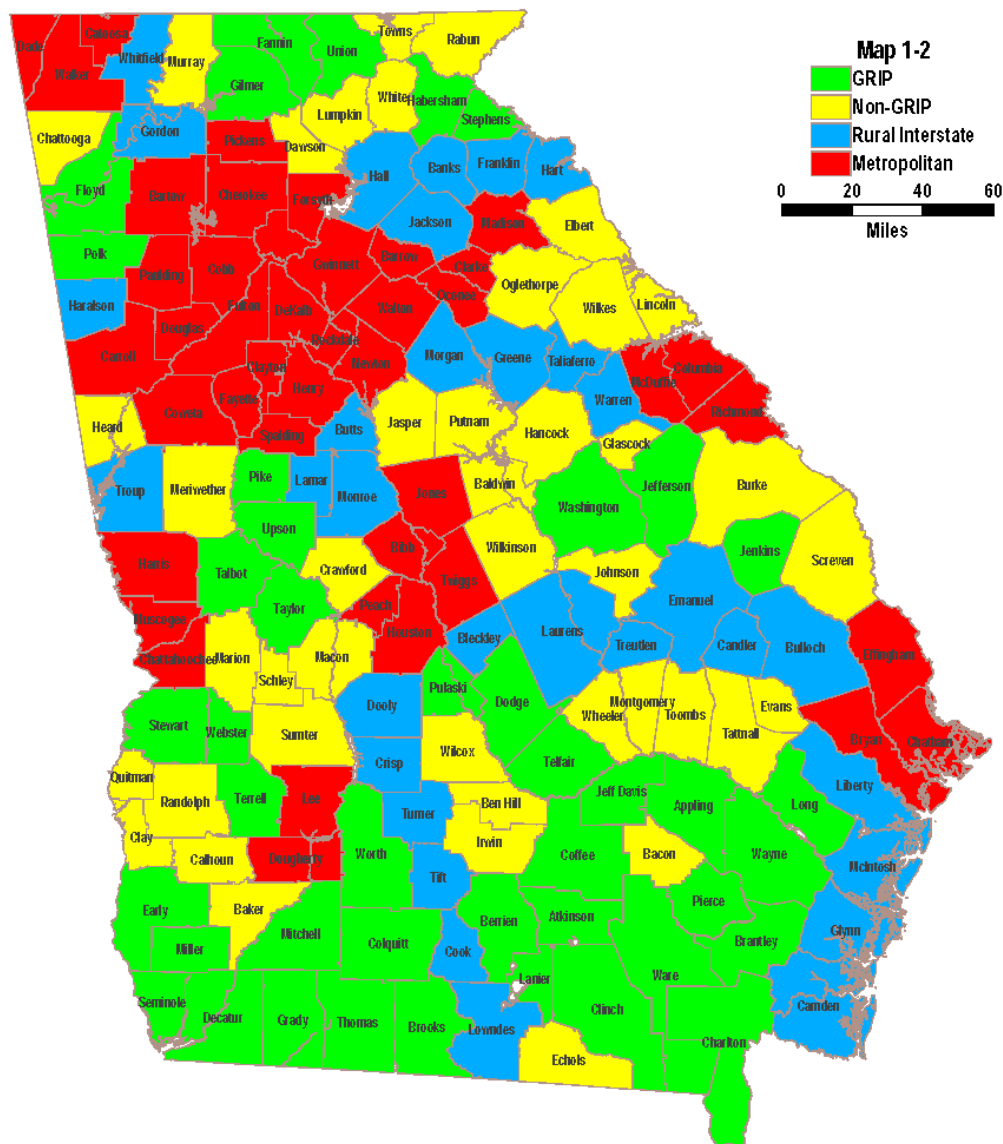
**North, Middle, and South Georgia**



**Note:** North Georgia consists of Georgia's Service Delivery Regions 1 and 2.  
Middle Georgia consists of Georgia's Service Delivery Regions 3, 4, 5, 6, and 7.  
South Georgia consists of Georgia's Service Delivery Regions 8, 9, 10, 11, and 12.

**Source:** Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

**Figure 1-2**  
 GRIP Study County Classification Scheme:  
 GRIP, Non-GRIP, Rural Interstate, and Metropolitan

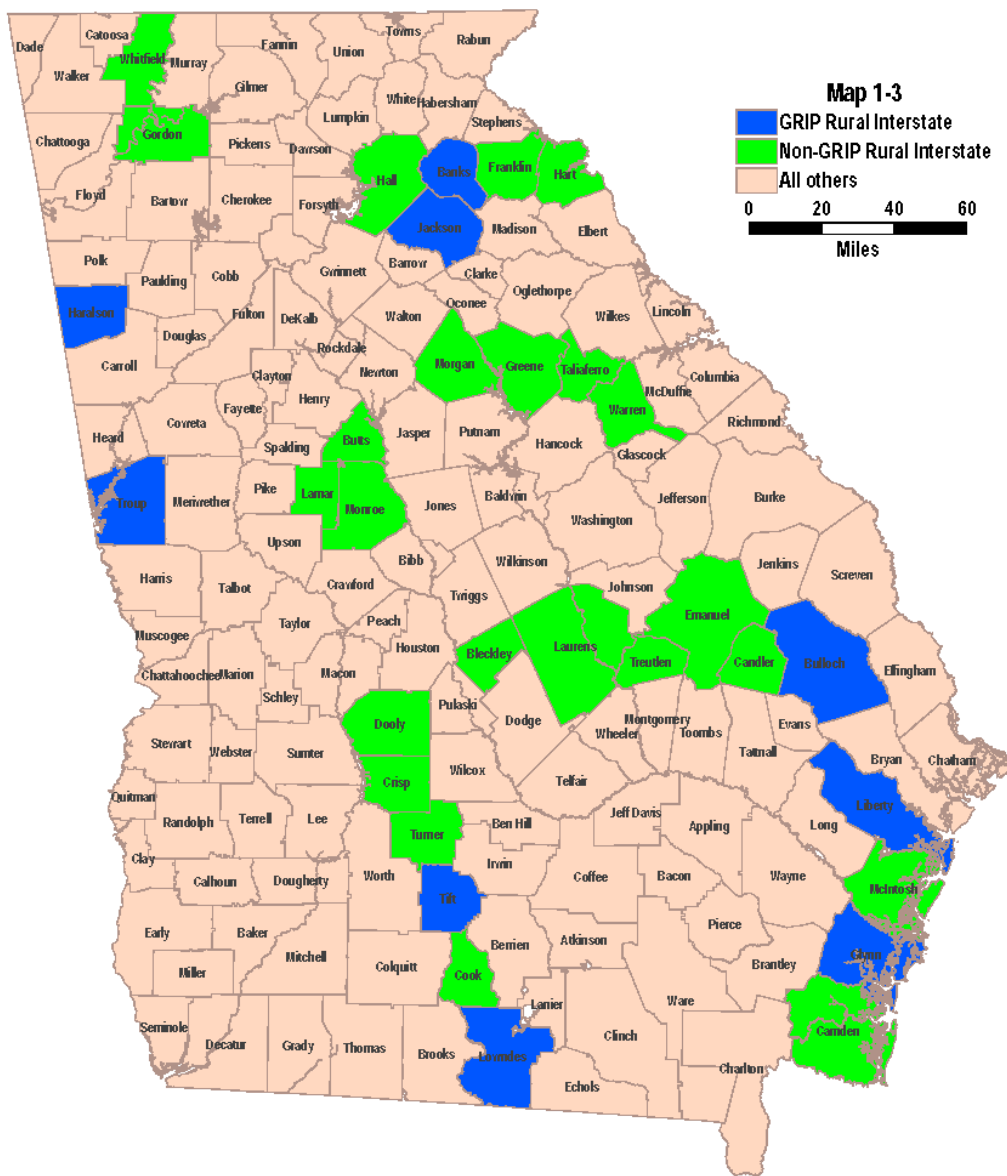


**Note:** GRIP counties are non-metropolitan and non-Interstate counties that contain either a portion of a completed GRIP corridor or a portion of an incomplete GRIP corridor that provides access to a completed GRIP corridor or to an Interstate. Non-GRIP counties are non-metropolitan and non-Interstate counties that either do not contain a completed portion of a GRIP corridor or contain a completed portion of a corridor that does not provide access to either a completed corridor or to an Interstate. Rural Interstate counties are non-metropolitan counties that have one or more interchanges on an Interstate. Metropolitan counties are counties that are part of an officially designated metropolitan statistical area.

Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

Figure 1-3

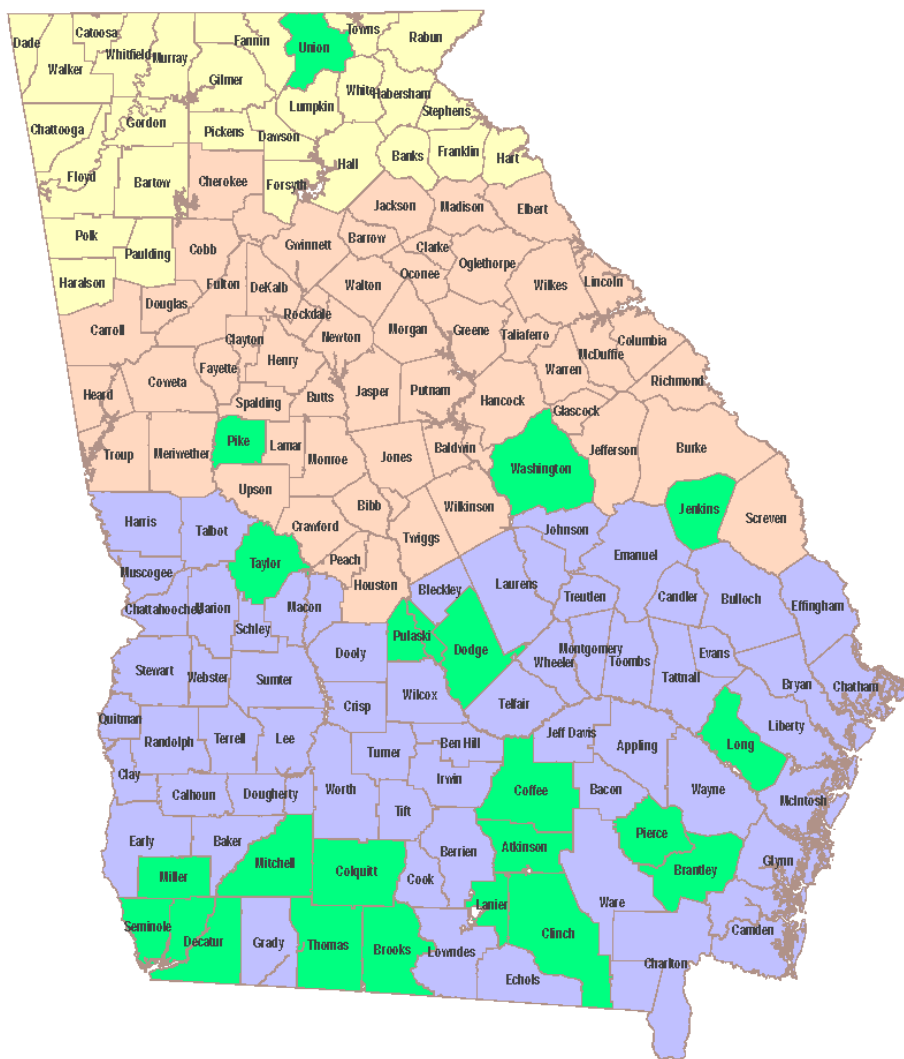
GRIP Study Rural Interstate Counties



Note: GRIP Rural Interstate refers to non-metropolitan counties with one or more interchanges on an Interstate that contain either a portion of a completed GRIP corridor or a portion of an incomplete GRIP corridor that provides access to a completed GRIP corridor or to an Interstate. Non-GRIP Rural Interstate refers to non-metropolitan counties with one or more interchanges on an Interstate that either do not contain a completed portion of a GRIP corridor or contain a completed portion of a corridor that does not provide access to either a completed corridor or to an Interstate.

Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

**Figure 1-4**  
**GRIP Counties Where Employment**  
**Growth Outpaced that of Comparable Non-GRIP Counties**



**Map 1-4**  
 Employment growth higher than in comparable non-GRIP counties  
 0 20 40 60  
 Miles

Note: GRIP counties are non-metropolitan and non-Interstate counties that contain either a portion of a completed GRIP corridor or a portion of an incomplete GRIP corridor that provides access to a completed GRIP corridor or to an Interstate.

Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

## Executive Summary of Phase I

Executive Summary Table 1  
Percentage Change, 1990-2000

| <u>Area</u>         | <u>Census<br/>Population<br/>(% change)</u> | <u>Total<br/>Personal Income<br/>(% change)</u> | <u>Labor<br/>Force<br/>(% change)</u> | <u>Employment<br/>(% change)</u> | <u>Unemploy-<br/>ment<br/>(% change)</u> |
|---------------------|---|---|---------------------------------------|----------------------------------|--|
| Georgia             | 26.4  | 98.2  | 26.4                                  | 28.9                             | -15.2                                    |
| North <sup>1</sup>  | 26.6  | 88.5  | 20.4                                  | 25.4                             | -44.1                                    |
| GRIP                | 20.9  | 78.5  | 9.7                                   | 14.6                             | -48.5                                    |
| Non-GRIP            | 38.1  | 110.1   | 41.2                                  | 46.1                             | -33.2                                    |
| Middle <sup>1</sup> | 17.9  | 70.1  | 9.6                                   | 10.4                             | -1.8                                     |
| GRIP                | 9.5   | 67.5  | 10.4                                  | 11.0                             | 1.6                                      |
| Non-GRIP            | 14.1  | 71.3  | 9.3                                   | 10.1                             | -3.4                                     |
| South <sup>1</sup>  | 13.0  | 70.8  | 15.6                                  | 16.7                             | -4.0                                     |
| GRIP                | 13.0  | 71.1  | 15.6                                  | 17.0                             | -7.4                                     |
| Non-GRIP            | 13.0  | 70.1  | 15.0                                  | 15.2                             | 13.5                                     |
| Rural Interstate    | 21.6  | 85.6  | 24.3                                  | 26.9                             | -15.7                                    |
| GRIP                | 18.6  | 83.6  | 26.1                                  | 28.0                             | -6.7                                     |
| Non-GRIP            | 23.5  | 86.9  | 23.2                                  | 26.2                             | -20.3                                    |
| Metropolitan        | 30.2  | 104.5   | 31.7                                  | 34.4                             | -16.8                                    |

<sup>1</sup>Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the U.S. Census Bureau, the U.S. Bureau of Economic Analysis, and the Georgia Department of Labor.



## Executive Summary of Phase I

Executive Summary Table 2  
Unemployment Rate, 1990 and 2000

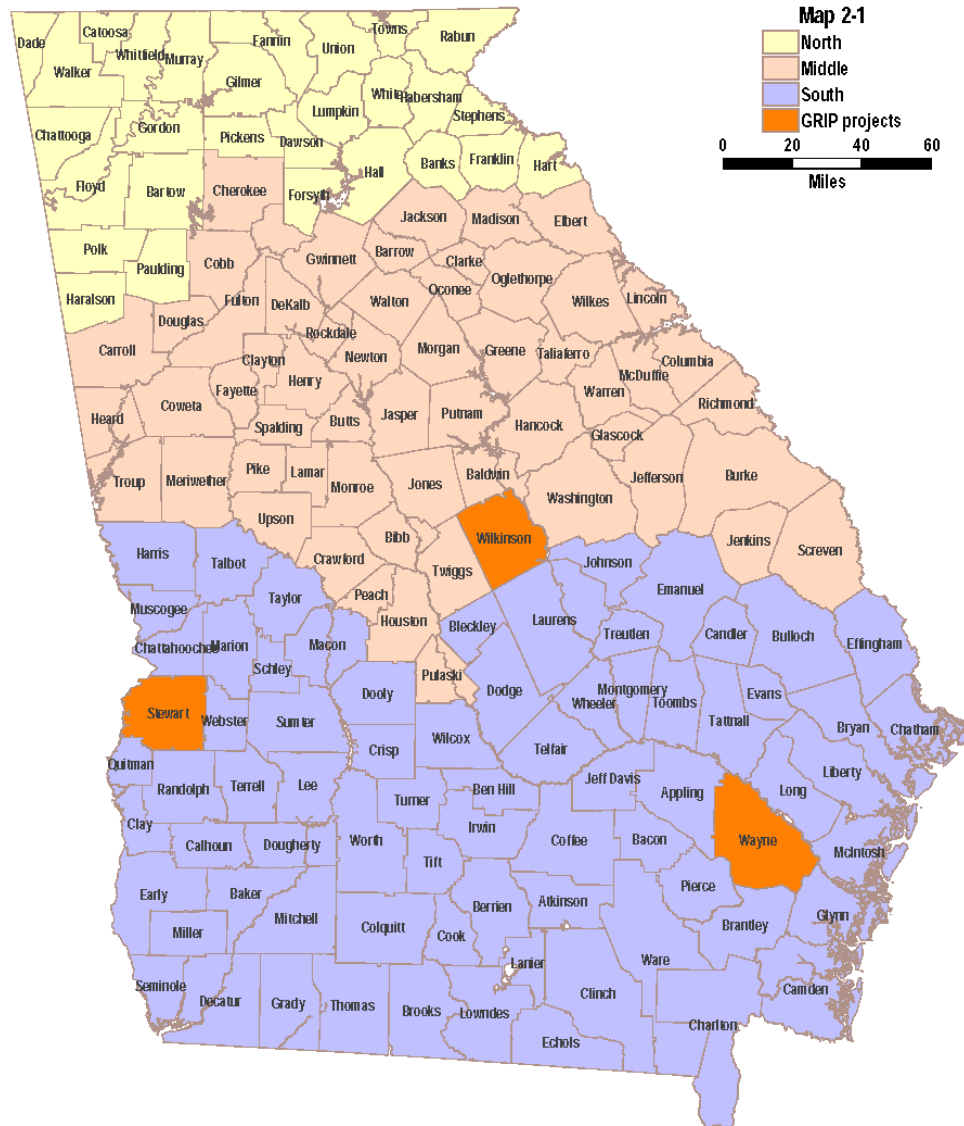
| <u>Area</u>         | <u>Unemployment Rate<br/>in 1990</u> | <u>Unemployment Rate<br/>in 2000</u> | <u>Change in Rate<br/>1990 to 2000</u> |
|---------------------|--------------------------------------|--------------------------------------|--|
| Georgia             | 5.8                                  | 3.8                                  | -2.0                                   |
| North <sup>1</sup>  | 7.8                                  | 3.5                                  | -4.3                                   |
| GRIP                | 8.4                                  | 3.8                                  | -4.6                                   |
| Non-GRIP            | 6.6                                  | 3.0                                  | -3.6                                   |
| Middle <sup>1</sup> | 6.9                                  | 6.1                                  | -0.8                                   |
| GRIP                | 7.1                                  | 6.5                                  | -0.6                                   |
| Non-GRIP            | 6.8                                  | 6.0                                  | -0.8                                   |
| South <sup>1</sup>  | 6.1                                  | 5.0                                  | -1.1                                   |
| GRIP                | 5.9                                  | 4.7                                  | -1.2                                   |
| Non-GRIP            | 7.4                                  | 7.3                                  | -0.1                                   |
| Rural Interstate    | 6.5                                  | 4.3                                  | -2.2                                   |
| GRIP                | 5.9                                  | 4.3                                  | -1.6                                   |
| Non-GRIP            | 6.8                                  | 4.3                                  | -2.5                                   |
| Metropolitan        | 5.4                                  | 3.4                                  | -2.1                                   |

<sup>1</sup>Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Figure 2-1

Location of Three Representative GRIP Road Construction Projects



Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

## Executive Summary of Phase II

Executive Summary Table 3  
Total Economic Impact on Output of  
Representative GRIP Projects<sup>1,2</sup>

| <u>Area/Project<br/>Expense Category</u> | <u>Local Outlays<br/>(\$ 1999)</u> | <u>Indirect and<br/>Induced Impact<br/>(\$ 1999)</u> | <u>Total Output<br/>Impact<br/>(\$ 1999)</u> |
|--|------------------------------------|--|--|
| Wilkinson County<br>Project ID: 221760   | 23,029,105                         | 4,887,956  | 27,917,058                                   |
| Engineering                              | 80,786                             | 18,209   | 98,995                                       |
| Right-of-Way                             | 3,759,694                          | 699,445  | 4,459,139                                    |
| Construction                             | 19,188,625                         | 4,170,302  | 23,358,924                                   |
| Stewart County<br>Project ID: 322140     | 12,295,282                         | 1,904,338  | 14,169,619                                   |
| Engineering                              | 0                                  | 0  | 0  |
| Right-of-Way                             | 2,037,031                          | 255,183  | 2,262,214                                    |
| Construction                             | 10,258,251                         | 1,649,155  | 11,907,405                                   |
| Wayne County<br>Project ID: 522430       | 10,539,004                         | 2,768,170  | 13,307,173                                   |
| Engineering                              | 38,521                             | 13,845   | 52,366                                       |
| Right-of-Way                             | 1,129,130                          | 285,089  | 1,414,218                                    |
| Construction                             | 9,371,353                          | 2,469,236  | 11,840,589                                   |

<sup>1</sup> The impacts on output are estimated using the IMPLAN system, Version 2.0.1020 and Type SAM multipliers.

<sup>2</sup> Output refers to the value of total production, including domestic and foreign trade.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on current dollar cost data provided by the Georgia Department of Transportation.

## Executive Summary of Phase II

Executive Summary Table 4  
 Total Economic Impact on Value-Added<sup>1,2,3,4</sup>  
 Labor Income, and Employment of  
 Representative GRIP Projects

| <u>Area/Project<br/>Expense/Category</u> | <u>Local Outlays<br/>(\$1999)</u> | <u>Economic Impact<br/>on Value Added<br/>(\$ 1999)</u> | <u>Economic Impact<br/>on Labor Income<br/>(\$ 1999)</u> | <u>Economic Impact<br/>on Employment<br/>(jobs)</u> |
|--|-----------------------------------|---|--|---|
| Wilkinson County<br>Project ID: 221760   | 23,029,105                        | 11,657,050  | 7,595,231  | 280.9   |
| Engineering                              | 80,786                            | 37,032  | 31,758   | 1.4   |
| Right-of-Way                             | 3,759,694                         | 3,005,960   | 715,309  | 30.8  |
| Construction                             | 19,188,625                        | 8,614,058   | 6,848,164  | 248.7   |
| Stewart County<br>Project ID: 322140     | 12,295,282                        | 5,785,996   | 3,659,898  | 146.0   |
| Engineering                              | 0                                 | 0   | 0  | 0.0   |
| Right-of-Way                             | 2,037,031                         | 1,586,321   | 347,198  | 15.3  |
| Construction                             | 10,258,251                        | 4,199,675   | 3,312,700  | 130.7   |
| Wayne County<br>Project ID: 522430       | 10,539,004                        | 5,629,493   | 3,873,027  | 143.4   |
| Engineering                              | 38,521                            | 19,904  | 16,478   | 0.8   |
| Right-of-Way                             | 1,129,130                         | 954,483   | 242,090  | 12.4  |
| Construction                             | 9,371,353                         | 4,655,106   | 3,614,459  | 130.2   |

<sup>1</sup> The impacts on value-added, labor income, and employment are estimated using the IMPLAN System, Version 2.0.1020 and Type SAM multipliers.

<sup>2</sup> Value added includes employee compensation, proprietary income, and other property income, and indirect business taxes.

<sup>3</sup> Labor Income includes payroll costs of workers who are paid employees and payments received by self-employed individuals.

<sup>4</sup> Employment includes full-time and part-time jobs.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on current dollar cost data provided by the Georgia Department of Transportation.

## Executive Summary of Phase II

Executive Summary Table 5  
Output, Value Added, and Labor Income  
Per Dollar Spent for  
Representative GRIP Projects

| <u>Area/Project<br/>Expense Category</u> | <u>Output Impact<br/>per Dollar Spent<br/>(\$ 1999)</u> | <u>Value Added<br/>per Dollar Spent<br/>(\$ 1999)</u> | <u>Labor Income<br/>per Dollar Spent<br/>(\$ 1999)</u> |
|--|---|---|--|
| Wilkinson County<br>Project ID: 221760   | 1.21  | 0.51  | 0.33   |
| Engineering                              | 1.23  | 0.46  | 0.39   |
| Right-of-Way                             | 1.19  | 0.80  | 0.19   |
| Construction                             | 1.22  | 0.45  | 0.36   |
| Stewart County<br>Project ID: 322140     | 1.15  | 0.47  | 0.30   |
| Engineering                              | 0.00  | 0.00  | 0.00   |
| Right-of-Way                             | 1.11  | 0.78  | 0.17   |
| Construction                             | 1.16  | 0.41  | 0.32   |
| Wayne County<br>Project ID: 522430       | 1.26  | 0.53  | 0.37   |
| Engineering                              | 1.36  | 0.52  | 0.43   |
| Right-of-Way                             | 1.25  | 0.85  | 0.21   |
| Construction                             | 1.26  | 0.50  | 0.39   |

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on current dollar cost data provided by the Georgia Department of Transportation.

## Executive Summary of Phase II

Executive Summary Table 6  
Jobs Created per  
\$1,000,000 in Spending for  
Representative GRIP Projects

| <u>Area/Project<br/>Expense Category</u> | <u>Jobs per \$1,000,000<br/>in Spending</u> |
|--|---|
| Wilkinson County<br>Project ID: 221760   | 12.2  |
| Engineering                              | 17.3  |
| Right-of-Way                             | 8.2   |
| Construction                             | 13.0  |
| Stewart County<br>Project ID: 322140     | 11.9  |
| Engineering                              | 0.0   |
| Right-of-Way                             | 7.5   |
| Construction                             | 12.7  |
| Wayne County<br>Project ID: 522430       | 13.6  |
| Engineering                              | 20.8  |
| Right-of-Way                             | 11.0  |
| Construction                             | 13.9  |

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on current dollar cost data provided by the Georgia Department of Transportation.

**Technical Report:**

**The Economic Benefits of the  
Governor's Road Improvement Program (GRIP)**

by

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## **Introduction**

For decades, the State of Georgia has sought to promote the economic development of rural counties by building major multi-lane highways. Highways were to be built to encourage growth and economic development rather than just to accommodate existing development. In 1989, the Governor's Road Improvement Program (GRIP) was formally initiated by a resolution of the state legislature and the Governor to connect 95 percent of Georgia's cities with a population of 2,500 or more to the nation's interstate highway system. The GRIP system was designed to encourage economic growth, balance population growth, and to improve accessibility. Its specific purpose was to ensure that 98 percent of the state's population would be within 20 miles of a four-lane road. Today, 1,371 miles or approximately 55 percent of GRIP corridors are open to traffic or are under construction. It is estimated that it will cost approximately \$2.4 billion to complete all of the GRIP corridors.

Since a primary objective of the GRIP system is to foster the economic development of rural Georgia, this study was commissioned by the Georgia Department of Transportation to investigate whether people and businesses in rural areas are benefiting economically from GRIP. The study consists of three phases. Phase 1 (Chapter 1) calculates and compares percentage changes in population, total personal income, labor force, employment, unemployment, and the unemployment rate for GRIP counties and non-GRIP counties. Metropolitan counties are excluded from the analysis. Phase 2 (Chapter 2) uses county-specific input-output models to estimate the short-term economic impacts of local spending by the Georgia Department of Transportation for three typical GRIP construction projects. Using the case study approach, Phase 3 (Chapter 3) provides some anecdotal evidence of the importance of GRIP.



## CHAPTER ONE

### PHASE I: SECONDARY DATA ANALYSIS

Phase I of the *2003 GRIP Analysis* updates selected series of economic and demographic data presented in the *1997 GRIP Analysis Study* titled “An Analysis of the Governor’s Road Improvement Program (GRIP) for the Georgia Department of Transportation.” Phase I analyzes these data to determine whether location on a major multi-lane highway fosters economic growth. The relative economic status and performance of four mutually exclusive groups of rural counties are investigated. To ensure that the analysis is not biased by the selection of a particular subset of counties, all of Georgia’s rural counties were assigned to one of the following groups.

**GRIP Counties:** Non-metropolitan counties and non-Interstate counties that contain either a portion of a completed GRIP corridor or a finished section of an incomplete GRIP corridor that feeds into a finished GRIP corridor or to an Interstate.

**Non-GRIP Counties:** Non-metropolitan counties and non-Interstate counties with no GRIP corridor or ones with a completed portion of a corridor that does not connect to either a finished corridor or to an Interstate.

**GRIP Rural Interstate Counties:** Non-metropolitan counties with one or more interchanges on an Interstate that contain either a portion of a completed GRIP corridor or a finished section of an incomplete one that ultimately feeds to an existing GRIP corridor or to an Interstate.

**Non-GRIP Rural Interstate Counties:** Non-metropolitan counties with one or more interchanges on an Interstate that either lack a GRIP corridor or contain a finished portion of one that does not connect to an existing corridor or to an Interstate.

The analysis evaluates the performance of these groups of counties by calculating and comparing the 1990-to-2000 percentage changes in the groups’ population, total personal income, labor force, employment, and unemployed. In addition, the 1990-to-

2000 change in the unemployment rate is estimated. The percentage changes for GRIP counties are compared to those for non-GRIP counties. In order to better account for regional differences in development patterns, separate analyses are conducted for North Georgia (Service Delivery Regions 1 and 2), Middle Georgia (Service Delivery Regions 3, 4, 5, and 6), and South Georgia (Service Delivery Regions 8, 9, 10, 11, and 12). Similarly, percentage changes for GRIP rural interstate counties are compared to those for non-GRIP rural interstate counties, but separate regional analyses are not conducted. Figures 1-1, 1-2, and 1-3 (pages 48-50) illustrate the study areas and county groups, respectively. Figure 1-4 (page 51) depicts Georgia's Metropolitan Statistical Areas. All of the figures and tables for Phase I appear in Appendix 1 of this study.

The county-level data regarding population were obtained from the U.S. Bureau of the Census. The county-level data for total personal income were obtained from the U.S. Department of Commerce. The county-level data pertaining to labor force, employment, unemployment, and the unemployment rates were obtained from the Georgia Department of Labor. Amounts reported for geographic aggregations above the county level, all percentage changes, and all changes in rates were estimated by the Selig Center for Economic Growth, Terry College of Business, the University of Georgia.

### **Results of Phase I Analysis**

Tables 1-1 and 1-2 (pages 52-53) show that the 1990-2000 percentage changes in selected series of demographic and economic data varied considerably by county group and by region. Metropolitan Georgia experienced the largest percentage increases in population, personal income, labor force, and employment. Rural North Georgia posted the largest percentage decrease in the number of unemployed persons and, in turn, experienced the largest decline in the unemployment rate.

Among rural counties, those on the Interstates led in rapid labor force and employment growth, but rural North Georgia fared better than the rural Interstate counties when it came to population and personal income growth. Rural Middle Georgia posted

the smallest percentage gains in population, labor force, and employment. Rural South Georgia posted the smallest percentage gains in total personal income.

The results for the GRIP counties are discussed in more detail in the following pages, but the analysis clearly shows that the GRIP system's economic benefits are most pronounced in South Georgia. Figure 1-4 (page 51) shows the GRIP counties in which employment growth outpaced that of comparable non-GRIP counties. Seventeen of the twenty-one GRIP counties that outperformed their non-GRIP peers are located in South Georgia, three of the growth leaders are in Middle Georgia, and only one leading county is located in North Georgia.

The 1990-2000 data as well as the percentage changes by area for population, total personal income, labor force, employment, and unemployment are reported in Tables 1-3 through 1-7 (pages 54-58), respectively.

### **Results for Rural South Georgia**

In South Georgia, GRIP counties—as a group—experienced larger percentage increases in every measure of economic performance (personal income, employment, and labor force) than non-GRIP counties. Also, both the number of unemployed persons and the unemployment rate dropped more sharply for the GRIP group than for the non-GRIP group. The beneficiaries of the GRIP system are widely distributed throughout the region, and are not confined to a specific GRIP corridor or to an isolated geographic cluster of counties. GRIP counties in the region did not experience above-average rates of population growth, however. County-level population, total personal income, labor force, employment, unemployment, and unemployment rate statistics are reported in Tables 1-8 through 1-13 (pages 59-70), respectively.

### **Results for Rural Middle Georgia**

In Middle Georgia, GRIP counties—as a group—experienced larger percentage increases in employment and labor force than the non-GRIP group, but this was not true for total personal income. The number of unemployed persons and the unemployment rate did not drop more for the GRIP group than for the non-GRIP group. GRIP counties in the region also did not experience above-average rates of population growth. County-

level population, total personal income, labor force, employment, unemployment, and unemployment rate statistics are reported in Tables 1-14 through 1-19 (pages 71-76), respectively.

