

**Economic Contributions of the Dairy Farming and Product
Manufacturing Industries in the Southeast United States in
2005**

By

Thomas J. Stevens, Alan W. Hodges, W. David Mulkey and Richard L. Kilmer

University of Florida, Institute of Food and Agricultural Sciences
Food and Resource Economics Department
P.O. Box 110240, Gainesville, Florida 32611-0240
Tel 352-392-1845 Fax 352-392-3646
<http://economicimpact.ifas.ufl.edu>

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Introduction

The dairy industry continues to evolve in the United States through business consolidation and regional shifts in production and processing, changing demand for dairy products as a result of shifting demographics and dietary habits of American consumers, as well as increasing competitive pressures from other food and beverage industries. These trends have contributed to interest in evaluating the regional economic impacts or contributions of the dairy industry for individual state, regions and the nation as a whole (Cryan, 2004, Deller, 2007).

The objective of this analysis was to estimate the economic contributions of dairy farm production and product manufacturing in five southeastern states, including Alabama, Florida, Georgia, South Carolina and Tennessee, for the year 2005. This study represents a comprehensive assessment of the regional economic activity associated with dairy farms and product manufacturers, including the secondary or “multiplier” effects associated with inputs purchased from other local businesses and employee household spending, in addition to industry sales and employment. This analysis enables an assessment of the industry’s relative importance to the region’s overall economy and other sectors within the economy.

Industry and Study Area Description

Dairy Farm Sector

Since 1990, there have been significant structural and regional shifts in dairy production within the U.S. Generally, production has increased in the pacific and mountain states, and declined in the northeast, lake states, corn belt and south (Figure

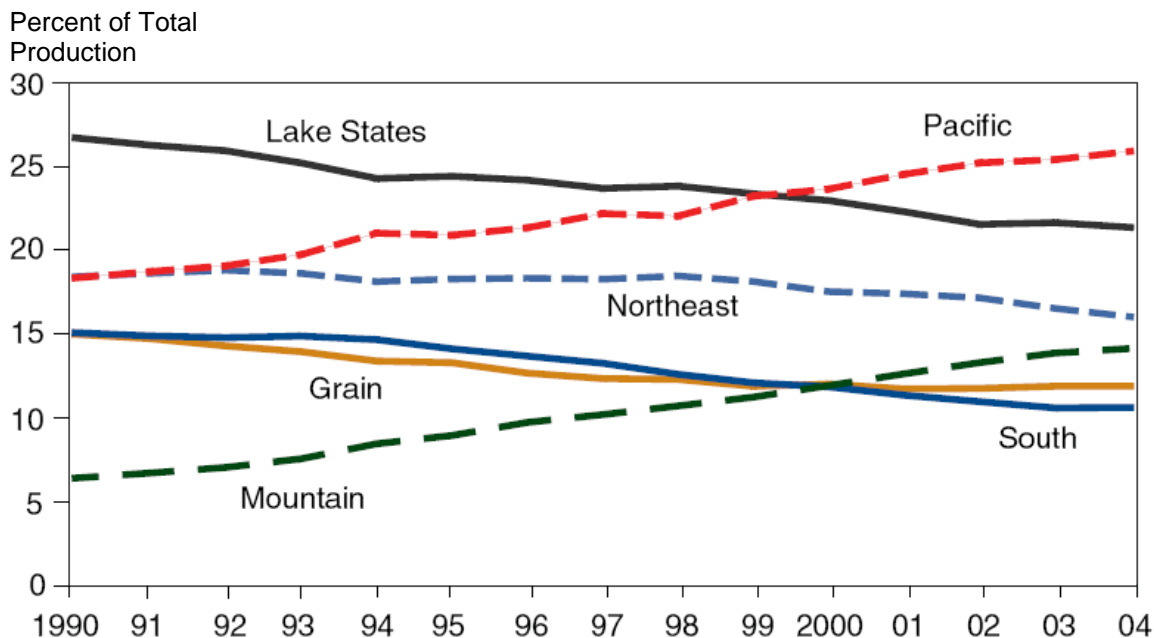
1). There has also been substantial consolidation in the industry throughout the nation, with average herd size increasing and the number of farms declining.

Dairy farming in the southeast has also seen significant structural changes during the last 20 years. In 2004, the average dairy farm in the southeast had nearly three times as many cows as it did in 1986, but during the same period of time the number of farms declined by three-fourths. (Figure 2). Although milk production per cow increased significantly during this period, total milk production for the southeast declined by over 20 percent from 6.7 to 5.2 billion (B) pounds.

Receipts and employment for dairy farms in five southeastern states for 2005 are shown in Tables 1 and 2. In absolute terms, dairy farming is larger in Florida, Georgia and Tennessee compared to Alabama and South Carolina. In 2005, Florida dairy farms generated over \$421 million (M) in revenues and employed over 2,000 people as hired labor, not including owners or unpaid family members. Dairy farms were responsible for 5.4 percent of Florida's total agricultural receipts in 2005, and 2.8 percent of agricultural employment. Relative to the other southeastern states, dairy farming in Florida represented a larger percentage of the state's total jobs (0.026 percent) than the other four states in the study. At seven percent, the share of total farm receipts contributed by dairy farming in Tennessee was the largest among the five states. However, employment by dairy farms in Tennessee represented less than 0.02 percent of the state's total jobs.

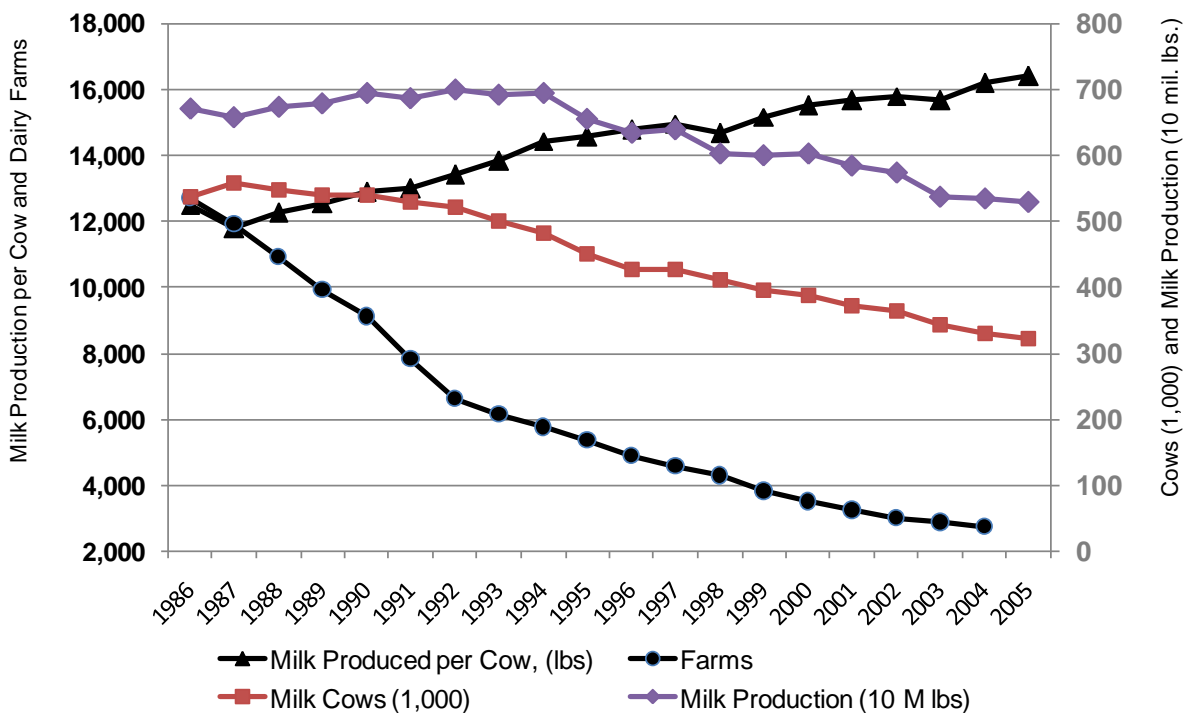
U.S. Bureau of Labor Statistics data for employment by dairy farms only counts hired labor, not owners and family members. Since a substantial number of individuals who actively work on dairy farms are operators or operator family members, it was necessary to consolidate data from the Agricultural Census and Bureau of Labor Statistics (BLS) to accurately estimate total employment (see Table 2). It is estimated that 7,556 individuals were employed or self-employed on dairy farms within the five states in 2005. Florida accounted for over 38 percent (2,893) of these jobs. Dairy farms in Tennessee and Georgia employed (or self-employed) 1,906 and 1,745 individuals respectively. In 2005, output or revenues generated per employee on dairy farms in each state ranged from \$145,688 for Florida to \$76,162 for Alabama (Table 2).

