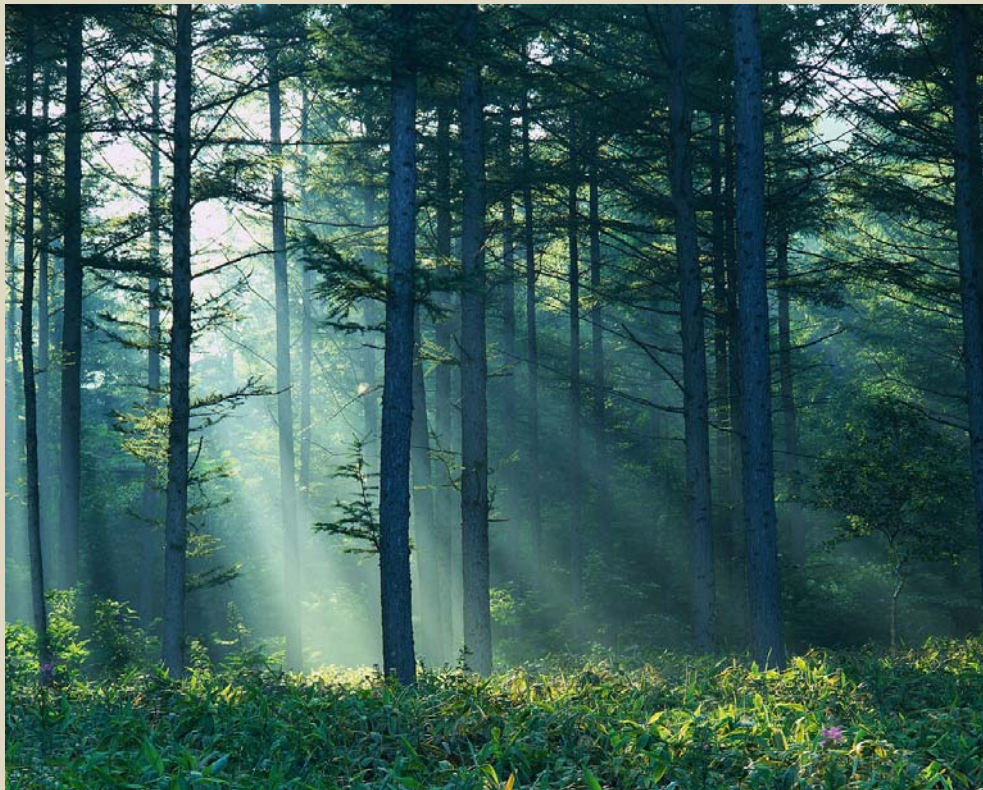




**Institute of Agriculture
Department of Agricultural & Resource Economics**

Economic Impacts of Agriculture and Forestry in Tennessee, 2011



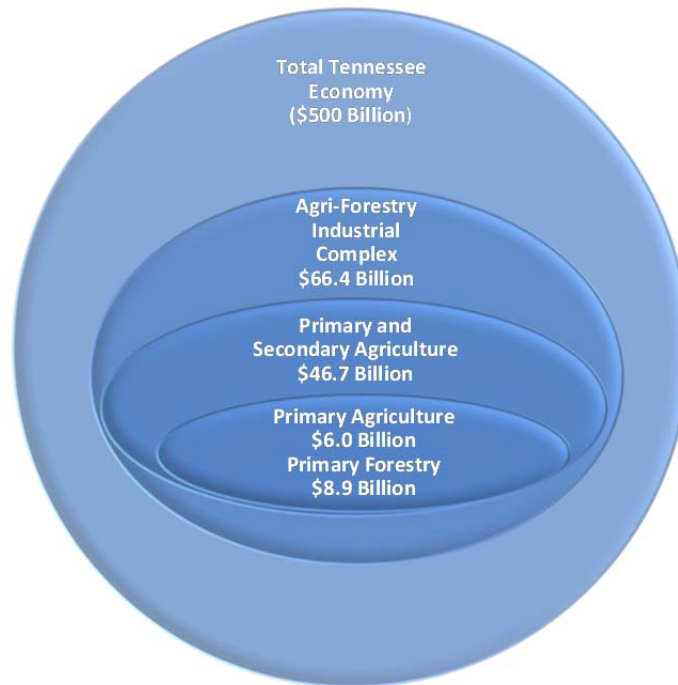
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June 2013

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Tennessee's Agro-Forestry Industrial Complex

Please visit AIM-AG's web site at <http://aimag.ag.utk.edu/>.

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Executive Summary

In 2011, the agro-forestry industrial complex contributed \$66.4 billion to the Tennessee economy, accounting for 13.3 percent of the economic activity conducted within the state, and employed an estimated 337,880 individuals, or 9.6 percent of the total number of workers. In this study the agro-forestry industrial complex included the primary industries typically associated with agriculture and forest operations such as growing crops, the breeding and feeding of livestock, and the management and logging of trees. Also included in the industrial complex were input supply industries and value-added sub-sectors, which included food and beverage manufacturing, apparel and textiles, and forestry products manufacturing.

Agriculture, a subset of the agro-forestry industrial complex, includes farming and related industries, as well as value-added food and fiber production, processing and manufacturing. Agriculture accounted for 9.3 percent of the state's economy and generated \$46.7 billion in output. Agriculture employed close to 247,000 Tennesseans, with over 106,000 (both full- and part-time) in agricultural production. In addition,

- For 2011, agriculture input supplying industries – agricultural machinery and chemical products – generated nearly \$2.3 billion in cash receipts annually.
- For 2011, Tennessee farmers earned more than 76.1 percent of their cash receipts from cattle and calves, soybeans, broilers, corn, cotton, and greenhouse/nursery.
- Exports for Tennessee's forest products outside the United States for 2011 totaled close to \$1.0 billion. Paper products had the highest export value at \$682.3 million, followed by wood products (\$180.1 million), furniture and related products (\$90.6 million), and forestry and logging (\$79.5 million).
- For 2011, major countries receiving Tennessee's forest products exports include Mexico for paper products, China for wood products, and Canada for furniture and fixtures and logging.
- For 2011, value-added agriculture manufacturing contributed a total of \$38.4 billion to the state's economy of which 83.3 percent came from food (\$27.1 billion) and beverages (\$4.9 billion) manufacturing.
- Major markets for Tennessee's 2011 exports of agricultural and livestock products included China, Mexico, Turkey, Indonesia, Viet Nam, Thailand, and Canada.