### **Results for Rural North Georgia**

In North Georgia, GRIP counties—as a group—did not experience larger percentage changes in personal income, employment, or labor force. Nonetheless, the number of unemployed persons and the unemployment rate dropped more sharply for the GRIP group than for the non-GRIP group. GRIP counties in North Georgia did not experience above-average rates of population growth. County-level population, total personal income, labor force, employment, unemployment, and unemployment rate statistics are reported in Tables 1-20 through 1-25 (pages 77-82), respectively.

### **Results for GRIP Rural Interstate**

GRIP Rural Interstate counties – as a group – experienced larger percentage changes in employment and labor force than the comparison group of non-GRIP Rural Interstate counties. The GRIP Rural Interstate group did not experience a larger percentage increase in total personal income or population, however. Also, the number of unemployed persons and the unemployment rate did not drop more for the GRIP Rural Interstate group than for the non-GRIP Rural Interstate group. County-level population, total personal income, labor force, employment, unemployed persons, and unemployment rate statistics are reported in Tables 1-26 through 1-31 (pages 83-88), respectively.

## **Implications of Phase I Analysis**

Simple comparisons among groups of similar counties provide varying evidence of a linkage between GRIP and rural economic development. There is strong evidence that GRIP facilitates economic development in rural South Georgia, but only moderate evidence that it helps employment growth in rural Middle Georgia. There is scant evidence that GRIP encourages economic development in rural North Georgia, and it has no apparent effect on population growth in any region of the state.

There is reasonable evidence that GRIP helps foster employment growth in rural counties on Interstates, perhaps because GRIP allows the advantages of an Interstate to penetrate more deeply into the host county. GRIP did not facilitate population growth in rural counties on Interstates, however.

The economic benefits of the GRIP program appear to be going to precisely those rural counties that need it the most. Over 71 percent of people living in rural Georgia live in the areas (South Georgia or rural interstate) that benefit the most from the GRIP system. Each year, the Georgia Department of Community Affairs (DCA) rates all of the state's 159 counties based on certain economic factors and divides them into tiers as required by the Job Tax Credit Law. Tier 1 and Tier 2 counties are the less developed or most economically stressed ones. The rural counties that benefit from GRIP are primarily Tier 1 and Tier 2 counties, where GRIP is having a pronounced impact on employment growth.

It is noteworthy that Georgia's overall population grew much more rapidly in the 1990s than it did in the 1980s. The state's 1990-2000 population gain of 26.4 percent exceeded its 1980-1990 gain of 18.6 percent. Since the acceleration in population growth was experienced by GRIP and non-GRIP groupings of counties in every region of the state, it cannot be attributed directly to the road improvement program. In addition, no county grouping experienced population losses in the 1990s. In contrast, both the Middle Georgia GRIP group of counties and the South Georgia group of non-GRIP counties lost population in the 1980s. Again, this population reversal cannot be attributed directly to the GRIP program.

### **Previous Studies of Developmental Highways in Georgia**

Four existing studies of the economic effects of developmental highways, such as GRIP, in Georgia were identified. Each of these studies provides some evidence of a linkage between developmental highways and economic development.

- A 1997 report "An Analysis of the Governor's Road Improvement Program (GRIP) for the Georgia Department of Transportation" conducted by Douglas

Bachtel and others at the University of Georgia found that GRIP counties fared significantly better than their non-metropolitan counterparts. The conclusions were based on a comparison of the performance of a group of ten rural GRIP counties to that of all of Georgia's non-metropolitan counties. Although the performance of this benchmark group may not reflect the performance of all of Georgia's GRIP counties, the analysis showed a linkage between the GRIP program and economic growth and development in the ten chosen counties.

- A 1999 study titled "Road Construction and Regional Development" conducted by Felix Rioja at Georgia State University used regression analysis to evaluate whether or not roads and road construction are associated with economic development in Georgia. Although the study did not specifically assess the GRIP program, it found that roads are one of the important determinants of development within Georgia's counties. The study cautioned, however, that road building alone does not guarantee increased employment and new business for a region.
- A 1990 study titled "Some Economic Impacts of Developmental Highways in Rural Georgia" conducted by UGA's Agricultural Experiment Stations showed that some counties benefit from highways, but others do not. Although the analysis focused on a very small number of counties, it suggests that the relative success of a road depends on factors such as geographic location, distance to major cities, and existing business activities.
- A 1985 study by Charles F. Floyd found strong and broad-based evidence that non-metropolitan counties located on or near multi-lane highways grew much more rapidly than the counties that were more isolated. The results indicated that the favorable development impact extended some distance from the highway. The findings were particularly well-grounded because all of Georgia's counties were included in the analysis.

**CHAPTER TWO**  
**PHASE II:**  
**THE ECONOMIC IMPACT**  
**OF GRIP ROAD CONSTRUCTION PROJECTS**

This phase estimates the short-term economic impacts of spending by the Georgia Department of Transportation for typical GRIP road construction projects. In consultation with the Georgia DOT, three representative projects were selected for analysis:

- Wayne County – Project Description: SR 27/US 341 from US 25 to one mile west of CR 394, four lanes with a 44-foot median, widening from two to four lanes.
- Stewart County – Project Description: US 27 from branch at MP 10.47 to SR 1 at CR 43 (on partially new location), four lanes with a 44-foot median, new construction roadway project
- Wilkinson County – Project Description: SR 29/US 441 from Irwinton Bypass to N. CR 182 near McIntyre, four lanes with a 44-foot median, widening from two to four lanes.

The costs of engineering, rights-of-way, and construction were provided by the Georgia Department of Transportation. These expenditures, which are reported in Table 2-1 (page 92), were reduced to reflect amounts that were not spent in the county (e.g., payment to engineers who do not live or work in the local area). See Appendix 2 for all of Phase II's figures and tables. For analytical purposes, all dollar amounts also were converted to inflation-adjusted 1999 dollars, and unless otherwise indicated, the amounts in this report are expressed in 1999 dollars.

The IMPLAN (Impact Analyses and Planning) Professional modeling system was used to build detailed regional input-output models of Wayne, Stewart, and Wilkinson

counties. The county-specific models then were used to quantify the economic impact of road-constructing expenditures on each county's economy.

The impacts were estimated in terms of output (gross receipts or sales), value added (or regional product), labor income, and employment. In addition to the total economic impacts of project expenditures, impacts per dollar of spending were estimated for output, value added, and labor income. Also, the number of jobs created per million dollars of expenditures was estimated.

### **The Economic Impact Concept**

Short-term economic impacts are the net changes in regional output, value added, labor income, employment, and tax collections that are due to new dollars flowing into a region from a given enterprise or some kind of economic development. In this study, the economic development impetus is supplied by the three GRIP road construction projects in the three highlighted counties (Figure 2-1, page 90). The effects of expenditures that go to persons, businesses, or governments located outside of the county are not included in the value added, labor income, and employment impact estimates, but the output impacts include both domestic and foreign trade.

In economic terms, impacts are the changes in output, value added, labor income, and employment that occur in the region's industries (including households) when they produce goods and services to satisfy demand by consumers, businesses, investors, or governments that are from outside the region. Throughout this study, expenditures that represent the repercussions of spending originating from outside the county are counted as economic impacts. Since an insignificant proportion of the revenues received by the Georgia Department of Transportation originate in the county where the representative road project is located, spending by the Georgia DOT counts as an economic impact. Expenditures that immediately flow to recipients located outside the region, however, are not counted as economic impacts.

For goods made outside of the region, local value is created by wholesale and retail firms within the region, but not by the manufacturing firms that originally produced the goods elsewhere. So, when these goods are purchased locally, the economic benefit



to the region's economy consists only of the wholesale and retail margins. The share of expenditures that immediately flows to recipients outside the region is not counted as an economic impact to the local economy. For example, since the petroleum production and refining industry is not present in any of the three rural counties, the portion of expenditures for gasoline that represents a payment to producers and refiners is not a local economic impact. Only the portion of fuel purchases that represents payments to local retail, wholesale, and distribution companies is a local economic impact.

The output impact includes both direct spending and the impacts generated by the re-spending of these amounts. Output impacts are the most inclusive, largest, measure of economic impact. Because of their size, output impacts typically are emphasized in economic impact studies, press releases, and by the media. The value-added impacts are similar to the output impacts, but they exclude expenditures related to foreign and domestic trade. Value-added impacts therefore provide a much more accurate measure of the actual economic benefits flowing to businesses and households in a region than the more inclusive output impacts.

### **The Multiplier Concept**

In essence, multipliers capture the impact of the initial round of spending plus the impacts generated by successive rounds of re-spending of those initial dollars. The magnitude of a particular multiplier depends upon what proportion of each dollar spent leaves the region during each round of spending.

Figure 2-2 (page 91) illustrates the successive rounds of spending that might take place if a person buys an item locally. Assume that the amount spent is \$100 and that the appropriate regional output multiplier is 2.0. The initial injection of spending to the region is \$100, which creates a direct economic impact of \$100 to the regional economy. Of that \$100, only \$50 is re-spent locally; the rest flows out of the region through non-local taxes, non-local purchases, and income transfers. After the first round of re-spending, the total economic impact to the region is \$150. During the second round of re-spending, \$25 is re-spent locally and \$25 leaks out of the region, a 50 percent leakage. Now, the total economic impact to the region is \$175. After seven rounds of re-spending,

less than one dollar re-mains in the local economy, but the total economic impact has reached almost \$200. The induced impact to the region (\$100) equals the total impact (\$200) minus the direct impact.

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

## **Methods**

Estimating the economic impact of the Georgia Department of Transportation's spending for road construction involves two distinct steps. First, initial spending amounts were obtained from the DOT, reduced to reflect non-local spending, and expressed in inflation-adjusted 1999 dollars. Second, the IMPLAN (Impact Analyses and Planning) Professional Version 2.0.1020 modeling system was used to build regional economic models that are specific to each county. Multipliers were used to assess the impacts associated with all categories of initial spending by the Georgia DOT.

Basically, multipliers capture the original expenditures resulting from the impact, the indirect effects of industries buying from industries, and the induced effects of household expenditures. They also account for Social Security and income tax leakage, institutional savings, commuting, and inter-institutional transfers.

## Results of Phase II Analysis

Tables 2-2 and 2-3 (pages 93-94) show the economic impacts of expenditures associated with GRIP road construction projects in Wilkinson, Stewart, and Wayne counties. The tables report both the overall economic impact of each project as well as the specific impacts of spending for engineering, rights-of-way, and construction.

With respect to the Wilkinson County GRIP project, total outlays of \$23 million produced a total output impact of \$27.9 million, a value-added impact of \$11.7 million, and a labor income impact of \$7.6 million. The employment impact was 281 jobs. Considering that the county's total employment was 4,399 in 2000, expenditures by the Georgia Department of Transportation for the GRIP road construction project provided a significant short-term boost to the local economy.

In Stewart County, total outlays of \$12.3 million produced a total output impact of \$14.2 million, a value-added impact of \$5.8 million, and a labor income impact of \$3.7 million. The employment impact was 146 jobs, which means that expenditures for the GRIP road construction project provided a significant short-term boost to the local economy.

In Wayne County, total outlays of \$10.5 million produced a total output impact of \$13.3 million, a value-added impact of \$5.6 million, a labor income impact of \$3.9 million, and an employment impact of 143 jobs.

Table 2-4 (page 95) reports output, value-added, and labor income impacts per dollar spent, or essentially the aggregate multiplier values for the project. The output impact per dollar spent locally varied from \$1.26 in Wayne County to \$1.15 in Stewart County. Similarly, value-added impacts per dollar spent locally varied from 53 cents in Wayne County to 47 cents in Stewart County. Labor income impacts per dollar spent locally varied from 37 cents in Wayne County to 30 cents in Stewart County.

Table 2-5 (page 96) reports the number of jobs created per \$1 million in spending, which varied from 13.6 jobs in Wayne County to 11.9 jobs in Stewart County. The distributions of these jobs across major industries are shown in Table 2-6 (page 97). The

majority of the new jobs are in the construction industries, but there is an employment impact in almost every sector of the economy.

### **Implications of Phase II Analysis**

Local outlays for GRIP projects generate positive economic benefits for rural counties in terms of output, value added, labor income, and employment. The economic impacts generated by road construction expenditures are not limited to initial spending, but include the multiplier impacts generated by re-spending of these amounts. Output impacts therefore exceed initial outlays, but the multiplier effects are relatively small. The low multiplier values reflect the rapid leakage of dollars from the local economy to other areas. Nonetheless, the short-term economic impacts of spending by the Georgia Department of Transportation for GRIP road construction projects can be very significant in rural counties where the overall economic base is relatively small.

The impact estimates capture only the short-term impacts of outlays by the DOT for road construction and do not include any of the benefits of the road improvements on the areas economic development or quality of life. The actual impacts on the host communities/counties therefore are much higher than these estimates. Finally, the impact estimates are not a net benefit analysis; they estimate only economic benefits of short-term road construction expenditures and do not incorporate any possible costs borne by the local community.

## **CHAPTER THREE**

### **PHASE III: ILLUSTRATIVE CASE STUDIES**

Phase III consists of illustrative case studies of development along four GRIP corridors—US 441, the Fall Line Freeway, US 19, and the South Georgia Parkway—to provide anecdotal evidence of the programs economic development benefits and potential. The commentary and opinions, however, sometimes are augmented with references to readily available data.

#### **US 441 Corridor**

US 441 begins in North Carolina, traverses the length of South Carolina and Georgia, and terminates in Florida. The 371-miles long Georgia portion of US 441 passes through sixteen rural and two metropolitan counties, and is the state's longest GRIP corridor. Approximately 47 percent of the corridor is four-laned and is open to traffic. Although this route is predominately rural, it is very well traveled because it connects some major towns, including Athens, Douglas, Dublin, and Milledgeville. Moreover, the economic development benefits and potential of US 441 are substantial and varied.

- Manufacturers operating in rural areas as well as professionals involved in selecting sites for new plants consistently emphasize the importance of easy access to four-lane highways or interstates. The US 441 Economic Development Council aptly states: Transportation, four-lane access to the interstates, consistently ranks #1 in independent surveys taken of Fortune 500 companies as the site selection factor which mostly influences their decisions to build, relocate or expand their company to another region.

- Multi-lane highways reduce costs of production and distribution, especially as manufacturers increase their use of just-in-time production practices.
- In 2000, manufacturers located within a six-mile radius of rural portions of US 441 employed over 25,000 people (Georgia 2000 Information System (GIS) based on data from the *Georgia Manufacturers Register*). For additional details, see Figures 3-1 and 3-2 (pages 100-101) and Table 3-1 (pages 105-111) in Appendix 3. GIS analysis indicates that the largest concentrations of manufacturing jobs were in Coffee County (4,684 jobs), Habersham County (3,930 jobs), Laurens County (3,262 jobs), Morgan County (3,261 jobs), and Putnam County (2,174 jobs). According to the US 441 Development Council, there are over 500 manufacturers and over 50,000 manufacturing jobs in the entire 44-county region surrounding the corridor.
- Industrial parks are sited along US 441 because the highway not only allows large trucks to access the plants, it also makes it easy for employees to commute to and from work. For example, there are two industrial parks on US 441 in Putnam County.
- Georgia's manufactured housing industry depends on US 441 to transport its raw materials and parts to the plants and its finished units to market. Mobile home manufacturers and their suppliers are concentrated in Atkinson, Coffee, and Putnam counties.
- Agriculture, mining, and forestry depend on excellent transportation services, because it is costly to ship the goods they produce.
- Timber is a major industry in the counties that surround the US 441 corridor, and the highway provides access to 7.1 million acres of national forest (US 441 Development Council). Upgrading two-lane stretches of the highway to four lanes will accommodate the large logging trucks more safely.
- According to the U.S. 441 Economic Development Council, agriculture generates \$2.3 billion dollars for the 44 counties along the corridor. The region's farmers depend on it to transport their products to food processors and consumers.
- The most compelling example of the impetus US 441 provides to retail-based economic development is the Tanger Factory Outlet Center and Craven Pottery

complex located at the US 441 and I-85 interchange. Today, there are over 150 outlet stores, and management of the Tanger Outlet Mall indicated that widening of US 441 all the way to I-20 would boost sales and profits as well as improve access to Athens and Augusta (*Florida Times Union*). The mammoth retail cluster has already stimulated the growth of a wide range of supporting industries, including 750 hotel rooms and 30 restaurants. In addition, the US 441 and I-85 interchange provides access to the Banks County Business Park.

- National chain stores, antique shops, and craft stores favor locations along US 441, with antiques shops and specialty stores often clustering in old town squares.
- The four-laning of US 441 to the South Georgia Parkway made it possible for Douglas to attract and retain its largest employer – a massive Wal-Mart distribution center. When 441 is four laned to the Florida line, Douglas should benefit from improved access to the Orlando market area as well as to I-10, which will help the community to further solidify its role as a distribution center.
- Wal-Mart’s decision to locate in Douglas is credited with putting the town on the mental maps of other companies that are selecting sites for new operations.
- The four-laning of US 441 to the South Georgia Parkway put Douglas within easy reach of the Port of Brunswick and the I-95 corridor, both of which local business and government leaders consider vital to the future growth of South Georgia. The upgrade also provided an excellent connection to the Jacksonville metropolitan area.
- The US 441 Heritage Highway Inc. actively and aggressively promotes tourism along the highway, touting it as a more pleasant alternative to busy and frequently congested north-south interstates.
- The construction of new bypasses around many of the historic towns help to preserve the rural and historic character of the road, further enhancing the prospects for cultural tourism along this corridor.
- US 441 provides vital links to many of the states most important natural and recreational sites, including Sky Valley, Mountain City, Tallulah Falls, Wilson Shoals Wildlife Management Area, the State Botanical Garden of Georgia, Lake Oconee, the Lockerby Arboretum, the Broxton Rocks, Little Ocmulgee State

- Park, General Coffee State Park, the Okefenokee Swamp, Stephen C. Foster State Park, and the Suwanee River.
- Four laning the entire route will improve visitors' perceptions about the accessibility of the attractions along the corridor, stimulating additional trips. Also, attractions on major multi-lane highways probably are more likely to be included as stops on bus tours than are similar attractions located on two-lane highways.
  - In Clayton, Clarkesville, Athens, Madison, Milledgeville, Dublin, Douglas, and other communities, US 441 brings travelers through or close to many historic squares and districts.
  - US 441 is close to many historic sites, including the University of Georgia's campus, the double-barreled cannon, the Elder Mill Covered Bridge, the Eagle Tavern, Heritage Hall, the Gingerbread House, the Rogers House, Rock Eagle Mound, Uncle Remus Museum, the Old Governors Mansion, the Old Capital Building, the Ashley-Slater House, and the Heritage Station Museum.
  - There are many opportunities to shop for antiques and crafts, especially in Dillard, Clayton, Clarkesville, Madison, and Douglas.

### **The Fall Line Freeway**

The Fall Line Freeway will link Augusta, Macon, and Columbus, and become a major east-west connector through 215 miles of central Georgia. Approximately 78 percent of the highway is open to traffic now. Although a primary function of the Fall Line Freeway will be to provide a high capacity and relatively direct link between three of the states major cities, the four-lane corridor will vastly improve access to and from scores of communities located in the seven rural counties through which it passes. The economic development benefits and potential of the Fall Line Freeway therefore will flow to both major metropolitan areas and scores of rural communities in Middle Georgia.



**Metropolitan Areas**

- Columbus area businesses will benefit from much improved access to I-16 and to the Port of Savannah.
- Productive ties will be more likely to develop between business located in Columbus, Macon, and Savannah.
- Macon's central location is ideal for hosting statewide meetings and conventions, and more direct routes to Augusta and Columbus definitely will enhance this advantage.
- The freeway will make Macon an even better location from which to deliver government operations to clients located throughout Georgia. It will enhance the metropolitan area's role as a regional distribution center.
- Shorter commute times from outlying areas will allow employers located in Augusta, Columbus, and Macon to capitalize on locally available labor.
- The Macon Chamber of Commerce believes that the Fall Line Freeway will improve prospects for the Downtown Industrial District and reduce truck traffic at the intersection of I-16 and I-75.
- The freeway will connect three major military bases in Columbus, Macon, and Augusta, via I-16 or the Savannah River Parkway, to the Port of Savannah.

**Rural Areas**

- The Fall Line Freeway will make the region much more accessible to tourists, boosting the prospects for tourism-based economic development.
- Agriculture, agricultural support businesses, and the kaolin industry will benefit from both the wider roads and from more direct routes to the interstates, ports, and cities.
- The freeway will make a broad swath of middle Georgia more attractive to industry, especially where it intersects other GRIP corridors. The Fall Line Freeway will intersect US 19 in Taylor County, US 441 in Wilkinson County, and US1/SR17 in Jefferson County.

- The freeway will reduce both the time and hassle associated with commuting from rural counties that lie just outside of the Columbus, Macon, and Augusta metropolitan areas, spurring residential and retail development in these counties.
- In 2000, manufacturers located within a six-mile radius of rural portions of the Fall Line Freeway employed 4,535 people (Georgia 2000 Information Systems (GIS) based on data from the *Georgia Manufacturers Register*). For additional details, see Figure 3-3 (page 102) and Table 3-2 (pages 112-113) in Appendix 3. The GIS analysis indicates that the largest concentrations of manufacturing jobs were in Jefferson County (1,886 jobs) and Washington County (1,296 jobs).

### **The US 19 Corridor**

The GRIP portion of the US 19 corridor extends from Griffin in the southern portion of the Atlanta metropolitan area, and continues south through Thomaston, Butler, Americus, Albany, Camilla, and Thomasville before it crosses the Florida state line. Upgrading the highway from two to four lanes is considered vital to the economic development of the predominately rural region through which the corridor passes. Approximately 72 percent of the 194-mile long highway is open to traffic, with the remaining work to be completed in two stages— from the north end of the Leesburg Bypass to Americus and then from Americus to the Fall Line Freeway, south of Butler. This corridor is particularly important because:

- It makes it easier for rural counties at the northern end of the corridor to tap into the economic development potential of metropolitan Atlanta area in general and specifically that of Hartsfield International Airport. Similarly, US 19 will help Southwest Georgia to benefit more fully from fast-paced growth in northern Florida, particularly the growth of the Tallahassee metropolitan area. The US 19 corridor serves as a multi-lane connection between Thomasville and I-10, which lies just south of the Georgia-Florida state line.

- The four laning of US 19 reduces the time and hassle associated with commuting from rural counties that are close to the Atlanta, Albany, and Tallahassee metropolitan areas, spurring residential and retail development in rural Georgia.
- The completion of this multi-lane corridor will help Albany to solidify its role as Southwest Georgia's major trade, service, health care, and industrial center.
- The highway improvements will improve the efficiency of the Marine Corps Logistics facility in Albany, which helps to ensure its survival and enhances its prospects for expansion.
- In 2002, the highway's presence helped Thomasville become the site for American Signature Furniture's regional distribution center.
- The improved highway will help the region retain its existing manufacturing base and attract new manufacturers. In 2000, manufacturers located within a six-mile radius of rural portions of US 19 employed over 15,000 people (Georgia 2000 Information System (GIS) based on data from the *Georgia Manufacturers Register*). For additional details, see Figure 3-4 (page 103) and Table 3-3 (pages 114-117) in Appendix 3. GIS analysis indicates that the largest concentrations of manufacturing jobs were in Thomas County (4,056), Sumter County (3,265), Upson County (3,034), and Mitchell County (2,638).
- US 19 will help Thomasville develop as a center for Georgia's emerging biotechnology industry.
- The four laning of US 19 will further Thomasville's development as a retirement center, particularly with respect to attracting retirees back to Georgia from Florida.
- Widening US 19 is vital to the economic well-being of the region's large agriculture, lumber, wood, pulp, and forest products industries.
- Because the highway is viewed as a more leisurely north-south alternative to I-75, upgrades to US 19 will increase the flow of traffic through the area and improve access to the region's tourist destinations, enhancing the prospects for tourism-based economic development. The Jimmy Carter National Historic Site and the Chehaw Indian Monument are two of the attractions along the corridor. Habitat for Humanity is building its Global Village in Americus. The world's largest

collection of telephone equipment is housed in the Georgia Rural Telephone Museum in Leslie. Thomasville's elegant historic homes, its award-winning downtown, and its scores of Victorian-era plantations are major attractions for visitors. The National Trust for Historic Preservation recently included Thomasville on its national list of a "Dozen Distinctive Destinations."

### **The South Georgia Parkway**

The South Georgia Parkway (US 82 and GA 520) is a completed GRIP corridor that passes through fifteen mostly rural counties in South Georgia. The major cities along the multi-lane corridor are Brunswick, Waycross, Tifton, Albany, and Columbus. This strategic corridor stimulates the economic development of the southern third of the state.

- The South Georgia Parkway connects the region to the states major seaports, to the barge terminal in Columbus, and to major north-south interstates (I-95, I-75 and I-185), making a wealth of transportation infrastructure accessible to Albany, Columbus, and many other South Georgia communities. The highway provides access to the East Coasts largest switching rail yard in Waycross. Also, the corridor puts the Port of Jacksonville within easy reach of shippers in South Georgia.
- In 2000, manufacturers located within a six-mile radius of rural portions of the Parkway employed over 10,000 people (Georgia 2000 Information System (GIS) based on data from the *Georgia Manufacturers Register*). For additional details, see Figure 3-5 (page 104) and Table 3-4 (pages 118-121) in Appendix 3. GIS analysis indicates that the largest concentrations of manufacturing jobs were in Tift County (3,730) and Ware County (2,356).
- The region's large manufactured housing industry depends on the Parkway as well as other high capacity roads to transport its raw materials and parts to the plants and to take its finished products to market.

- The four-lane highway allows employees who live in outlying areas to commute to jobs in the region's cities more easily. It also gives rural residents better access to schools, shopping, health care, recreation, and cultural activities.
- The corridor is vital to the continued success of the region's important timber, agriculture, and food processing industries because it helps companies keep production and shipping costs low.
- The Parkway advances Georgia's development as a major distribution and transportation hub.
- It provides Waycross and other communities with better access to rapidly growing markets in northern Florida (e.g., Jacksonville). The highway therefore increases the potential for development based on distribution centers, manufacturing, and tourism.
- The Parkway provides access to the region's tourist destinations, enhancing the prospects for tourism-based economic development. The Laura S. Walker State Park, Okefenokee Swamp Park, and the Okefenokee National Wildlife Refuge and Wilderness Area lie south of the highway near Waycross.
- The corridor provides access to the Coastal Plain Experiment Station, the Georgia Agrirama, and the Coastal Plain Research Arboretum in Tifton. By developing ways to improve crop growth, these facilities help to bring new business to rural areas of the state.

### **Implications of Phase III Analysis**

The anecdotal evidence of the GRIP program's economic development benefits and potential is extensive and varied.

- Easy access to four-lane highways or interstates is vital to manufacturers, and it is an important factor considered by professionals involved in selecting sites for new plants. Georgia's manufactured housing, mining, forestry, and agricultural industries depend on excellent highways to transport their products to processors and consumers.
- Multi-lane highways make it easy for employees to commute to and from work.

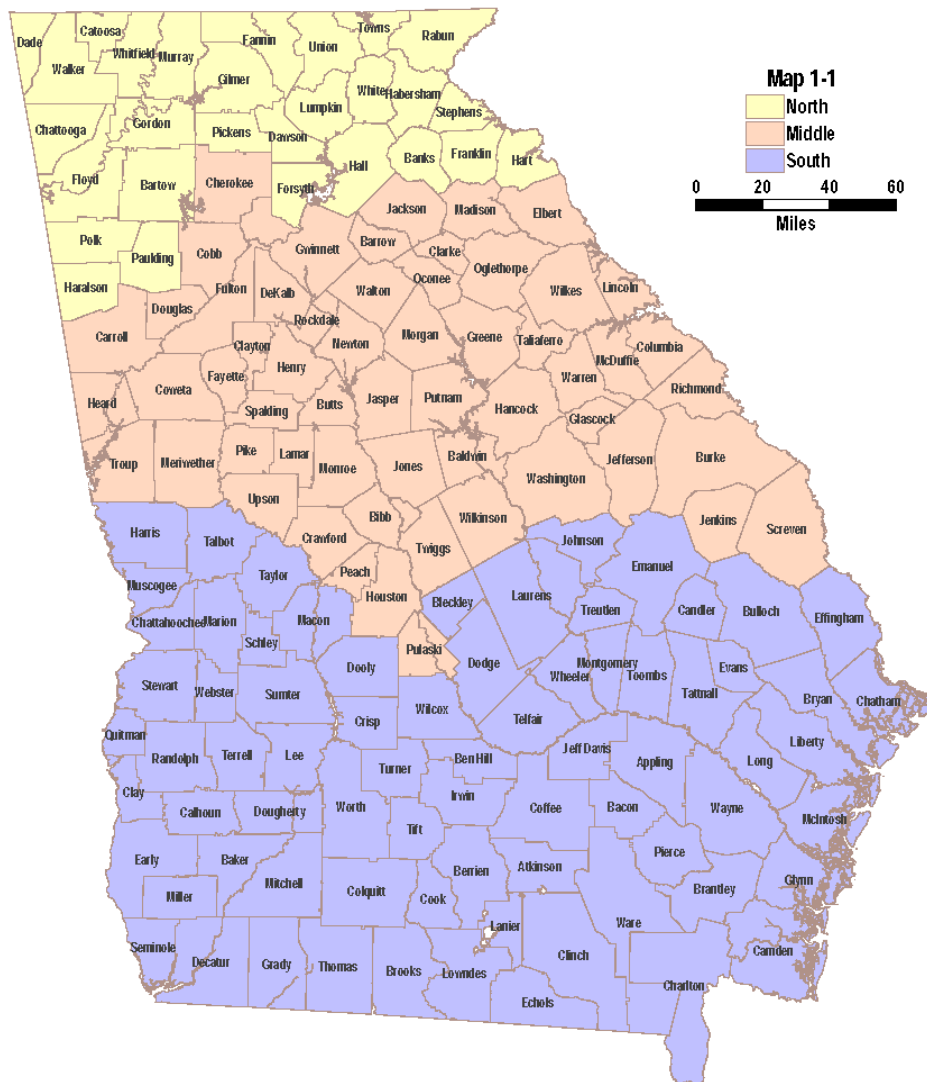
- Multi-lane highways stimulate retail-based economic development, ranging from massive agglomerations of outlet stores at major interchanges, to national chain stores, to antique shops and craft stores.
- Multi-lane highways stimulate tourism-based economic development by providing a more pleasant alternative to busy and frequently congested north-south interstates. New bypasses around many historic towns, which help to preserve the rural and historic character of the corridor, enhance the prospects for cultural tourism. Multi-lane highways improve visitors' perceptions about the accessibility of the state's most important natural and recreational sites.
- Multi-lane highways enhance the prospects for developing productive synergies between businesses located in various cities traversed by the corridors.
- Multi-lane highways improve access to major statewide infrastructure investments, such as the ports in Savannah or Brunswick, rail hubs, or major airports.
- Multi-lane highways improve access to Georgia's major military bases, enhancing both their productivity and prospects for survival.
- Multi-lane highways make it easier for rural areas to tap into the economic development potential of major areas located in Georgia as well as in neighboring states.
- Multi-lane highways advance Georgia's development as a major distribution and transportation hub.