Figure 1. Regional Milk Production Shares, 1990-2004.



Source: USDA-ERS, "Dairy Background" (Figure 6), James J. Miller and Don P. Blayney, LDP-M-145-01, July 2006.

Figure 2. Dairy farm numbers, milk production per cow, herd size, and milk production for five southeastern states, 1986 – 2005.



Source: USDA-NASS, Quick Stats (Agricultural Data and Statistics).
http://www.nass.usda.gov/Data_and_Statistics/Quick_Stats/index.asp

Table 1. Dairy farm receipts for five southeastern states, 2005.

State	2005 Dairy Farm Receipts (\$ millions)	Share of Agriculture (%)	Change in Dairy Receipts 2004-2005 (% change)
Alabama	37.7	0.8	-13.3
Florida	421.5	5.4	-2.3
Georgia	221.8	3.3	-5.8
S. Carolina	47.6	2.3	-3.6
Tennessee	175.7	7.0	-9.1
Total/Avg.	904.3	4.0	-5.2

Sources: USDA-NASS, Quick Stats, Alabama, Florida, Georgia, and South Carolina.

<http://www.nass.usda.gov/QuickStats/>

USDA-NASS, South Carolina Field Office, Personal Communication with Steve Pavlaskik, 803-765-5333.

Tennessee Dept. of Agriculture, "Tennessee Agriculture 2007",

<http://www.tennessee.gov/agriculture/annualreport/>.

Table 2. Dairy farm workforce for five southeastern states.

State	Dairy Operators 2002 (3) (Workers)	Hired Labor 2005 (4) (Workers)	Combined Operators & Hired (1) (Workers)	Output per Worker (\$)	Employment Share of Agriculture (%)	Employment Share of State Total (%)
Alabama	345	150	495	\$76,162	2.8	0.0079
Florida	884	2,009	2,893	\$145,688	2.8	0.0259
Georgia	794	951	1,745	\$127,083	8.2	0.0242
S. Carolina	361	156	517	\$92,151	3.0	0.0086
Tennessee	1,589	317	1,906	\$92,172	7.8	0.0118
Total/Average	3,973	3,583	7,556	\$119,674	3.6	0.0198

1. Combined employment estimated by adding Dairy operators reported in 2002 Ag Census to hired dairy workers reported in 2005 BLS data.

2. USDA – NASS, Statistics by State. http://www.nass.usda.gov/Statistics_by_State

3. USDA – NASS, 2002 Census of Agriculture,
http://www.nass.usda.gov/census/census02/volume1/al/st01_1_059_059.pdf

4. U.S. Dept. of Commerce, Bureau of Labor Statistics, Quarterly Census of Employment and Wages,
<http://data.bls.gov/PDQ/outside.jsp?survey=en>

Dairy Products Manufacturing Sector

The dairy processing or product manufacturing industry consists of five subsectors: fluid milk; creamery butter; cheese; dry, condensed, and evaporated milk; ice-cream and frozen desert manufacturing. Not all of these subsectors exist in each of the five states, and in some states there are so few establishments that government statistics cannot be published under confidentiality requirements. As a result, some dairy product manufacturing data had to be estimated. Details on this process are discussed in the Methods section of this report.

Published and estimated data for the dairy products manufacturing sectors in five southeastern states are presented in Table 3. For these states, there were 107 establishments in 2005, which generated an estimated \$3.9 billion (B) in revenues, employed 7,412 workers, and paid those workers over \$296 million (M) in wages that year. Among the five states, Tennessee and Florida had the greatest levels of activity in this sector. Although Florida had about 50 percent more establishments than Tennessee, output (revenues), wages paid, and employment numbers for the two states were very close. Fluid milk dominates the dairy products manufacturing sector in these states, with ice-cream and cheese following a distant second and third in size, respectively. Tennessee leads the five states in the production of dry, condensed and evaporated dairy products, while Alabama and Florida lead the region in cheese manufacturing.

Table 3. Dairy product manufacturing activity for five southeastern states, 2005.

State	Sector Name / Metric	Fluid milk manuf.	Creamery butter manuf.	Cheese manuf.	Dry, cond., & evap. dairy products	Ice cream and frozen dessert manuf.	Total Dairy product manuf.
	NAICS Sec#	311511	311512	311513	311514	31152	3115
Alabama	Establishments	4	0	2	0	5	11
	Output (M\$)	354.1	0.0	149.3	0.0	198.9	702.3
	Employees	665	0	236	0	523	1,424
	Tot. Wages	25.2	0.0	7.6	0.0	16.1	48.9
Florida	Establishments	18	1	3	3	21	46
	Output (M\$)	895.3	1.1	102.2	8.8	228.4	1,235.8
	Employees	1,649	3	164	12	575	2,403
	Tot. Wages	71.7	0.1	6.9	0.5	20.8	100.0
Georgia	Establishments	4	1	1	1	4	11
	Output (M\$)	202.1	17.0	42.4	44.4	74.0	380.0
	Employees	381	39	68	62	181	730
	Tot. Wages	14.5	1.3	2.2	2.7	6.0	26.8
S. Carolina	Establishments	6	0	1	1	1	9
	Output (M\$)	300.6	0.0	11.8	12.1	5.4	329.9
	Employees	568	0	20	18	13	620
	Tot. Wages	21.1	0.0	0.5	0.6	0.3	22.6
Tennessee	Establishments	16	1	4	5	4	30
	Output (M\$)	747.6	23.4	80.7	311.3	100.8	1,263.9
	Employees	1,381	53	126	425	250	2,235
	Tot. Wages	62.9	2.1	2.9	21.2	9.2	98.2
Total: Five States	Establishments	48	3	11	10	35	107
	Output (M\$)	2,499.7	41.6	386.4	376.7	607.5	3,911.9
	Employees	4,644	95	614	518	1,542	7,412
	Tot. Wages	195.4	3.5	20.0	25.1	52.5	296.5

Sources: U.S. Dept. of Commerce, Bureau of Labor Statistics, Quarterly Census of Employment and Wages. <http://data.bls.gov/PDQ/outside.jsp?survey=en> for 2005

Minnesota IMPLAN Group (MIG), 2004. IMPLAN Pro, Economic Impact and Social Accounting Software, and Data. Stillwater, MN. www.implan.com.