This analysis was conducted using the Tennessee Agri-Industry model (TNAIM) and the Impact Analysis for Planning (IMPLAN) model and databases. TNAIM, an input-output model for five trading regions within the state, traces transactions conducted within the economy and attempts to quantify the economic interdependencies within each region's economy for a given point in time. Through these interdependencies, one can evaluate the indirect and induced impacts that economic activity in one region might have on the entire state economy.

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Economic Impacts of Agriculture and Forestry in Tennessee

Introduction

This study measures the economic importance and impacts of agricultural and forestry industrial complexes on Tennessee's economy in 2011. An input-output model reflecting the state's 2011 economy is used to determine direct impacts on related input industries, and impacts through resulting expenditures by households at both the state and five-region level. The impacts are provided for four major indicators: total industry output, employment, labor income, and value-added. This study continues the series of previous reports (English, Jensen, and Menard, 2001 and 2003; Menard, English, and Jensen, 2006, 2009 and 2011) where the economic importance and impacts of agricultural and forestry industrial complexes on Tennessee's economy were examined using 1997, 2000, 2003, 2006, and 2009 data, respectively (for additional details on the previous studies and the IMPLAN version used, see Appendix A).

For the purpose of this analysis, agriculture¹ and forestry includes the production and processing of agricultural and forest products and the input suppliers of these products. The objectives of this analysis are to: 1) provide an overview of Tennessee's agriculture and forestry resource base, 2) compare livestock and crop statistics for 2009 and 2011, 3) evaluate the economic importance and impacts of the agricultural and forestry industrial complex for the state and for specific consumption regions within the state, and 4) evaluate agriculture and forestry's tax contributions to the state.

¹In this report, forestry and the production of forest products were incorporated in agriculture and agribusiness, respectively.

This document is structured along the same theme as the objectives. First, an overview of Tennessee's agriculture and forestry is presented. Crop and livestock cash receipts, Tennessee's rank in the United States based on the production of agricultural products, exports for both agricultural and forestry products, plus agricultural and forestry manufacturing statistics are discussed. Next, a review of state level changes in livestock and crops for the years 2009 and 2011 is presented. Changes in livestock inventory, crop acreages, prices, including a brief discussion of rainfall by climate divisions in the state are discussed in the section. Finally, the remaining part of the document evaluates the economic impacts and importance of the agricultural and forestry industrial complex for the state and specific consumption regions within the state with an input-output model. After the data and methodology section discussion, direct and total economic impact results are summarized.

Overview of Agriculture and Forestry in Tennessee

In 2011, 77,300 Tennessee farms used 10.8 million acres, or 41.0 percent of the state's land base. From 2007 to 2011, the number of farms in the state decreased an average of 0.7 percent annually. The average farm, in 2011, was 140 acres in size compared to 418 acres for the United States. Approximately 70.6 percent of the total number of farms had sales in the \$1,000-\$9,999 range, 23.5 percent in the \$10,000-\$99,999 range, and 5.8 percent had sales of \$100,000 or more (Tennessee Department of Agriculture, 2012; USDA/NASS, 2007a).

Cash receipts for all commodities in Tennessee totaled \$3.5 billion for 2011. Of that total, close to \$2.1 billion (59.9 percent) was from crops with the balance, \$1.4 billion (40.1 percent), from all livestock and livestock products. Tennessee was ranked in the upper half of the nation for most major crops (rice and peanuts are not grown extensively in the state) (Table 1). Approximately 39.7 percent of Tennessee's total harvested cropland acreage (roughly 4.7

Table 1. Crops Harvested, Acreage, State Ranking, and Cash Receipts, 2011

| Crops | Acreage | State Ranking | Leading State | Cash Receipts | % of Total ³ |
|-----------------|------------------|---------------|---------------|---------------|-------------------------|
| | (Thousand Acres) | | | (Thousand \$) | |
| Hay (all types) | 1,880 | ¹ | Missouri | \$83,457 | 2.4 |
| Soybeans | 1,250 | 17 | Iowa | \$461,334 | 13.2 |
| Corn for Grain | 735 | 17 | Iowa | \$456,114 | 13.0 |
| Cotton, Lint | 490 | 8 | Texas | \$401,123 | 11.5 |
| Winter Wheat | 310 | 24 | Kansas | \$139,578 | 4.0 |
| Corn for Silage | 38 | 30 | Wisconsin | -- | -- |
| All Tobacco | 22 | 4 | N. Carolina | \$96,875 | 2.8 |
| Vegetables* | 15 | ² | -- | \$47,777 | 1.4 |

*Snap beans, squash, and tomatoes

¹Tennessee is ranked 4th for all hay; 31 for alfalfa

²Tennessee is ranked 5th for snapbeans; 4th for tomatoes

³For 2011, cash receipts for all commodities were \$3.5 billion (\$2.1 billion for crops; \$1.4 billion for livestock & products)

Source: Tennessee Department of Agriculture, 2012

million acres) was in hay (all types), followed by soybeans (26.4 percent), corn for grain (15.5 percent), cotton (10.3 percent), and wheat (6.5 percent). Among crops, soybeans had the largest cash receipts, followed by corn, cotton, wheat, tobacco, hay, and vegetables.

Tennessee's top crop counties included Robertson County for all tobacco, Obion County for corn, Haywood County for cotton, Gibson County for wheat, Obion County for Soybeans, and Green County for all other hay.

Cash receipts in 2011 for *all* livestock and livestock products in Tennessee totaled \$1.4 billion. In terms of the number of head, broilers, chickens, cattle and calves, hogs and pigs, equine, and milk cows were the predominant livestock in the state (Table 2). According to the Tennessee Department of Agriculture for 2011, cash receipts from farm marketing for these livestock products (except for beef cows and equine) totaled close to \$1.3 billion. Of that total, cattle and calves contributed 43.0 percent, broilers 33.9 percent, dairy products 12.8 percent, and hogs and pigs 4.6 percent. Tennessee is ranked sixth in the United States for the number of equine on farms, 9th for beef cows, 14th for broilers, 15th cattle and calves, 25th for hogs and

Table 2. Livestock Numbers, State Rankings, and Cash Receipts, 2011

| Livestock | Inventory | State Ranking | Leading State | Cash Receipts | % of Total ⁵ |
|-----------------|----------------------|---------------|---------------|------------------------|-------------------------|
| | (Number) | | | (Thousand \$) | |
| Broilers | 190,300,000 | 14 | Georgia | \$461,154 | 13.2 |
| All Chickens | 2,584,000 | 32 | Iowa | \$77,313 ¹ | 0.1 |
| Cattle & Calves | 1,990,000 | 15 | Texas | \$586,300 ² | 16.7 |
| Beef Cows | 990,000 | 9 | Texas | -- | -- |
| Hogs & Pigs | 170,000 | 25 | Iowa | \$62,300 | 1.8 |
| Equine | 142,003 ³ | 6 | Texas | -- | -- |
| Milk Cows | 50,000 | 30 | California | \$174,900 ⁴ | 5.0 |

¹Includes eggs and farm chickens; excludes commercial broilers

²Includes beef cows; milk cows; replacement heifers; steers and bulls 500 pounds or greater; and calves under 500 pounds

³2007 Census of Agriculture value

⁴Cash receipts from marketing milk and cream, plus value of milk used for home consumption and farm churned butter

⁵For 2011, cash receipts for all commodities were \$3.5 billion (\$2.1 billion for crops; \$1.4 billion for livestock & products)

Source: Tennessee Department of Agriculture, 2012; USDA/NASS, 2007b & 2012

pigs, and 30th for milk cows. Tennessee's top cattle county is Greene County for all cattle (includes beef and dairy cows).