**APPENDIX I**

**Figure 1-1**

GRIP Study Areas:

North, Middle, and South Georgia

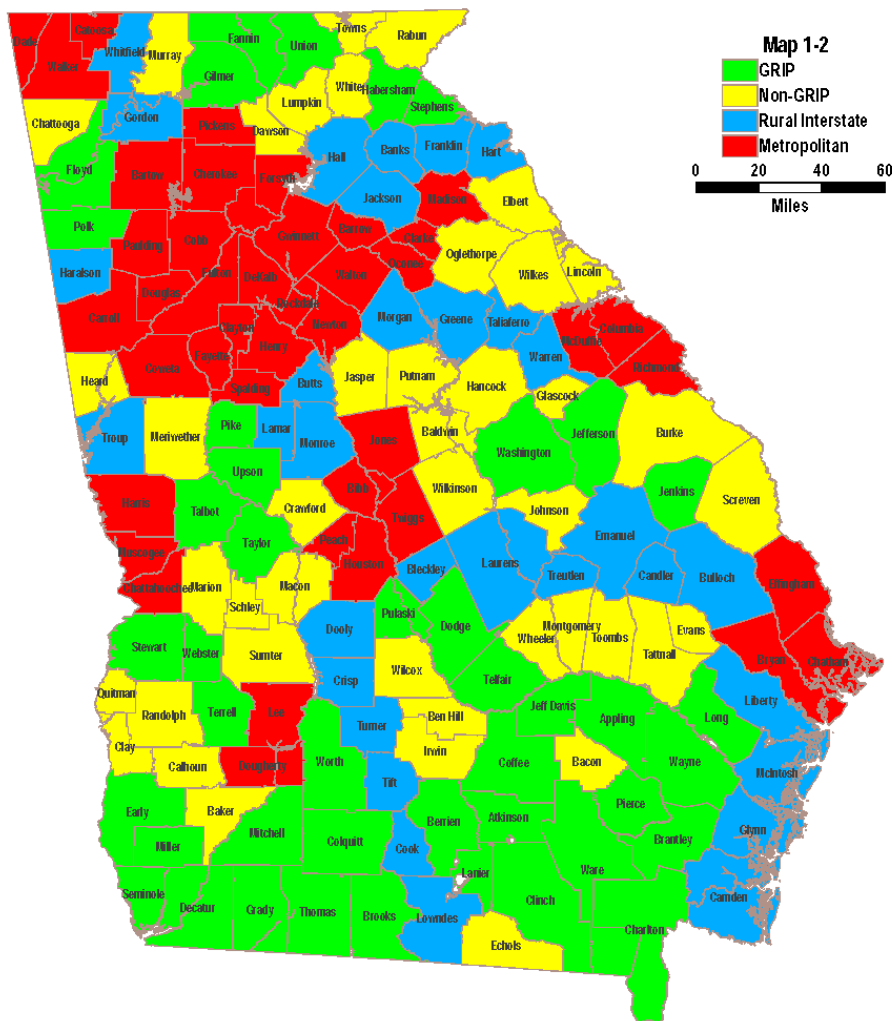


Note: North Georgia consists of Georgia's Service Delivery Regions 1 and 2.  
 Middle Georgia consists of Georgia's Service Delivery Regions 3, 4, 5, 6, and 7.  
 South Georgia consists of Georgia's Service Delivery Regions 8, 9, 10, 11, and 12.

Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia.



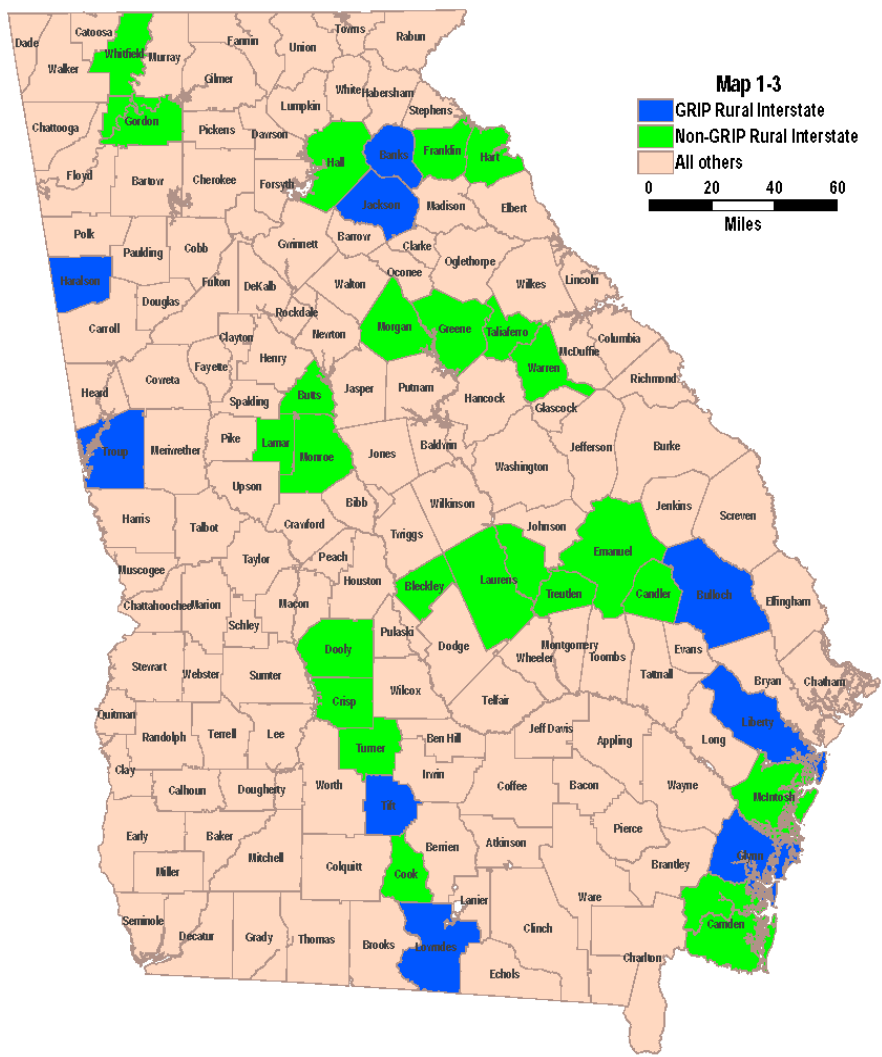
**Figure 1-2**  
 GRIP Study County Classification Scheme:  
 GRIP, Non-GRIP, Rural Interstate, and Metropolitan



Note: GRIP counties are non-metropolitan and non-Interstate counties that contain either a portion of a completed GRIP corridor or a portion of an incomplete GRIP corridor that provides access to a completed GRIP corridor or to an Interstate. Non-GRIP counties are non-metropolitan and non-Interstate counties that either do not contain a completed portion of a GRIP corridor or contain a completed portion of a corridor that does not provide access to either a completed corridor or to an Interstate. Rural Interstate counties are non-metropolitan counties that have one or more interchanges on an Interstate. Metropolitan counties are counties that are part of an officially designated metropolitan statistical area.

Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

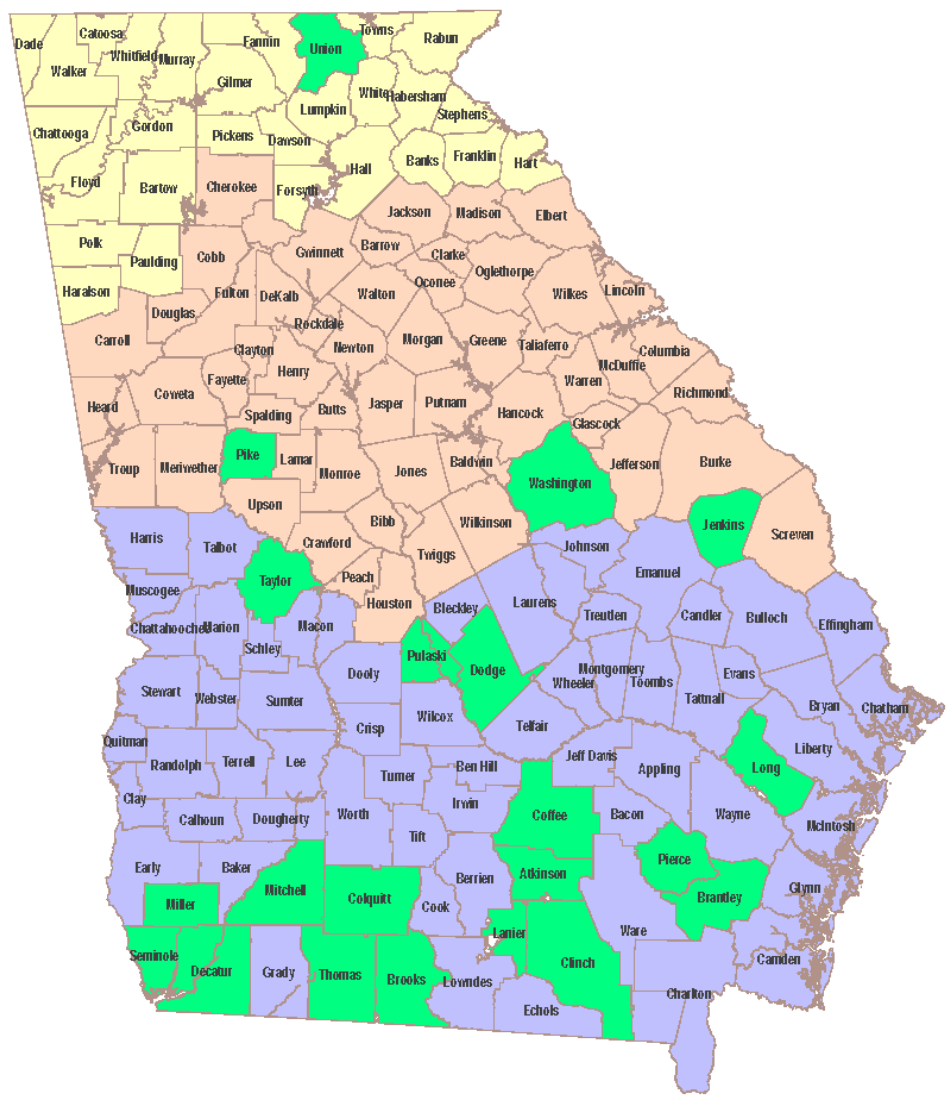
Figure 1-3  
GRIP Study Rural Interstate Counties



Note: GRIP Rural Interstate refers to non-metropolitan counties with one or more interchanges on an Interstate that contain either a portion of a completed GRIP corridor or a portion of an incomplete GRIP corridor that provides access to a completed GRIP corridor or to an Interstate. Non-GRIP Rural Interstate refers to non-metropolitan counties with one or more interchanges on an Interstate that either do not contain a completed portion of a GRIP corridor or contain a completed portion of a corridor that does not provide access to either a completed corridor or to an Interstate.

Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

**Figure 1-4**  
GRIP Counties Where Employment  
Growth Outpaced that of Comparable Non-GRIP Counties



**Map 1-4**  
■ Employment growth higher than in comparable non-GRIP counties  
0 20 40 60  
Miles

Note: GRIP counties are non-metropolitan and non-Interstate counties that contain either a portion of a completed GRIP corridor or a portion of an incomplete GRIP corridor that provides access to a completed GRIP corridor or to an Interstate.

Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

Table 1-1  
Percentage Change, 1990-2000

| <u>Area</u>         | <u>Census<br/>Population<br/>(% change)</u> | <u>Total<br/>Personal Income<br/>(% change)</u> | <u>Labor<br/>Force<br/>(% change)</u> | <u>Employment<br/>(% change)</u> | <u>Unemploy-<br/>ment<br/>(% change)</u> |
|---------------------|---|---|---------------------------------------|----------------------------------|--|
| Georgia             | 26.4  | 98.2  | 26.4                                  | 28.9                             | -15.2                                    |
| North <sup>1</sup>  | 26.6  | 88.5  | 20.4                                  | 25.4                             | -44.1                                    |
| GRIP                | 20.9  | 78.5  | 9.7                                   | 14.6                             | -48.5                                    |
| Non-GRIP            | 38.1  | 110.1   | 41.2                                  | 46.1                             | -33.2                                    |
| Middle <sup>1</sup> | 17.9  | 70.1  | 9.6                                   | 10.4                             | -1.8                                     |
| GRIP                | 9.5   | 67.5  | 10.4                                  | 11.0                             | 1.6                                      |
| Non-GRIP            | 14.1  | 71.3  | 9.3                                   | 10.1                             | -3.4                                     |
| South <sup>1</sup>  | 13.0  | 70.8  | 15.6                                  | 16.7                             | -4.0                                     |
| GRIP                | 13.0  | 71.1  | 15.6                                  | 17.0                             | -7.4                                     |
| Non-GRIP            | 13.0  | 70.1  | 15.0                                  | 15.2                             | 13.5                                     |
| Rural Interstate    | 21.6  | 85.6  | 24.3                                  | 26.9                             | -15.7                                    |
| GRIP                | 18.6  | 83.6  | 26.1                                  | 28.0                             | -6.7                                     |
| Non-GRIP            | 23.5  | 86.9  | 23.2                                  | 26.2                             | -20.3                                    |
| Metropolitan        | 30.2  | 104.5   | 31.7                                  | 34.4                             | -16.8                                    |

<sup>1</sup>Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the U.S. Census Bureau, the U.S. Bureau of Economic Analysis, and the Georgia Department of Labor.

Table 1-2  
Unemployment Rate Summary, 1990 and 2000

| <u>Area</u>         | <u>Unemployment Rate<br/>in 1990</u> | <u>Unemployment Rate<br/>in 2000</u> | <u>Change in Rate<br/>1990 to 2000</u> |
|---------------------|--------------------------------------|--------------------------------------|--|
| Georgia             | 5.8                                  | 3.8                                  | -2.0                                   |
| North <sup>1</sup>  | 7.8                                  | 3.5                                  | -4.3                                   |
| GRIP                | 8.4                                  | 3.8                                  | -4.6                                   |
| Non-GRIP            | 6.6                                  | 3.0                                  | -3.6                                   |
| Middle <sup>1</sup> | 6.9                                  | 6.1                                  | -0.8                                   |
| GRIP                | 7.1                                  | 6.5                                  | -0.6                                   |
| Non-GRIP            | 6.8                                  | 6.0                                  | -0.8                                   |
| South <sup>1</sup>  | 6.1                                  | 5.0                                  | -1.1                                   |
| GRIP                | 5.9                                  | 4.7                                  | -1.2                                   |
| Non-GRIP            | 7.4                                  | 7.3                                  | -0.1                                   |
| Rural Interstate    | 6.5                                  | 4.3                                  | -2.2                                   |
| GRIP                | 5.9                                  | 4.3                                  | -1.6                                   |
| Non-GRIP            | 6.8                                  | 4.3                                  | -2.5                                   |
| Metropolitan        | 5.4                                  | 3.4                                  | -2.1                                   |

<sup>1</sup>Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-3  
Population Statistics Summary by Area,  
1990 and 2000

| <u>Area</u>         | <u>Census<br/>Population<br/>in 1990</u> | <u>Census<br/>Population<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|--|--|--|
| Georgia             | 6,478,216                                | 8,186,453                                | 26.4                                   |
| North <sup>1</sup>  | 311,096                                  | 393,876                                  | 26.6                                   |
| GRIP                | 207,297                                  | 250,572                                  | 20.9                                   |
| Non-GRIP            | 103,799                                  | 143,304                                  | 38.1                                   |
| Middle <sup>1</sup> | 294,214                                  | 331,519                                  | 12.7                                   |
| GRIP                | 89,399                                   | 97,890                                   | 9.5                                    |
| Non-GRIP            | 204,815                                  | 233,629                                  | 4.1                                    |
| South <sup>1</sup>  | 641,140                                  | 724,461                                  | 13.0                                   |
| GRIP                | 451,681                                  | 510,412                                  | 13.0                                   |
| Non-GRIP            | 189,459                                  | 214,049                                  | 13.0                                   |
| Rural Interstate    | 880,204                                  | 1,069,933                                | 21.6                                   |
| GRIP                | 352,162                                  | 417,756                                  | 18.6                                   |
| Non-GRIP            | 528,042                                  | 652,177                                  | 23.5                                   |
| Metropolitan        | 4,351,562                                | 5,666,664                                | 30.2                                   |

<sup>1</sup>Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the U.S. Census Bureau.

Table 1-4

Total Personal Income Statistics Summary  
by Area, 1990 and 2000

| <u>Area</u>         | <u>Total Personal Income<br/>in 1990<br/>(thousands of dollars)</u> | <u>Total Personal Income<br/>in 2000<br/>(thousands of dollars)</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|---|---|--|
| Georgia             | 115,414,190   | 228,738,205   | 98.2                                   |
| North <sup>1</sup>  | 4,485,009   | 8,453,668   | 88.5                                   |
| GRIP                | 3,064,491   | 5,468,998   | 78.5                                   |
| Non-GRIP            | 1,420,518   | 2,984,670   | 110.1                                  |
| Middle <sup>1</sup> | 3,917,924   | 6,665,879   | 70.1                                   |
| GRIP                | 1,197,681   | 2,005,847   | 67.5                                   |
| Non-GRIP            | 2,720,243   | 4,660,032   | 71.3                                   |
| South <sup>1</sup>  | 8,284,969   | 14,151,353  | 70.8                                   |
| GRIP                | 5,846,858   | 10,003,938  | 71.1                                   |
| Non-GRIP            | 2,438,111   | 4,147,415   | 70.1                                   |
| Rural Interstate    | 12,894,438  | 23,933,718  | 85.6                                   |
| GRIP                | 5,089,208   | 9,343,095   | 83.6                                   |
| Non-GRIP            | 7,805,230   | 14,590,623  | 86.9                                   |
| Metropolitan        | 85,831,850  | 175,533,587   | 104.5                                  |

<sup>1</sup>Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the U.S. Bureau of Economic Analysis.

Table 1-5  
Labor Force Statistics Summary  
by Area, 1990 and 2000

| <u>Area</u>         | <u>Labor Force<br/>in 1990</u> | <u>Labor Force<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|--------------------------------|--------------------------------|--|
| Georgia             | 3,300,393                      | 4,173,292                      | 26.4                                   |
| North <sup>1</sup>  | 156,966                        | 188,983                        | 20.4                                   |
| GRIP                | 103,870                        | 113,995                        | 9.7                                    |
| Non-GRIP            | 53,096                         | 74,988                         | 41.2                                   |
| Middle <sup>1</sup> | 132,597                        | 145,343                        | 9.6                                    |
| GRIP                | 40,689                         | 44,927                         | 10.4                                   |
| Non-GRIP            | 91,908                         | 100,416                        | 9.3                                    |
| South <sup>1</sup>  | 590,869                        | 682,750                        | 15.6                                   |
| GRIP                | 510,186                        | 589,932                        | 15.6                                   |
| Non-GRIP            | 80,683                         | 92,818                         | 15.0                                   |
| Rural Interstate    | 423,241                        | 525,969                        | 24.3                                   |
| GRIP                | 155,911                        | 196,604                        | 26.1                                   |
| Non-GRIP            | 267,330                        | 329,365                        | 23.2                                   |
| Metropolitan        | 1,996,720                      | 2,630,247                      | 31.7                                   |

<sup>1</sup>Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.



Table 1-6  
 Employment Statistics Summary  
 By Area, 1990 and 2000

| <u>Area</u>         | <u>Employment<br/>in 1990</u> | <u>Employment<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|-------------------------------|-------------------------------|--|
| Georgia             | 3,118,262                     | 4,018,885                     | 28.9                                   |
| North <sup>1</sup>  | 145,639                       | 182,648                       | 25.4                                   |
| GRIP                | 95,808                        | 109,842                       | 14.6                                   |
| Non-GRIP            | 49,831                        | 72,806                        | 46.1                                   |
| Middle <sup>1</sup> | 124,065                       | 136,963                       | 10.4                                   |
| GRIP                | 37,999                        | 42,193                        | 11.0                                   |
| Non-GRIP            | 86,066                        | 94,770                        | 10.1                                   |
| South <sup>1</sup>  | 556,826                       | 650,073                       | 16.7                                   |
| GRIP                | 481,687                       | 563,545                       | 17.0                                   |
| Non-GRIP            | 75,139                        | 86,528                        | 15.2                                   |
| Rural Interstate    | 397,500                       | 504,272                       | 26.9                                   |
| GRIP                | 147,274                       | 188,547                       | 28.0                                   |
| Non-GRIP            | 250,226                       | 315,725                       | 26.2                                   |
| Metropolitan        | 1,894,232                     | 2,544,929                     | 34.4                                   |

<sup>1</sup>Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-7  
 Unemployment Statistics Summary  
 by Area, 1990 and 2000

| <u>Area</u>         | <u>Unemployment<br/>in 1990</u> | <u>Unemployment<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|---------------------------------|---------------------------------|--|
| Georgia             | 182,131                         | 154,407                         | -15.2                                  |
| North <sup>1</sup>  | 11,327                          | 6,335                           | -44.1                                  |
| GRIP                | 8,062                           | 4,153                           | -48.5                                  |
| Non-GRIP            | 3,265                           | 2,182                           | -33.2                                  |
| Middle <sup>1</sup> | 8,532                           | 8,380                           | -1.8                                   |
| GRIP                | 2,690                           | 2,734                           | 1.6                                    |
| Non-GRIP            | 5,842                           | 5,646                           | -3.4                                   |
| South <sup>1</sup>  | 34,043                          | 32,677                          | -4.0                                   |
| GRIP                | 28,499                          | 26,387                          | -7.4                                   |
| Non-GRIP            | 5,544                           | 6,290                           | 13.5                                   |
| Rural Interstate    | 25,741                          | 21,697                          | -15.7                                  |
| GRIP                | 8,637                           | 8,057                           | -6.7                                   |
| Non-GRIP            | 17,104                          | 13,640                          | -20.3                                  |
| Metropolitan        | 102,488                         | 85,318                          | -16.8                                  |

<sup>1</sup>Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-8  
 South Georgia: Population Statistics,  
 1990 and 2000

| <u>Area</u>         | <u>Census<br/>Population<br/>in 1990</u> | <u>Census<br/>Population<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|--|--|--|
| South Georgia Total | 641,140                                  | 724,461                                  | 13.0                                   |
| GRIP Counties       |  |  |  |
| Stewart             | 5,654                                    | 5,252                                    | -7.1                                   |
| Talbot              | 6,524                                    | 6,498                                    | -0.4                                   |
| Taylor              | 7,642                                    | 8,815                                    | 15.3                                   |
| Webster             | 2,263                                    | 2,390                                    | 5.6                                    |
| Appling             | 15,744                                   | 17,419                                   | 10.6                                   |
| Dodge               | 17,607                                   | 19,171                                   | 8.9                                    |
| Jeff Davis          | 12,032                                   | 12,684                                   | 5.4                                    |
| Telfair             | 11,000                                   | 11,794                                   | 7.2                                    |
| Wayne               | 22,356                                   | 26,565                                   | 18.8                                   |
| Colquitt            | 36,645                                   | 42,053                                   | 14.8                                   |
| Decatur             | 25,511                                   | 28,240                                   | 10.7                                   |
| Early               | 11,854                                   | 12,354                                   | 4.2                                    |
| Grady               | 20,279                                   | 23,659                                   | 16.7                                   |
| Miller              | 6,280                                    | 6,383                                    | 1.6                                    |
| Mitchell            | 20,275                                   | 23,932                                   | 18.0                                   |
| Seminole            | 9,010                                    | 9,369                                    | 4.0                                    |
| Terrell             | 10,653                                   | 10,970                                   | 3.0                                    |
| Thomas              | 38,986                                   | 42,737                                   | 9.6                                    |
| Worth               | 19,745                                   | 21,967                                   | 11.3                                   |
| Atkinson            | 6,213                                    | 7,609                                    | 22.5                                   |
| Berrien             | 14,153                                   | 16,235                                   | 14.7                                   |
| Brantley            | 11,077                                   | 14,629                                   | 32.1                                   |
| Brooks              | 15,398                                   | 16,450                                   | 6.8                                    |
| Charlton            | 8,496                                    | 10,282                                   | 21.0                                   |
| Clinch              | 6,160                                    | 6,878                                    | 11.7                                   |
| Coffee              | 29,592                                   | 37,413                                   | 26.4                                   |
| Lanier              | 5,531                                    | 7,241                                    | 30.9                                   |
| Pierce              | 13,328                                   | 15,636                                   | 17.3                                   |
| Long                | 6,202                                    | 10,304                                   | 66.1                                   |
| Ware                | 35,471                                   | 35,483                                   | 0.0                                    |
| GRIP Total          | 451,681                                  | 510,412                                  | 13.0                                   |

(continued)

Table 1-8 (Continued)

South Georgia: Population Statistics,  
1990 and 2000

| <u>Area</u>       | <u>Census<br/>Population<br/>in 1990</u> | <u>Census<br/>Population<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|-------------------|--|--|--|
| Non-GRIP Counties |  |  |  |
| Clay              | 3,364                                    | 3,357                                    | -0.2                                   |
| Macon             | 13,114                                   | 14,074                                   | 7.3                                    |
| Marion            | 5,590                                    | 7,144                                    | 27.8                                   |
| Quitman           | 2,209                                    | 2,598                                    | 17.6                                   |
| Randolph          | 8,023                                    | 7,791                                    | -2.9                                   |
| Schley            | 3,588                                    | 3,766                                    | 5.0                                    |
| Sumter            | 30,228                                   | 33,200                                   | 9.8                                    |
| Evans             | 8,724                                    | 10,495                                   | 20.3                                   |
| Johnson           | 8,329                                    | 8,560                                    | 2.8                                    |
| Montgomery        | 7,163                                    | 8,270                                    | 15.5                                   |
| Tattnall          | 17,722                                   | 22,305                                   | 25.9                                   |
| Toombs            | 24,072                                   | 26,067                                   | 8.3                                    |
| Wheeler           | 4,903                                    | 6,179                                    | 26.0                                   |
| Wilcox            | 7,008                                    | 8,577                                    | 22.4                                   |
| Baker             | 3,615                                    | 4,074                                    | 12.7                                   |
| Calhoun           | 5,013                                    | 6,320                                    | 26.1                                   |
| Bacon             | 9,566                                    | 10,103                                   | 5.6                                    |
| Ben Hill          | 16,245                                   | 17,484                                   | 7.6                                    |
| Echols            | 2,334                                    | 3,754                                    | 60.8                                   |
| Irwin             | 8,649                                    | 9,931                                    | 14.8                                   |
| Non-GRIP Total    | 189,459                                  | 214,049                                  | 13.0                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the U.S. Census Bureau.

Table 1-9

South Georgia: Total Personal Income Statistics,  
1990 and 2000

| <u>Area</u>         | <u>Total Personal Income<br/>in 1990<br/>(thousands of dollars)</u> | <u>Total Personal Income<br/>in 2000<br/>(thousands of dollars)</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|---|---|--|
| South Georgia Total | 8,284,969   | 14,151,353  | 70.8                                   |
| GRIP Counties       |   |   |  |
| Stewart             | 65,638  | 107,309   | 63.5                                   |
| Talbot              | 71,444  | 111,314   | 55.8                                   |
| Taylor              | 97,516  | 160,796   | 64.9                                   |
| Webster             | 26,978  | 44,537  | 65.1                                   |
| Appling             | 188,500   | 310,884   | 64.9                                   |
| Dodge               | 210,038   | 350,985   | 67.1                                   |
| Jeff Davis          | 161,777   | 246,594   | 52.4                                   |
| Telfair             | 137,012   | 210,417   | 53.6                                   |
| Wayne               | 305,528   | 522,941   | 71.2                                   |
| Colquitt            | 500,823   | 806,727   | 61.1                                   |
| Decatur             | 347,492   | 554,609   | 59.6                                   |
| Early               | 158,419   | 258,401   | 63.1                                   |
| Grady               | 246,177   | 428,681   | 74.1                                   |
| Miller              | 84,391  | 141,478   | 67.6                                   |
| Mitchell            | 257,784   | 463,838   | 79.9                                   |
| Seminole            | 111,552   | 203,201   | 82.2                                   |
| Terrell             | 122,133   | 194,923   | 59.6                                   |
| Thomas              | 591,302   | 1,048,580   | 77.3                                   |
| Worth               | 246,247   | 427,316   | 73.5                                   |
| Atkinson            | 78,415  | 141,276   | 80.2                                   |
| Berrien             | 191,261   | 316,894   | 65.7                                   |
| Brantley            | 124,020   | 257,219   | 107.4                                  |
| Brooks              | 173,454   | 309,009   | 78.2                                   |
| Charlton            | 93,610  | 168,683   | 80.2                                   |
| Clinch              | 68,822  | 121,997   | 77.3                                   |
| Coffee              | 420,952   | 775,742   | 84.3                                   |
| Lanier              | 69,521  | 132,105   | 90.0                                   |
| Pierce              | 169,314   | 333,752   | 97.1                                   |
| Long                | 64,126  | 127,918   | 99.5                                   |
| Ware                | 462,612   | 725,812   | 56.9                                   |
| GRIP Total          | 5,846,858   | 10,003,938  | 71.1                                   |

(continued)

Table 1-9 (Continued)

South Georgia: Total Personal Income Statistics,  
1990 and 2000

| <u>Area</u>       | <u>Total Personal Income<br/>in 1990<br/>(thousands of dollars)</u> | <u>Total Personal Income<br/>in 2000<br/>(thousands of dollars)</u> | <u>Percent Change<br/>1990 to 2000</u> |
|-------------------|---|---|--|
| Non-GRIP Counties |   |   |  |
| Clay              | 34,589  | 62,345  | 80.2                                   |
| Macon             | 163,783   | 269,915   | 64.8                                   |
| Marion            | 61,479  | 116,946   | 90.2                                   |
| Quitman           | 26,313  | 46,079  | 75.1                                   |
| Randolph          | 93,393  | 147,847   | 58.3                                   |
| Schley            | 46,911  | 77,820  | 65.9                                   |
| Sumter            | 416,474   | 716,155   | 72.0                                   |
| Evans             | 117,589   | 211,237   | 79.6                                   |
| Johnson           | 94,673  | 160,110   | 69.1                                   |
| Montgomery        | 92,488  | 150,825   | 63.1                                   |
| Tattnall          | 232,066   | 396,049   | 70.7                                   |
| Toombs            | 325,778   | 520,402   | 59.7                                   |
| Wheeler           | 58,085  | 92,564  | 59.4                                   |
| Wilcox            | 83,152  | 146,362   | 76.0                                   |
| Baker             | 45,468  | 76,793  | 68.9                                   |
| Calhoun           | 68,024  | 109,104   | 60.4                                   |
| Bacon             | 117,746   | 207,606   | 76.3                                   |
| Ben Hill          | 219,886   | 394,327   | 79.3                                   |
| Echols            | 28,482  | 48,990  | 72.0                                   |
| Irwin             | 111,732   | 195,939   | 75.4                                   |
| Non-GRIP Total    | 2,438,111   | 4,147,415   | 70.1                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the U.S. Bureau of Economic Analysis.

Table 1-10  
 South Georgia: Labor Force Statistics,  
 1990 and 2000

| <u>Area</u>         | <u>Labor Force<br/>in 1990</u> | <u>Labor Force<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|--------------------------------|--------------------------------|--|
| South Georgia Total | 590,869                        | 682,750                        | 15.6                                   |
| GRIP Counties       |                                |                                |  |
| Stewart             | 2,153                          | 2,406                          | 11.8                                   |
| Talbot              | 2,883                          | 2,852                          | -1.1                                   |
| Taylor              | 3,204                          | 3,823                          | 19.3                                   |
| Webster             | 1,070                          | 1,166                          | 9.0                                    |
| Appling             | 7,504                          | 8,132                          | 8.4                                    |
| Dodge               | 7,639                          | 9,954                          | 30.3                                   |
| Jeff Davis          | 5,877                          | 5,214                          | -11.3                                  |
| Telfair             | 4,748                          | 4,710                          | -0.8                                   |
| Wayne               | 10,369                         | 11,808                         | 13.9                                   |
| Colquitt            | 16,658                         | 19,427                         | 16.6                                   |
| Decatur             | 318,189                        | 367,744                        | 15.6                                   |
| Early               | 5,136                          | 4,755                          | -7.4                                   |
| Grady               | 9,420                          | 9,487                          | 0.7                                    |
| Miller              | 2,683                          | 3,188                          | 18.8                                   |
| Mitchell            | 9,081                          | 12,224                         | 34.6                                   |
| Seminole            | 4,054                          | 4,847                          | 19.6                                   |
| Terrell             | 4,602                          | 4,161                          | -9.6                                   |
| Thomas              | 18,204                         | 21,603                         | 18.7                                   |
| Worth               | 9,031                          | 9,432                          | 4.4                                    |
| Atkinson            | 2,770                          | 3,343                          | 20.7                                   |
| Berrien             | 6,963                          | 6,528                          | -6.2                                   |
| Brantley            | 4,807                          | 6,290                          | 30.9                                   |
| Brooks              | 6,409                          | 7,874                          | 22.9                                   |
| Charlton            | 3,553                          | 3,818                          | 7.5                                    |
| Clinch              | 2,579                          | 3,343                          | 29.6                                   |
| Coffee              | 14,419                         | 20,726                         | 43.7                                   |
| Lanier              | 2,513                          | 3,663                          | 45.8                                   |
| Pierce              | 6,364                          | 7,773                          | 22.1                                   |
| Long                | 2,464                          | 3,980                          | 61.5                                   |
| Ware                | 14,840                         | 15,661                         | 5.5                                    |
| GRIP Total          | 510,186                        | 589,932                        | 15.6                                   |

(continued)

Table 1-10 (Continued)  
 South Georgia: Labor Force Statistics,  
 1990 and 2000

| <u>Area</u>       | <u>Labor Force<br/>in 1990</u> | <u>Labor Force<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|-------------------|--------------------------------|--------------------------------|--|
| Non-GRIP Counties |                                |                                |  |
| Clay              | 1,327                          | 1,561                          | 17.6                                   |
| Macon             | 2,277                          | 3,457                          | 51.8                                   |
| Marion            | 3,842                          | 4,559                          | 18.7                                   |
| Quitman           | 876                            | 1,424                          | 62.6                                   |
| Randolph          | 3,096                          | 3,203                          | 3.5                                    |
| Schley            | 1,665                          | 1,906                          | 14.5                                   |
| Sumter            | 13,740                         | 14,980                         | 9.0                                    |
| Evans             | 3,886                          | 5,267                          | 35.5                                   |
| Johnson           | 3,686                          | 3,542                          | -3.9                                   |
| Montgomery        | 3,357                          | 3,793                          | 13.0                                   |
| Tattnall          | 6,879                          | 7,354                          | 6.9                                    |
| Toombs            | 10,841                         | 12,630                         | 16.5                                   |
| Wheeler           | 2,056                          | 1,947                          | -5.3                                   |
| Wilcox            | 2,876                          | 3,303                          | 14.8                                   |
| Baker             | 1,582                          | 1,622                          | 2.5                                    |
| Calhoun           | 2,093                          | 2,466                          | 17.8                                   |
| Bacon             | 4,417                          | 4,360                          | -1.3                                   |
| Ben Hill          | 7,246                          | 9,247                          | 27.6                                   |
| Echols            | 1,041                          | 1,283                          | 23.2                                   |
| Irwin             | 3,900                          | 4,914                          | 26.0                                   |
| Non-GRIP Total    | 80,683                         | 92,818                         | 15.0                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia,  
 based on data obtained from the Georgia Department of Labor.