Methods

To carry out a standard economic impact analysis, accurate data is not only required on the revenues, expenditures or employment associated with the industry or event under consideration, but also on the geographic location or origin of these dollars and jobs. When nonlocal or “new” dollars flow into a regional economy through revenues generated by sales to buyers outside the region, additional multiplier effects occur as directly impacted businesses purchase inputs from local suppliers, as the households of employees and proprietors of these businesses spend earnings, and as local governments collect and spend taxes.

In the case of sales of raw milk and processed dairy products produced in the southeast, there was virtually no data available on the geographic location of the wholesale buyers of these products, i.e., shipments across state lines. To properly evaluate the economic importance of an industry when such data is lacking, it is necessary to reframe the context of the analysis. Since milk and most milk products can be considered a necessity for human nutrition and health (with a small elasticity of demand), if the dairy farming and product manufacturing industries in the southeast were to disappear, then their products would have to be imported from other regions of the country to replace them. If that were to occur, then the dollars used to purchase these nonlocal products would leave the regional economy of the southeast, and reduce spending, revenues and jobs for the region. When the economic importance of an industry or activity is evaluated under these assumptions, it is more appropriate to refer to the estimated economic impacts as economic contributions (see Watson, Wilson, Thilmany, and Winter, 2007).

When the importance of an industry or activity is evaluated on the basis of how much of a loss to the economy would occur if it no longer existed, then the input-output models used to estimate this value has to be modified so that all demands for these products within the region are supplied by imports from outside the region. This can be handled in the model by setting the regional purchase coefficients for these commodities or industries to zero (Steinback, 2004).

To proceed with the estimation of the economic contribution of the dairy industry in the five state region, input-output models were first constructed for each state using

the IMPLAN Professional economic impact modeling system.¹ IMPLAN includes computational software for building economic models and calculating impacts, as well as economic databases that support regional model construction for individual counties, groups of counties, states or groups of states. Economic models built using IMPLAN can be customized in a variety of ways to incorporate more detailed or up-to-date data, and to accommodate a variety of different modeling assumptions depending on the objectives and nature of the analysis.

Several other modifications to the IMPLAN model were also necessary. First, the current industry sector scheme used in IMPLAN combines dairy farming with all other types of cattle farming and ranching (sector 11). To address this issue, data from production budgets published by the USDA Economic Research Service (USDA-ERS) for Florida, Georgia and Tennessee were used to modify the production function for the IMPLAN cattle farming sector, so that it more closely resembles dairy farming in the southeast. The dairy farm production budget used to make these modifications is shown in Table 4. In some cases there was not a one-to-one correspondence between USDA budget items and the IMPLAN sector scheme. In these cases, individual budget items were allocated to multiple IMPLAN sectors as shown in the fifth column of Table 4.

IMPLAN economic data on dairy farm and dairy product manufacturing activity in each of the five states were also updated with more recent statistics published by the USDA and the U.S. Department of Commerce - Bureau of Labor Statistics, for 2005. For several states, there were not enough dairy product manufacturers to permit publication of industry statistics. Thus, it was necessary to estimate these missing statistics by using more aggregate or national industry averages or ratios, such as revenues and employees per establishment, or revenues per employee. These estimates were then adjusted so that the sum of subsector values equaled published aggregate dairy product manufacturing statistics. State level data/estimates for receipts, employment, wages and other components of value-added expenditures for each of these subsectors were updated as shown in Table 3.

¹ Minnesota IMPLAN Group (MIG), 2004. IMPLAN Pro, Economic Impact and Social Accounting Software, and Data. Stillwater, MN. www.implan.com. The IMPLAN data set used for this analysis was for the year 2003.

Table 4. Allocation of milk production costs to IMPLAN sectors.

Cost Item	Cost (\$/100 lbs)	Percent of Total Costs (1) (%)	IMPLAN Sector Name	Sector Split (%)	Sector Alloca- tion (%)
Purchased feed	6.09	28.34	Other animal food manuf.		28.34
Homegrown harvested feed	2.71	12.63	Grain farming		12.63
Grazed feed	0.20	0.92	All other crop farming		0.92
Veterinary and medicine	0.71	3.32	Veterinary services		3.32
Bedding and litter	0.05	0.23	All other crop farming		0.23
Marketing	0.38	1.77	Truck Transportation	70	1.24
			Office administrative services	30	0.53
Custom services	0.70	3.24	Agriculture & forestry support act.		3.24
Fuel, lube, and electricity	0.72	3.35	Petroleum refineries	50	1.68
			Power generation and supply	50	1.68
Repairs	0.68	3.18	Maint. & repair of structures	30	0.95
			Tire manufacturing	10	0.32
			Motor vehicle parts manuf.	10	0.32
			Automotive repair and maint.	20	0.64
			Commercial mach. repair & maint.	30	0.95
General farm overhead	0.47	2.19	Wholesale trade		2.19
Interest on operating capital	0.21	0.96	Other Property Income		0.96
Hired labor	2.40	11.19	Employee compensation		11.19
Opportunity cost of unpaid labor	2.21	10.27	Proprietary Income		10.27
Equipment capital recovery	3.68	17.15	Farm machinery & equip. manuf.	50	8.57
			Cattle ranching and farming	50	8.57
Opportunity cost of land (rental rate)	0.05	0.25	Real estate		0.25
Taxes and insurance	0.22	1.01	Insurance agencies, brokers, etc.	50	0.50
			Indirect Business Taxes	50	0.50
Total	21.48	100.00	Total		100.00

Sources: USDA-ERS, "Milk Production Costs and Returns from the 2005 Agricultural Resource Management Survey," <http://www.ers.usda.gov/Data/CostsAndReturns/MilkAll.xls>, 2007.

Giesy, R. L. Ely, B. Broaddus, C. Vann, A. Bell, and A. De Vries, "Dairy Business Analysis Project: 2005 Financial Summary", EDIS document AN179, Department of Animal Sciences, Institute of Food and Agricultural Sciences, University of Florida. February, 2007. <http://edis.ifas.ufl.edu/AN179>

Two input-output models were then constructed for each of the five states. The first set of models were used to estimate the economic contributions of dairy farming alone. These models did not incorporate any changes to the dairy products manufacturing subsectors. Because dairy farms use products from the animal food manufacturing sector, which in turn uses products from the dairy product manufacturing sector, changing the characteristics or activity of the dairy product manufacturers in the

input-output models affects the estimated economic contributions of the dairy farm sector. The second set of models were specified to estimate the economic contributions of both dairy farming and dairy product manufacturing industries for each state. Economic contributions generated by the dairy product manufacturing sector alone were estimated by subtracting estimated dairy farm contributions from the estimated combined contributions of both farms and manufacturers.