Tennessee's more significant agricultural commodities in terms of dollar value, along with their corresponding U.S. market share, are shown in Table 3. In descending order they were cattle ranching and farming; grain farming (barley, corn, oats, sorghum, and wheat); poultry and egg production; oilseed farming (primarily soybeans); cotton farming; all other crop farming (primarily hay and seed); greenhouse, nursery, and floriculture production; cotton farming; dairy cattle and milk production; animal production, except cattle, poultry, and eggs; tobacco farming; and vegetable and melon farming. Tobacco and cotton had the largest U.S. market share at 9.2 percent and 4.8 percent, respectively.

Tennessee's 2011 agricultural commodity exports totaled \$1.6 billion. The value of the top ten commodities exported included cotton at \$390.4 million, other products (defined at live animals, other meats, animal parts, eggs, wine beer, other beverages, coffee, cocoa, hops,

Table 3. State Value of Agricultural Commodities and U.S. Market Share, 2011

| Commodity | Value (Million \$) | U.S. Market Share (Percent) |
|--|-----------------------|--------------------------------|
| Cattle Ranching & Farming | \$586 | 0.9 |
| Grain Farming | \$537 | 0.6 |
| Poultry & Egg Production | \$524 | 1.4 |
| Oilseed Farming | \$461 | 1.2 |
| Cotton Farming | \$401 | 4.8 |
| All Other Crop Farming ¹ | \$337 | 1.1 |
| Greenhouse, Nursery, & Floriculture Production | \$317 | 1.9 |
| Dairy Cattle & Milk Production | \$179 | 0.5 |
| Animal Production, except Cattle & Poultry & Eggs ² | \$120 | 0.4 |
| Tobacco Farming | \$97 | 9.2 |
| Vegetable & Melon Farming | \$89 | 0.4 |
| Commercial Hunting & Trapping | \$53 | 1.6 |
| Fruit Farming | \$10 | 0.04 |
| Tree Nut Farming | \$1 | 0.01 |

¹Primarily hay and seed farming

²Primarily hogs, sheep & goats, aquaculture, equine, and apiculture

Source: Minnesota IMPLAN Group, Inc., 2011a

nursery crops, inedible materials, and prepared foods) at \$311.4 million; soybeans at \$215.6 million, wheat at \$106.2 million, unmanufactured tobacco at \$105.4 million; corn at \$97.6 million; chicken meat at \$82.5 million; vegetables oils at \$51.9 million; feeds and fodder at \$50.6 million; and beef and veal at \$50.5 million (USDA/ERS, 2012). Major markets for Tennessee's exports of agricultural and livestock products included China, Mexico, Turkey, Indonesia, Viet Nam, Thailand, and Canada (USDOC/ITA, 2011).

In 2011, Tennessee's forest products (paper products, wood products, plus furniture and related products) exported outside the United States, including forestry and logging, totaled close to \$1.0 billion. Paper products had the highest export value at \$682.3 million, followed by wood products (\$180.1 million), furniture and related products (\$90.6 million), and forestry and logging (\$79.5 million). The countries receiving Tennessee's forest products

exports included Mexico for paper products, China for wood products, and Canada for furniture and fixtures and logging (USDOC/ITA, 2011).

Tennessee's forest cover is primarily hardwoods (89 percent of the forest composition) making it one of the top three hardwood lumber producing states in the United States. It is estimated that over 120 tree species exist in Tennessee. White oak, red oak, hickory, yellow poplar, and maple were some of the more predominant hardwood species. For softwoods, loblolly pine, virginia pine, red cedar, and shortleaf pine were major species. The dominant forest type in the state is oak-hickory, accounting for an estimated 9.9 million acres. Of the close to 14.0 million acres in forest, 83.7 percent is privately owned with Federal and state/local forests comprising 10.0 percent and 6.3 percent, respectively (USDA Forest Service, 2013). Timber sales on private lands totaled \$288.0 million in 2011. Most of the state's forests are mature or over-mature in age, which may lead to an unhealthy imbalance of tree ages.

Tennessee is home to 15 state forests totaling around 166,897 acres. In 2010, guidelines were issued by the Tennessee Department of Forestry (see "*Plan 2020: Harvest Plan for Sustainable State Forests*") to sustainably harvest state owned forests in the future to achieve a more balanced age-class distribution (Tennessee Depart of Agriculture, 2011; Clatterbuck, 2013).

Agriculture and forestry manufacturing industries for the state (Figures 1 through 10) included food (*NAICS code 311*), animal slaughtering and processing (*NAICS code 3116*), beverage and tobacco products (*NAICS code 312*), textile mills (*NAICS code 313*), textile product mills (*NAICS code 314*), apparel (*NAICS code 315*), leather and allied products (*NAICS code 316*), wood products (*NAICS code 321*), paper (*NAICS code 322*), and furniture and related products (*NAICS code 337*). In 2011, close to \$33.4 billion dollars of goods were shipped and 75,500 Tennesseans were employed with a payroll of \$3.0 billion (Table 4). Food manufacturing