Table 1-11  
 South Georgia: Employment Statistics,  
 1990 and 2000

| <u>Area</u>         | <u>Employment<br/>in 1990</u> | <u>Employment<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|-------------------------------|-------------------------------|--|
| South Georgia Total | 556,826                       | 650,073                       | 16.7                                   |
| GRIP Counties       |                               |                               |  |
| Stewart             | 1,967                         | 2,258                         | 14.8                                   |
| Talbot              | 2,679                         | 2,657                         | -0.8                                   |
| Taylor              | 2,914                         | 3,610                         | 23.9                                   |
| Webster             | 982                           | 1,126                         | 14.7                                   |
| Appling             | 6,595                         | 7,434                         | 12.7                                   |
| Dodge               | 7,174                         | 9,494                         | 32.3                                   |
| Jeff Davis          | 5,491                         | 4,895                         | -10.9                                  |
| Telfair             | 4,342                         | 4,198                         | -3.3                                   |
| Wayne               | 9,682                         | 11,098                        | 14.6                                   |
| Colquitt            | 15,777                        | 18,264                        | 15.8                                   |
| Decatur             | 302,293                       | 354,416                       | 17.2                                   |
| Early               | 4,817                         | 4,394                         | -8.8                                   |
| Grady               | 8,946                         | 8,899                         | -0.5                                   |
| Miller              | 2,591                         | 3,016                         | 16.4                                   |
| Mitchell            | 8,199                         | 11,476                        | 40.0                                   |
| Seminole            | 3,887                         | 4,607                         | 18.5                                   |
| Terrell             | 4,209                         | 3,808                         | -9.5                                   |
| Thomas              | 17,285                        | 20,551                        | 18.9                                   |
| Worth               | 8,474                         | 8,850                         | 4.4                                    |
| Atkinson            | 2,559                         | 3,082                         | 20.4                                   |
| Berrien             | 6,450                         | 6,160                         | -4.5                                   |
| Brantley            | 4,394                         | 5,923                         | 34.8                                   |
| Brooks              | 6,168                         | 7,423                         | 20.3                                   |
| Charlton            | 3,379                         | 3,656                         | 8.2                                    |
| Clinch              | 2,447                         | 3,144                         | 28.5                                   |
| Coffee              | 13,361                        | 19,604                        | 46.7                                   |
| Lanier              | 2,393                         | 3,454                         | 44.3                                   |
| Pierce              | 5,966                         | 7,416                         | 24.3                                   |
| Long                | 2,343                         | 3,848                         | 64.2                                   |
| Ware                | 13,923                        | 14,784                        | 6.2                                    |
| GRIP Total          | 481,687                       | 563,545                       | 17.0                                   |

(continued)

Table 1-11 (Continued)  
 South Georgia: Employment Statistics,  
 1990 and 2000

| <u>Area</u>       | <u>Employment<br/>in 1990</u> | <u>Employment<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|-------------------|-------------------------------|-------------------------------|--|
| Non-GRIP Counties |                               |                               |  |
| Clay              | 1,263                         | 1,458                         | 15.4                                   |
| Macon             | 1,983                         | 3,299                         | 66.4                                   |
| Marion            | 3,554                         | 4,326                         | 21.7                                   |
| Quitman           | 816                           | 1,342                         | 64.5                                   |
| Randolph          | 2,843                         | 2,956                         | 4.0                                    |
| Schley            | 1,513                         | 1,822                         | 20.4                                   |
| Sumter            | 12,514                        | 14,214                        | 13.6                                   |
| Evans             | 3,724                         | 5,026                         | 35.0                                   |
| Johnson           | 3,437                         | 3,282                         | -4.5                                   |
| Montgomery        | 3,126                         | 3,440                         | 10.0                                   |
| Tattnall          | 6,539                         | 6,763                         | 3.4                                    |
| Toombs            | 10,124                        | 11,300                        | 11.6                                   |
| Wheeler           | 1,904                         | 1,754                         | -7.9                                   |
| Wilcox            | 2,733                         | 3,135                         | 14.7                                   |
| Baker             | 1,499                         | 1,541                         | 2.8                                    |
| Calhoun           | 1,976                         | 2,263                         | 14.5                                   |
| Bacon             | 4,152                         | 4,091                         | -1.5                                   |
| Ben Hill          | 6,782                         | 8,665                         | 27.8                                   |
| Echols            | 989                           | 1,223                         | 23.7                                   |
| Irwin             | 3,668                         | 4,628                         | 26.2                                   |
| Non-GRIP Total    | 75,139                        | 86,528                        | 15.2                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-12  
 South Georgia: Unemployment Statistics,  
 1990 and 2000

| <u>Area</u>         | <u>Unemployment<br/>in 1990</u> | <u>Unemployment<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|---------------------------------|---------------------------------|--|
| South Georgia Total | 34,043                          | 32,677                          | -4.0                                   |
| GRIP Counties       |                                 |                                 |  |
| Stewart             | 186                             | 148                             | -20.4                                  |
| Talbot              | 204                             | 195                             | -4.4                                   |
| Taylor              | 290                             | 213                             | -26.6                                  |
| Webster             | 88                              | 40                              | -54.5                                  |
| Appling             | 909                             | 698                             | -23.2                                  |
| Dodge               | 465                             | 460                             | -1.1                                   |
| Jeff Davis          | 386                             | 319                             | -17.4                                  |
| Telfair             | 406                             | 512                             | 26.1                                   |
| Wayne               | 687                             | 710                             | 3.3                                    |
| Colquitt            | 881                             | 1,163                           | 32.0                                   |
| Decatur             | 15,896                          | 13,328                          | -16.2                                  |
| Early               | 319                             | 361                             | 13.2                                   |
| Grady               | 474                             | 588                             | 24.1                                   |
| Miller              | 92                              | 172                             | 87.0                                   |
| Mitchell            | 882                             | 748                             | -15.2                                  |
| Seminole            | 167                             | 240                             | 43.7                                   |
| Terrell             | 393                             | 353                             | -10.2                                  |
| Thomas              | 919                             | 1,052                           | 14.5                                   |
| Worth               | 557                             | 582                             | 4.5                                    |
| Atkinson            | 211                             | 261                             | 23.7                                   |
| Berrien             | 513                             | 368                             | -28.3                                  |
| Brantley            | 413                             | 367                             | -11.1                                  |
| Brooks              | 241                             | 451                             | 87.1                                   |
| Charlton            | 174                             | 162                             | -6.9                                   |
| Clinch              | 132                             | 199                             | 50.8                                   |
| Coffee              | 1,058                           | 1,122                           | 6.0                                    |
| Lanier              | 120                             | 209                             | 74.2                                   |
| Pierce              | 398                             | 357                             | -10.3                                  |
| Long                | 121                             | 132                             | 9.1                                    |
| Ware                | 917                             | 877                             | -4.4                                   |
| GRIP Total          | 28,499                          | 26,387                          | -7.4                                   |

(continued)

Table 1-12 (Continued)  
 South Georgia: Unemployment Statistics,  
 1990 and 2000

| <u>Area</u>       | <u>Unemployment<br/>in 1990</u> | <u>Unemployment<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|-------------------|---------------------------------|---------------------------------|--|
| Non-GRIP Counties |                                 |                                 |  |
| Clay              | 64                              | 103                             | 60.9                                   |
| Macon             | 294                             | 158                             | -46.3                                  |
| Marion            | 288                             | 233                             | -19.1                                  |
| Quitman           | 60                              | 82                              | 36.7                                   |
| Randolph          | 253                             | 247                             | -2.4                                   |
| Schley            | 152                             | 84                              | -44.7                                  |
| Sumter            | 1,226                           | 766                             | -37.5                                  |
| Evans             | 162                             | 241                             | 48.8                                   |
| Johnson           | 249                             | 260                             | 4.4                                    |
| Montgomery        | 231                             | 353                             | 52.8                                   |
| Tattnall          | 340                             | 591                             | 73.8                                   |
| Toombs            | 717                             | 1,330                           | 85.5                                   |
| Wheeler           | 152                             | 193                             | 27.0                                   |
| Wilcox            | 143                             | 168                             | 17.5                                   |
| Baker             | 83                              | 81                              | -2.4                                   |
| Calhoun           | 117                             | 203                             | 73.5                                   |
| Bacon             | 265                             | 269                             | 1.5                                    |
| Ben Hill          | 464                             | 582                             | 25.4                                   |
| Echols            | 52                              | 60                              | 15.4                                   |
| Irwin             | 232                             | 286                             | 23.3                                   |
| Non-GRIP Total    | 5,544                           | 6,290                           | 13.5                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-13

South Georgia: Unemployment Rate,  
1990 and 2000

| <u>Area</u>         | <u>Unemployment Rate<br/>in 1990</u> | <u>Unemployment Rate<br/>in 2000</u> | <u>Change in Rate<br/>1990 to 2000</u> |
|---------------------|--------------------------------------|--------------------------------------|--|
| South Georgia Total | 6.1                                  | 5.0                                  | -1.1                                   |
| GRIP Counties       |                                      |                                      |  |
| Stewart             | 9.5                                  | 6.6                                  | -2.9                                   |
| Talbot              | 7.6                                  | 7.3                                  | -0.3                                   |
| Taylor              | 10.0                                 | 5.9                                  | -4.1                                   |
| Webster             | 9.0                                  | 3.6                                  | -5.4                                   |
| Appling             | 13.8                                 | 9.4                                  | -4.4                                   |
| Dodge               | 6.5                                  | 4.8                                  | -1.6                                   |
| Jeff Davis          | 7.0                                  | 6.5                                  | -0.5                                   |
| Telfair             | 9.4                                  | 12.2                                 | 2.8                                    |
| Wayne               | 7.1                                  | 6.4                                  | -0.7                                   |
| Colquitt            | 5.6                                  | 6.4                                  | 0.8                                    |
| Decatur             | 5.3                                  | 3.8                                  | -1.5                                   |
| Early               | 6.6                                  | 8.2                                  | 1.6                                    |
| Grady               | 5.3                                  | 6.6                                  | 1.3                                    |
| Miller              | 3.6                                  | 5.7                                  | 2.2                                    |
| Mitchell            | 10.8                                 | 6.5                                  | -4.2                                   |
| Seminole            | 4.3                                  | 5.2                                  | 0.9                                    |
| Terrell             | 9.3                                  | 9.3                                  | -0.1                                   |
| Thomas              | 5.3                                  | 5.1                                  | -0.2                                   |
| Worth               | 6.6                                  | 6.6                                  | 0.0                                    |
| Atkinson            | 8.2                                  | 8.5                                  | 0.2                                    |
| Berrien             | 8.0                                  | 6.0                                  | -2.0                                   |
| Brantley            | 9.4                                  | 6.2                                  | -3.2                                   |
| Brooks              | 3.9                                  | 6.1                                  | 2.2                                    |
| Charlton            | 5.1                                  | 4.4                                  | -0.7                                   |
| Clinch              | 5.4                                  | 6.3                                  | 0.9                                    |
| Coffee              | 7.9                                  | 5.7                                  | -2.2                                   |
| Lanier              | 5.0                                  | 6.1                                  | 1.0                                    |
| Pierce              | 6.7                                  | 4.8                                  | -1.9                                   |
| Long                | 5.2                                  | 3.4                                  | -1.7                                   |
| Ware                | 6.6                                  | 5.9                                  | -0.7                                   |
| GRIP Total          | 5.9                                  | 4.7                                  | -1.2                                   |

(continued)

Table 1-13 (Continued)  
 South Georgia: Unemployment Rate,  
 1990 and 2000

| <u>Area</u>       | <u>Unemployment Rate<br/>in 1990</u> | <u>Unemployment Rate<br/>in 2000</u> | <u>Change in Rate<br/>1990 to 2000</u> |
|-------------------|--------------------------------------|--------------------------------------|--|
| Non-GRIP Counties |                                      |                                      |  |
| Clay              | 5.1                                  | 7.1                                  | 2.0                                    |
| Macon             | 14.8                                 | 4.8                                  | -10.0                                  |
| Marion            | 8.1                                  | 5.4                                  | -2.7                                   |
| Quitman           | 7.4                                  | 6.1                                  | -1.2                                   |
| Randolph          | 8.9                                  | 8.4                                  | -0.5                                   |
| Schley            | 10.0                                 | 4.6                                  | -5.4                                   |
| Sumter            | 9.8                                  | 5.4                                  | -4.4                                   |
| Evans             | 4.4                                  | 4.8                                  | 0.4                                    |
| Johnson           | 7.2                                  | 7.9                                  | 0.7                                    |
| Montgomery        | 7.4                                  | 10.3                                 | 2.9                                    |
| Tattnall          | 5.2                                  | 8.7                                  | 3.5                                    |
| Toombs            | 7.1                                  | 11.8                                 | 4.7                                    |
| Wheeler           | 8.0                                  | 11.0                                 | 3.0                                    |
| Wilcox            | 5.2                                  | 5.4                                  | 0.1                                    |
| Baker             | 5.5                                  | 5.3                                  | -0.3                                   |
| Calhoun           | 5.9                                  | 9.0                                  | 3.0                                    |
| Bacon             | 6.4                                  | 6.6                                  | 0.2                                    |
| Ben Hill          | 6.8                                  | 6.7                                  | -0.1                                   |
| Echols            | 5.3                                  | 4.9                                  | -0.4                                   |
| Irwin             | 6.3                                  | 6.2                                  | -0.1                                   |
| Non-GRIP Total    | 7.4                                  | 7.3                                  | -0.1                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-14

Middle Georgia: Population Statistics,  
1990 and 2000

| <u>Area</u>          | <u>Census<br/>Population<br/>in 1990</u> | <u>Census<br/>Population<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|----------------------|--|--|--|
| Middle Georgia Total | 294,214                                  | 331,519                                  | 12.7                                   |
| GRIP Counties        |  |  |  |
| Pike                 | 10,224                                   | 13,688                                   | 33.9                                   |
| Upson                | 26,300                                   | 27,597                                   | 4.9                                    |
| Pulaski              | 8,108                                    | 9,588                                    | 18.3                                   |
| Jefferson            | 17,408                                   | 17,266                                   | -0.8                                   |
| Jenkins              | 8,247                                    | 8,575                                    | 4.0                                    |
| Washington           | 19,112                                   | 21,176                                   | 10.8                                   |
| GRIP Total           | 89,399                                   | 97,890                                   | 9.5                                    |
| Non-GRIP Counties    |  |  |  |
| Heard                | 8,628                                    | 11,012                                   | 27.6                                   |
| Meriwether           | 22,411                                   | 22,534                                   | 0.5                                    |
| Elbert               | 18,949                                   | 20,511                                   | 8.2                                    |
| Jasper               | 8,453                                    | 11,426                                   | 35.2                                   |
| Oglethorpe           | 9,763                                    | 12,635                                   | 29.4                                   |
| Baldwin              | 39,530                                   | 44,700                                   | 13.1                                   |
| Crawford             | 8,991                                    | 12,495                                   | 39.0                                   |
| Putnam               | 14,137                                   | 18,812                                   | 33.1                                   |
| Wilkinson            | 10,228                                   | 10,220                                   | -0.1                                   |
| Burke                | 20,579                                   | 22,243                                   | 8.1                                    |
| Glascock             | 2,357                                    | 2,556                                    | 8.4                                    |
| Hancock              | 8,908                                    | 10,076                                   | 13.1                                   |
| Lincoln              | 7,442                                    | 8,348                                    | 12.2                                   |
| Screven              | 13,842                                   | 15,374                                   | 11.1                                   |
| Wilkes               | 10,597                                   | 10,687                                   | 0.8                                    |
| Non-GRIP Total       | 204,815                                  | 233,629                                  | 14.1                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the U.S. Census Bureau.

Table 1-15

Middle Georgia: Total Personal Income Statistics,  
1990 and 2000

| <u>Area</u>          | <u>Total Personal Income<br/>In 1990<br/>(thousands of dollars)</u> | <u>Total Personal Income<br/>in 2000<br/>(thousands of dollars)</u> | <u>Percent Change<br/>1990 to 2000</u> |
|----------------------|---|---|--|
| Middle Georgia Total | 3,917,924   | 6,665,879   | 70.1                                   |
| GRIP Counties        |   |   |  |
| Pike                 | 146,763   | 279,440   | 90.4                                   |
| Upson                | 346,387   | 562,266   | 62.3                                   |
| Pulaski              | 115,021   | 200,842   | 74.6                                   |
| Jefferson            | 211,468   | 332,308   | 57.1                                   |
| Jenkins              | 94,172  | 157,089   | 66.8                                   |
| Washington           | 283,870   | 473,902   | 66.9                                   |
| GRIP Total           | 1,197,681   | 2,005,847   | 67.5                                   |
| Non-GRIP Counties    |   |   |  |
| Heard                | 99,786  | 187,957   | 88.4                                   |
| Meriwether           | 255,581   | 464,934   | 81.9                                   |
| Elbert               | 261,418   | 430,849   | 64.8                                   |
| Jasper               | 117,653   | 242,756   | 106.3                                  |
| Oglethorpe           | 135,300   | 248,438   | 83.6                                   |
| Baldwin              | 578,147   | 920,149   | 59.2                                   |
| Crawford             | 114,072   | 208,991   | 83.2                                   |
| Putnam               | 209,530   | 419,492   | 100.2                                  |
| Wilkinson            | 144,022   | 225,641   | 56.7                                   |
| Burke                | 237,508   | 417,062   | 75.6                                   |
| Glascock             | 31,905  | 51,578  | 61.7                                   |
| Hancock              | 97,770  | 157,734   | 61.3                                   |
| Lincoln              | 99,082  | 167,424   | 69.0                                   |
| Screven              | 181,200   | 282,887   | 56.1                                   |
| Wilkes               | 157,269   | 234,140   | 48.9                                   |
| Non-GRIP Total       | 2,720,243   | 4,660,032   | 71.3                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the U.S. Bureau of Economic Analysis.



Table 1-16

Middle Georgia: Labor Force Statistics,  
1990 and 2000

| <u>Area</u>          | <u>Labor Force<br/>in 1990</u> | <u>Labor Force<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|----------------------|--------------------------------|--------------------------------|--|
| Middle Georgia Total | 132,597                        | 145,343                        | 9.6                                    |
| GRIP Counties        |                                |                                |  |
| Pike                 | 5,016                          | 6,479                          | 29.2                                   |
| Upson                | 12,439                         | 12,274                         | -1.3                                   |
| Pulaski              | 3,615                          | 4,628                          | 28.0                                   |
| Jefferson            | 7,510                          | 7,279                          | -3.1                                   |
| Jenkins              | 3,571                          | 4,594                          | 28.6                                   |
| Washington           | 8,538                          | 9,673                          | 13.3                                   |
| GRIP Total           | 40,689                         | 44,927                         | 10.4                                   |
| Non-GRIP Counties    |                                |                                |  |
| Heard                | 3,976                          | 4,968                          | 24.9                                   |
| Meriwether           | 9,562                          | 9,011                          | -5.8                                   |
| Elbert               | 8,982                          | 9,111                          | 1.4                                    |
| Jasper               | 3,850                          | 5,002                          | 29.9                                   |
| Oglethorpe           | 5,171                          | 6,423                          | 24.2                                   |
| Baldwin              | 16,856                         | 17,228                         | 2.2                                    |
| Crawford             | 4,299                          | 6,014                          | 39.9                                   |
| Putnam               | 6,858                          | 9,852                          | 43.7                                   |
| Wilkinson            | 4,646                          | 4,640                          | -0.1                                   |
| Burke                | 8,696                          | 9,051                          | 4.1                                    |
| Glascok              | 1,123                          | 988                            | -12.0                                  |
| Hancock              | 3,637                          | 3,856                          | 6.0                                    |
| Lincoln              | 3,308                          | 3,132                          | -5.3                                   |
| Screven              | 6,081                          | 5,806                          | -4.5                                   |
| Wilkes               | 4,863                          | 5,334                          | 9.7                                    |
| Non-GRIP Total       | 91,908                         | 100,416                        | 9.3                                    |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-17

Middle Georgia: Employment Statistics,  
1990 and 2000

| <u>Area</u>          | <u>Employment<br/>in 1990</u> | <u>Employment<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|----------------------|-------------------------------|-------------------------------|--|
| Middle Georgia Total | 124,065                       | 136,963                       | 10.4                                   |
| GRIP Counties        |                               |                               |  |
| Pike                 | 4,734                         | 6,192                         | 30.8                                   |
| Upson                | 11,720                        | 11,478                        | -2.1                                   |
| Pulaski              | 3,404                         | 4,428                         | 30.1                                   |
| Jefferson            | 6,897                         | 6,600                         | -4.3                                   |
| Jenkins              | 3,214                         | 4,317                         | 34.3                                   |
| Washington           | 8,030                         | 9,178                         | 14.3                                   |
| GRIP Total           | 37,999                        | 42,193                        | 11.0                                   |
| Non-GRIP Counties    |                               |                               |  |
| Heard                | 3,767                         | 4,704                         | 24.9                                   |
| Meriwether           | 8,840                         | 8,448                         | -4.4                                   |
| Elbert               | 8,236                         | 8,402                         | 2.0                                    |
| Jasper               | 3,620                         | 4,809                         | 32.8                                   |
| Oglethorpe           | 4,861                         | 6,259                         | 28.8                                   |
| Baldwin              | 16,142                        | 16,410                        | 1.7                                    |
| Crawford             | 4,006                         | 5,763                         | 43.9                                   |
| Putnam               | 6,624                         | 9,544                         | 44.1                                   |
| Wilkinson            | 4,459                         | 4,399                         | -1.3                                   |
| Burke                | 7,745                         | 8,346                         | 7.8                                    |
| Glascok              | 1,056                         | 943                           | -10.7                                  |
| Hancock              | 3,401                         | 3,476                         | 2.2                                    |
| Lincoln              | 3,115                         | 2,840                         | -8.8                                   |
| Screven              | 5,598                         | 5,396                         | -3.6                                   |
| Wilkes               | 4,596                         | 5,031                         | 9.5                                    |
| Non-GRIP Total       | 86,066                        | 94,770                        | 10.1                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-18

Middle Georgia: Unemployment Statistics,  
1990 and 2000

| <u>Area</u>          | <u>Unemployment<br/>in 1990</u> | <u>Unemployment<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|----------------------|---------------------------------|---------------------------------|--|
| Middle Georgia Total | 8,532                           | 8,380                           | -1.8                                   |
| GRIP Counties        |                                 |                                 |  |
| Pike                 | 282                             | 287                             | 1.8                                    |
| Upton                | 719                             | 796                             | 10.7                                   |
| Pulaski              | 211                             | 200                             | -5.2                                   |
| Jefferson            | 613                             | 679                             | 10.8                                   |
| Jenkins              | 357                             | 277                             | -22.4                                  |
| Washington           | 508                             | 495                             | -2.6                                   |
| GRIP Total           | 2,690                           | 2,734                           | 1.6                                    |
| Non-GRIP Counties    |                                 |                                 |  |
| Heard y              | 209                             | 264                             | 26.3                                   |
| Meriwether           | 722                             | 563                             | -22.0                                  |
| Elbert               | 746                             | 709                             | -5.0                                   |
| Jasper               | 230                             | 193                             | -16.1                                  |
| Oglethorpe           | 310                             | 164                             | -47.1                                  |
| Baldwin              | 714                             | 818                             | 14.6                                   |
| Crawford             | 293                             | 251                             | -14.3                                  |
| Putnam               | 234                             | 308                             | 31.6                                   |
| Wilkinson            | 187                             | 241                             | 28.9                                   |
| Burke                | 951                             | 705                             | -25.9                                  |
| Glascocock           | 67                              | 45                              | -32.8                                  |
| Hancock              | 236                             | 380                             | 61.0                                   |
| Lincoln              | 193                             | 292                             | 51.3                                   |
| Screven              | 483                             | 410                             | -15.1                                  |
| Wilkes               | 267                             | 303                             | 13.5                                   |
| Non-GRIP Total       | 5,842                           | 5,646                           | -3.4                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-19

Middle Georgia: Unemployment Rate,  
1990 and 2000

| <u>Area</u>          | <u>Unemployment Rate<br/>in 1990</u> | <u>Unemployment Rate<br/>in 2000</u> | <u>Change in Rate<br/>1990 to 2000</u> |
|----------------------|--------------------------------------|--------------------------------------|--|
| Middle Georgia Total | 6.9                                  | 6.1                                  | -0.8                                   |
| GRIP Counties        |                                      |                                      |  |
| Pike                 | 6.0                                  | 4.6                                  | -1.3                                   |
| Upton                | 6.1                                  | 6.9                                  | 0.8                                    |
| Pulaski              | 6.2                                  | 4.5                                  | -1.7                                   |
| Jefferson            | 8.9                                  | 10.3                                 | 1.4                                    |
| Jenkins              | 11.1                                 | 6.4                                  | -4.7                                   |
| Washington           | 6.3                                  | 5.4                                  | -0.9                                   |
| GRIP Total           | 7.1                                  | 6.5                                  | -0.6                                   |
| Non-GRIP Counties    |                                      |                                      |  |
| Heard                | 5.5                                  | 5.6                                  | 0.1                                    |
| Meriwether           | 8.2                                  | 6.7                                  | -1.5                                   |
| Elbert               | 9.1                                  | 8.4                                  | -0.6                                   |
| Jasper               | 6.4                                  | 4.0                                  | -2.3                                   |
| Oglethorpe           | 6.4                                  | 2.6                                  | -3.8                                   |
| Baldwin              | 4.4                                  | 5.0                                  | 0.6                                    |
| Crawford             | 7.3                                  | 4.4                                  | -3.0                                   |
| Putnam               | 3.5                                  | 3.2                                  | -0.3                                   |
| Wilkinson            | 4.2                                  | 5.5                                  | 1.3                                    |
| Burke                | 12.3                                 | 8.4                                  | -3.8                                   |
| Glascok              | 6.3                                  | 4.8                                  | -1.6                                   |
| Hancock              | 6.9                                  | 10.9                                 | 4.0                                    |
| Lincoln              | 6.2                                  | 10.3                                 | 4.1                                    |
| Screven              | 8.6                                  | 7.6                                  | -1.0                                   |
| Wilkes               | 5.8                                  | 6.0                                  | 0.2                                    |
| Non-GRIP Total       | 6.8                                  | 6.0                                  | -0.8                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-20

North Georgia: Population Statistics,  
1990 and 2000

| <u>Area</u>         | <u>Census<br/>Population<br/>in 1990</u> | <u>Census<br/>Population<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|--|--|--|
| North Georgia Total | 311,096                                  | 393,876                                  | 26.6                                   |
| GRIP Counties       |  |  |  |
| Fannin              | 15,992                                   | 19,798                                   | 23.8                                   |
| Floyd               | 81,251                                   | 90,565                                   | 11.5                                   |
| Gilmer              | 13,368                                   | 23,456                                   | 75.5                                   |
| Polk                | 33,815                                   | 38,127                                   | 12.8                                   |
| Habersham           | 27,621                                   | 35,902                                   | 30.0                                   |
| Stephens            | 23,257                                   | 25,435                                   | 9.4                                    |
| Union               | 11,993                                   | 17,289                                   | 44.2                                   |
| GRIP Total          | 207,297                                  | 250,572                                  | 20.9                                   |
| Non-GRIP Counties   |  |  |  |
| Chattooga           | 22,242                                   | 25,470                                   | 14.5                                   |
| Murray              | 26,147                                   | 36,506                                   | 39.6                                   |
| Dawson              | 9,429                                    | 15,999                                   | 69.7                                   |
| Lumpkin             | 14,573                                   | 21,016                                   | 44.2                                   |
| Rabun               | 11,648                                   | 15,050                                   | 29.2                                   |
| Townsend            | 6,754                                    | 9,319                                    | 38.0                                   |
| White               | 13,006                                   | 19,944                                   | 53.3                                   |
| Non-GRIP Total      | 103,799                                  | 143,304                                  | 38.1                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the U.S. Census Bureau.

Table 1-21

North Georgia: Total Personal Income Statistics,  
1990 and 2000

| <u>Area</u>         | <u>Total Personal Income<br/>in 1990<br/>(thousands of dollars)</u> | <u>Total Personal Income<br/>in 2000<br/>(thousands of dollars)</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|---|---|--|
| North Georgia Total | 4,485,009   | 8,453,668   | 88.5                                   |
| GRIP Counties       |   |   |  |
| Fannin              | 194,662   | 381,297   | 95.9                                   |
| Floyd               | 1,317,071   | 2,168,609   | 64.7                                   |
| Gilmer              | 196,978   | 411,592   | 109.0                                  |
| Polk                | 449,665   | 774,251   | 72.2                                   |
| Habersham           | 417,047   | 793,761   | 90.3                                   |
| Stephens            | 334,921   | 568,404   | 69.7                                   |
| Union               | 154,147   | 371,084   | 140.7                                  |
| GRIP Total          | 3,064,491   | 5,468,998   | 78.5                                   |
| Non-GRIP Counties   |   |   |  |
| Chattooga           | 285,892   | 467,795   | 63.6                                   |
| Murray              | 334,868   | 661,902   | 97.7                                   |
| Dawson              | 142,270   | 414,830   | 191.6                                  |
| Lumpkin             | 204,979   | 471,694   | 130.1                                  |
| Rabun               | 156,763   | 324,371   | 106.9                                  |
| Townsend            | 90,479  | 207,144   | 128.9                                  |
| White               | 205,267   | 436,934   | 112.9                                  |
| Non-GRIP Total      | 1,420,518   | 2,984,670   | 110.1                                  |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the U.S. Bureau of Economic Analysis.