The types of economic impacts or contributions estimated with the input-output models include output, value-added, labor income, other property income, indirect business taxes and employment (see glossary in Appendix A for definitions). These contributions can occur through direct, indirect, or induced effects. Total economic contributions of an event or activity equal the sum of these direct, indirect and induced contributions. Output contributions represent the total value of revenues or expenditures associated with an activity. Value-added measures the labor income, property income, and indirect business taxes generated from these revenues. Labor income represents earnings by employees and proprietors of impacted businesses. Other property type income represents corporate profits in addition to payments for rents, royalties, dividends and interest. Indirect business taxes include excise, property, and sales taxes, as well as licenses and fees paid by businesses, but not taxes on profits or income. The estimated number of annual full-time, part-time and seasonal jobs resulting from industry activity are represented by employment. Each of these measures represents a different way of assessing the size or contribution of an economic activity on a region.

Results

Summary economic contributions estimated for dairy farming, dairy product manufacturing, and the two industries combined in the southeastern U.S. for 2005 are shown in Table 5. Estimated contributions for each state are shown in individual rows, and the different types of economic contributions are arranged by table columns. Units are in millions of 2005 U.S. dollars, or in jobs, representing all employment, including full-time, part-time, seasonal and self employed.

Table 5. Total economic contributions of dairy farms and product manufacturing in five southeastern states in 2005.

State	Output Million \$	Value Added Million \$	Labor Income Million \$	Other Property Income Million \$	Indirect Business Taxes Million \$	Employ- ment Jobs
Dairy Farms						
Alabama	65.47	23.63	18.18	4.13	1.32	781
Florida	777.91	305.68	228.60	57.87	19.20	6,671
Georgia	423.95	167.93	125.19	32.13	10.60	3,697
S. Carolina	80.84	29.49	22.32	5.46	1.71	871
Tennessee	334.68	126.29	92.12	26.50	7.67	3,679
Total	1,682.85	653.02	486.42	126.10	40.51	15,698
Dairy Product Manufacturers						
Alabama	1,051.40	281.65	178.32	82.32	21.02	4,749
Florida	2,161.30	710.85	456.28	201.29	53.28	10,779
Georgia	689.79	234.81	145.15	72.16	17.51	3,326
S. Carolina	472.20	115.08	75.98	30.53	8.57	1,992
Tennessee	2,483.55	800.77	497.88	245.39	57.51	12,538
Total	6,858.24	2,143.16	1,353.60	631.68	157.88	33,383
Combined Dairy Farms and Product Manufacturers						
Alabama	1,116.87	305.28	196.50	86.45	22.34	5,529
Florida	2,939.21	1,016.52	684.88	259.16	72.48	17,450
Georgia	1,113.74	402.74	270.34	104.29	28.11	7,022
S. Carolina	553.04	144.56	98.29	35.99	10.28	2,863
Tennessee	2,818.23	927.06	590.00	271.89	65.18	16,217
Total	8,541.09	2,796.18	1,840.01	757.78	198.39	49,081

The estimated output contributions of dairy farming for 2005 are shown to range from \$65 M for Alabama to \$778 M for Florida, and total \$1.68 billion (B) for the five southeastern states combined. Since these combined output contributions were generated by an estimated \$904 M in combined revenues (Table 1), this represents a multiplier effect of approximately 1.86. The total value-added contributions of dairy

farming for the five states are estimated to equal \$653 M. This value-added impact was composed of \$486 M in Labor Income, \$126 M in Other Property Income and \$41 M in Indirect Business Taxes. An estimated 15,698 jobs were created as a result of dairy farms and their multiplier effects in the five southeastern states. This is over two (2.07) times the number of jobs directly involved in dairy farming (Table 2).

The total output contribution of dairy products manufacturing for the southeast region is estimated at \$6.86 B (Table 5). Value-added contributions are estimated at \$2.14 B, and are comprised of \$1.35 B in Labor Income, \$632 M in Other Property Income, and \$158 M in Indirect Business Taxes. A total of 33,383 jobs were estimated to have been generated by dairy product manufacturing industries in 2005 for the five southeast states.

The estimated output contribution of the dairy farming and dairy products manufacturing industries in 2005 for the five states was estimated to total \$8.54 B (Table 5). As was true for revenues, Florida and Tennessee generated significantly larger contributions than the other states in 2005, with an estimated \$2.94 and \$2.82 B in output contributions, respectively. Combined value-added contributions from dairy farming and processing in the five states were estimated to total \$2.80 B for 2005. This value-added figure was comprised of \$1.84 B in Labor Income, \$756 M in Other Property Income, and \$198 M in Indirect Business Taxes paid to local, state and federal governments. Florida showed the largest value-added contributions from dairy farming and processing in 2005 at \$1.02 B, followed closely by Tennessee with \$927 M. The combined total number of jobs generated by these industries for the five states was estimated to be 49,081. Again, Florida and Tennessee experienced significantly larger job contributions than the other three states, with 17,450 and 16,217 jobs respectively.

Detailed economic contributions by two-digit NAICS sectors are provided in Appendix B of this report for dairy farming, dairy product manufacturing, and farming and product manufacturing combined, respectively. For dairy farm production, the top three 2-digit NAICS sectors being affected are Agriculture; Manufacturing; and Government (Table B-1). This ranking was consistent across the five states. For value-added, the top sectors were Agriculture, Government, and Wholesale Trade (Table B-2). In terms of employment contributions from Dairy farming, the largest contribution affects occurred in Agriculture, Government, and Retail Trade (Table B-3).

For dairy product manufacturing, Manufacturing, Government, and Wholesale trade experienced the largest output contributions (B-4). The same sectors also had the greatest economic contributions in terms of value-added (Table B-5). For employment, Manufacturing, Government, and Retail Trade had the greatest contributions from dairy product manufacturing (Table B-6).

For dairy farming and product manufacturing combined, the sectors having the greatest output contributions across the five states were Manufacturing, Agriculture, and Government (Table B-7). This could be expected since dairy product manufacturing is included in the aggregate manufacturing sector. The order of industries showing the largest value-added contributions was similar to output, with Manufacturing coming first, Government second, and Agriculture third (Table B-8). In terms of jobs, Agriculture saw the greatest contributions, followed by Manufacturing and Government. (Table B-9).

Discussion

Generating an estimated \$8.5 B in total economic output contributions, \$2.8 B in value-added and 49,000 jobs in 2005, the dairy farming and product manufacturing industries are a significant component to the economy of the southeast United States. In relative terms, these industries are more important to the states of Tennessee, Alabama and Florida, and less so for Alabama and South Carolina (Table 6). Dairy industry activity in Florida and Tennessee leads the region, with value-added contributions in 2005 of \$1.0 B and \$927 M, respectively, representing nearly 70 percent of the industry's total contribution to the region. Overall, dairy product manufacturing generated over three times as much economic activity as dairy farming for these five southeastern states.