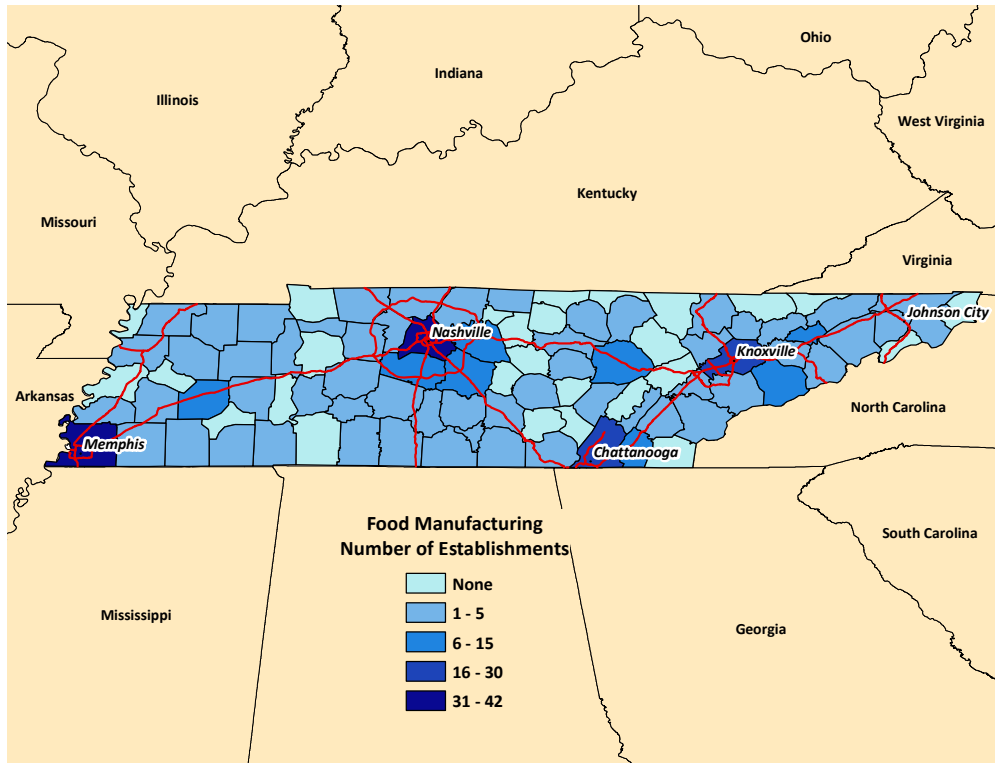


Figure 1. Number of Food Manufacturing Establishments in Tennessee, 2010.

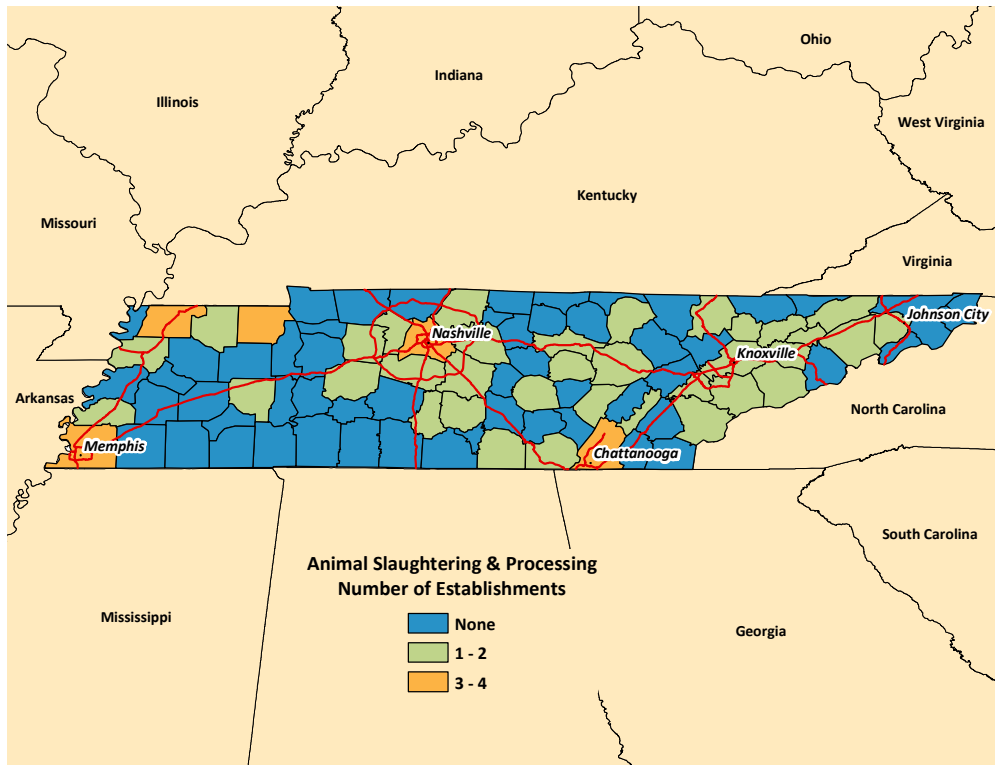


Figure 2. Number of Animal Slaughtering & Processing Establishments in Tennessee, 2010.

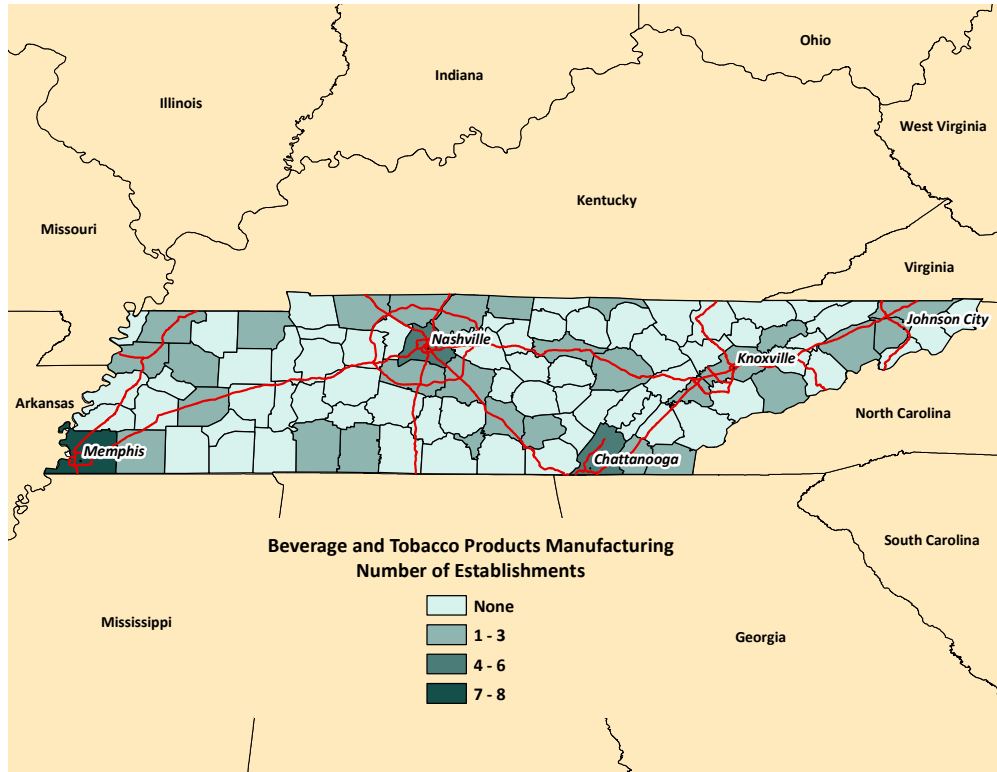


Figure 3. Number of Beverage and Tobacco Products Establishments in Tennessee, 2010.