Table 1-22

North Georgia: Labor Force Statistics,  
1990 and 2000

| <u>Area</u>         | <u>Labor Force<br/>in 1990</u> | <u>Labor Force<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|--------------------------------|--------------------------------|--|
| North Georgia Total | 156,966                        | 188,983                        | 20.4                                   |
| GRIP Counties       |                                |                                |  |
| Fannin              | 6,980                          | 9,148                          | 31.1                                   |
| Floyd               | 42,368                         | 44,526                         | 5.1                                    |
| Gilmer              | 6,658                          | 8,267                          | 24.2                                   |
| Polk                | 16,561                         | 16,533                         | -0.2                                   |
| Habersham           | 14,129                         | 15,853                         | 12.2                                   |
| Stephens            | 11,980                         | 11,661                         | -2.7                                   |
| Union               | 5,194                          | 8,007                          | 54.2                                   |
| GRIP Total          | 103,870                        | 113,995                        | 9.7                                    |
| Non-GRIP Counties   |                                |                                |  |
| Chattooga           | 10,741                         | 11,705                         | 9.0                                    |
| Murray              | 14,389                         | 20,217                         | 40.5                                   |
| Dawson              | 5,252                          | 10,621                         | 102.2                                  |
| Lumpkin             | 7,226                          | 11,084                         | 53.4                                   |
| Rabun               | 5,789                          | 7,708                          | 33.1                                   |
| Towns               | 2,836                          | 4,087                          | 44.1                                   |
| White               | 6,863                          | 9,566                          | 39.4                                   |
| Non-GRIP Total      | 53,096                         | 74,988                         | 41.2                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-23

North Georgia: Employment Statistics,  
1990 and 2000

| <u>Area</u>         | <u>Employment<br/>in 1990</u> | <u>Employment<br/>in 2000</u> | <u>Percent Change<br/>in Employment</u> |
|---------------------|-------------------------------|-------------------------------|---|
| North Georgia Total | 145,639                       | 182,648                       | 25.4                                    |
| GRIP Counties       |                               |                               |   |
| Fannin              | 6,431                         | 8,862                         | 37.8                                    |
| Floyd               | 39,067                        | 42,899                        | 9.8                                     |
| Gilmer              | 6,161                         | 7,994                         | 29.8                                    |
| Polk                | 14,711                        | 15,798                        | 7.4                                     |
| Habersham           | 13,387                        | 15,317                        | 14.4                                    |
| Stephens            | 11,095                        | 11,233                        | 1.2                                     |
| Union               | 4,956                         | 7,739                         | 56.2                                    |
| GRIP Total          | 95,808                        | 109,842                       | 14.6                                    |
| Non-GRIP Counties   |                               |                               |   |
| Chattooga           | 9,937                         | 11,333                        | 14.0                                    |
| Murray              | 13,382                        | 19,457                        | 45.4                                    |
| Dawson              | 4,983                         | 10,398                        | 108.7                                   |
| Lumpkin             | 6,854                         | 10,886                        | 58.8                                    |
| Rabun               | 5,484                         | 7,572                         | 38.1                                    |
| Towns               | 2,652                         | 3,939                         | 48.5                                    |
| White               | 6,539                         | 9,221                         | 41.0                                    |
| Non-GRIP Total      | 49,831                        | 72,806                        | 46.1                                    |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.



Table 1-24

North Georgia: Unemployment Statistics,  
1990 and 2000

| <u>Area</u>         | <u>Unemployment<br/>in 1990</u> | <u>Unemployment<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|---------------------|---------------------------------|---------------------------------|--|
| North Georgia Total | 11,327                          | 6,335                           | -44.1                                  |
| GRIP Counties       |                                 |                                 |  |
| Fannin              | 549                             | 286                             | -47.9                                  |
| Floyd               | 3,301                           | 1,627                           | -50.7                                  |
| Gilmer              | 497                             | 273                             | -45.1                                  |
| Polk                | 1,850                           | 735                             | -60.3                                  |
| Habersham           | 742                             | 536                             | -27.8                                  |
| Stephens            | 885                             | 428                             | -51.6                                  |
| Union               | 238                             | 268                             | 12.6                                   |
| GRIP Total          | 8,062                           | 4,153                           | -48.5                                  |
| Non-GRIP Counties   |                                 |                                 |  |
| Chattooga           | 804                             | 372                             | -53.7                                  |
| Murray              | 1,007                           | 760                             | -24.5                                  |
| Dawson              | 269                             | 223                             | -17.1                                  |
| Lumpkin             | 372                             | 198                             | -46.8                                  |
| Rabun               | 305                             | 136                             | -55.4                                  |
| Towns               | 184                             | 148                             | -19.6                                  |
| White               | 324                             | 345                             | 6.5                                    |
| Non-GRIP Total      | 3,265                           | 2,182                           | -33.2                                  |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-25

North Georgia: Unemployment Rate,  
1990 and 2000

| <u>Area</u>         | <u>Unemployment Rate<br/>in 1990</u> | <u>Unemployment Rate<br/>in 2000</u> | <u>Change in Rate<br/>1990 to 2000</u> |
|---------------------|--------------------------------------|--------------------------------------|--|
| North Georgia Total | 7.8                                  | 3.5                                  | -4.3                                   |
| GRIP Counties       |                                      |                                      |  |
| Fannin              | 8.5                                  | 3.2                                  | -5.3                                   |
| Floyd               | 8.4                                  | 3.8                                  | -4.7                                   |
| Gilmer              | 8.1                                  | 3.4                                  | -4.7                                   |
| Polk                | 12.6                                 | 4.7                                  | -7.9                                   |
| Habersham           | 5.5                                  | 3.5                                  | -2.0                                   |
| Stephens            | 8.0                                  | 3.8                                  | -4.2                                   |
| Union               | 4.8                                  | 3.5                                  | -1.3                                   |
| GRIP Total          | 8.4                                  | 3.8                                  | -4.6                                   |
| Non-GRIP Counties   |                                      |                                      |  |
| Chattooga           | 8.1                                  | 3.3                                  | -4.8                                   |
| Murray              | 7.5                                  | 3.9                                  | -3.6                                   |
| Dawson              | 5.4                                  | 2.1                                  | -3.3                                   |
| Lumpkin             | 5.4                                  | 1.8                                  | -3.6                                   |
| Rabun               | 5.6                                  | 1.8                                  | -3.8                                   |
| Towns               | 6.9                                  | 3.8                                  | -3.2                                   |
| White               | 5.0                                  | 3.7                                  | -1.2                                   |
| Non-GRIP Total      | 6.6                                  | 3.0                                  | -3.6                                   |

Note: Statistics do not include rural interstate and metropolitan counties.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-26

Rural Interstate Counties: Population Statistics,  
1990 and 2000

| <u>Area</u>            | <u>Census<br/>Population<br/>in 1990</u> | <u>Census<br/>Population<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|------------------------|--|--|--|
| Rural Interstate Total | 880,204                                  | 1,069,933                                | 21.6                                   |
| GRIP Counties          |  |  |  |
| Banks                  | 10,308                                   | 14,422                                   | 39.9                                   |
| Bulloch                | 43,125                                   | 55,983                                   | 29.8                                   |
| Glynn                  | 62,496                                   | 67,568                                   | 8.1                                    |
| Haralson               | 21,966                                   | 25,690                                   | 17.0                                   |
| Jackson                | 30,005                                   | 41,589                                   | 38.6                                   |
| Liberty                | 52,745                                   | 61,610                                   | 16.8                                   |
| Lowndes                | 75,981                                   | 92,115                                   | 21.2                                   |
| Troup                  | 55,536                                   | 58,779                                   | 5.8                                    |
| GRIP Total             | 352,162                                  | 417,756                                  | 18.6                                   |
| Non-GRIP Counties      |  |  |  |
| Bleckley               | 10,430                                   | 11,666                                   | 11.9                                   |
| Butts                  | 15,326                                   | 19,522                                   | 27.4                                   |
| Camden                 | 30,167                                   | 43,664                                   | 44.7                                   |
| Candler                | 7,744                                    | 9,577                                    | 23.7                                   |
| Cook                   | 13,456                                   | 15,771                                   | 17.2                                   |
| Crisp                  | 20,011                                   | 21,996                                   | 9.9                                    |
| Dooly                  | 9,901                                    | 11,525                                   | 16.4                                   |
| Emanuel                | 20,546                                   | 21,837                                   | 6.3                                    |
| Franklin               | 16,650                                   | 20,285                                   | 21.8                                   |
| Gordon                 | 35,072                                   | 44,104                                   | 25.8                                   |
| Greene                 | 11,793                                   | 14,406                                   | 22.2                                   |
| Hall                   | 95,428                                   | 139,277                                  | 45.9                                   |
| Hart                   | 19,712                                   | 22,997                                   | 16.7                                   |
| Lamar                  | 13,038                                   | 15,912                                   | 22.0                                   |
| Laurens                | 39,988                                   | 44,874                                   | 12.2                                   |
| McIntosh               | 8,634                                    | 10,847                                   | 25.6                                   |
| Monroe                 | 17,113                                   | 21,757                                   | 27.1                                   |
| Morgan                 | 12,883                                   | 15,457                                   | 20.0                                   |
| Taliaferro             | 1,915                                    | 2,077                                    | 8.5                                    |
| Tift                   | 34,998                                   | 38,407                                   | 9.7                                    |
| Treutlen               | 5,994                                    | 6,854                                    | 14.3                                   |
| Turner                 | 8,703                                    | 9,504                                    | 9.2                                    |
| Warren                 | 6,078                                    | 6,336                                    | 4.2                                    |
| Whitfield              | 72,462                                   | 83,525                                   | 15.3                                   |
| Non-GRIP Total         | 528,042                                  | 652,177                                  | 23.5                                   |

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the U.S. Census Bureau.

Table 1-27

Rural Interstate Counties: Total Personal Income Statistics,  
1990 and 2000

| <u>Area</u>            | Total Personal Income<br>in 1990<br>(thousands of dollars) | Total Personal Income<br>in 2000<br>(thousands of dollars) | Percent Change<br>1990 to 2000 |
|------------------------|--|--|--------------------------------|
| Rural Interstate Total | 12,894,438   | 23,933,718   | 85.6                           |
| GRIP Counties          |  |  |                                |
| Banks                  | 141,733  | 273,507  | 93.0                           |
| Bulloch                | 551,096  | 1,040,279  | 88.8                           |
| Glynn                  | 1,123,828  | 1,996,228  | 77.6                           |
| Haralson               | 296,313  | 532,205  | 79.6                           |
| Jackson                | 436,719  | 931,421  | 113.3                          |
| Liberty                | 549,858  | 1,012,939  | 84.2                           |
| Lowndes                | 1,118,465  | 2,005,485  | 79.3                           |
| Troup                  | 871,196  | 1,551,031  | 78.0                           |
| GRIP Total             | 5,089,208  | 9,343,095  | 83.6                           |
| Non-GRIP Counties      |  |  |                                |
| Bleckley               | 147,119  | 260,654  | 77.2                           |
| Butts                  | 197,679  | 402,311  | 103.5                          |
| Camden                 | 434,111  | 832,477  | 91.8                           |
| Candler                | 109,607  | 190,137  | 73.5                           |
| Cook                   | 156,221  | 292,265  | 87.1                           |
| Crisp                  | 263,791  | 429,135  | 62.7                           |
| Dooly                  | 119,988  | 215,047  | 79.2                           |
| Emanuel                | 249,948  | 407,560  | 63.1                           |
| Franklin               | 251,732  | 453,797  | 80.3                           |
| Gordon                 | 523,974  | 968,675  | 84.9                           |
| Greene                 | 156,019  | 304,997  | 95.5                           |
| Hall                   | 1,603,067  | 3,452,490  | 115.4                          |
| Hart                   | 283,640  | 498,471  | 75.7                           |
| Lamar                  | 166,986  | 292,399  | 75.1                           |
| Laurens                | 575,702  | 970,995  | 68.7                           |
| McIntosh               | 95,319   | 176,831  | 85.5                           |
| Monroe                 | 252,492  | 442,299  | 75.2                           |
| Morgan                 | 198,008  | 392,892  | 98.4                           |
| Taliaferro             | 23,729   | 32,672   | 37.7                           |
| Tift                   | 504,803  | 878,351  | 74.0                           |
| Treutlen               | 64,419   | 102,037  | 58.4                           |
| Turner                 | 104,899  | 167,422  | 59.6                           |
| Warren                 | 69,137   | 111,657  | 61.5                           |
| Whitfield              | 1,252,840  | 2,315,052  | 84.8                           |
| Non-GRIP Total         | 7,805,230  | 14,590,623   | 86.9                           |

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the U.S. Bureau of Economic Analysis.

Table 1-28

Rural Interstate Counties: Labor Force Statistics,  
1990 and 2000

| <u>Area</u>            | <u>Labor Force<br/>in 1990</u> | <u>Labor Force<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|------------------------|--------------------------------|--------------------------------|--|
| Rural Interstate Total | 423,241                        | 525,969                        | 24.3                                   |
| GRIP Counties          |                                |                                |  |
| Banks                  | 5,593                          | 6,539                          | 16.9                                   |
| Bulloch                | 19,678                         | 27,024                         | 37.3                                   |
| Glynn                  | 30,609                         | 35,921                         | 17.4                                   |
| Haralson               | 10,446                         | 9,784                          | -6.3                                   |
| Jackson                | 15,120                         | 23,175                         | 53.3                                   |
| Liberty                | 13,925                         | 18,522                         | 33.0                                   |
| Lowndes                | 34,115                         | 44,201                         | 29.6                                   |
| Troup                  | 26,425                         | 31,438                         | 19.0                                   |
| GRIP Total             | 155,911                        | 196,604                        | 26.1                                   |
| Non-GRIP Counties      |                                |                                |  |
| Bleckley               | 4,915                          | 5,925                          | 20.5                                   |
| Butts                  | 6,489                          | 9,074                          | 39.8                                   |
| Camden                 | 11,606                         | 16,883                         | 45.5                                   |
| Candler                | 3,502                          | 3,944                          | 12.6                                   |
| Cook                   | 6,369                          | 8,067                          | 26.7                                   |
| Crisp                  | 8,701                          | 9,625                          | 10.6                                   |
| Dooly                  | 3,983                          | 4,542                          | 14.0                                   |
| Emanuel                | 8,925                          | 8,598                          | -3.7                                   |
| Franklin               | 8,292                          | 10,581                         | 27.6                                   |
| Gordon                 | 19,042                         | 22,267                         | 16.9                                   |
| Greene                 | 5,218                          | 5,938                          | 13.8                                   |
| Hall                   | 52,773                         | 75,560                         | 43.2                                   |
| Hart                   | 9,764                          | 9,976                          | 2.2                                    |
| Lamar                  | 6,179                          | 6,525                          | 5.6                                    |
| Laurens                | 18,557                         | 22,633                         | 22.0                                   |
| McIntosh               | 11,255                         | 13,726                         | 22.0                                   |
| Monroe                 | 8,258                          | 8,344                          | 1.0                                    |
| Morgan                 | 6,417                          | 7,516                          | 17.1                                   |
| Taliaferro             | 756                            | 733                            | -3.0                                   |
| Tift                   | 17,703                         | 21,004                         | 18.6                                   |
| Treutlen               | 2,680                          | 2,814                          | 5.0                                    |
| Turner                 | 3,551                          | 4,142                          | 16.6                                   |
| Warren                 | 2,578                          | 2,767                          | 7.3                                    |
| Whitfield              | 39,817                         | 48,181                         | 21.0                                   |
| Non-GRIP Total         | 267,330                        | 329,365                        | 23.2                                   |

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-29  
Rural Interstate Counties: Employment Statistics,  
1990 and 2000

| <u>Area</u>            | <u>Employment<br/>in 1990</u> | <u>Employment<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|------------------------|-------------------------------|-------------------------------|--|
| Rural Interstate Total | 397,500                       | 504,272                       | 26.9                                   |
| GRIP Counties          |                               |                               |  |
| Banks                  | 5,291                         | 6,336                         | 19.8                                   |
| Bulloch                | 18,631                        | 26,281                        | 41.1                                   |
| Glynn                  | 29,266                        | 34,658                        | 18.4                                   |
| Haralson               | 9,708                         | 9,345                         | -3.7                                   |
| Jackson                | 14,152                        | 22,558                        | 59.4                                   |
| Liberty                | 12,954                        | 17,444                        | 34.7                                   |
| Lowndes                | 32,486                        | 41,751                        | 28.5                                   |
| Troup                  | 24,786                        | 30,174                        | 21.7                                   |
| GRIP Total             | 147,274                       | 188,547                       | 28.0                                   |
| Non-GRIP Counties      |                               |                               |  |
| Bleckley               | 4,625                         | 5,704                         | 23.3                                   |
| Butts                  | 6,047                         | 8,596                         | 42.2                                   |
| Camden                 | 10,980                        | 16,286                        | 48.3                                   |
| Candler                | 3,324                         | 3,742                         | 12.6                                   |
| Cook                   | 5,957                         | 7,637                         | 28.2                                   |
| Crisp                  | 8,091                         | 9,031                         | 11.6                                   |
| Dooly                  | 3,733                         | 4,248                         | 13.8                                   |
| Emanuel                | 8,091                         | 7,767                         | -4.0                                   |
| Franklin               | 7,622                         | 10,211                        | 34.0                                   |
| Gordon                 | 17,553                        | 21,416                        | 22.0                                   |
| Greene                 | 4,857                         | 5,584                         | 15.0                                   |
| Hall                   | 49,822                        | 73,824                        | 48.2                                   |
| Hart                   | 9,150                         | 9,537                         | 4.2                                    |
| Lamar                  | 5,850                         | 6,096                         | 4.2                                    |
| Laurens                | 17,542                        | 21,305                        | 21.5                                   |
| McIntosh               | 10,459                        | 13,365                        | 27.8                                   |
| Monroe                 | 7,732                         | 7,907                         | 2.3                                    |
| Morgan                 | 5,952                         | 7,207                         | 21.1                                   |
| Taliaferro             | 715                           | 689                           | -3.6                                   |
| Tift                   | 16,395                        | 20,049                        | 22.3                                   |
| Treutlen               | 2,475                         | 2,538                         | 2.5                                    |
| Turner                 | 3,269                         | 3,767                         | 15.2                                   |
| Warren                 | 2,356                         | 2,574                         | 9.3                                    |
| Whitfield              | 37,629                        | 46,645                        | 24.0                                   |
| Non-GRIP Total         | 250,226                       | 315,725                       | 26.2                                   |

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-30  
Rural Interstate Counties: Unemployment Statistics,  
1990 and 2000

| <u>Area</u>            | <u>Unemployment<br/>in 1990</u> | <u>Unemployment<br/>in 2000</u> | <u>Percent Change<br/>1990 to 2000</u> |
|------------------------|---------------------------------|---------------------------------|--|
| Rural Interstate Total | 25,741                          | 21,697                          | -15.7                                  |
| GRIP Counties          |                                 |                                 |  |
| Banks                  | 302                             | 203                             | -32.8                                  |
| Bulloch                | 1,047                           | 743                             | -29.0                                  |
| Glynn                  | 1,343                           | 1,263                           | -6.0                                   |
| Haralson               | 738                             | 439                             | -40.5                                  |
| Jackson                | 968                             | 617                             | -36.3                                  |
| Liberty                | 971                             | 1,078                           | 11.0                                   |
| Lowndes                | 1,629                           | 2,450                           | 50.4                                   |
| Troup                  | 1,639                           | 1,264                           | -22.9                                  |
| GRIP Total             | 8,637                           | 8,057                           | -6.7                                   |
| Non-GRIP Counties      |                                 |                                 |  |
| Bleckley               | 290                             | 221                             | -23.8                                  |
| Butts                  | 442                             | 478                             | 8.1                                    |
| Camden                 | 626                             | 597                             | -4.6                                   |
| Candler                | 178                             | 202                             | 13.5                                   |
| Cook                   | 412                             | 430                             | 4.4                                    |
| Crisp                  | 610                             | 594                             | -2.6                                   |
| Dooly                  | 250                             | 294                             | 17.6                                   |
| Emanuel                | 834                             | 831                             | -0.4                                   |
| Franklin               | 670                             | 370                             | -44.8                                  |
| Gordon                 | 1,489                           | 851                             | -42.8                                  |
| Greene                 | 361                             | 354                             | -1.9                                   |
| Hall                   | 2,951                           | 1,736                           | -41.2                                  |
| Hart                   | 614                             | 439                             | -28.5                                  |
| Lamar                  | 329                             | 429                             | 30.4                                   |
| Laurens                | 1,015                           | 1,328                           | 30.8                                   |
| McIntosh               | 796                             | 361                             | -54.6                                  |
| Monroe                 | 526                             | 437                             | -16.9                                  |
| Morgan                 | 465                             | 309                             | -33.5                                  |
| Taliaferro             | 41                              | 44                              | 7.3                                    |
| Tift                   | 1,308                           | 955                             | -27.0                                  |
| Treutlen               | 205                             | 276                             | 34.6                                   |
| Turner                 | 282                             | 375                             | 33.0                                   |
| Warren                 | 222                             | 193                             | -13.1                                  |
| Whitfield              | 2,188                           | 1,536                           | -29.8                                  |
| Non-GRIP Total         | 17,104                          | 13,640                          | -20.3                                  |

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.

Table 1-31

Rural Interstate Counties: Unemployment Rate,  
1990 and 2000

| <u>Area</u>            | <u>Unemployment Rate<br/>in 1990</u> | <u>Unemployment Rate<br/>in 2000</u> | <u>Change in Rate<br/>1990 to 2000</u> |
|------------------------|--------------------------------------|--------------------------------------|--|
| Rural Interstate Total | 6.5                                  | 4.3                                  | -2.2                                   |
| GRIP Counties          |                                      |                                      |  |
| Banks                  | 5.7                                  | 3.2                                  | -2.5                                   |
| Bulloch                | 5.6                                  | 2.8                                  | -2.8                                   |
| Glynn                  | 4.6                                  | 3.6                                  | -0.9                                   |
| Haralson               | 7.6                                  | 4.7                                  | -2.9                                   |
| Jackson                | 6.8                                  | 2.7                                  | -4.1                                   |
| Liberty                | 7.5                                  | 6.2                                  | -1.3                                   |
| Lowndes                | 5.0                                  | 5.9                                  | 0.9                                    |
| Troup                  | 6.6                                  | 4.2                                  | -2.4                                   |
| GRIP Total             | 5.9                                  | 4.3                                  | -1.6                                   |
| Non-GRIP Counties      |                                      |                                      |  |
| Bleckley               | 6.3                                  | 3.9                                  | -2.4                                   |
| Butts                  | 7.3                                  | 5.6                                  | -1.7                                   |
| Camden                 | 5.7                                  | 3.7                                  | -2.0                                   |
| Candler                | 5.4                                  | 5.4                                  | 0.0                                    |
| Cook                   | 6.9                                  | 5.6                                  | -1.3                                   |
| Crisp                  | 7.5                                  | 6.6                                  | -1.0                                   |
| Dooly                  | 6.7                                  | 6.9                                  | 0.2                                    |
| Emanuel                | 10.3                                 | 10.7                                 | 0.4                                    |
| Franklin               | 8.8                                  | 3.6                                  | -5.2                                   |
| Gordon                 | 8.5                                  | 4.0                                  | -4.5                                   |
| Greene                 | 7.4                                  | 6.3                                  | -1.1                                   |
| Hall                   | 5.9                                  | 2.4                                  | -3.6                                   |
| Hart                   | 6.7                                  | 4.6                                  | -2.1                                   |
| Lamar                  | 5.6                                  | 7.0                                  | 1.4                                    |
| Laurens                | 5.8                                  | 6.2                                  | 0.4                                    |
| McIntosh               | 7.6                                  | 2.7                                  | -4.9                                   |
| Monroe                 | 6.8                                  | 5.5                                  | -1.3                                   |
| Morgan                 | 7.8                                  | 4.3                                  | -3.5                                   |
| Taliaferro             | 5.7                                  | 6.4                                  | 0.7                                    |
| Tift                   | 8.0                                  | 4.8                                  | -3.2                                   |
| Treutlen               | 8.3                                  | 10.9                                 | 2.6                                    |
| Turner                 | 8.6                                  | 10.0                                 | 1.3                                    |
| Warren                 | 9.4                                  | 7.5                                  | -1.9                                   |
| Whitfield              | 5.8                                  | 3.3                                  | -2.5                                   |
| Non-GRIP Total         | 6.8                                  | 4.3                                  | -2.5                                   |

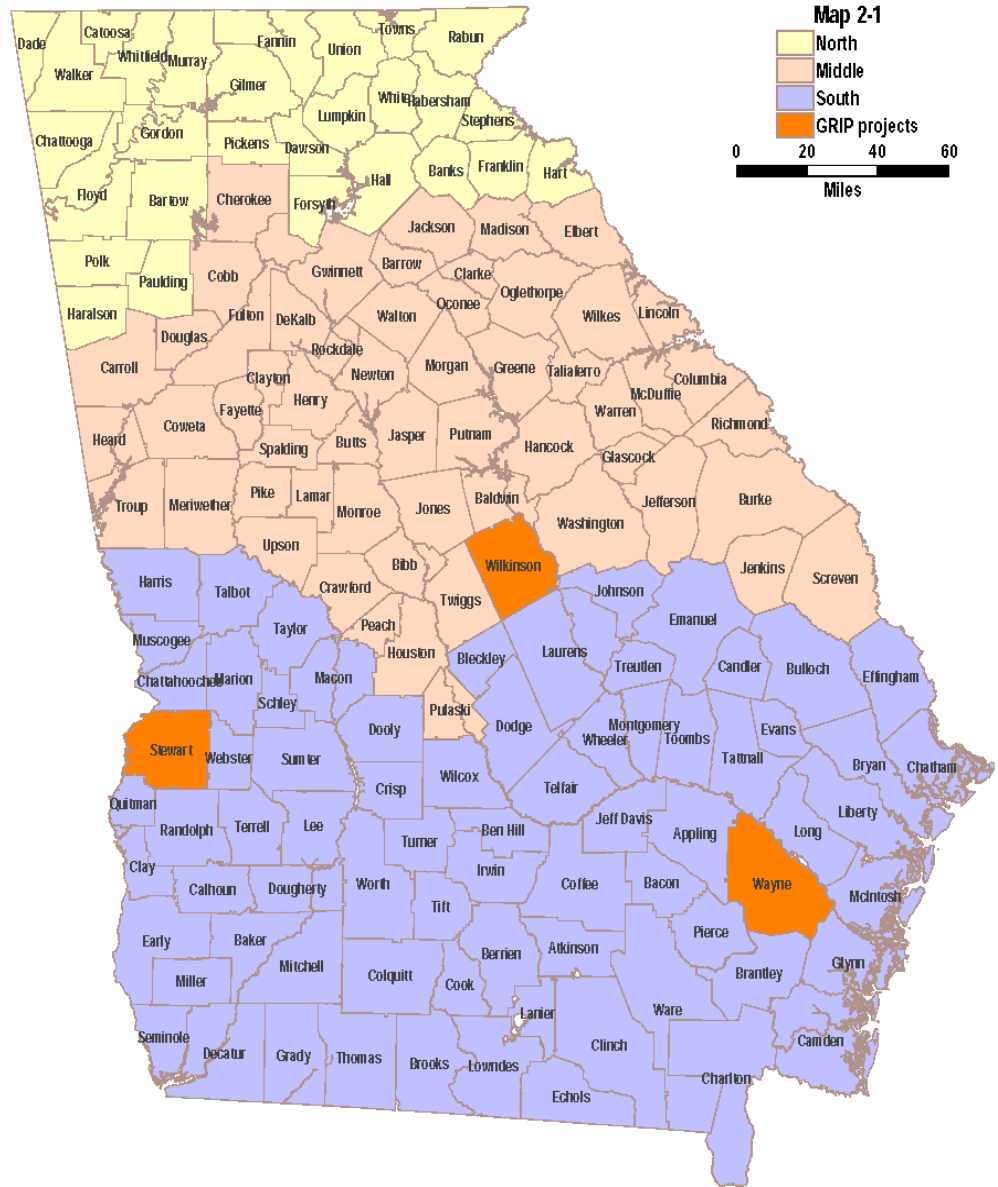
Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on data obtained from the Georgia Department of Labor.



**APPENDIX II**

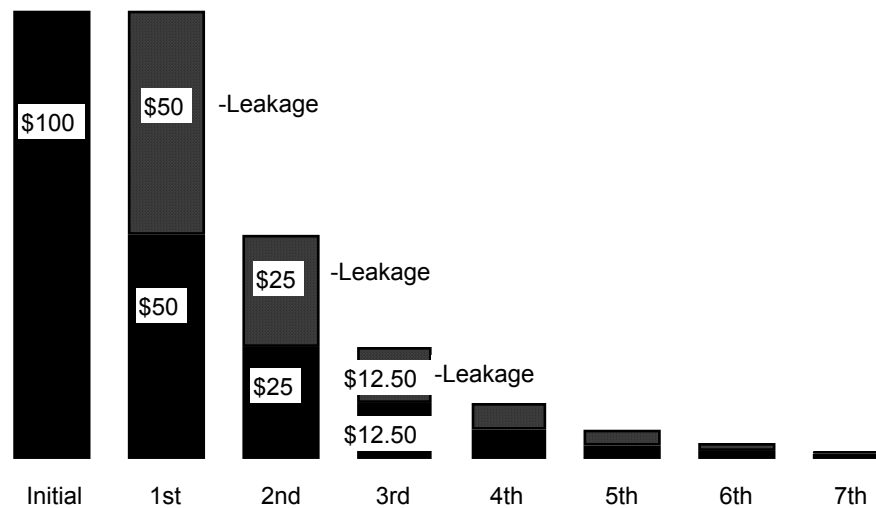
Figure 2-1

Location of Three Representative GRIP Road Construction Projects



Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

**FIGURE 2-2**  
**HOW MULTIPLIERS CAPTURE THE**  
**IMPACT OF RE-SPENDING INITIAL IMPACTS**  
**IF THE OUTPUT MULTIPLIER EQUALS 2.0**



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

|                        |       |                |       |
|------------------------|-------|----------------|-------|
| Total Economic Impact: | \$200 | Total Leakage: | \$100 |
|------------------------|-------|----------------|-------|

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

Source: The University of Georgia, Selig Center for Economic Growth, Terry College of Business.

Table 2-1  
Local Outlays for  
Representative GRIP Projects

| <u>Area/Project<br/>Expense Category</u> | <u>Total Cost<br/>(current dollars)</u> | <u>Local Outlays<br/>(current dollars)</u> | <u>Local Outlays<br/>(\$ 1999)</u> |
|--|---|--|------------------------------------|
| Wilkinson County<br>Project ID: 221760   | 26,546,655                              | 23,331,990                                 | 23,029,105                         |
| Engineering                              | 700,000                                 | 70,000                                     | 80,786                             |
| Right-of-Way                             | 3,924,000                               | 3,531,600                                  | 3,759,694                          |
| Construction                             | 21,922,655                              | 19,730,390                                 | 19,188,625                         |
| Stewart County<br>Project ID: 322140     | 13,753,609                              | 12,259,359                                 | 12,295,282                         |
| Engineering                              | 132,099                                 | 0  | 0                                  |
| Right-of-Way                             | 2,153,079                               | 1,937,771                                  | 2,037,031                          |
| Construction                             | 11,468,431                              | 10,321,588                                 | 10,258,251                         |
| Wayne County<br>Project ID: 522430       | 12,356,000                              | 10,839,600                                 | 10,539,004                         |
| Engineering                              | 351,000                                 | 35,100                                     | 38,521                             |
| Right-of-Way                             | 1,227,000                               | 1,104,300                                  | 1,129,130                          |
| Construction                             | 10,778,000                              | 9,700,200                                  | 9,371,353                          |

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on current dollar cost data provided by the Georgia Department of Transportation.

Table 2-2

Total Economic Impact on Output of  
Representative GRIP Projects<sup>1,2</sup>

| <u>Area/Project<br/>Expense Category</u> | <u>Local Outlays<br/>(\$ 1999)</u> | <u>Indirect and<br/>Induced Impact<br/>(\$ 1999)</u> | <u>Total Output<br/>Impact<br/>(\$ 1999)</u> |
|--|------------------------------------|--|--|
| Wilkinson County<br>Project ID: 221760   | 23,029,105                         | 4,887,956  | 27,917,058                                   |
| Engineering                              | 80,786                             | 18,209   | 98,995                                       |
| Right-of-Way                             | 3,759,694                          | 699,445  | 4,459,139                                    |
| Construction                             | 19,188,625                         | 4,170,302  | 23,358,924                                   |
| Stewart County<br>Project ID: 322140     | 12,295,282                         | 1,904,338  | 14,169,619                                   |
| Engineering                              | 0                                  | 0  | 0  |
| Right-of-Way                             | 2,037,031                          | 255,183  | 2,262,214                                    |
| Construction                             | 10,258,251                         | 1,649,155  | 11,907,405                                   |
| Wayne County<br>Project ID: 522430       | 10,539,004                         | 2,768,170  | 13,307,173                                   |
| Engineering                              | 38,521                             | 13,845   | 52,366                                       |
| Right-of-Way                             | 1,129,130                          | 285,089  | 1,414,218                                    |
| Construction                             | 9,371,353                          | 2,469,236  | 11,840,589                                   |

<sup>1</sup> The impacts on output are estimated using the IMPLAN system, Version 2.0.1020 and Type SAM multipliers.

<sup>2</sup> Output refers to the value of total production, including domestic and foreign trade.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on current dollar cost data provided by the Georgia Department of Transportation.