Comparing these results with numbers published by Cryan for the years 1998 through 2003, the magnitudes of the estimates for output and employment from this analysis are generally smaller. This is likely due to the general decline in dairy farm production that has occurred in the region since the 1990s. Otherwise, the relative proportion of impacts or contributions among the states are generally comparable.

Table 6. Value-added contributions of dairy farms and product manufacturing to gross state product in five southeastern states in 2005.

State	Gross State Product 2005 (1) (Million \$)	- - - Value-added Contribution - - -					
		Dairy Farming		Dairy Product Manufacturing		Dairy Farming and Product Manufacturing (2)	
		(Million \$)	(Percent)	(Million \$)	(Percent)	(Million \$)	(Percent)
Alabama	151,342	24	0.016	282	0.186	305	0.202
Florida	666,639	306	0.046	711	0.107	1,017	0.152
Georgia	358,365	168	0.047	235	0.066	403	0.112
South Carolina	140,088	29	0.021	115	0.082	145	0.103
Tennessee	224,995	126	0.056	801	0.356	927	0.412
Total (2)	1,541,429	653	0.042	2,143	0.139	2,796	0.181

1. Bureau of Economic Analysis, U.S. Department of Commerce, "Gross Domestic Product by State", <http://www.bea.gov/regional/gsp/>

2. Numbers may not sum exactly due to rounding.

The following caveats should be kept in mind when considering the results of this study. This analysis only evaluates the positive economic impacts or contributions, in terms of revenues, income, taxes or jobs, resulting from business activities associated with dairy farming and product manufacturing in the southeast. It does not account for any costs, direct or indirect, to the government or surrounding community that may result from it. It should be born in mind that this study differs from a standard impact analysis that focuses on sales of products outside the region. Rather, this study assumed that most dairy products are consumed within the region and would be replaced by imports if regional production were not available. Possible effects on regional prices for goods, services, or real estate are not evaluated. Estimates of the secondary (indirect and induced) contributions calculated by the economic models used in this analysis are largely based on national averages. Thus their accuracy rests on the assumption that the economic relationships between businesses and institutions in the study area are similar to those of the U.S. as a whole.

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Appendix A: Glossary of Economic Impact Terminology

Direct effects/impacts: Direct impacts, represent the revenues, value-added, income, or jobs that result directly from an economic activity within a regional economy.

Employment or Jobs: Represents the total numbers of wage and salaried employees as well as self-employed jobs. This includes full-time, part-time and seasonal workers measured in annual average jobs.

Indirect Business Taxes: Include sales, excise, and property taxes as well as fees and licenses paid by businesses during normal operations. It does not include taxes on profits or income.

Indirect effects/impacts: Indirect effects occur when businesses use revenues originating from outside the region to purchase inputs (goods and services) from local suppliers. This secondary, or indirect business, generates additional revenues, income, jobs and taxes for the area economy.

Induced effects/impacts: Induced effects or impacts only occur when new or outside dollars are introduced into a local economy. Induced economic impacts occur as the households of business owners and employees spend their earnings from these enterprises to purchase consumer goods and services from other businesses within the region. This induced effect generates additional revenues, income, jobs and taxes for the area economy.

Input-Output Analysis: The use of input-output models to estimate how revenues or employment for one or more particular industries, businesses or events in a regional economy will impact other businesses and institutions in that region, and the regional as a whole.

Input-Output Models: A mathematical representation of economic activity within a defined region using inter-industry transaction tables or matrices where the outputs of various industries are used as inputs by those same industries and other industries as well.

Labor Income: All forms of employment compensation, including employee wages and salaries, and proprietor income or profits.

Local revenues/expenditures: Local revenues or spending represent simple transfers between individuals or businesses within a regional economy. These transactions do not generate economic spin-off or multiplier (indirect and induced) effects.

Non-local revenues/expenditures: When outside or new revenues flow into a local economy either from the sale of locally produced goods and services to points outside the study area, or from expenditures by non-local visitors to the study area, additional economic repercussions occur through indirect and induced effects.

Other Property Type Income: Represents corporate profits in addition to payments for rents, royalties, dividends and interest .

Output: Revenues or sales associated with an industry or economic activity.

Total Impacts: The sum of direct, indirect and induced effects or economic impacts.

Value-added: Includes wages and salaries, interest, rent, profits, and indirect taxes paid by businesses, and also represents the activity's contribution to Gross Domestic or State Product.

**Appendix B: Economic Contributions of Dairy Farms and Product Manufacturers in the Southeast U.S.
by Two-digit NAICS Aggregate Sectors, 2005.**

Table B-1. Total output contributions by state and two-digit NAICS industry sector for dairy farms in the southeast U.S., 2005.

Industry Sector (NAICS *)		Alabama		Florida		Georgia		South Carolina		Tennessee		Total	
Number	Name	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank
11	Ag, Forestry, Fish & Hunting	39.21	1	433.62	1	230.12	1	49.14	1	184.91	1	936.99	1
31-33	Manufacturing	6.31	2	46.96	2	38.13	2	7.04	2	33.65	2	132.09	2
92	Government & non NAICs	3.81	3	43.91	3	25.65	3	4.58	3	20.99	3	98.94	3
54	Prof., scientific. & tech svcs.	2.00	4	31.02	4	15.65	4	2.40	4	10.38	6	61.44	4
62	Health & social services	1.73	6	28.53	5	11.40	8	2.16	7	11.19	4	55.00	5
42	Wholesale Trade	1.56	7	24.12	8	14.66	5	1.64	8	10.79	5	52.76	6
23	Construction	1.96	5	25.75	6	12.37	6	2.35	5	9.42	8	51.84	7
44-45	Retail trade	1.53	8	24.16	7	12.21	7	2.22	6	9.54	7	49.66	8
52	Finance & insurance	1.14	9	21.57	9	11.08	9	1.41	9	8.36	9	43.56	9
81	Other services	1.04	11	17.14	10	8.55	10	1.30	12	6.36	12	34.39	10
53	Real estate & rental	1.01	12	15.71	11	8.19	12	1.30	11	6.40	11	32.62	11
48-49	Transportation & Warehousing	1.07	10	12.67	12	8.33	11	1.31	10	6.76	10	30.14	12
72	Accommodation & food svcs.	0.78	14	12.56	13	6.19	14	1.16	14	5.00	13	25.69	13
22	Utilities	0.85	13	11.19	14	7.09	13	1.28	13	0.77	19	21.18	14
51	Information	0.47	15	9.21	16	4.95	15	0.55	15	3.49	14	18.66	15
56	Administrative & waste svcs.	0.47	16	9.44	15	4.54	16	0.39	16	3.15	15	17.99	16
55	Management of companies	0.13	19	3.65	17	2.01	17	0.16	19	1.07	17	7.02	17
71	Arts, entertain. & recreation	0.10	20	3.23	18	1.39	18	0.23	17	1.05	18	6.01	18
61	Educational svcs.	0.13	18	2.47	19	1.39	19	0.21	18	1.12	16	5.32	19
21	Mining	0.16	17	1.01	20	0.07	20	0.01	20	0.29	20	1.55	20
Total		65.47		777.91		423.95		80.84		334.68		1,682.9	

* NAICS is the North American Industry Classification System: see <http://www.census.gov/epcd/www/naics.html> for details.