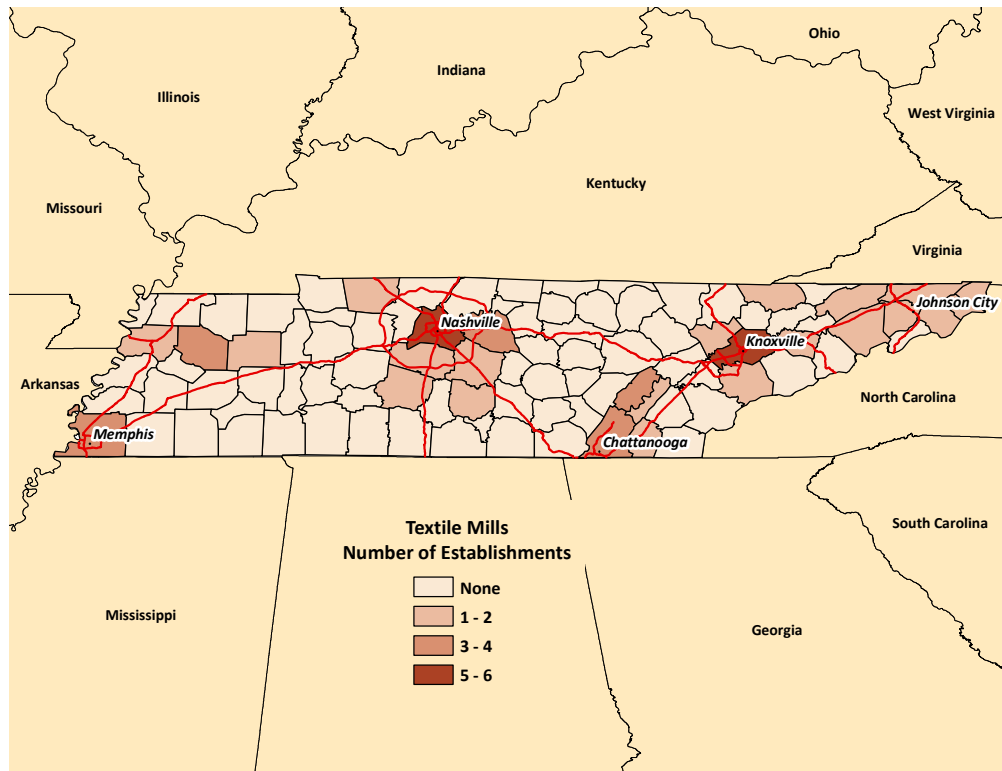


Figure 4. Number of Textile Mill Establishments in Tennessee, 2010.

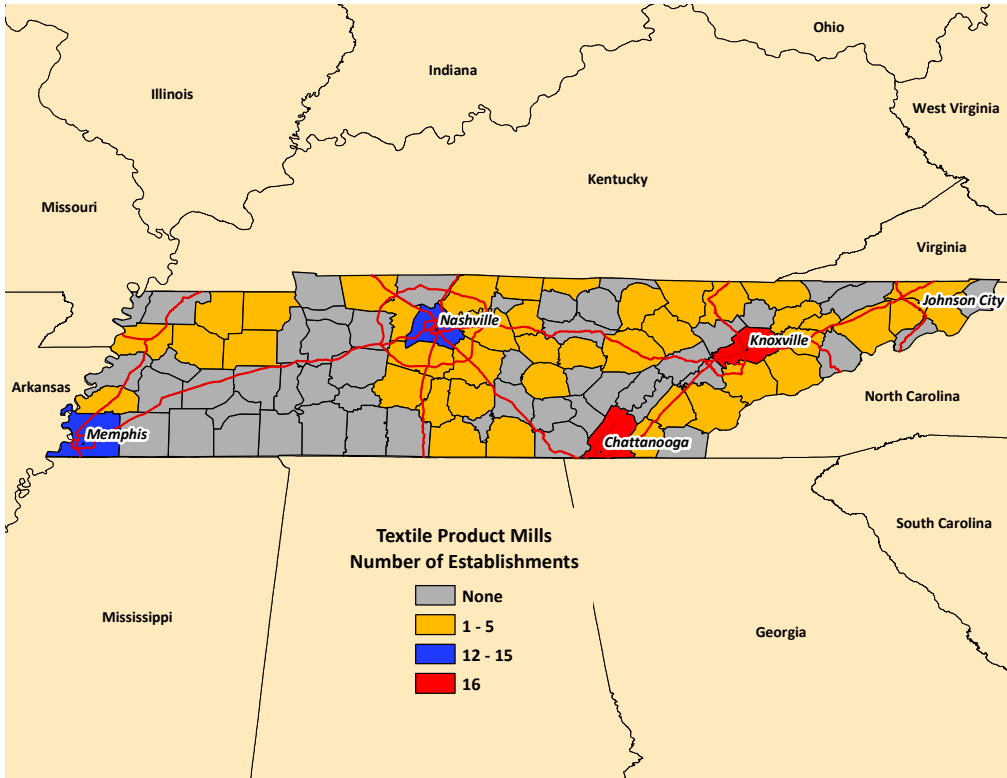


Figure 5. Number of Textile Product Mill Establishments in Tennessee, 2010.