Table 2-3

Total Economic Impact on Value-Added<sup>1,2,3,4</sup>  
Labor Income, and Employment of  
Representative GRIP Projects

| <u>Area/Project<br/>Expense/Category</u> | <u>Local Outlays<br/>(\$1999)</u> | <u>Economic Impact<br/>on Value Added<br/>(\$ 1999)</u> | <u>Economic Impact<br/>on Labor Income<br/>(\$ 1999)</u> | <u>Economic Impact<br/>on Employment<br/>(jobs)</u> |
|--|-----------------------------------|---|--|---|
| Wilkinson County<br>Project ID: 221760   | 23,029,105                        | 11,657,050  | 7,595,231  | 280.9   |
| Engineering                              | 80,786                            | 37,032  | 31,758   | 1.4   |
| Right-of-Way                             | 3,759,694                         | 3,005,960   | 715,309  | 30.8  |
| Construction                             | 19,188,625                        | 8,614,058   | 6,848,164  | 248.7   |
| Stewart County<br>Project ID: 322140     | 12,295,282                        | 5,785,996   | 3,659,898  | 146.0   |
| Engineering                              | 0                                 | 0   | 0  | 0.0   |
| Right-of-Way                             | 2,037,031                         | 1,586,321   | 347,198  | 15.3  |
| Construction                             | 10,258,251                        | 4,199,675   | 3,312,700  | 130.7   |
| Wayne County<br>Project ID: 522430       | 10,539,004                        | 5,629,493   | 3,873,027  | 143.4   |
| Engineering                              | 38,521                            | 19,904  | 16,478   | 0.8   |
| Right-of-Way                             | 1,129,130                         | 954,483   | 242,090  | 12.4  |
| Construction                             | 9,371,353                         | 4,655,106   | 3,614,459  | 130.2   |

<sup>1</sup> The impacts on value added, labor income, and employment are estimated using the IMPLAN System, Version 2.0.1020 and Type SAM multipliers.

<sup>2</sup> Value added includes employee compensation, proprietary income, and other property income, and indirect business taxes.

<sup>3</sup> Labor income includes payroll costs of workers who are paid employees and payments received by self-employed individuals.

<sup>4</sup> Employment includes full-time and part-time jobs.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on current dollar cost data provided by the Georgia Department of Transportation.

Table 2-4  
Output, Value Added, and Labor Income  
Per Dollar Spent for  
Representative GRIP Projects

| <u>Area/Project<br/>Expense Category</u> | <u>Output Impact<br/>per Dollar Spent<br/>(\$ 1999)</u> | <u>Value Added<br/>per Dollar Spent<br/>(\$ 1999)</u> | <u>Labor Income<br/>per Dollar Spent<br/>(\$ 1999)</u> |
|--|---|---|--|
| Wilkinson County<br>Project ID: 221760   | 1.21  | 0.51  | 0.33   |
| Engineering                              | 1.23  | 0.46  | 0.39   |
| Right-of-Way                             | 1.19  | 0.80  | 0.19   |
| Construction                             | 1.22  | 0.45  | 0.36   |
| Stewart County<br>Project ID: 322140     | 1.15  | 0.47  | 0.30   |
| Engineering                              | 0.00  | 0.00  | 0.00   |
| Right-of-Way                             | 1.11  | 0.78  | 0.17   |
| Construction                             | 1.16  | 0.41  | 0.32   |
| Wayne County<br>Project ID: 522430       | 1.26  | 0.53  | 0.37   |
| Engineering                              | 1.36  | 0.52  | 0.43   |
| Right-of-Way                             | 1.25  | 0.85  | 0.21   |
| Construction                             | 1.26  | 0.50  | 0.39   |

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on current dollar cost data provided by the Georgia Department of Transportation.

Table 2-5

Jobs Created per  
\$1,000,000 in Spending for  
Representative GRIP Projects

| <u>Area/Project<br/>Expense Category</u> | <u>Jobs per \$1,000,000<br/>in Spending</u> |
|--|---|
| Wilkinson County<br>Project ID: 221760   | 12.2  |
| Engineering                              | 17.3  |
| Right-of-Way                             | 8.2   |
| Construction                             | 13.0  |
| Stewart County<br>Project ID: 322140     | 11.9  |
| Engineering                              | 0.0   |
| Right-of-Way                             | 7.5   |
| Construction                             | 12.7  |
| Wayne County<br>Project ID: 522430       | 13.6  |
| Engineering                              | 20.8  |
| Right-of-Way                             | 11.0  |
| Construction                             | 13.9  |

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on current dollar cost data provided by the Georgia Department of Transportation.



Table 2-6

Total Employment Impact  
By Impacted Industry  
of Local Outlays for  
Representative GRIP Projects

| Industry<br>Aggregation <sup>1</sup> | Wilkinson County<br>Project ID: 221760<br>(jobs) | Stewart County<br>Project ID: 322140<br>(jobs) | Wayne County<br>Project ID: 522430<br>(jobs) |
|--------------------------------------|--|--|--|
| Agriculture                          | 4.8  | 2.5  | 0.9  |
| Mining                               | 0.1  | 0.0  | 0.0  |
| Construction                         | 192.5  | 105.8  | 91.6   |
| Manufacturing                        | 0.7  | 0.2  | 0.8  |
| TCPU                                 | 11.4   | 4.2  | 6.9  |
| Trade                                | 13.7   | 8.6  | 16.6   |
| FIRE                                 | 25.3   | 15.8   | 11.5   |
| Services                             | 29.3   | 8.3  | 13.5   |
| Government                           | 1.4  | 0.6  | 0.7  |
| Other                                | 1.4  | 0.1  | 0.7  |
| <b>Total</b>                         | <b>280.9</b>                                     | <b>146.0</b>                                   | <b>143.4</b>                                 |

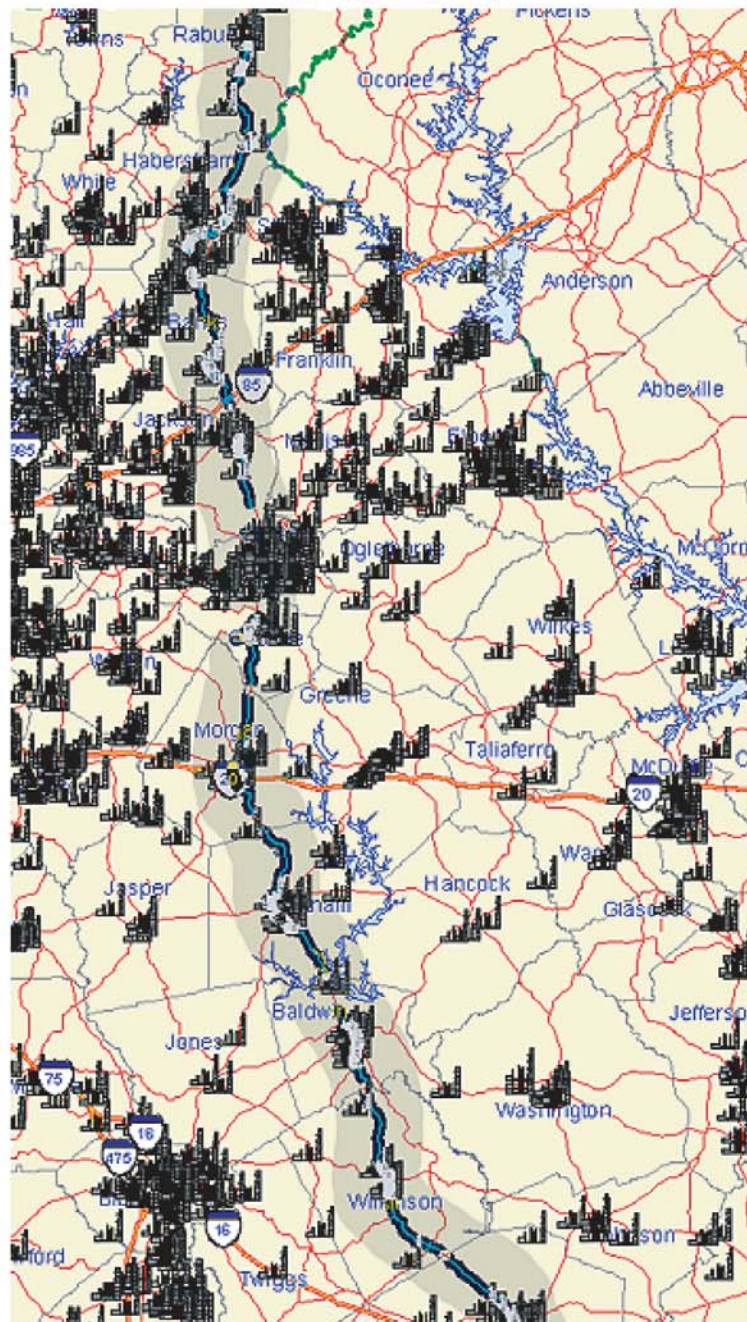
<sup>1</sup> TCPU refers to transportation, communications, and public utilities. Trade refers to wholesale and retail trade. FIRE refers to finance, insurance, and real estate.

Source: Selig Center for Economic Growth, Terry College of Business, University of Georgia, based on current dollar cost data provided by the Georgia Department of Transportation.

**APPENDIX III**

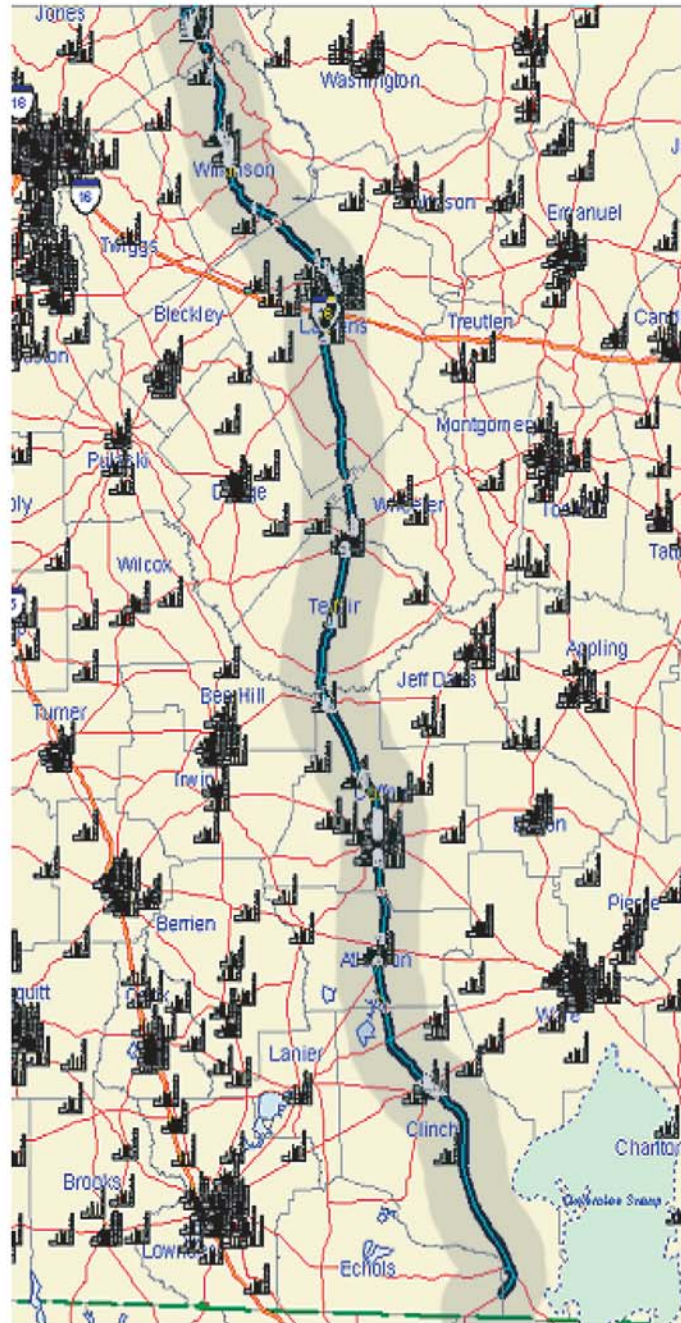
Figures 3-1 through 3-5 represent manufacturing establishments located within a six-mile radius from U.S. Highway 441, the Fall Line Freeway, U.S. Highway 19, and the South Georgia Parkway, respectively. Only rural areas-- i.e., areas that do not include metropolitan counties-- are included. The six-mile radius is marked in gray. For printing purposes, U.S. Highway 441 has been divided into two parts: North and South. The maps were created with the Georgia 2000 Information System mapping software, based on data from the Georgia Manufacturing Register.

Figure 3-1  
Manufacturing Establishments Within 6-Mile Radius From U.S.  
Highway 441 (North)



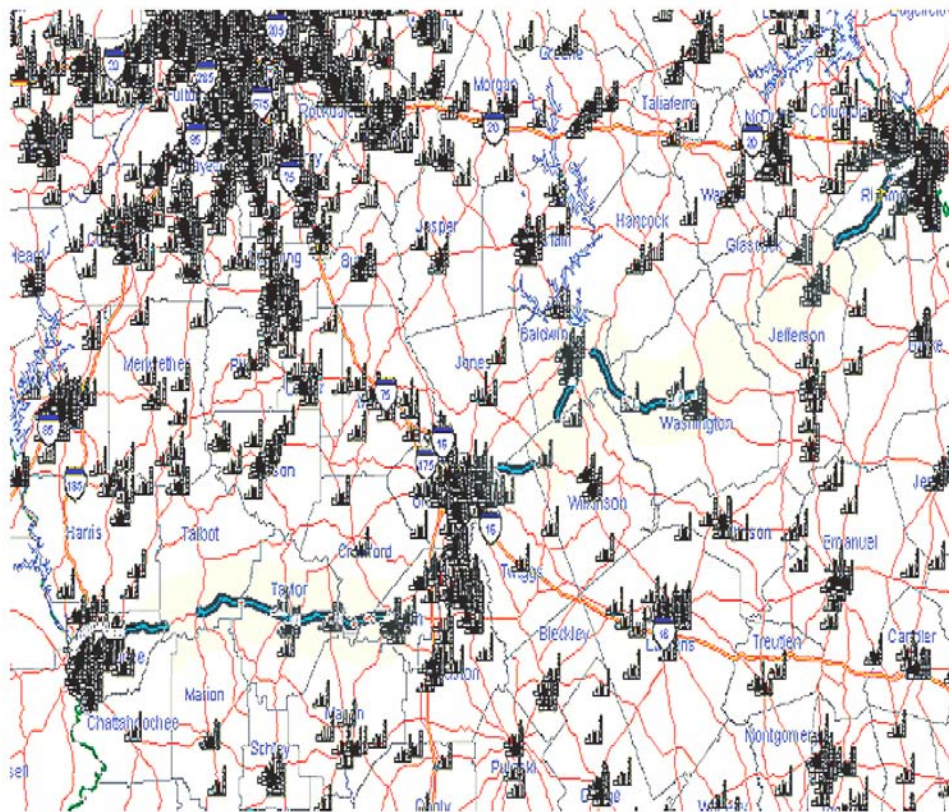
Source: Georgia 2000 Information System; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

Figure 3-2  
Manufacturing Establishments Within 6-Mile Radius  
From U.S. Highway 441 (South)



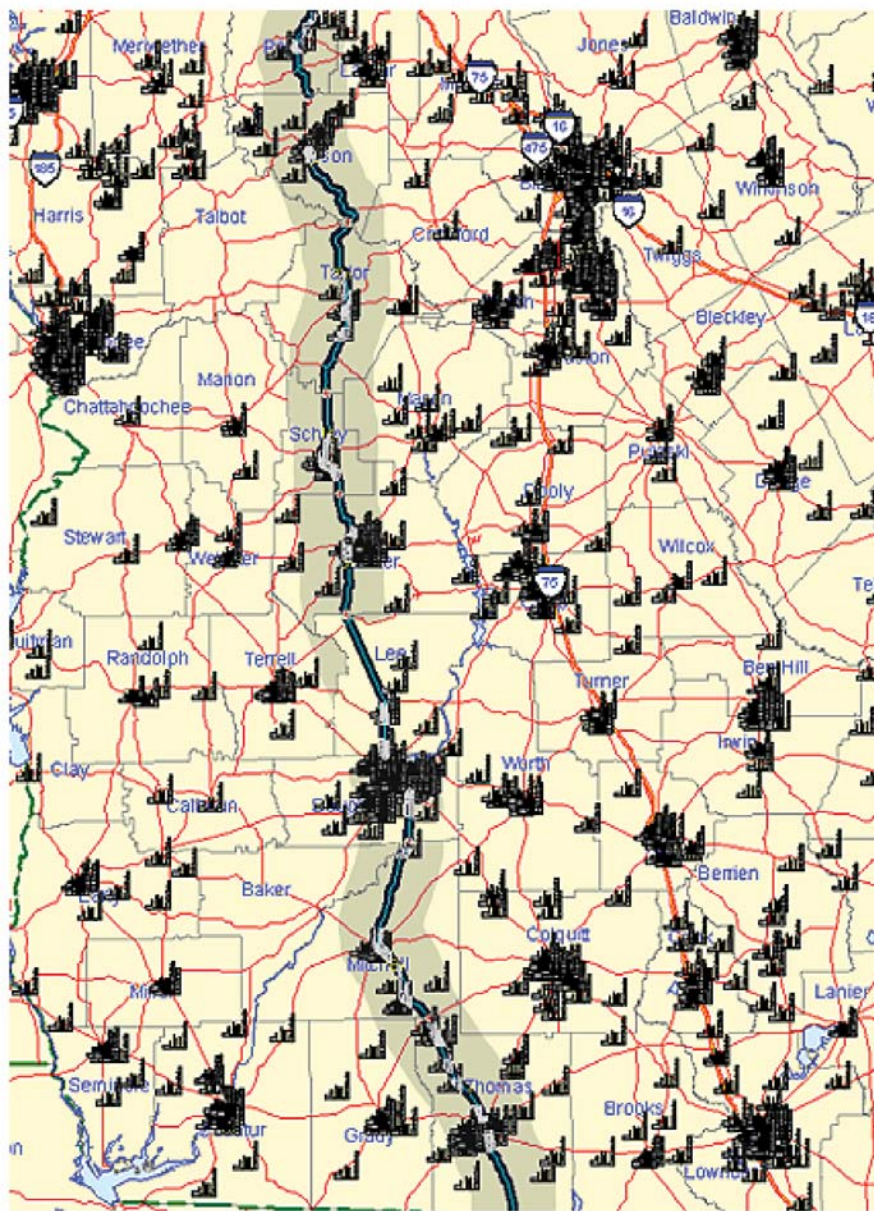
Source: Georgia 2000 Information System; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

Figure 3-3  
Manufacturing Establishments Within 6-Mile Radius From the Fall Line Freeway



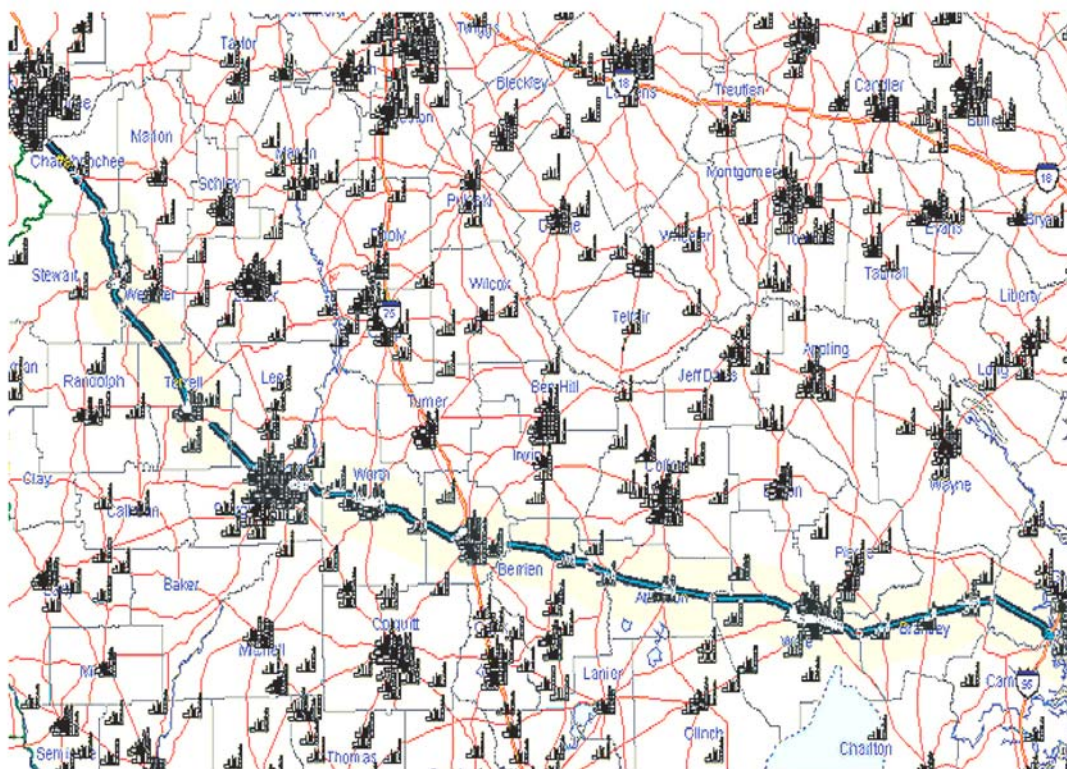
Source: Georgia 2000 Information System; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

Figure 3-4  
 Manufacturing Establishments Within 6-Mile Radius From U.S. Highway 19



Source: Georgia 2000 Information System; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.

Figure 3-5  
Manufacturing Establishments Within 6-Mile Radius From the South Georgia Parkway



Source: Georgia 2000 Information System; Selig Center for Economic Growth, Terry College of Business, The University of Georgia.



**Table 3-1**  
**Manufacturing Establishments Located**  
**Within 6-Mile Radius From U.S. Highway 441**

| Company                                       | City          | Product                    | Total<br>Employees |
|---|---------------|----------------------------|--------------------|
| <b>Atkinson County</b>                        |               |                            |                    |
| Cady Industries, Inc.                         | Pearson       | Open Mesh Bags             | 500                |
| Fleetwood Eagletrace II <sup>1</sup>          | Pearson       | Manufactured Housing       | 191                |
| Atkinson Co. Citizen                          | Pearson       | Newspaper Publishing       | 2                  |
| Willacoochee Industrial Fabrics <sup>1</sup>  | Willacoochee  | Woven Polypropylene Fabric | 44                 |
| Fleetwood Homes of Georgia, Inc. <sup>1</sup> | Willacoochee  | Manufactured Housing       | 200                |
|   |               | <b>Atkinson Total</b>      | <b>937</b>         |
| <b>Baldwin County</b>                         |               |                            |                    |
| Bass Signal Corporation <sup>2</sup>          | Milledgeville | Traffic Lights             | 16                 |
| Concord Fabrics, Inc. <sup>2</sup>            | Milledgeville | Double Knit                | 280                |
| Curly Shavings <sup>2</sup>                   | Milledgeville | Architectural Woodwork     | 2                  |
| Duckworth Farm Supply, Inc. <sup>2</sup>      | Milledgeville | Cattle Feed                | 6                  |
| Fowler-Flemister Concrete, Inc. <sup>2</sup>  | Milledgeville | Ready-Mixed Concrete       | 23                 |
| Glasrite, Inc. <sup>2</sup>                   | Milledgeville | Fiberglass Insulation      | 17                 |
| Hattaway Screen Printing <sup>2</sup>         | Milledgeville | Apparel Screen Printing    | 5                  |
| Heritage Printing, Inc. <sup>2</sup>          | Milledgeville | Commercial Printing        | 5                  |
| Innovative Packaging <sup>2</sup>             | Milledgeville | Corrugated Boxes           | 30                 |
| Rheem Manufacturing Co. <sup>2</sup>          | Milledgeville | Air Conditioning Units     | 1,050              |
| Ryals Bakery <sup>2</sup>                     | Milledgeville | Cakes                      | 8                  |
| Shaw Industries, Inc. <sup>2</sup>            | Milledgeville | Carpet Yarns               | 231                |
| Specialty Lumber Supply <sup>2</sup>          | Milledgeville | Heart Pine Flooring        | 9                  |
| Studio Designs Printing, Inc. <sup>2</sup>    | Milledgeville | Offset Printing            | 9                  |
| T & S Hardwoods, Inc. <sup>2</sup>            | Milledgeville | Hardwood Rough Lumber      | 94                 |
| The Print Shop <sup>2</sup>                   | Milledgeville | Signs                      | 2                  |
|   |               | <b>Baldwin Total</b>       | <b>1,787</b>       |
| <b>Banks County</b>                           |               |                            |                    |
| Mount Vernon Mills                            | Alto          | Industrial Laundry Goods   | 454                |
| Fieldale Farms Corp.                          | Baldwin       | Poultry Feeds              | 165                |
| Craven Pottery, Inc.                          | Commerce      | Terra Cotta Pottery        | 53                 |
| Martin Marietta Aggregates                    | Homer         | Crushed Stone              | 14                 |
| Wilson Pottery, Inc.                          | Lula          | Baskets                    | 8                  |
| Jordans Machine Shop                          | Lula          | Machine Shop Job Work      | 4                  |
| Browning Metal Plating                        | Maysville     | Metal Plating              | 8                  |
|   |               | <b>Banks Total</b>         | <b>706</b>         |
| <b>Clinch County</b>                          |               |                            |                    |
| Ashley Logging Inc.                           | Homerville    | Logging                    | 6                  |
| Smurfit-Stone Container Corporation           | Homerville    | Cypress Lumber             | 27                 |
| Clinch County News                            | Homerville    | Newspaper Printing         | 3                  |
| Lee Container Corp.                           | Homerville    | Plastic Bottles            | 155                |
| BWAY Corporation                              | Homerville    | Metal Containers & Cans    | 2,048              |
| Hendleys Machine Shop                         | Homerville    | Machine Shop               | 4                  |
|   |               | <b>Clinch Total</b>        | <b>2,243</b>       |

(continued)

Table 3-1 (continued)

**Manufacturing Establishments Located  
Within 6-Mile Radius From U.S. Highway 441**

| <b>Company</b>                           | <b>City</b> | <b>Product</b>                 | <b>Total<br/>Employees</b> |
|--|-------------|--------------------------------|----------------------------|
| <b>Coffee County</b>                     |             |                                |                            |
| Cargo Craft, Inc.                        | Ambrose     | All Purpose Cargo Trailers     | 32                         |
| D & J Pallets                            | Broxton     | Wood Pallets                   | 9                          |
| Gold Kist Poultry So. GA Division        | Douglas     | Whole Poultry & Parts          | 1,250                      |
| Professional Formulators                 | Douglas     | Animal Vitamin Premixes        | 10                         |
| Holts Bakery, Inc.                       | Douglas     | Cakes                          | 39                         |
| Splendid Treatments/Smith Designs        | Douglas     | Drapes                         | 4                          |
| Tanner Pulpwood Co., Inc.                | Douglas     | Logs & Pulpwood                | 11                         |
| Westfield Homes, Inc.                    | Douglas     | Mobile Homes                   | 155                        |
| Douglas Enterprise                       | Douglas     | Newspaper Printing/Publishing  | 18                         |
| Coffee County News & Shopper, Inc.       | Douglas     | Commercial Printing            | 13                         |
| Community Newspapers Holdings Inc.       | Douglas     | Circulars                      | 11                         |
| McElroy Printing Co.                     | Douglas     | Commercial Printing            | 5                          |
| Print Shoppe                             | Douglas     | Commercial Printing            | 5                          |
| South Ga. Business Products              | Douglas     | Commercial Printing            | 9                          |
| Douglas Fertilizer Co., Inc.             | Douglas     | Fertilizer Blending            | 5                          |
| S E S Industries Inc.                    | Douglas     | Water Treatment Chemicals      | 22                         |
| Douglas Asphalt Co.                      | Douglas     | Plant Mix Asphalt              | 310                        |
| Lott Builders Supply Co.                 | Douglas     | Concrete Mixed                 | 50                         |
| Scruggs Concrete Co.                     | Douglas     | Ready-Mixed Concrete           | 16                         |
| Esco Industries, Inc.                    | Douglas     | Laminated Gypsum Board         | 50                         |
| MarCraft, Inc.                           | Douglas     | Cultured Marble Tubs           | 100                        |
| Jackson Metals                           | Douglas     | Processed Scrap Metal          | 2                          |
| Elixir Industries, Division 27           | Douglas     | Aluminum Extrusions            | 150                        |
| Fab Tec, Inc.                            | Douglas     | Mobile Home Frames             | 44                         |
| Elixir Industries, Division 24           | Douglas     | Mobile Home Exterior Doors     | 201                        |
| Beasley Campers                          | Douglas     | Portable Buildings             | 3                          |
| InterMetro Industries, Inc.              | Douglas     | Wire Shelving                  | 170                        |
| Fabwel, Inc.                             | Douglas     | Metal Fabrication              | 100                        |
| Tecumseh Products Co.                    | Douglas     | Exhaust Emission Engines       | 850                        |
| Coffee County Machine & Iron Works       | Douglas     | Machine Shop                   | 5                          |
| Industrial Fabrication & Machine Co.     | Douglas     | Machine Shop Job Work          | 9                          |
| Thompson Machine Company, Inc.           | Douglas     | Machine Shop Job Work          | 20                         |
| Verlyn Enterprises, Inc.                 | Douglas     | Grinding                       | 16                         |
| PCC Airfoils, Inc., Douglas Div.         | Douglas     | Cast Turbine Airfoils-Aircraft | 940                        |
| Marine Mfg. Co.                          | Douglas     | Boats                          | 50                         |
|  |             | <b>Coffee Total</b>            | <b>4,684</b>               |
| <b>Dodge County</b>                      |             |                                |                            |
| Sylvan Hardwoods, LLC                    | McRae       | Hardwood & Cypress Lumber      | 72                         |
|  |             | <b>Dodge Total</b>             | <b>72</b>                  |
| <b>Habersham County</b>                  |             |                                |                            |
| Mount Vernon Mills, Inc., Alto Yarn Div. | Alto        | Yarn                           | 240                        |
| Parr Industries, Inc.                    | Alto        | Garden Textiles/Shade Fabrics  | 14                         |
| Bluegraphics                             | Alto        | Screen Printing                | 5                          |
| Regency Thermographers                   | Alto        | Thermography                   | 175                        |
| Signs Now                                | Alto        | Electric Safety Signs          | 4                          |
| Baldwin Garments, Inc.                   | Baldwin     | Ladies Slacks                  | 35                         |
| Nationwide Log Homes, Inc.               | Baldwin     | White Pine Logs                | 6                          |

(continued)

Table 3-1 (continued)