Table B-2. Total value-added contributions by state and two-digit NAICS industry sector for dairy farms in the southeast U.S., 2005.

Industry Sector (NAICS *)		Alabama		Florida		Georgia		South Carolina		Tennessee		Total	
Number	Name	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank
11	Ag, Forestry, Fish & Hunting	9.63	1	105.69	1	56.17	1	11.91	1	46.03	1	229.43	1
92	Government & non NAICs	3.14	2	37.17	2	22.38	2	3.99	2	15.31	2	81.99	2
42	Wholesale Trade	1.18	4	18.35	3	11.15	3	1.24	6	8.20	3	40.12	3
44-45	Retail trade	1.15	5	18.02	4	9.11	5	1.67	4	7.12	5	37.07	4
62	Health & social services	1.08	6	17.66	5	7.24	7	1.37	5	7.09	6	34.43	5
31-33	Manufacturing	1.49	3	11.82	8	10.23	4	1.80	3	8.04	4	33.39	6
54	Prof., scientific. & tech svcs.	1.01	7	16.82	6	8.66	6	1.20	7	5.45	7	33.14	7
52	Finance & insurance	0.69	9	13.13	7	6.95	8	0.86	11	5.25	8	26.87	8
23	Construction	0.81	8	11.01	9	5.43	10	0.96	8	4.03	10	22.25	9
53	Real estate & rental	0.68	10	10.51	10	5.48	9	0.87	10	4.28	9	21.81	10
81	Other services	0.52	13	8.67	11	4.44	13	0.65	13	3.32	12	17.60	11
48-49	Transportation & Warehousing	0.56	12	6.78	13	4.61	12	0.71	12	3.73	11	16.39	12
22	Utilities	0.57	11	7.88	12	4.91	11	0.91	9	0.48	19	14.74	13
72	Accommodation & food svcs.	0.36	14	6.48	14	3.10	14	0.56	14	2.52	13	13.03	14
56	Administrative & waste svcs.	0.26	15	5.52	15	2.62	15	0.21	16	1.87	14	10.49	15
51	Information	0.20	16	4.27	16	2.54	16	0.25	15	1.58	15	8.84	16
55	Management of companies	0.07	18	2.18	17	1.20	17	0.09	19	0.60	18	4.13	17
71	Arts, entertain. & recreation	0.06	20	2.06	18	0.87	18	0.14	17	0.66	17	3.78	18
61	Educational svcs.	0.07	19	1.44	19	0.80	19	0.11	18	0.66	16	3.08	19
21	Mining	0.09	17	0.22	20	0.04	20	0.00	20	0.08	20	0.43	20
Total		23.63		305.68		167.93		29.49		126.29		653.02	

* NAICS is the North American Industry Classification System: see <http://www.census.gov/epcd/www/naics.html> for details.

Table B-3. Total employment contributions by state and two-digit NAICS industry sectors for dairy farm production in the southeast U.S., 2005.

Industry Sector (NAICS *)		Alabama		Florida		Georgia		South Carolina		Tennessee		Total	
Number	Name	Jobs	Rank	Jobs	Rank	Jobs	Rank	Jobs	Rank	Jobs	Rank	Jobs	Rank
11	Ag, Forestry, Fish & Hunting	532	1	3,387	1	1,965	1	556	1	2,346	1	8,787	1
92	Government & non NAICs	39	2	377	4	263	2	51	2	174	2	902	2
44-45	Retail trade	29	3	405	2	209	3	41	3	158	3	843	3
54	Prof., scientific. & tech svcs.	29	4	382	3	189	4	35	4	140	4	774	4
62	Health & social services	22	5	354	5	140	5	29	5	125	5	669	5
81	Other services	18	8	281	6	139	6	23	7	103	7	564	6
72	Accommodation & food svcs.	18	9	238	7	123	7	24	6	99	8	502	7
23	Construction	19	7	218	8	110	9	21	9	84	9	452	8
31-33	Manufacturing	20	6	155	10	118	8	22	8	103	6	418	9
42	Wholesale Trade	13	10	174	9	94	10	13	11	81	10	374	10
48-49	Transportation & Warehousing	11	11	131	13	78	11	14	10	61	11	294	11
56	Administrative & waste svcs.	9	12	148	11	72	12	7	14	50	12	285	12
52	Finance & insurance	7	14	136	12	62	13	10	12	50	13	265	13
53	Real estate & rental	8	13	106	14	46	14	9	13	41	14	210	14
71	Arts, entertain. & recreation	2	16	53	15	27	15	5	15	19	16	106	15
61	Educational svcs.	3	15	49	16	26	16	5	16	21	15	104	16
51	Information	2	17	35	17	15	17	2	18	15	17	69	17
55	Management of companies	1	19	21	18	12	18	1	19	7	18	42	18
22	Utilities	2	18	19	19	10	19	3	17	2	19	35	19
21	Mining	0	20	4	20	0	20	0	20	1	20	5	20
Total		781		6,671		3,697		871		3,679		15,698	

* NAICS is the North American Industry Classification System: see <http://www.census.gov/epcd/www/naics.html> for details.

Table B-4. Total output contributions by state and two-digit NAICS aggregate sector for dairy product manufacturing in the southeast U.S., 2005.

Industry Sector (NAICS *)		Alabama		Florida		Georgia		South Carolina		Tennessee		Total	
Number	Name	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank
31-33	Manufacturing	758.4	1	1,334.9	1	433.0	1	354.8	1	1,564.2	1	4,445.2	1
92	Government & non NAICs	47.6	2	106.7	2	35.6	2	18.9	2	130.6	2	339.4	2
42	Wholesale Trade	35.1	3	81.9	3	32.1	3	11.0	3	105.5	3	265.6	3
54	Prof., scientific. & tech srvcs.	23.5	4	81.4	4	23.0	4	8.3	7	58.2	9	194.5	4
52	Finance & insurance	20.8	7	66.4	5	19.7	6	8.9	5	67.2	5	183.0	5
23	Construction	21.7	5	64.1	6	20.2	5	9.6	4	61.9	7	177.5	6
44-45	Retail trade	21.0	6	57.0	8	17.3	7	8.7	6	59.9	8	163.9	7
62	Health & social services	19.2	8	59.1	7	13.7	10	7.5	9	62.2	6	161.7	8
53	Real estate & rental	17.5	10	52.2	9	15.2	8	7.6	8	50.0	10	142.5	9
48-49	Transportation & Warehousing	18.1	9	38.2	11	14.9	9	7.3	10	49.3	11	127.9	10
11	Ag, Forestry, Fish & Hunting	1.6	18	3.9	19	1.2	19	0.5	19	99.1	4	106.3	11
81	Other services	13.2	11	37.7	12	10.9	12	5.7	12	37.7	12	105.2	12
55	Management of companies	10.2	14	45.6	10	12.4	11	4.8	14	28.7	15	101.7	13
72	Accommodation & food srvcs.	11.6	13	32.8	14	9.4	15	5.7	11	35.0	13	94.4	14
51	Information	9.5	15	33.1	13	10.1	13	3.6	15	30.2	14	86.4	15
56	Administrative & waste srvcs.	7.2	16	26.6	15	7.5	16	2.1	16	22.9	16	66.3	16
22	Utilities	11.8	12	24.2	16	9.5	14	5.5	13	5.8	19	56.8	17
71	Arts, entertain. & recreation	1.4	20	8.3	17	2.1	17	1.0	17	7.5	17	20.3	18
61	Educational srvcs.	1.5	19	5.3	18	1.7	18	0.8	18	6.4	18	15.7	19
21	Mining	1.7	17	2.2	20	0.1	20	0.0	20	1.4	20	5.4	20
Total		1,052.8		2,161.3		689.8		472.2		2,483.5		6,859.6	

* NAICS is the North American Industry Classification System: see <http://www.census.gov/epcd/www/naics.html> for details.