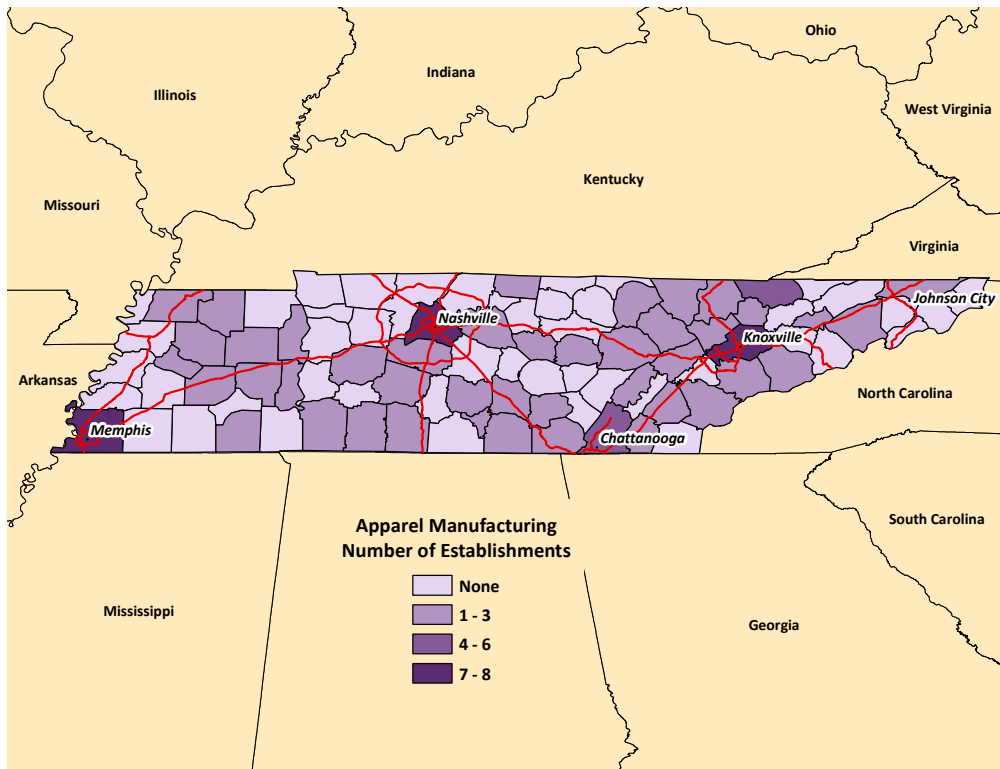


Figure 6. Number of Apparel Manufacturing Establishments in Tennessee, 2010.

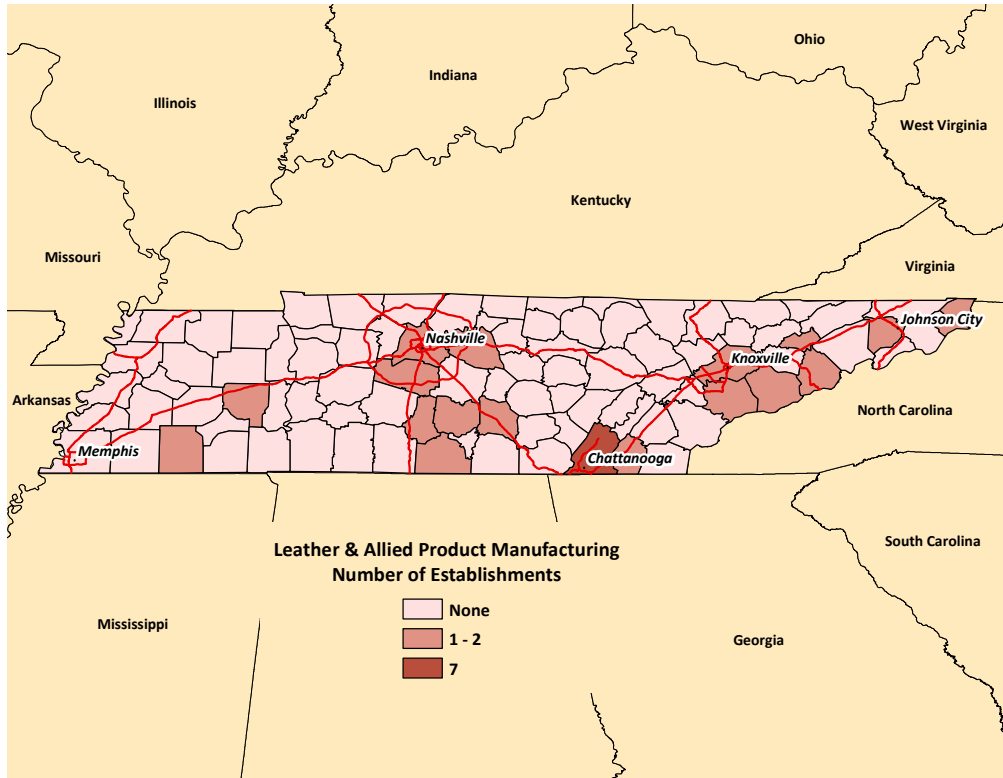


Figure 7. Number of Leather & Allied Product Establishments in Tennessee, 2010.

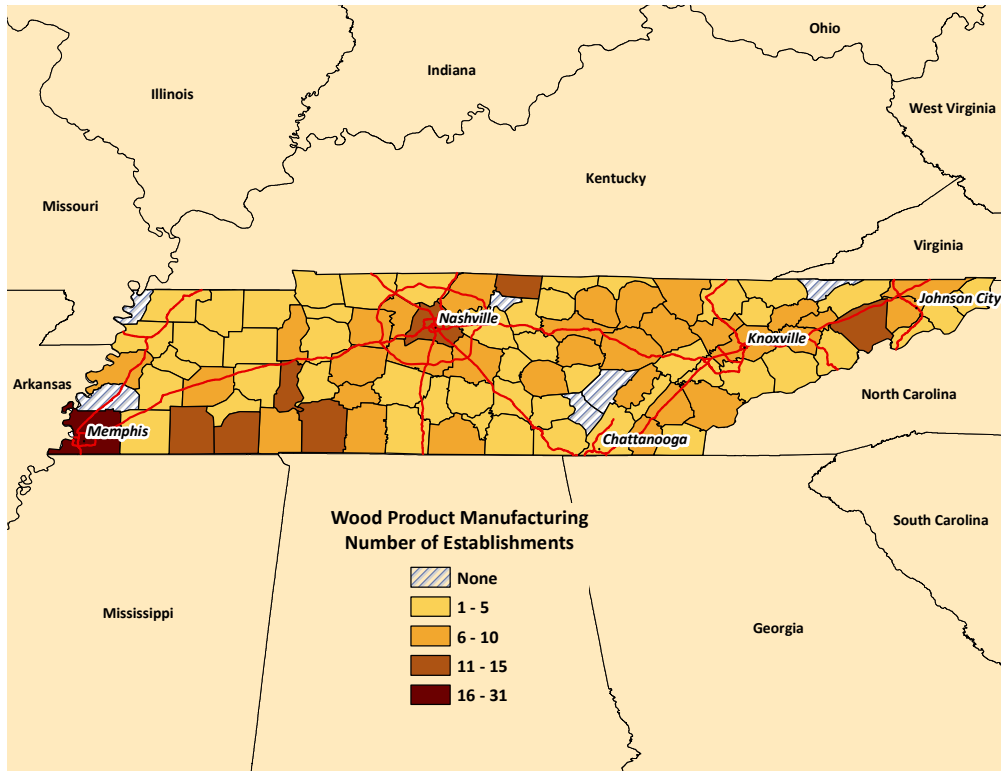


Figure 8. Number of Wood Product Manufacturing Establishments in Tennessee, 2010.