**Manufacturing Establishments Located  
Within 6-Mile Radius From U.S. Highway 441**

| <b>Company</b>                        | <b>City</b>  | <b>Product</b>                 | <b>Total<br/>Employees</b> |
|---------------------------------------|--------------|--------------------------------|----------------------------|
| <b>Habersham County (continued)</b>   |              |                                |                            |
| Gem Chem                              | Baldwin      | Janitorial Chemicals           | 10                         |
| Hettich Manufacturing                 | Baldwin      | Drawer Slides                  | 88                         |
| Ken-Bar Mfg. & Distributing Co.       | Baldwin      | Go-Karts                       | 92                         |
| CMI Industries-Greige Fabrics Div.    | Clarkesville | Polyester Curtain Fabric       | 223                        |
| C. P. Wilbanks, Jr. Lumber Co.        | Clarkesville | Dressed Lumber, Softwood       | 24                         |
| Mize & Burke Lumber Co.               | Clarkesville | Dressed Lumber, Softwood       | 12                         |
| McCollum Mfg. Co.                     | Clarkesville | Custom Cabinet Work            | NL                         |
| Millers Furniture Manufacturing Inc.  | Clarkesville | Cabinets                       | 6                          |
| All Service & Associates Printing     | Clarkesville | Commercial Printing            | 7                          |
| Bob & Teds Trophy Shop                | Clarkesville | Trophies                       | 3                          |
| Piedmont Automotive Product, Inc.     | Clarkesville | Electrical Automotive Parts    | 177                        |
| Fieldale Farms Corp.                  | Cornelia     | Poultry Processing             | 1,348                      |
| Cornelia Mill & Feed Co., Inc.        | Cornelia     | Animal Feed                    | 2                          |
| Cornelia Textiles, Inc.               | Cornelia     | Horticultural Shade Cloth      | 17                         |
| TC Baycor/RTCUSA                      | Cornelia     | Synthetic Woven Textiles       | 300                        |
| Short Mfg. Co.                        | Cornelia     | Children's Flotation Swimwear  | 20                         |
| Shade Tree                            | Cornelia     | Fabric Shade Covers            | 26                         |
| American Bag & Linen Co.              | Cornelia     | Aprons                         | 20                         |
| Georgia Mountain Timber Co., Inc.     | Cornelia     | Lumber                         | 10                         |
| Irvine Lumber Co., Inc.               | Cornelia     | Yellow Pine Lumber             | 20                         |
| Schnadig Corporation                  | Cornelia     | Upholstered Sofa Frames        | 63                         |
| Condor Industries, Inc.               | Cornelia     | Portable Storage/Office Bldgs. | 6                          |
| Northeast Georgian Publishing Co.     | Cornelia     | Newspaper Publishing           | 26                         |
| Habersham Lithographic Printing, Inc. | Cornelia     | Commercial Printing            | 1                          |
| Economy Glass & Upholstery, Inc.      | Cornelia     | Auto Glass                     | 3                          |
| Blue Circle Materials                 | Cornelia     | Ready-Mixed Concrete           | 24                         |
| Habersham Metal Products Co., Inc.    | Cornelia     | Steel Doors & Door Frames      | 195                        |
| Chattahoochee Locomotive Co., Inc.    | Cornelia     | Remfd. Diesel Locomotives      | 8                          |
| Ethicon, Inc.                         | Cornelia     | Wound Closures                 | 564                        |
| Cornelia Broom Co.                    | Cornelia     | Brooms                         | 29                         |
| Hanson Aggregates                     | Demorest     | Crushed Stone-Granite          | 15                         |
| Eldco Manufacturing Inc.              | Mount Airy   | Contract Sewing                | 6                          |
| Mt. Airy Wood Preserving Co.          | Mount Airy   | Pressure Treated Fence Posts   | 5                          |
| Southern Craftsmens Guild, Inc.       | Mount Airy   | Household Furniture            | 90                         |
| Currahee Trailers, Inc.               | Mount Airy   | Equipment Trailers             | 5                          |
| Mt. Airy Machine Shop, Inc.           | Mount Airy   | General Machine Shop           | 3                          |
| Sanders Machine Shop                  | Mount Airy   | Machine Shop                   | 1                          |
| North Georgia Woodworks, Inc.         | Toccoa       | Cabinet Doors                  | 4                          |
| Caudell Tool & Machine                | Toccoa       | Fabricated Products            | 6                          |
| All Metal, Inc.                       | Toccoa       | Textile Machine Parts          | 12                         |
|                                       |              | <b>Habersham Total</b>         | <b>3,950</b>               |
| <b>Jackson County</b>                 |              |                                |                            |
| Mount Vernon Mills                    | Commerce     | Cotton Yarns                   | 152                        |
| Hydrotex Synthetics                   | Commerce     | Water Erosion Fabrics          | 15                         |
| Porter Pulpwood & Logging             | Commerce     | Lumber                         | 3                          |
| Solartech                             | Commerce     | Kitchen Cabinets               | 42                         |
| J. M. Huber Corp.                     | Commerce     | Oriented Strand Board          | 150                        |
| The Commerce News                     | Commerce     | Newspaper                      | 6                          |
| Commerce Printing & Office Supply     | Commerce     | Commercial Printing            | 4                          |

Table 3-1 (continued)

**Manufacturing Establishments Located  
Within 6-Mile Radius From U.S. Highway 441**

| <b>Company</b>                        | <b>City</b> | <b>Product</b>                 | <b>Total<br/>Employees</b> |
|---------------------------------------|-------------|--------------------------------|----------------------------|
| <b>Jackson County (continued)</b>     |             |                                |                            |
| Commerce Plastics                     | Commerce    | Plastic Parts                  | 59                         |
| Blue Circle Materials                 | Commerce    | Ready-Mixed Concrete           | 7                          |
| B & G Fuel Systems, Inc.              | Commerce    | Flow Dividers, Gas Turbines    | 8                          |
| TraMar Inc. d/b/a Dirt Dog Mfg.       | Commerce    | Tractor Attachments            | 19                         |
| Roper Pump Co.                        | Commerce    | Industrial Pumps               | 198                        |
| Metro Machine Works, Inc.             | Commerce    | Automatic Packaging Equipment  | 3                          |
| Seagraves Weld & Machine              | Commerce    | Machine Shop                   | 5                          |
| Shoffner Industries                   | Jefferson   | Wood Floor & Roof Trusses      | 44                         |
| Parr Manufacturing and Rewind, Inc.   | Jefferson   | Recyc. Thermal Print Cassettes | 5                          |
| Rhodes Lumber                         | Nicholson   | Pallets                        | NL                         |
|                                       |             | <b>Jackson Total</b>           | <b>720</b>                 |
| <b>Laurens County</b>                 |             |                                |                            |
| Hi-Tek Rations                        | Dublin      | Dog Food                       | 12                         |
| Williamsons Bakery                    | Dublin      | Bread                          | 5                          |
| Southern Peanut & Storage Co.         | Dublin      | Peanut Processing              | 4                          |
| Victor Forstmann, Inc.                | Dublin      | Wool & Wool Blend Fabrics      | 700                        |
| Evans Cabinet Corp.                   | Dublin      | Wood Cabinets                  | 200                        |
| Shamrock Custom Kitchens              | Dublin      | Custom Kitchen Cabinets        | 2                          |
| Bassett Furniture Ind. of N.C., Inc.  | Dublin      | Case Goods - Bedroom Furniture | 470                        |
| Kellam Cabinet, Inc.                  | Dublin      | Wood Cabinets                  | 22                         |
| Confederate Packaging, Inc.           | Dublin      | Corrugated Interior Packaging  | 22                         |
| Courier-Herald Publishing Co.         | Dublin      | Newspaper Printing             | 34                         |
| The Bargain Hunter                    | Dublin      | Classified Shopper             | 6                          |
| Southern Printing Co.                 | Dublin      | Offset Job Printing            | 12                         |
| Alexanders Office Equipment           | Dublin      | Commercial Printing            | 19                         |
| Middle Georgia Business Products Inc. | Dublin      | Commercial Printing            | 28                         |
| Roche Mfg. Co.                        | Dublin      | Fertilizer                     | 17                         |
| Middle Georgia Easter Seal            | Dublin      | Foam Fabrications              | 362                        |
| Custom Showers & Pro Glass            | Dublin      | Commercial/Residential Glass   | 3                          |
| Dublin Burial Vault Co., Inc.         | Dublin      | Burial Vaults                  | 18                         |
| B. H. Hall Ready Mixed Concrete       | Dublin      | Ready-Mixed Concrete           | 17                         |
| Concrete of Dublin                    | Dublin      | Ready-Mixed Concrete           | NL                         |
| McDaniel Monument                     | Dublin      | Monuments                      | NL                         |
| Applied Services Aerospace            | Dublin      | Brazing for Aerospace Ind.     | 10                         |
| YKK AP America, Inc.                  | Dublin      | Aluminum Doors & Window Frames | 270                        |
| Evans Sheet Metal Works               | Dublin      | Sheet Metal Work               | 2                          |
| Rulli Metal Products                  | Dublin      | Metal Awnings                  | 5                          |
| Lytech Corp.                          | Dublin      | Stamped Metal Components       | 30                         |
| Hobbs Specialties                     | Dublin      | Engraving Trophies & Plaques   | 7                          |
| Dublin Trophy & Engraving             | Dublin      | Trophies                       | 1                          |
| New Holland                           | Dublin      | Farm Tractors                  | 92                         |
| Silver Edge Mfg. Co., Inc.            | Dublin      | Farm Wagons & Equipment        | 12                         |
| Harpers Precision Die Co.             | Dublin      | Steel Rule Dies                | 1                          |
| Vann Air                              | Dublin      | Aux. Air Conditioners for Vans | 5                          |
| Dixie Machine & Tool                  | Dublin      | Job Shop                       | 10                         |
| Rawls Enterprises, Inc.               | Dublin      | Machine Shop                   | 7                          |
| Dublin Plastics, Inc.                 | Dublin      | Plastic Electronic Components  | 10                         |
| Rockwell Automation                   | Dublin      | Programmable Controllers       | 461                        |

(continued)

Table 3-1 (continued)

**Manufacturing Establishments Located  
Within 6-Mile Radius From U.S. Highway 441**

| Company  | City        | Product                            | Total<br>Employees |
|--|-------------|------------------------------------|--------------------|
| <b>Laurens County (continued)</b>                    |             |                                    |                    |
| Parker Aerospace                                     | Dublin      | Aircraft Control Systems           | 248                |
| Alligood Custom Signs                                | Dublin      | Custom Signs                       | 1                  |
| Wyatt Sign Co.                                       | Dublin      | Signs                              | 5                  |
| Cook Cabinet Shop                                    | East Dublin | Kitchen Cabinets                   | 2                  |
| East Dublin Concrete Pdts. Co. Inc.                  | East Dublin | Concrete Blocks                    | 16                 |
| East Dublin Redi-Mix Concrete                        | East Dublin | Ready-Mixed Concrete               | 6                  |
| Thomas Machine Shop                                  | East Dublin | Machine Shop                       | 3                  |
| Rentz Cabinet Co., Inc.                              | Rentz       | Kitchen & Bathroom Cabinets        | 105                |
|  |             | <b>Laurens Total</b>               | <b>3,262</b>       |
| <b>Morgan County</b>                                 |             |                                    |                    |
| Pennington Seed, Inc.                                | Madison     | Wild Bird Seed                     | 750                |
| Southern States, Inc.                                | Madison     | Livestock Feeds                    | 7                  |
| Wellington Leisure Products, Inc.                    | Madison     | Marine Products                    | 1,300              |
| Sweet-Orr & Co., Inc.                                | Madison     | Men's Slacks                       | 74                 |
| International Paper                                  | Madison     | Hardwood Chips                     | 7                  |
| Georgia-Pacific Corp.                                | Madison     | Southern Yellow Pine Plywood       | 350                |
| V. Madisonlian                                       | Madison     | Newspaper Commercial Printing      | 7                  |
| J & M Limited  | Madison     | Commercial Printing                | 2                  |
| Nu-Art Printers                                      | Madison     | Commercial Printing                | 7                  |
| Flambeau S.E. Corp.                                  | Madison     | Custom Inject & Blow Molding       | 132                |
| Ivex Corp.   | Madison     | Plastic Trays                      | 193                |
| Sovis North America                                  | Madison     | Commercial Bent Refrigerator Glass | 14                 |
| All State Septic Tanks                               | Madison     | Septic Tanks                       | 2                  |
| B & B Concrete Products, Inc.                        | Madison     | Concrete Septic Tanks              | 2                  |
| Fowler-Flemister Concrete, Inc.                      | Madison     | Ready-Mixed Concrete               | 7                  |
| Bard Mfg. Co.  | Madison     | Heating/Air Conditioning Units     | 152                |
| Cumming Bros. Hydraulics, Inc.                       | Madison     | Hydraulic Cylinders                | 3                  |
| Denon Digital Industries                             | Madison     | Compact Audio Discs                | 225                |
| Brown Art Signs                                      | Madison     | Custom Signs                       | 2                  |
| Amtico International                                 | Madison     | Vinyl Tile                         | 25                 |
|  |             | <b>Morgan Total</b>                | <b>3,261</b>       |
| <b>Putnam County</b>                                 |             |                                    |                    |
| Eatonton Co-Operative Feed Co.                       | Eatonton    | Feed Ingredients                   | 20                 |
| M S P Feed Co.                                       | Eatonton    | Agricultural Feeds                 | 9                  |
| Wellington Leisure Products, Inc.                    | Eatonton    | Cordage & Rope                     | 96                 |
| Perky Cap Co, Inc.                                   | Eatonton    | Caps                               | 120                |
| Haleyville Manufacturing                             | Eatonton    | Mobile Home Curtains               | 18                 |
| Middle Ga. Logging Inc.                              | Eatonton    | Pulp Wood & Saw Timber             | 7                  |
| Hallman Wood Products                                | Eatonton    | Dressed Softwood Lumber            | 86                 |
| Universal Forest Products, Inc.                      | Eatonton    | Mobile Home Rafters                | 70                 |
| Horton Homes, Inc.                                   | Eatonton    | Manufactured Homes                 | 1,400              |
| Coleman Furniture Co., Inc.                          | Eatonton    | Living Room Furniture              | 33                 |
| GHB Corp., d/b/a Georgia Sleep Shop                  | Eatonton    | Mattresses & Box Springs           | 5                  |
| Putnam Printing Co., Inc.                            | Eatonton    | Newspaper Publishing               | 9                  |
| Gro Tec, Inc.  | Eatonton    | Plant Food                         | 57                 |
| Fiberglass, Inc.                                     | Eatonton    | Fiberglass Bathtubs/Showers        | 38                 |
| Hy-Lite Products, Inc.                               | Eatonton    | Acrylic Block Windows              | 68                 |
| Fowler-Flemister Concrete, Inc.,<br>Lake Oconee Plt. | Eatonton    | Ready-Mixed Concrete               | 8                  |

Table 3-1 (continued)

**Manufacturing Establishments Located  
Within 6-Mile Radius From U.S. Highway 441**

| <b>Company</b>                            | <b>City</b>    | <b>Product</b>                 | <b>Total<br/>Employees</b> |
|---|----------------|--------------------------------|----------------------------|
| <b>Putnam County (continued)</b>          |                |                                |                            |
| Custom Metal, Inc.                        | Eatonton       | Architectural/Decorative Metal | 18                         |
| Southeastern Portable Buildings, Inc.     | Eatonton       | Metal Portable Storage Bldgs.  | 13                         |
| Tom Thompson Co., Inc.                    | Eatonton       | Dairy Machinery & Cow Washers  | 20                         |
| Wilson Machine & Tool, Inc.               | Eatonton       | Machine Job Shop               | 2                          |
| Alonan Mfg., Inc.                         | Eatonton       | Aluminum Coffee Urns           | 20                         |
| Continental Manufactured Housing Products | Eatonton       | Mobile Home Axles              | 60                         |
| A. I. Ketcher Corp.                       | Milledgeville  | Electric/Plastic/Wood Signs    | 5                          |
|   |                | <b>Putnam Total</b>            | <b>2,182</b>               |
| <b>Rabun County</b>                       |                |                                |                            |
| Clayton Tribune - Community News, Inc     | Clayton        | Weekly Newspaper               | 15                         |
| The Stutsman Co., Inc.d/b/a J&M Printing  | Clayton        | Commercial Printing            | 9                          |
| Clayton Welding & Supply, Inc.            | Clayton        | Fabricated Metal Products      | 3                          |
| The A I D Corp.                           | Clayton        | Aircraft Components            | 43                         |
| Valley Drapery & Design, Inc.             | Dillard        | Custom Draperies               | 3                          |
| LaReina                                   | Lakemont       | Bridal Gowns                   | 7                          |
| Lakemont Mfg Co., Inc.                    | Lakemont       | Ladies Sportswear              | 36                         |
| Lake Rabun Cabinet Shop, Inc.             | Lakemont       | Wood Kitchen Cabinets          | 5                          |
| Garland Cabinet Shop, Inc.                | Mountain City  | Kitchen Cabinets               | 6                          |
| Gillespie Cabinet Shop, Inc.              | Mountain City  | Kitchen & Bath Cabinets        | 6                          |
| Gap Graphics & Printing                   | Mountain City  | Mountain Review Magazine       | 6                          |
| Gordon Mills Mfg., Inc.                   | Mountain City  | Bedroom Slippers               | 25                         |
| Blalock Meats Processing, Inc.            | Rabun Gap      | Pork Sausage                   | 4                          |
| Rabun Apparel, Inc.                       | Rabun Gap      | Cotton Fabric                  | 908                        |
| National Textile Corp.                    | Rabun Gap      | Yarn                           | 428                        |
| Carson & Cohen-Timberline Door & Millwork | Rabun Gap      | Millwork Products              | 5                          |
| Vulcan Materials Co., Southeast Div.      | Rabun Gap      | Crushed Stone                  | 16                         |
| Gap Manufacturing Co.                     | Rabun Gap      | Sheet Metal Fabrication        | 38                         |
| Darnell Mechanical                        | Rabun Gap      | Machine Shop                   | 0                          |
| Wild Wood Works                           | Tallulah Falls | Rustic Twig Furniture          | 1                          |
| Hillside Orchard Farms, Inc.              | Tiger          | Dressings & Sauces             | 20                         |
| Rabun Metal Products Co., Inc.            | Tiger          | Steel Bed Frames               | 65                         |
|   |                | <b>Rabun Total</b>             | <b>1,649</b>               |
| <b>Stephens County</b>                    |                |                                |                            |
| Morgan Concrete Co.                       | Toccoa         | Ready-Mixed Concrete           | 100                        |
|   |                | <b>Stephens Total</b>          | <b>100</b>                 |
| <b>Telfair County</b>                     |                |                                |                            |
| McRae Business Machines                   | Helena         | Commercial Printing            | 1                          |
| Eckles Machine Shop                       | Helena         | Machine Job Shop               | 3                          |
| Rayonier                                  | Lumber City    | Softwood Lumber                | 78                         |
| Yawn Meats, Inc.                          | McRae          | Meat Processing                | 10                         |
| Ross-Smith Pecan Co., Inc.                | McRae          | Pecan Processing               | 23                         |
| Big Es Designs, Inc.                      | McRae          | Textile Silk Screen Printing   | 1                          |
| Wilkins Industries, Inc.                  | McRae          | Women's Jeans                  | 163                        |
| Southeast Woodlands, Inc.                 | McRae          | Timbers                        | 15                         |
| Southland Modular                         | McRae          | Modular Buildings              | 75                         |
| Blue Circle Materials                     | McRae          | Ready-Mixed Concrete           | 5                          |
| Frigidaire Home Products                  | McRae          | Lawn Mowers                    | 673                        |
|   |                | <b>Telfair Total</b>           | <b>1,047</b>               |

**Table 3-1 (continued)**  
**Manufacturing Establishments Located**  
**Within 6-Mile Radius From U.S. Highway 441**

| Company  | City       | Product                      | Total<br>Employees |
|--|------------|------------------------------|--------------------|
| <b>Wilkinson County</b>                                    |            |                              |                    |
| International Paper  | Gordon     | Wood Chips                   | 5                  |
| Wilkinson Kaolin Associates, Ltd.                          | Gordon     | Kaolin                       | 64                 |
| Culpepper Wood Products, Inc.                              | Irwinton   | Pallet Lumber                | 13                 |
| Wilco Wood Works, Inc.                                     | Irwinton   | Wooden Pallets               | 64                 |
| Wilkinson County News                                      | Irwinton   | Weekly Newspaper Publishing  | 6                  |
| Mason Sales Co.  | Irwinton   | Circle/Carbide/Stellite Saws | 13                 |
| Wilkinson Steel, Inc.                                      | Ivey       | Fabricated Metal Products    | 13                 |
| Fountain Pallet Co., Inc.                                  | McIntyre   | Wooden Pallets & Skids       | 15                 |
| M & M Clays, Inc.  | McIntyre   | Kaolin Processing            | 30                 |
| Unimin Corporation   | McIntyre   | Fiber Glass Feed Stock       | 56                 |
| Carbo Ceramics, Inc.                                       | McIntyre   | Ceramic Proppants            | 12                 |
| Woody Lumber Co., Inc.                                     | Toombsboro | Hardwood Lumber              | 12                 |
| Engelhard Corp.,<br>Middle Georgia Operations <sup>2</sup> | McIntyre   | Kaolin Clay                  | 1,193              |
| Mason Pallet, Inc. <sup>2</sup>                            | McIntyre   | Wooden Stacker Sticks        | 20                 |
|  |            | <b>Wilkinson Total</b>       | <b>1,504</b>       |
|  |            | <b>TOTAL</b>                 | <b>28,104</b>      |

NL Not listed.

<sup>1</sup> U.S. 441 and South Georgia Parkway intersection. Also listed with South Georgia Parkway

<sup>2</sup> U.S. 441 and Fall Line Freeway Intersection. Also listed with Fall Line Freeway.

Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia, based on: Office of Information Technology Services, Georgia 2000 Information System. Manufactures data based on the Georgia Manufacturing Directory (GDITT)

**Table 3-2**

**Manufacturing Establishments Located  
Within 6-Mile Radius From the Fall Line Freeway**

| <b>Company</b>                                      | <b>City</b>   | <b>Product</b>                 | <b>Total<br/>Employees</b> |
|---|---------------|--------------------------------|----------------------------|
| <b>Baldwin County</b>                               |               |                                |                            |
| Bass Signal Corporation <sup>1</sup>                | Milledgeville | Traffic Lights                 | 16                         |
| Concord Fabrics, Inc. <sup>1</sup>                  | Milledgeville | Double Knit                    | 280                        |
| Curly Shavings <sup>1</sup>                         | Milledgeville | Architectural Woodwork         | 2                          |
| Duckworth Farm Supply, Inc. <sup>1</sup>            | Milledgeville | Cattle Feed                    | 6                          |
| Fowler-Flemister Concrete, Inc. <sup>1</sup>        | Milledgeville | Ready-Mixed Concrete           | 23                         |
| Glasrite, Inc. <sup>1</sup>                         | Milledgeville | Fiberglass Insulation          | 17                         |
| Hattaway Screen Printing <sup>1</sup>               | Milledgeville | Apparel Screen Printing        | 5                          |
| Heritage Printing, Inc. <sup>1</sup>                | Milledgeville | Commercial Printing            | 5                          |
| Innovative Packaging <sup>1</sup>                   | Milledgeville | Corrugated Boxes               | 30                         |
| Rheem Manufacturing Co. <sup>1</sup>                | Milledgeville | Air Conditioning Units         | 1,050                      |
| Ryals Bakery <sup>1</sup>                           | Milledgeville | Cakes                          | 8                          |
| Shaw Industries, Inc. <sup>1</sup>                  | Milledgeville | Carpet Yarns                   | 231                        |
| Specialty Lumber Supply <sup>1</sup>                | Milledgeville | Heart Pine Flooring            | 9                          |
| Studio Designs Printing, Inc. <sup>1</sup>          | Milledgeville | Offset Printing                | 9                          |
| T & S Hardwoods, Inc. <sup>1</sup>                  | Milledgeville | Hardwood Rough Lumber          | 94                         |
| The Print Shop <sup>1</sup>                         | Milledgeville | Signs                          | 2                          |
|   |               | <b>Baldwin Total</b>           | <b>1,787</b>               |
| <b>Harris County</b>                                |               |                                |                            |
| Steinhaus Printing Services                         | Cataula       | Commercial Printing            | 6                          |
|   |               | <b>Harris Total</b>            | <b>6</b>                   |
| <b>Jefferson County</b>                             |               |                                |                            |
| Hodges Machine Shop, Inc.                           | Bartow        | Job Shop                       | 4                          |
| Cadet Mfg. Corp.                                    | Louisville    | Curtains                       | 175                        |
| A. P. Jones Timber Co.                              | Louisville    | Logging                        | 5                          |
| Dixieland Wood Products, Inc.                       | Louisville    | Pallets                        | 26                         |
| Fall Line Publishing, Inc.                          | Louisville    | Newspaper Publishing           | 9                          |
| The News & Farmer/Jefferson Reporter                | Louisville    | Publishing                     | 7                          |
| Thermo King Corp.                                   | Louisville    | Transport Refrigeration Equip. | 437                        |
| Battle Lumber Co., Inc.                             | Wadley        | Wooden Pallets                 | 240                        |
| Fulghum Industries, Inc.                            | Wadley        | Wood Yard Chipping Systems     | 125                        |
| Rachels Machine & Fabrication, Inc.                 | Wadley        | Precision Machining            | 10                         |
| Atwell Pecan Co., Inc.                              | Wrens         | Shelled Pecan Meats, Processed | 20                         |
| Lamb Lumber Holding Co., Inc.                       | Wrens         | Rough Hardwood                 | 72                         |
| Glit, Inc.  | Wrens         | Floor Buffer Pads              | 207                        |
| A & M Products Manufacturing Company                | Wrens         | Cat Litter                     | 88                         |
| Georgia Tennessee Mining & Chem. Co.                | Wrens         | Fullers Earth Processing       | 42                         |
| J. M. Huber Corp., Engineered<br>Materials Division | Wrens         | Kaolin Processing              | 178                        |
| Lewis Steel Works                                   | Wrens         | Refuse Containers              | 122                        |
| Air Balance, Inc., Div. of MESTEK, Inc.             | Wrens         | Kickspace Heaters              | 119                        |
|   |               | <b>Jefferson Total</b>         | <b>1,886</b>               |

(continued)



**Table 3-2 (continued)**  
**Manufacturing Establishments Located**  
**Within 6-Mile Radius From the Fall Line Freeway**

| <b>Company</b>  | <b>City</b>  | <b>Product</b>               | <b>Total Employees</b> |
|---|--------------|------------------------------|------------------------|
| <b>Taylor County</b>                                    |              |                              |                        |
| Peed Bros. Inc. <sup>2</sup>                            | Butler       | Prepared Animal Feed         | 9                      |
| M F & H Textiles, Inc. <sup>2</sup>                     | Butler       | Specialty Dyeing & Finishing | 77                     |
| Taylor County News <sup>2</sup>                         | Butler       | Weekly Newspaper             | 2                      |
| Benns Printing Co. <sup>2</sup>                         | Butler       | Brochures                    | 4                      |
| Suggs Machine & Welding Co., Inc. <sup>2</sup>          | Butler       | Shellers, Cleaners & Graders | 7                      |
| BAE Systems <sup>2</sup>                                | Butler       | Wiring Harnesses             | 18                     |
| Master Builders   | Reynolds     | Concrete Admixtures          | 7                      |
|   |              | <b>Taylor Total</b>          | <b>124</b>             |
| <b>Washington County</b>                                |              |                              |                        |
| The Feed Mill, Inc.                                     | Sandersville | Beef Cattle Feed             | 7                      |
| Cooks Ice Co., Inc.                                     | Sandersville | Ice                          | 15                     |
| Crossties of Virginia                                   | Sandersville | Crossties                    | 35                     |
| The Sandersville Progress                               | Sandersville | Newspaper Publishing         | 8                      |
| Stewart Printing Co.                                    | Sandersville | Commercial Printing          | 2                      |
| WACO Chemical Company, Inc.                             | Sandersville | Sodium Polyacrylate          | 2                      |
| Prentiss, Inc.  | Sandersville | Liquid Insecticides          | 19                     |
| Evans Adhesive Corp.                                    | Sandersville | Hot Melt Adhesives           | 10                     |
| CSR - Poly Pipe   | Sandersville | Polyethylene Pipe            | 21                     |
| Lapp Insulator Co.                                      | Sandersville | High Voltage Insulators      | 157                    |
| Smith Sheppard Supply., Inc.                            | Sandersville | Ready-Mixed Concrete         | 45                     |
| Engelhard Corp.   | Sandersville | Kaolin Processing            | 90                     |
| Burgess Pigment Co.                                     | Sandersville | Kaolin Processing            | 160                    |
| Kentucky-Tennessee Clay Co.                             | Sandersville | Kaolin Processing            | 70                     |
| Thiele Kaolin Co.                                       | Sandersville | Kaolin Processing            | 553                    |
| C & B   | Tennille     | Veneer                       | 59                     |
| Ameriduct Worldwide, Inc.                               | Tennille     | Polyethylene Pipe            | 43                     |
|   |              | <b>Washington Total</b>      | <b>1,296</b>           |
| <b>Wilkinson County</b>                                 |              |                              |                        |
| Elite Coatings Company                                  | Gordon       | Industrial Coatings          | 12                     |
| Mason Pallet, Inc. <sup>1</sup>                         | McIntyre     | Wooden Stacker Sticks        | 20                     |
| Engelhard Corp., Middle Georgia Operations <sup>1</sup> | McIntyre     | Kaolin Clay                  | 1,193                  |
|   |              | <b>Wilkinson Total</b>       | <b>1,225</b>           |
|   |              | <b>TOTAL</b>                 | <b>6,324</b>           |

<sup>1</sup> Fall Line Freeway and U.S. 441 Intersection. Also listed with U.S. 441

<sup>2</sup> Fall Line Freeway and U.S. 19 intersection. Also listed with U.S. 19

Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia, based on: Office of Information Technology Services, Georgia 2000 Information System. Manufactures data based on the Georgia Manufacturing Directory (GDITT)

**Table 3-3**

**Manufacturing Establishments Located  
Within 6-Mile Radius From U.S. Highway 19**

| <b>Company</b>                           | <b>City</b> | <b>Product</b>                 | <b>Total<br/>Employees</b> |
|--|-------------|--------------------------------|----------------------------|
| <b>Lamar County</b>                      |             |                                |                            |
| Evans Timber Co., Inc.                   | Milner      | Logging                        | 20                         |
|  |             | <b>Lamar Total</b>             | <b>20</b>                  |
| <b>Mitchell County</b>                   |             |                                |                            |
| R C M Enterprises, Inc.                  | Baconton    | Women's Sportswear             | 120                        |
| Big Boy Meats, Inc.                      | Camilla     | Processed Pork                 | 12                         |
| Cagles/Keystone Foods                    | Camilla     | Boneless Poultry               | 2,000                      |
| Simpson Lumber                           | Camilla     | Rough Lumber                   | 4                          |
| Southeastern Truss, Inc.                 | Camilla     | Roof Trusses                   | 18                         |
| The Camilla Enterprise                   | Camilla     | Newspaper Printing             | 13                         |
| Brown-Coe Printing Co.                   | Camilla     | Offset Job Printing            | 2                          |
| Hays Sales & Service, Inc.               | Camilla     | Fiberglass Tanks               | 11                         |
| Hays Sales & Service, Inc.               | Camilla     | Fiberglass Tanks               | 11                         |
| Tri-State Pre-Cast                       | Camilla     | Septic Tanks                   | 5                          |
| Southern Concrete/A Div. of Florida Rock | Camilla     | Ready-Mixed Concrete           | 4                          |
| Anderson Manufacturing, Inc.             | Camilla     | Utility & Equipment Trailers   | 50                         |
| Trampoline Recreation Supply             | Cotton      | Exercisers                     | 7                          |
| Daughtry Trailers                        | Meigs       | Livestock Trailers             | 2                          |
| Daughtry Trailers                        | Meigs       | Livestock Trailers             | 2                          |
| Darwood Mfg. Co.                         | Pelham      | Men's Shirts                   | 270                        |
| J. L. Eubanks Pulpwood Co.               | Pelham      | Pulpwood                       | 25                         |
| Alexander-Harris Co., Inc.               | Pelham      | Single Ply Veneer              | 47                         |
| The Pelham Journal                       | Pelham      | Newspaper Printing             | 3                          |
| Universal Shelters of America, Inc.      | Pelham      | Quonset Shelters 10- 65 wd.    | 8                          |
| Flynts Auto Machine Shop, Inc.           | Pelham      | Custom Machine Shop            | 6                          |
| Multi-Graphics, Inc.                     | Pelham      | Interior Architectural Signage | 18                         |
|  |             | <b>Mitchell Total</b>          | <b>2,638</b>               |
| <b>Pike County</b>                       |             |                                |                            |
| Sonnys Ice Inc.                          | Concord     | Bagged Ice                     | 11                         |
| General Machine-Diecron, Inc.            | Griffin     | Dies, Tools, Jigs & Fixtures   | 30                         |
| Supreme Corporation                      | Griffin     | Dry Freight Van Bodies         | 226                        |
| William Carter Co.                       |             |                                |                            |
| d/b/a Carters Childrenswear              | Milner      | Embroideries                   | 150                        |
| Touchstone Embroidery, Inc.              | Zebulon     | Schiffli Machine Embroideries  | 13                         |
| Palco Industries, Inc.                   | Zebulon     | Wooden Pallets                 | 13                         |
| Pike County Journal & Reporter           | Zebulon     | Weekly Newspaper Publishing    | 4                          |
|  |             | <b>Pike Total</b>              | <b>447</b>                 |
| <b>Schley County</b>                     |             |                                |                            |
| Plains Products, Inc.                    | Ellaville   | Laminated Wood Mouldings       | 16                         |
| UMDI                                     | Ellaville   | Cabinet Component Parts        | 30                         |
| Kings Custom Builders, Inc.              | Ellaville   | Mobile Office Units            | 205                        |
| AAA Modular Buildings, Inc.              | Ellaville   | Modular Buildings              | 35                         |
| T & R Custom, Inc.                       | Ellaville   | Office Buildings               | 47                         |
| Wrapit, Inc.                             | Ellaville   | Laminated Wallboard            | 25                         |
| TCI, Inc.                                | Ellaville   | Thermo Powder Coating          | 45                         |
| Greenfield Metal Products Co., Inc.      | Ellaville   | Wire Shelving                  | 45                         |
| Amermac, Inc.                            | Ellaville   | Tire Trueing Equipment         | 7                          |
| Cooper Lighting                          | Ellaville   | Modular Wiring Systems         | 150                        |
| New Heights, Inc.                        | Ellaville   | Hydraulic Deer Stands          | 10                         |
|  |             | <b>Schley Total</b>            | <b>615</b>                 |