Table B-5. Total value-added contributions by state and two-digit NAICS industry sector for dairy product manufacturing in the southeast U.S., 2005.

Industry Sector (NAICS *)		Alabama		Florida		Georgia		South Carolina		Tennessee		Total	
Number	Name	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank
31-33	Manufacturing	91.3	1	183.5	1	66.1	1	39.2	1	254.0	1	634.1	1
92	Government & non NAICs	38.2	2	90.9	2	31.0	2	16.4	2	98.3	2	274.9	2
42	Wholesale Trade	25.5	3	62.3	3	24.4	3	8.3	3	80.2	3	200.7	3
44-45	Retail trade	14.8	4	42.5	5	12.9	5	6.5	4	44.7	4	121.5	4
52	Finance & insurance	12.4	6	41.5	6	12.7	6	5.6	5	43.2	5	115.4	5
54	Prof., scientific, & tech svcs.	12.6	5	46.2	4	13.9	4	4.7	8	33.9	7	111.2	6
62	Health & social services	11.1	7	36.6	7	8.7	10	4.7	7	39.4	6	100.6	7
53	Real estate & rental	11.0	8	34.5	8	10.1	7	4.9	6	32.4	8	92.9	8
23	Construction	9.0	10	27.7	9	9.0	9	4.1	10	27.0	10	76.7	9
48-49	Transportation & Warehousing	10.2	9	22.5	11	9.1	8	4.4	9	29.2	9	75.4	10
55	Management of companies	5.4	13	27.2	10	7.4	11	2.6	14	15.9	14	58.5	11
81	Other services	6.1	12	18.7	12	5.6	13	2.7	13	19.2	12	52.2	12
72	Accommodation & food svcs.	5.2	14	17.2	13	4.8	15	2.8	12	18.0	13	48.0	13
56	Administrative & waste svcs.	4.0	15	16.5	15	4.6	16	1.2	16	14.3	15	40.6	14
51	Information	3.8	16	15.4	16	5.2	14	1.6	15	13.4	16	39.3	15
22	Utilities	6.9	11	16.6	14	6.3	12	3.8	11	3.2	19	36.8	16
11	Ag, Forestry, Fish & Hunting	0.6	20	2.3	19	0.7	19	0.3	19	25.6	11	29.5	17
71	Arts, entertain. & recreation	0.8	18	5.3	17	1.3	17	0.6	17	4.7	17	12.7	18
61	Educational svcs.	0.7	19	3.1	18	1.0	18	0.4	18	3.8	18	9.0	19
21	Mining	0.9	17	0.5	20	0.1	20	0.0	20	0.4	20	1.8	20
Total		270.3		710.8		234.8		115.1		800.8		2,131.8	

* NAICS is the North American Industry Classification System: see <http://www.census.gov/epcd/www/naics.html> for details.

Table B-6. Total employment contributions by state and two-digit NAICS industry sector for dairy product manufacturing in the southeast U.S., 2005.

Industry Sector (NAICS *)		Alabama		Florida		Georgia		South Carolina		Tennessee		Total	
Number	Name	Jobs	Rank	Jobs	Rank	Jobs	Rank	Jobs	Rank	Jobs	Rank	Jobs	Rank
31-33	Manufacturing	1,597	1	2,652	1	870	1	691	1	2,943	1	8,754	1
92	Government & non NAICs	516	2	1,026	2	398	2	230	2	1,248	3	3,418	2
44-45	Retail trade	400	3	956	3	297	3	163	3	994	4	2,809	3
42	Wholesale Trade	282	4	592	8	205	4	88	8	788	5	1,955	4
62	Health & social services	241	6	734	4	169	9	99	5	698	6	1,940	5
72	Accommodation & food svcs.	257	5	613	6	185	6	118	4	682	7	1,855	6
54	Prof., scientific. & tech svcs.	203	9	672	5	174	7	76	10	542	10	1,668	7
23	Construction	226	7	564	9	189	5	92	6	592	9	1,663	8
81	Other services	208	8	592	7	171	8	92	6	592	8	1,655	9
11	Ag, Forestry, Fish & Hunting	24	18	87	18	15	18	7	19	1,302	2	1,435	10
48-49	Transportation & Warehousing	185	10	404	12	146	10	83	9	459	11	1,276	11
56	Administrative & waste svcs.	163	11	476	10	134	11	42	13	416	12	1,231	12
52	Finance & insurance	130	12	412	11	107	12	61	11	391	13	1,100	13
53	Real estate & rental	113	13	304	13	77	13	47	12	289	14	830	14
55	Management of companies	65	14	262	14	71	14	33	14	193	15	624	15
51	Information	46	15	141	15	33	16	18	16	139	16	376	16
71	Arts, entertain. & recreation	38	16	140	16	40	15	25	15	134	17	376	17
61	Educational svcs.	35	17	104	17	32	17	17	17	120	18	308	18
22	Utilities	21	19	41	19	14	19	12	18	12	19	100	19
21	Mining	4	20	8	20	0	20	0	20	5	20	17	20
Total		4,754		10,779		3,326		1,992		12,538		33,388	

* NAICS is the North American Industry Classification System: see <http://www.census.gov/epcd/www/naics.html> for details.

Table B-7. Total output contributions by state and two-digit NAICS industry sector for dairy farm production and product manufacturing in the southeast U.S., 2005.