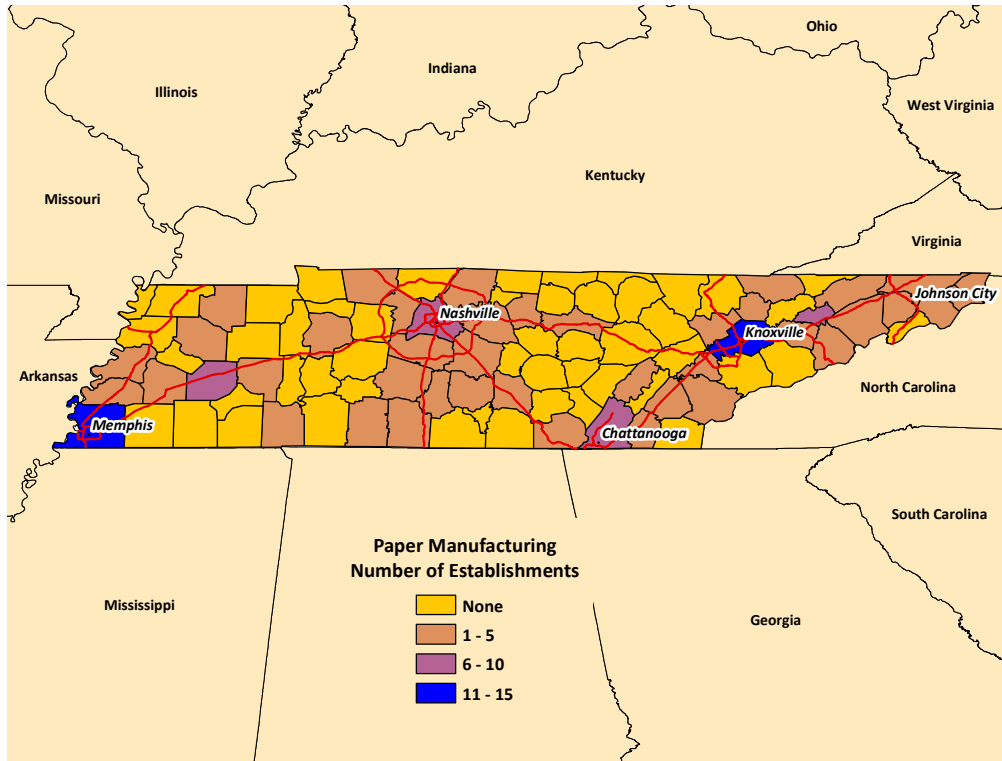


Figure 9. Number of Paper Manufacturing Establishments in Tennessee, 2010.

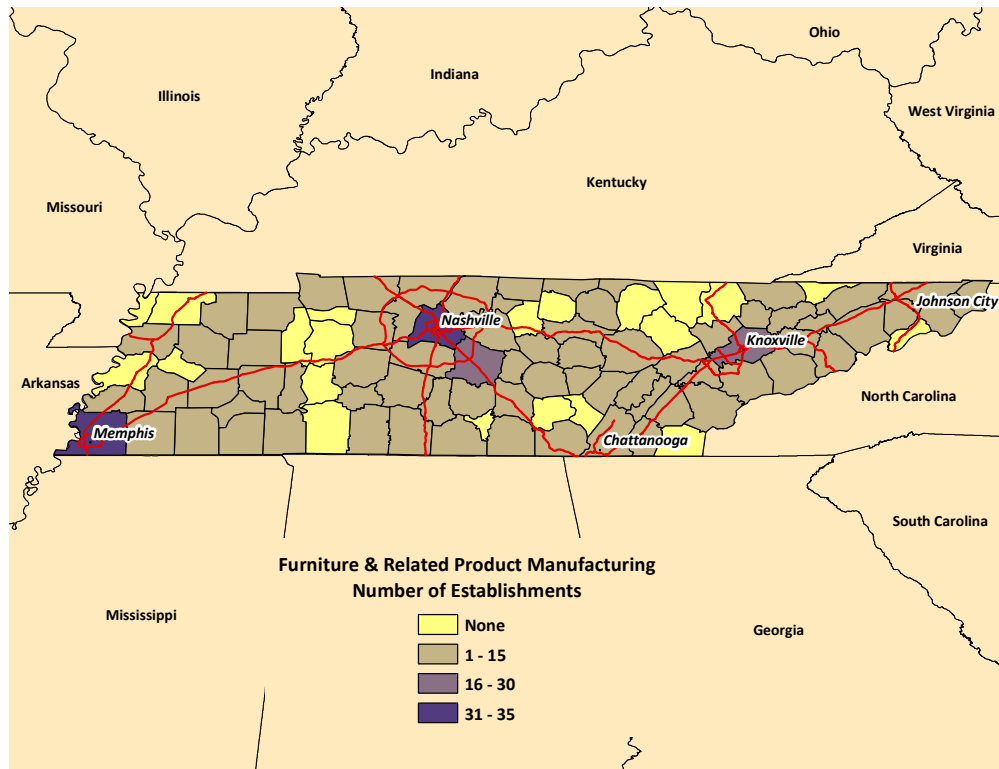


Figure 10. Number of Furniture & Related Products Establishments in Tennessee, 2010.