Table 3-3 (continued)

**Manufacturing Establishments Located  
Within 6-Mile Radius From U.S. Highway 19**

| <b>Company</b>                                 | <b>City</b> | <b>Product</b>                  | <b>Total<br/>Employees</b> |
|--|-------------|---------------------------------|----------------------------|
| <b>Sumter County</b>                           |             |                                 |                            |
| Koinonia Products                              | Americus    | Pecans                          | 50                         |
| Gertrude Davenport                             | Americus    | Women's Interlock Sportswear    | 53                         |
| Nevas Graphic Productions                      | Americus    | Screen Printing                 | 2                          |
| Georgia Forest Products, Inc.                  | Americus    | Logging                         | 35                         |
| Pickle Logging, Inc.                           | Americus    | Wood Chips                      | 15                         |
| Valley Wood, Inc.                              | Americus    | Forest Products                 | 4                          |
| Cana, Inc.                                     | Americus    | Cabinet Doors                   | 84                         |
| TriWood Corporation of Georgia, Inc.           | Americus    | Interior MDF Moulding           | 62                         |
| Fine Cabinetry & Woodworking                   | Americus    | Wooden Household Furniture      | 6                          |
| Huntington Woodcraft                           | Americus    | Residential Cabinets            | 3                          |
| Rush Components, Div. Rush Industries          | Americus    | Component Parts                 | NL                         |
| Container Marketing, Inc.                      | Americus    | Upholstered Chairs & Love Seats | 142                        |
| Old Biscayne Designs, Inc.                     | Americus    | Iron Furniture                  | 30                         |
| Williams Furniture Industries Inc.             | Americus    | Office Chairs                   | 49                         |
| Americus Times-Recorder                        | Americus    | Newspaper Printing              | 25                         |
| The Americus Shopper                           | Americus    | Shoppers Guide Publishing       | NL                         |
| American Banc Supply Co., Inc.                 | Americus    | Bank Forms                      | 14                         |
| Gammage Print Shop, Inc.                       | Americus    | Offset Job Printing             | 14                         |
| Hickory Springs Mfgr. Co.                      | Americus    | Polyurethane Foam               | 105                        |
| Royster-Clark, Inc.                            | Americus    | N-P-K Fertilizer                | 76                         |
| I M C Agribusiness                             | Americus    | Fertilizer Blending             | 10                         |
| Reeves Construction Co.                        | Americus    | Asphalt Paving Compounds        | 125                        |
| Austin Urethane, Inc.                          | Americus    | Flexible Polyurethane Foam      | 63                         |
| The Concrete Co.                               | Americus    | Ready-Mixed Concrete            | 8                          |
| Simplex Nails, Inc.                            | Americus    | Roofing Nails                   | 60                         |
| Insul Windo Co.                                | Americus    | Storm Windows & Doors           | 2                          |
| Mendustries                                    | Americus    | Aluminum Storm Windows & Doors  | 1                          |
| Hernandez Fabricated Products                  | Americus    | Steel Fabricated Products       | 4                          |
| Jones Automatic Sprinkler, Inc.                | Americus    | Sprinkler System Pipe           | 85                         |
| Nabco  | Americus    | Plumbing Pipes                  | 14                         |
| TAG Tool & Die, Inc.                           | Americus    | Metal Stamping Dies             | 5                          |
| Auto Machine & Parts Co.                       | Americus    | Machine Shop                    | 1                          |
| Johnson Metal Products                         | Americus    | Machine Shop                    | 5                          |
| Cooper Lighting - Fluorescent Oprs.            | Americus    | Fluorescent Lighting            | 850                        |
| Star Racing                                    | Americus    | Motorcycle Exhaust Systems      | 10                         |
| Textron Automotive Co.,<br>Americus Operations | Americus    | Plastic Automotive Components   | 924                        |
| Caravelle Marine, Inc.                         | Americus    | Fiberglass Power Sport Boats    | 120                        |
| Lockheed Martin Assembly Services              | Americus    | Electronic Test Equipment       | 198                        |
| Jay & Bee Optical                              | Americus    | Eyeglasses                      | 4                          |
| Easom Mfg. Corp.                               | Americus    | Rings/Charms/Earrings           | 7                          |
| Bernecker Signs                                | Americus    | Hand Lettered Signs             | NL                         |
| DeSoto Confectionery & Nut Co.                 | DeSoto      | Candy                           | NL                         |
|  |             | <b>Sumter Total</b>             | <b>3,265</b>               |

(continued)

Table 3-3 (continued)

**Manufacturing Establishments Located  
Within 6-Mile Radius From U.S. Highway 19**

| Company                                 | City        | Product                        | Total<br>Employees |
|---|-------------|--------------------------------|--------------------|
| <b>Taylor County</b>                    |             |                                |                    |
| Peed Bros. Inc.1                        | Butler      | Prepared Animal Feed           | 9                  |
| M F & H Textiles, Inc.1                 | Butler      | Specialty Dyeing & Finishing   | 77                 |
| Taylor County News1                     | Butler      | Weekly Newspaper               | 2                  |
| Benns Printing Co.1                     | Butler      | Brochures                      | 4                  |
| Suggs Machine & Welding Co., Inc.1      | Butler      | Shellers, Cleaners & Graders   | 7                  |
| BAE Systems1                            | Butler      | Wiring Harnesses               | 18                 |
|   |             | <b>Taylor Total</b>            | <b>117</b>         |
| <b>Thomas County</b>                    |             |                                |                    |
| A & R Textile                           | Meigs       | Draperies                      | 10                 |
| Bowers Pulpwood & Timber Co., Inc.      | Meigs       | Pine/Hrdwd Timber & Pulpwood   | 3                  |
| Royster-Clark Farmmarket                | Meigs       | Agricultural Chemicals         | 7                  |
| Sud-Chemie Adsorbents, Inc.             | Meigs       | Fullers Earth Products         | 79                 |
| Constant C., Inc. d/b/a C T Enterprises | Meigs       | Pine Straw Rake                | 4                  |
| L & B Lumber Co.                        | Ochlocknee  | Wooden Pallets                 | 8                  |
| Oil Dri Corp. of Georgia                | Ochlocknee  | Oil & Grease Absorbants        | 224                |
| Ochlocknee Metal Works                  | Ochlocknee  | Metal Fabrication              | 3                  |
| Blackberry Patch                        | Thomasville | Jams & Jellies                 | 10                 |
| Flowers Baking Co. of Thomasville       | Thomasville | Bread                          | 163                |
| Prestige Ice Co., Inc.                  | Thomasville | Packaged Ice                   | 15                 |
| Yarn Extrusion Systems, Inc. (YES)      | Thomasville | Polypropylene Yarn             | 7                  |
| Coats American                          | Thomasville | Finished Thread                | 250                |
| George Stafford & Sons                  | Thomasville | Hunting & Sports Clothing      | 19                 |
| Warners                                 | Thomasville | Intimate Apparel               | 591                |
| Coffee Interiors, Inc.                  | Thomasville | Curtains & Draperies           | 10                 |
| The Design Center                       | Thomasville | Custom Draperies               | 5                  |
| Thomasville Home Furnishings, Inc.      | Thomasville | Curtains & Accessories         | 90                 |
| A T & N Lumber LLC                      | Thomasville | Re-Sawing                      | 8                  |
| Balfour Lumber Co., Inc.                | Thomasville | Dressed Softwood Lumber        | 126                |
| Braceys Fine Woodwork                   | Thomasville | Cabinets                       | 18                 |
| Strickland Cabinet & Millwork, Inc.     | Thomasville | Wood Cabinets                  | 9                  |
| Georgia Crate & Basket Co., Inc.        | Thomasville | Wire Bound Boxes               | 120                |
| Southern Manor Furniture Corp.          | Thomasville | Furniture                      | 53                 |
| Thomasville Bedding Co.                 | Thomasville | Mattresses                     | 18                 |
| Thomasville Office Furniture            | Thomasville | Office Furniture               | 50                 |
| Designs by Bentwood, Inc.               | Thomasville | Cheese Boxes                   | 9                  |
| Capital Packaging, Inc.                 | Thomasville | Printed Folding Cartons        | 65                 |
| Thomasville Times-Enterprise            | Thomasville | Newspaper Publishing           | 95                 |
| Barnes Printing Co.                     | Thomasville | Commercial Offset Printing     | 11                 |
| Advance Printing of Thomasville, Inc.   | Thomasville | Commercial Printing            | 6                  |
| Ponders, Inc.                           | Thomasville | Commercial Printing            | 23                 |
| Fragrance Solutions                     | Thomasville | Air Fresheners                 | 100                |
| Centek Industries, Inc.                 | Thomasville | Wet Marine Exhaust Mufflers    | 65                 |
| Georgia Pipe Co.                        | Thomasville | PVC Pipes                      | 135                |
| National Pipe and Plastic               | Thomasville | PVC Pipes                      | 93                 |
| Quality Container                       | Thomasville | Plastic Pharmaceutical Bottles | 32                 |
| Imperial Packaging Co.                  | Thomasville | Plastic Products               | 48                 |
| Rose City Glass, Inc.                   | Thomasville | Glass                          | 8                  |
| Southern Siding & Exteriors             | Thomasville | Glass                          | 10                 |
| Florida Southern Industries             | Thomasville | Concrete Blocks & Bricks       | 7                  |

Table 3-3 (continued)

**Manufacturing Establishments Located  
Within 6-Mile Radius From U.S. Highway 19**

| <b>Company</b>                           | <b>City</b> | <b>Product</b>                 | <b>Total<br/>Employees</b> |
|--|-------------|--------------------------------|----------------------------|
| Southern Concrete/A Div. of Florida Rock | Thomasville | Ready-Mixed Concrete           | 12                         |
| Gross Vault & Monument Co.               | Thomasville | Granite Monuments              | 5                          |
| MDI Corp. (Microtool Development Ind.)   | Thomasville | Carbide PCB Cutting Tools      | 5                          |
| Cives Steel Company                      | Thomasville | Structural Steel               | 120                        |
| Kinro, Inc.                              | Thomasville | Aluminum Windows               | 148                        |
| Cleaver-Brooks/Div. of Aqua-Chem, Inc.   | Thomasville | Boilers                        | 250                        |
| Maxwell Sheet Metal Works, Inc.          | Thomasville | Sheet Metal Work               | 6                          |
| McGarrah Sheet Metal, Inc.               | Thomasville | Sheet Metal Work               | 2                          |
| R & H Roofing & Sheet Metal              | Thomasville | Sheet Metal Ductwork           | 16                         |
| Searcy Sheet Metal, Heating & Air        | Thomasville | Heat/Air Sheet Metal Ducts     | 4                          |
| Metal Buildings, Inc.                    | Thomasville | Engineered Buildings           | 60                         |
| Radoll Designs, Inc.                     | Thomasville | Trimming Machines              | 20                         |
| W. D. Laramore Mfg., Inc.                | Thomasville | Dusting Flour Recycling Sysys. | 10                         |
| Aqua Kinetics, Inc.                      | Thomasville | Ind. Water Heaters (Gas & Oil) | 26                         |
| U.S. Filter Davis/Davco                  | Thomasville | Water Pollution Control Equip  | 230                        |
| Bennetts Machine & Welding               | Thomasville | Machine Shop                   | 5                          |
| C & S Machine Co., Inc.                  | Thomasville | Machine Shop                   | 18                         |
| Cone Machinery, Inc.                     | Thomasville | Sawmill Machinery Parts        | 45                         |
| G & J Machine Shop                       | Thomasville | Machine Job Shop               | 8                          |
| Hurst Welding Co.                        | Thomasville | Machine Shop                   | NL                         |
| Carroll Hill Auto Electric, Inc.         | Thomasville | Starters                       | 5                          |
| Caterpillar, Inc.                        | Thomasville | Fuel Systems                   | 90                         |
| Turbine Engine Components Textron        | Thomasville | Jet Fan & Compressor Blades    | 364                        |
|  |             | <b>Thomas Total</b>            | <b>4,056</b>               |
| <b>Upson County</b>                      |             |                                |                            |
| Yorks Meat Plant                         | Thomaston   | Beef & Pork Slaughtering       | 2                          |
| Thomaston Mills, Inc., Peerless Div.     | Thomaston   | Sheets & Sheeting              | 468                        |
| Thomaston Mills, Inc., Finishing Div.    | Thomaston   | Bleaching & Finishing Fabrics  | 673                        |
| WesTek Inc.                              | Thomaston   | Tire Cord Fabrics              | 524                        |
| Thomaston Mills, Inc., Lakeside Div.     | Thomaston   | Comforters                     | 295                        |
| Foster Wood Products                     | Thomaston   | Pine/Wood Flooring             | 5                          |
| Keadle Lumber Enterprises, Inc.          | Thomaston   | Yellow Pine & Pressure Treated | 125                        |
| Bell Creek Wood Products, Inc.           | Thomaston   | Wooden Shipping Pallets        | 5                          |
| International Paper                      | Thomaston   | Folding Paperboard Cartons     | 161                        |
| The Thomaston Times                      | Thomaston   | Newspapers                     | 16                         |
| Hometown Printers, Inc.                  | Thomaston   | Offset Job Printing            | 10                         |
| DeSter.ACS Americas                      | Thomaston   | Plastic Airplane Utensils      | 261                        |
| Upson Septic Tank Sales Service          | Thomaston   | Septic Tanks                   | 3                          |
| The Concrete Co.                         | Thomaston   | Ready-Mixed Concrete           | 5                          |
| Crown North America                      | Thomaston   | Fabricated Steel Products      | 72                         |
| Woodbury Box Co., Inc.                   | Thomaston   | Wire Forming                   | 59                         |
| Yamaha Music Manufacturing, Inc.         | Thomaston   | Pianos                         | 350                        |
|  |             | <b>Upson Total</b>             | <b>3,034</b>               |
|  |             | <b>TOTAL</b>                   | <b>14,192</b>              |

NL Not listed.

<sup>1</sup> U.S. 19 and Fall Line Freeway intersection, also listed with Fall Line Freeway

Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia, based on: Office of Information Technology Services, Georgia 2000 Information System. Manufactures data based on the Georgia Manufacturing Directory (GDITT).

**Table 3-4**  
**Manufacturing Establishments Located**  
**Within 6-Mile Radius From the South Georgia Parkway**

| <b>Company</b>                                | <b>City</b> | <b>Product</b>                 | <b>Total Employees</b> |
|---|-------------|--------------------------------|------------------------|
| <b>Atkinson County</b>                        |             |                                |                        |
| Willacochee Industrial Fabrics <sup>1</sup>   | Willacochee | Woven Polypropylene Fabric     | 44                     |
| Pak Unlimited, Inc.                           | Willacochee | Woven/Knit Shade Cloth         | 30                     |
| L & M Supply Co., Inc.                        | Willacochee | Silt Fences                    | NL                     |
| Hodges Mfg. Co., Inc.                         | Willacochee | Cargo Restraint Straps         | 4                      |
| Fleetwood Eagletrace II <sup>1</sup>          | Pearson     | Manufactured Housing           | 191                    |
| Fleetwood Homes of Georgia, Inc. <sup>1</sup> | Willacochee | Manufactured Housing           | 200                    |
| Langboard, Inc.                               | Willacochee | Medium Density Fiberboard      | 139                    |
| S & J Manufacturing, Inc.                     | Willacochee | 18-32 Runabouts & Cruisers     | 68                     |
|   |             | <b>Atkinson Total</b>          | <b>676</b>             |
| <b>Berien County</b>                          |             |                                |                        |
| Hubert Moore Lumber Co., Inc.                 | Alapaha     | Softwood Lumber                | 79                     |
| Atlas Greenhouse Systems                      | Alapaha     | Steel Framed Greenhouses       | 24                     |
|   |             | <b>Berrien Total</b>           | <b>103</b>             |
| <b>Brantley County</b>                        |             |                                |                        |
| Ira Brown Mills, Inc.                         | Nahunta     | Dairy Cattle Feed              | 4                      |
| Designing Windows & More, Inc.                | Waynesville | Custom Window Treatments       | 5                      |
| Flowers & Sons Logging                        | Hortense    | Logging                        | NL                     |
| Middleton Logging, Inc.                       | Nahunta     | Timber                         | 18                     |
| Varn Wood Products                            | Hoboken     | Lumber                         | 69                     |
| The Brantley Enterprise                       | Nahunta     | Newspaper Publishing           | 5                      |
| Lang Smoker Cookers & BBQ Grills              | Nahunta     | Mobile BBQ Smokers & Grills    | 4                      |
|   |             | <b>Brantley Total</b>          | <b>105</b>             |
| <b>Glynn County</b>                           |             |                                |                        |
| Atlas Sign & Mfg. Co.                         | Brunswick   | Screen Process Printing        | 4                      |
| Brunswick News Publishing Co.                 | Brunswick   | Newspaper Printing             | 62                     |
| C. R. Carlin Co.                              | Brunswick   | General Machining Job Shop     | 2                      |
| Calsilite Insulation Products                 | Brunswick   | Pipe Covering/Block Insulation | 130                    |
| Certex Adler Sling                            | Brunswick   | Wire Rope & Slings             | 4                      |
| Flexer Enterprises, Inc.                      | Brunswick   | Sweat Shirts & Pants           | 32                     |
| Georgia-Pacific Brunswick Operations          | Brunswick   | Bleached Sulphate Pulp         | 806                    |
| Georgia-Pacific Corp., Gypsum Div.            | Brunswick   | Gypsum Building Materials      | 132                    |
| Hercules Incorporated                         | Brunswick   | Gum and Wood Resins            | 394                    |
| Insty-Prints                                  | Brunswick   | Lithographic Printing          | 5                      |
| Ireland Draperies                             | Brunswick   | Draperies                      | 1                      |
| Island Cypress Co., Inc.                      | Brunswick   | Pulpwood                       | 18                     |
| Jered Industries, Inc.                        | Brunswick   | Container Handling Equipment   | 185                    |
| Kemp Steel Fabricators                        | Brunswick   | Steel Fabrication              | 2                      |
| Kut Kwick Corp.                               | Brunswick   | Commercial Rotary Mowers       | 34                     |
| Millennium Specialty Chemicals                | Brunswick   | Aromatics                      | 40                     |
| Neeld Printing House, Inc.                    | Brunswick   | Offset Job Printing            | 10                     |
| Readdick Sheet Metal Works of Glynn, Inc.     | Brunswick   | Sheet Metal Work               | 13                     |
| Reagin Printing Co., Inc.                     | Brunswick   | Commercial Printing            | 8                      |
| Reddy Ice                                     | Brunswick   | Ice                            | 5                      |
| South Georgia Millworks, Inc.                 | Brunswick   | Custom Residential Millwork    | 11                     |
| Southdown, Inc.                               | Brunswick   | Ready-Mixed Concrete           | 47                     |
| The Harbor Sound                              | Brunswick   | Weekly Newspaper               | 7                      |
| Unique Straight Line Moldings, Inc.           | Brunswick   | Moldings                       | 3                      |
|   |             | <b>Glynn Total</b>             | <b>1,955</b>           |

Table 3-4 (continued)

**Manufacturing Establishments Located  
Within 6-Mile Radius From the South Georgia Parkway**

| Company                            | City     | Product                        | Total<br>Employees |
|------------------------------------|----------|--------------------------------|--------------------|
| <b>Stewart County</b>              |          |                                |                    |
| Dudley Pallet & Box Co., Inc.      | Richland | Pallets & Skids                | 30                 |
| Redman Homes, Inc.                 | Richland | Manufactured Homes             | 193                |
| Stewart-Webster Printing, Inc.     | Richland | Offset Printing                | 6                  |
| Surles Welding & Equipment Co.     | Richland | Switch Plow Drags              | 3                  |
|                                    |          | <b>Stewart Total</b>           | <b>232</b>         |
| <b>Terrell County</b>              |          |                                |                    |
| Tyson Foods, Inc.                  | Dawson   | Chicken Hot Wings              | 250                |
| Christie Feeds                     | Dawson   | Hog Feed                       | 3                  |
| Cargill Peanut Products            | Dawson   | Peanut Products                | 230                |
| Harber Apparel                     | Dawson   | Active Wear                    | 125                |
| Dawson Tarpaulins                  | Dawson   | Tarpaulins                     | 33                 |
| Georgia Awning & Canopy            | Dawson   | Awnings & Canopies             | 7                  |
| The Dawson News, Inc.              | Dawson   | Newspaper Printing             | 6                  |
| Oliver Printing Co.                | Dawson   | Commercial Printing            | 3                  |
| Locke Farm Center                  | Dawson   | Fertilizer                     | 31                 |
| Dawson Mfg. Co.                    | Dawson   | Rubber Goods Bonded to Metal   | 149                |
| McMath Brothers, Inc.              |          |                                |                    |
| dba Tri-County Ready-Mix Concrete  | Dawson   | Mixed Concrete                 | 9                  |
| Mac Products Co., Inc.             | Dawson   | Architectural Millwork         | 10                 |
| Metalwerk                          | Dawson   | Metal Fabrications             | 3                  |
|                                    |          | <b>Terrell Total</b>           | <b>859</b>         |
| <b>Tift County</b>                 |          |                                |                    |
| Curtis Packing Co., Inc.           | Tifton   | Meat Processing, Beef          | 40                 |
| Towson Cold Storage Co., Inc.      | Tifton   | Beef Processing                | 5                  |
| Donald Enterprises                 | Tifton   | Cornmeal Products              | 10                 |
| Consolidated Nutrition LC          | Tifton   | Dairy Feed                     | 24                 |
| W. B. Fleming Co.                  | Tifton   | Livestock Feed                 | 26                 |
| Chickasha of Georgia               | Tifton   | Cottonseed Oil                 | 71                 |
| Royal Crown Bottling Co. of Tifton | Tifton   | Soft Drinks                    | 23                 |
| South Georgia Ice Co. of Tifton    | Tifton   | Block Ice                      | 11                 |
| OMC - Tifton                       | Tifton   | Apparel Fabric                 | 160                |
| Avondale Mills Inc., Tifton Plt.   | Tifton   | Carded Cotton Yarns            | 233                |
| Shaw Industries, Inc.              | Tifton   | Spun Yarn                      | NL                 |
| Shaw Industries, Inc.              | Tifton   | Synthetic Carpet Yarn          | 246                |
| Burlen Corporation                 | Tifton   | Ladies Lingerie & Underwear    | 545                |
| Collins Paints & Cabinets, Inc.    | Tifton   | Wood Kitchen Cabinets/Vanities | 4                  |
| S & S Cabinets, Inc.               | Tifton   | Wood Kitchen Cabinets          | 15                 |
| McGregor Pallets                   | Tifton   | New & Recycled Wood Pallets    | 12                 |
| Chas Cabinets, Etc.                | Tifton   | Entertainment Centers          | 2                  |
| International Paper                | Tifton   | Paper Bags                     | 300                |
| The Tifton Gazette                 | Tifton   | Newspaper Printing             | 46                 |
| Nelson Printing & Signs            | Tifton   | Commercial Printing            | 5                  |
| Georgia Printing Co., Inc.         | Tifton   | Commercial Printing            | 5                  |
| Lang Printing & Office Supply      | Tifton   | Printing                       | 12                 |
| City County Service Co.            | Tifton   | Bookbinding                    | 6                  |
| Brownlee Farm Center, Inc.         | Tifton   | Blend Bulk Fertilizers         | 10                 |

(continued)

Table 3-4 (continued)

**Manufacturing Establishments Located  
Within 6-Mile Radius From the South Georgia Parkway**

| Company                                | City     | Product                         | Total<br>Employees |
|--|----------|---------------------------------|--------------------|
| <b>Tift County (continued)</b>         |          |                                 |                    |
| Royster-Clark, Inc.                    | Tifton   | Fertilizer Mixing               | 4                  |
| Royster-Clark, Inc.                    | Tifton   | Mixed Fertilizer                | 14                 |
| Bold Corporation                       | Tifton   | Lqd./H2O Dispersible Granules   | 8                  |
| Double A Concrete Products             | Tifton   | Concrete Blocks & Bricks        | 27                 |
| Eaton Ornamental Concrete, Inc.        | Tifton   | Cement Statues & Fountains      | 24                 |
| Tifton Aluminum Co., Inc.              | Tifton   | Aluminum Extrusions             | 400                |
| Taylor Made Systems GA Inc.            | Tifton   | Aluminum Frames - Windshields   | 30                 |
| Tifton Steel Products                  | Tifton   | Roofing                         | 20                 |
| FABRAL                                 | Tifton   | Aluminum Panels                 | 26                 |
| Steel Span, Inc.                       | Tifton   | Metal Buildings                 | 73                 |
| FASTEC                                 | Tifton   | Steel Screws                    | 15                 |
| Master Craft Engineering Co., Inc.     | Tifton   | Metal Stampings                 | 51                 |
| First Products, Inc.                   | Tifton   | Fertilizer Applicators          | 29                 |
| Kelley Manufacturing Co.               | Tifton   | Poultry House Cleaners          | 220                |
| Master Craft Industrial Equip. Corp.   | Tifton   | Rough Terrain Forklifts         | 48                 |
| A & A Tool Co. of Georgia, Inc.        | Tifton   | Tools, Dies, Jigs & Fixtures    | 6                  |
| Heatcraft RPD                          | Tifton   | Commercial Refrigeration Equip. | 300                |
| Tifton Machine Works                   | Tifton   | Machine Shop Job Work           | 37                 |
| Prestolite Wire Corp.                  | Tifton   | Spark Plug Wires                | 500                |
| Tri-State Outdoor Media Group, Inc.    | Tifton   | Custom Billboards               | 87                 |
|  |          | <b>Tift Total</b>               | <b>3,730</b>       |
| <b>Ware County</b>                     |          |                                 |                    |
| Flanders Provision Co.                 | Waycross | Portion Control Meats           | 41                 |
| Ware Milling Co.                       | Waycross | Horse Feed                      | 10                 |
| Sioux Honey Association                | Waycross | Honey                           | 5                  |
| Matts Jackets Co.                      | Waycross | School Letter Jackets           | 25                 |
| Georgia Headwear & Apparel             | Waycross | Baseball Caps                   | 87                 |
| Transco Group, Inc.                    | Waycross | Baseball Caps                   | 75                 |
| Wilmar Sportswear                      | Waycross | Caps                            | 7                  |
| G & H Logging, Inc.                    | Waycross | Logging                         | 6                  |
| Dixons Cabinet Shop                    | Waycross | Kitchen Cabinets                | 2                  |
| Hickox Cabinets Co.                    | Waycross | Custom Cabinets                 | 5                  |
| Jamestown Cabinets                     | Waycross | Custom Cabinets                 | 4                  |
| Southern Builders                      | Manor    | Wooden Cabinets                 | 3                  |
| Eldridge Hardware                      | Waycross | Pre-Fabricated Trusses          | 17                 |
| Clayton Homes                          | Waycross | Mobile Homes                    | 170                |
| General Manufactured Housing, Inc.     | Waycross | Mobile Homes                    | 650                |
| Garys Iron Works                       | Waycross | Indoor/Outdoor Metal Furniture  | 3                  |
| Custombilt Products Co., Inc.          | Waycross | Post Formed Countertops         | 11                 |
| General Packaging & Products Co., Inc. | Waycross | Corrugated Containers           | 37                 |
| General Box Co.                        | Waycross | Paperboard Packaging            | 80                 |
| Waycross Journal-Herald                | Waycross | Newspaper Printing              | 35                 |
| Yarbrough Bros., Inc.                  | Waycross | Commercial Printing             | 8                  |
| Brantley Printing Co. & Office Supls.  | Waycross | Commercial Printing             | 23                 |
| Hebardville Printing Co., Inc.         | Waycross | Commercial Printing             | 7                  |
| Walker Office City Inc.                | Waycross | Commercial Printing             | 11                 |
| Waycross Shopper                       | Waycross | Newspaper Typesetting           | 7                  |

(continued)



Table 3-4 (continued)

**Manufacturing Establishments Located  
Within 6-Mile Radius From the South Georgia Parkway**

| Company                                  | City      | Product                      | Total<br>Employees |
|--|-----------|------------------------------|--------------------|
| <b>Ware County (continued)</b>           |           |                              |                    |
| BOC Gases                                | Waycross  | Acetylene Gases              | 8                  |
| Gillis Bros., Inc.                       | Millwood  | Fertilizer Blending          | 11                 |
| Dixie Roadbuilders, Inc.                 | Waycross  | Asphalt Paving               | 92                 |
| Waycross Molded Products                 | Waycross  | Auto Mats                    | 385                |
| Georgia Block and Brick                  | Waycross  | Concrete Block               | 13                 |
| Pope Concrete Products, Inc.             | Waycross  | Concrete Burial Vaults       | 7                  |
| The James Co., Inc.                      | Waycross  | Burial Vaults                | 48                 |
| Dixie Redi-Mix Concrete                  | Waycross  | Ready-Mixed Concrete         | 10                 |
| Littlefield Concrete Co.                 | Waycross  | Ready-Mixed Concrete         | 9                  |
| Bailey Monument Co.                      | Waycross  | Marble Monuments & Markers   | 27                 |
| Leons Ceramic Molds                      | Waycross  | Ceramic Molds                | 1                  |
| Conleys Sheet Metal Works, Inc.          | Waycross  | Air Cond. & Heating Ducts    | 12                 |
| Lee Sheet Metal                          | Waycross  | Sheet Metal Fabrication      | 2                  |
| J & J Metal Fabrication                  |           |                              |                    |
| d/b/a Country Boy Equipment              | Millwood  | Log Trailers                 | 0                  |
| IMTEC, Inc.                              | Waycross  | Custom Machining             | 26                 |
| Waycross Machine Shop                    | Waycross  | Machine Job Shop             | 9                  |
| Nasco Engine Rebuilders, Inc.            | Waycross  | Automotive Engine Rebuilding | 7                  |
| Carolina Skiff, Inc.                     | Waycross  | Fiberglass Boats             | 155                |
| GATX Rail                                | Waycross  | Railroad Tank Car Repairs    | 104                |
| Wells Cargo (South), Inc.                | Waycross  | Commercial & Indus Trailers  | 98                 |
| Fox Sign Co.                             | Waycross  | Custom Signs                 | 4                  |
|  |           | <b>Ware Total</b>            | <b>2,357</b>       |
| <b>Worth County</b>                      |           |                              |                    |
| Miller Brothers Packing Co., Inc.        | Sylvester | Prime Beef Cuts              | 10                 |
| Universal Blanchers                      | Sylvester | Peanut Processing (Roasting) | 151                |
| ConAgra Grocery Products Co.             | Sylvester | Peanut Butter                | 100                |
| InterWrap Industries Corp.               | Sylvester | Spiral Textile Tubing        | 22                 |
| Reese Building Components                | Sylvester | Wood Trusses                 | 44                 |
| Craftmade Homes, Inc.                    | Sylvester | Mobile Homes                 | 155                |
| Continental Specialty Co.                | Ty Ty     | Parson Chairs                | 53                 |
| Sylvester Local News                     | Sylvester | Newspaper Publishing         | 7                  |
| Sumner Rainbow Farm Service              | Sylvester | Fertilizer                   | 6                  |
| Agro Distribution, LLC                   | Sylvester | Agricultural Chemicals       | 17                 |
| Southern Concrete/A Div. of Florida Rock | Sylvester | Ready-Mixed Concrete         | 3                  |
| Helms Welding & Machine                  | Sylvester | Agricultural Machine Parts   | 4                  |
| Georgia-Florida Cleaning Systems, Inc..  | Sylvester | Pressure Washers             | 10                 |
| K M K Welding                            | Sylvester | Barbecue Cookers             | 3                  |
| Park Built Body Co., Inc.                | Sylvester | Steel Flats - Farm Bodies    | 27                 |
| Worth Mfg.                               | Sylvester | Mobile Home Chassis          | NL                 |
| P.R. & D. Inc.                           | Sylvester | Micro Elec. Sports Med. Eqp. | 17                 |
|  |           | <b>Worth Total</b>           | <b>629</b>         |
|  |           | <b>TOTAL</b>                 | <b>10,646</b>      |

NL Not listed.

<sup>1</sup>South Georgia Parkway and U.S. 441 intersection. Also listed with U.S. 441

Source: Selig Center for Economic Growth, Terry College of Business, The University of Georgia, based on: Office of Information Technology Services, Georgia 2000 Information System. Manufactures data based on the Georgia Manufacturing Directory (GDITT)

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