Industry Sector (NAICS *)		Alabama		Florida		Georgia		South Carolina		Tennessee		Total	
Number	Name	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank
31-33	Manufacturing	764.7	1	1,381.9	1	471.1	1	361.8	1	1,597.8	1	4,577.3	1
11	Ag, Forestry, Fish & Hunting	40.8	3	437.5	2	231.4	2	49.6	2	284.0	2	1,043.3	2
92	Government & non NAICS	51.4	2	150.6	3	61.2	3	23.5	3	151.6	3	438.4	3
42	Wholesale Trade	36.7	4	106.0	5	46.7	4	12.6	4	116.3	4	318.3	4
54	Prof., scientific. & tech svcs.	25.5	5	112.5	4	38.7	5	10.7	7	68.6	9	256.0	5
23	Construction	23.7	6	89.8	6	32.6	6	12.0	5	71.3	7	229.4	6
52	Finance & insurance	21.9	8	87.9	7	30.8	7	10.3	8	75.6	5	226.5	7
62	Health & social services	21.0	9	87.6	8	25.1	9	9.6	9	73.4	6	216.7	8
44-45	Retail trade	22.5	7	81.2	9	29.5	8	11.0	6	69.4	8	213.6	9
53	Real estate & rental	18.5	11	67.9	10	23.4	10	8.9	10	56.4	10	175.1	10
48-49	Transportation & Warehousing	19.2	10	50.9	12	23.3	11	8.6	11	56.1	11	158.0	11
81	Other services	14.2	12	54.8	11	19.5	12	7.0	12	44.1	12	139.6	12
72	Accommodation & food svcs.	12.4	14	45.3	14	15.6	14	6.8	13	40.0	13	120.0	13
55	Management of companies	10.4	15	49.2	13	14.4	16	5.0	15	29.8	15	108.7	14
51	Information	10.0	16	42.3	15	15.0	15	4.1	16	33.6	14	105.0	15
56	Administrative & waste svcs.	7.7	17	36.1	16	12.0	17	2.5	17	26.1	16	84.3	16
22	Utilities	12.7	13	35.4	17	16.6	13	6.8	14	6.6	19	78.0	17
71	Arts, entertain. & recreation	1.5	20	11.5	18	3.5	18	1.3	18	8.6	17	26.3	18
61	Educational svcs.	1.7	19	7.7	19	3.1	19	1.0	19	7.5	18	21.0	19
21	Mining	1.9	18	3.2	20	0.2	20	0.1	20	1.6	20	7.0	20
Total		1,118.3		2,939.2		1,113.7		553.0		2,818.2		8,542.5	

* NAICS is the North American Industry Classification System: see <http://www.census.gov/epcd/www/naics.html> for details.

Table B-8. Total value-added contributions by state and two-digit NAICS industry sector for dairy farm production and product manufacturing the southeast U.S., 2005.

Industry Sector (NAICS *)		Alabama		Florida		Georgia		South Carolina		Tennessee		Total	
Number	Name	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank	Million \$	Rank
31-33	Manufacturing	92.8	1	195.3	1	76.3	1	41.0	1	262.1	1	667.5	1
92	Government & non NAICs	41.3	2	128.1	2	53.4	3	20.4	2	113.6	2	356.9	2
11	Ag, Forestry, Fish & Hunting	10.2	10	108.0	3	56.8	2	12.2	3	71.7	4	258.9	3
42	Wholesale Trade	26.6	3	80.6	4	35.5	4	9.6	4	88.4	3	240.8	4
44-45	Retail trade	16.0	4	60.6	6	22.1	6	8.2	5	51.8	5	158.6	5
54	Prof., scientific, & tech svcs.	13.6	5	63.0	5	22.6	5	5.9	8	39.3	8	144.3	6
52	Finance & insurance	13.1	6	54.7	7	19.6	7	6.5	6	48.5	6	142.3	7
62	Health & social services	12.2	7	54.3	8	15.9	8	6.1	7	46.5	7	135.1	8
53	Real estate & rental	11.7	8	45.0	9	15.6	9	5.8	9	36.6	9	114.7	9
23	Construction	9.8	11	38.7	10	14.4	10	5.0	11	31.0	11	99.0	10
48-49	Transportation & Warehousing	10.7	9	29.3	12	13.7	11	5.2	10	32.9	10	91.8	11
81	Other services	6.6	13	27.4	13	10.0	13	3.3	14	22.5	12	69.8	12
55	Management of companies	5.4	15	29.4	11	8.6	14	2.7	15	16.5	14	62.7	13
72	Accommodation & food svcs.	5.5	14	23.7	15	7.9	15	3.4	13	20.5	13	61.0	14
22	Utilities	7.5	12	24.5	14	11.3	12	4.7	12	3.6	19	51.5	15
56	Administrative & waste svcs.	4.3	16	22.0	16	7.2	17	1.4	17	16.1	15	51.0	16
51	Information	4.0	17	19.6	17	7.7	16	1.9	16	15.0	16	48.2	17
71	Arts, entertain. & recreation	0.9	19	7.4	18	2.2	18	0.8	18	5.3	17	16.5	18
61	Educational svcs.	0.8	20	4.5	19	1.8	19	0.5	19	4.5	18	12.1	19
21	Mining	0.9	18	0.7	20	0.1	20	0.0	20	0.5	20	2.2	20
Total		293.9		1,016.5		402.7		144.6		927.1		2,784.8	

* NAICS is the North American Industry Classification System: see <http://www.census.gov/epcd/www/naics.html> for details.

Table B-9. Total employment contributions by state and two-digit NAICS industry sector for dairy farm production and product manufacturing the southeast U.S., 2005.

Industry (NAICS *)		Alabama		Florida		Georgia		South Carolina		Tennessee		Total	
Number	Name	Jobs	Rank	Jobs	Rank	Jobs	Rank	Jobs	Rank	Jobs	Rank	Jobs	Rank
11	Ag, Forestry, Fish & Hunting	557	2	3,474	1	1,980	1	563	2	3,648	1	10,222	1
31-33	Manufacturing	1,616	1	2,807	2	988	2	713	1	3,047	2	9,171	2
92	Government & non NAICS	555	3	1,403	3	661	3	280	3	1,421	3	4,320	3
44-45	Retail trade	429	4	1,361	4	506	4	204	4	1,152	4	3,652	4
62	Health & social services	263	7	1,087	5	309	7	127	6	823	6	2,609	5
54	Prof., scientific. & tech svcs.	232	9	1,054	6	363	5	111	9	682	9	2,442	6
72	Accommodation & food svcs.	275	6	851	8	309	8	142	5	781	7	2,357	7
42	Wholesale Trade	295	5	766	10	298	10	101	10	868	5	2,329	8
81	Other services	225	10	873	7	310	6	115	7	695	8	2,219	9
23	Construction	245	8	782	9	299	9	113	8	676	10	2,114	10
48-49	Transportation & Warehousing	195	11	535	13	224	11	97	11	520	11	1,570	11
56	Administrative & waste svcs.	172	12	624	11	206	12	48	14	467	12	1,516	12
52	Finance & insurance	138	13	548	12	169	13	71	12	441	13	1,366	13
53	Real estate & rental	121	14	409	14	123	14	57	13	330	14	1,039	14
55	Management of companies	66	15	283	15	83	15	34	15	200	15	666	15
71	Arts, entertain. & recreation	41	17	193	16	67	16	30	16	153	17	482	16
51	Information	48	16	177	17	47	18	20	18	153	16	445	17
61	Educational svcs.	38	18	153	18	59	17	22	17	141	18	412	18
22	Utilities	23	19	59	19	24	19	15	19	14	19	135	19
21	Mining	4	20	11	20	1	20	0	20	6	20	22	20
Total		5,534		17,450		7,022		2,863		16,217		49,086	

* NAICS is the North American Industry Classification System: see <http://www.census.gov/epcd/www/naics.html> for details.