Table 4. Manufacturing Statistics for Tennessee, 2011

| Manufacturing Industry/NAICS Code | Employees (Number) | Payroll (Thousand \$) | Establishments ¹ (Number) | Value of Shipments (Thousand \$) |
|--|-----------------------|--------------------------|---|-------------------------------------|
| Food (311) | 33,906 | \$1,403,198 | 302 | \$17,852,162 |
| <i>Animal Slaughtering & Processing (3116)</i> | 10,298 | \$310,206 | 64 | \$3,225,631 |
| Beverage & Tobacco Products (312) | 2,765 | \$152,557 | 67 | \$5,556,564 |
| Textile Mills (313) | 3,206 | \$133,191 | 52 | \$1,112,345 |
| Textile Product Mills (314) | 2,682 | \$78,819 | 128 | \$583,628 |
| Apparel (315) | 3,757 | \$89,481 | 96 | D |
| Leather & Allied Products (316) | N/A | N/A | 29 | N/A |
| Wood Products (321) | 9,867 | \$305,284 | 517 | \$1,742,451 |
| Paper (322) | 11,036 | \$576,741 | 136 | \$5,264,329 |
| Furniture & Related Products (337) | 8,305 | \$282,144 | 357 | \$1,336,446 |
| Total² | 75,524 | \$3,021,415 | 1,684 | \$33,447,925 |

D = Data not disclosed

N/A = Data Not available

¹Latest available data is for 2010

²Values for animal slaughtering and processing are imbedded in food manufacturing (311) values

Source: U.S. Census Bureau, Annual Survey of Manufacturers, Geographic Area Statistics, 2011; U.S. Census Bureau, Censtats Databases, 2010.

shipped the largest value of goods, over \$17.8 billion, followed by beverage and tobacco products manufacturing at \$5.5 billion, and paper manufacturing at \$5.3 billion. As a group, textile mills, including textile product mills and apparel, shipped \$1.7 billion. For the forest products group, which included wood products manufacturing, paper manufacturing, and furniture and related products, \$8.3 billion of goods were shipped. Tennessee's national market share for value of shipments for food manufacturing was 2.5 percent, beverage and tobacco products at 4.1 percent, textile mills at 3.5 percent, textile product mills at 2.6 percent, wood product manufacturing at 2.5 percent, paper manufacturing at 3.0 percent, and furniture and related products at 2.2 percent (U.S. Census Bureau, 2011).

Of the value-added agro-forestry sectors, food manufacturing employed the largest share at close to 34,000. This was followed by the forest products group (wood product manufacturing, paper manufacturing, and furniture and related products), which employed

close over 29,000. The textile mills and related products, including apparel, employed over 9,600 workers.

State Level Changes in Livestock and Crops: 2009 to 2011

Comparing 2009 and 2011 agricultural data for the state revealed an increase in the number of cattle and calves, broilers, and eggs, while the number of chickens (excluding broilers), dairy cattle, and hogs decreased. Prices increased for all livestock products. Many of the traditional row crops grown in the state experienced increased planted acreage except for soybeans, wheat, and hay. Crop prices increased for all major crops grown including the vegetable crops tomatoes and snap beans.

Precipitation for the state by climatic division for the timeframe reviewed in Figure 11. Above average rainfall occurred across the state for the years 2009 and 2011. For 2008, below normal rainfall occurred across most of the state, except for West Tennessee. For 2010, below normal rainfall occurred across the entire state (U.S. Department of Commerce, 2011).

Livestock Changes in Inventory and Prices

Compared to 2009 production levels, eggs had the largest increase in numbers (12.4 percent), followed by cattle and calves and broilers (both under 1.0 percent) (Table 5). The largest decrease in numbers was for hogs (17.1 percent), followed by milk cows (15.3 percent), and all chickens (8.0 percent). Total milk production for the state declined 11.0 percent from 2009 (909 million pounds) to 2011 (810 million pounds). Livestock prices were higher for all livestock products. Hogs had the greatest price increase at 63.4 percent, followed by eggs (36.8 percent), cattle and calves (29.9 percent), all chickens (3.0 percent), and broilers (2.2 percent) (Tennessee Department of Agriculture, 2012).

Table 5. Comparison of Tennessee Livestock Numbers and Prices, 2009 and 2011¹

| Commodity | Inventory | | Change | Units | Price | | Change | Units |
|---------------------|-----------|---------|--------|-------|----------------|---------|--------|------------|
| | 2009 | 2011 | | | 2009 | 2011 | | |
| | | | % | 1,000 | (dollars/unit) | | % | |
| All Cattle & Calves | 1,980 | 1,990 | 0.5 | head | \$68.30 | \$88.70 | 29.9 | 100 pounds |
| All Chickens | 2,808 | 2,584 | -8.0 | no. | \$6.60 | \$6.80 | 3.0 | head |
| Broilers | 189,700 | 190,300 | 0.3 | no. | \$0.46 | \$0.47 | 2.2 | pound |
| Eggs | 323,000 | 363,000 | 12.4 | no. | \$1.44 | \$1.97 | 36.8 | dozen |
| Milk Cows | 59 | 50 | -15.3 | head | -- | -- | -- | head |
| All Hogs | 205 | 170 | -17.1 | head | \$39.60 | \$64.70 | 63.4 | 100 pounds |

Source: Tennessee Department of Agriculture, 2010 and 2012; USDA/NASS, 2012

¹Data in nominal values.

Crop Changes in Acres Planted and Prices

With the exception of soybeans, wheat, tomatoes, and hay, acres of crops harvested increased from 2009 to 2011 (Table 6). Cotton had the largest increase in acres harvested at 75.0 percent, followed by snap beans (58.8 percent), corn (24.6 percent), and tobacco (1.9 percent). Cotton harvested acres increased from 280 to 490 thousand acres. All the crop commodities experienced higher prices for the timeframe examined. The largest price increase was for corn, followed by wheat, cotton, soybeans, snap beans, tomatoes, hay, and tobacco.

Table 6. Comparison of Tennessee Crop Acreages and Prices, 2009 and 2011¹

| Commodity | Harvested Acres | | Change | Price | | Change | Units |
|------------|-----------------|-------|--------|---------|---------|--------|--------|
| | 2009 | 2011 | | 2009 | 2011 | | |
| | 1,000 acres | | % | \$/unit | | % | |
| Hay, All | 1,915 | 1,880 | -1.8 | \$77.49 | \$83.62 | 7.9 | ton |
| Corn | 590 | 735 | 24.6 | \$3.65 | \$6.50 | 78.1 | bushel |
| Soybeans | 1,530 | 1,250 | -18.3 | \$9.65 | \$12.00 | 24.4 | bushel |
| Cotton | 280 | 490 | 75.0 | \$0.63 | \$0.93 | 46.4 | pound |
| Tobacco | 21.6 | 22 | 1.9 | \$2.10 | \$2.16 | 2.9 | pound |
| Wheat | 340 | 310 | -8.8 | \$4.64 | \$6.85 | 47.6 | bushel |
| Tomatoes | 4.0 | 3.8 | -5.0 | \$33.00 | \$36.00 | 9.1 | cwt |
| Snap Beans | 6.8 | 10.8 | 58.8 | \$31.05 | \$34.97 | 12.6 | cwt |

Source: Tennessee Department of Agriculture, 2010 and 2012

¹Data in Nominal Values.

Changes in yields for Tennessee's crops can be attributed to better crop varieties and producers' management practices. However, weather also plays an important role too.

Precipitation values from 2008 to 2011 are shown in Figure 11. The values shown were

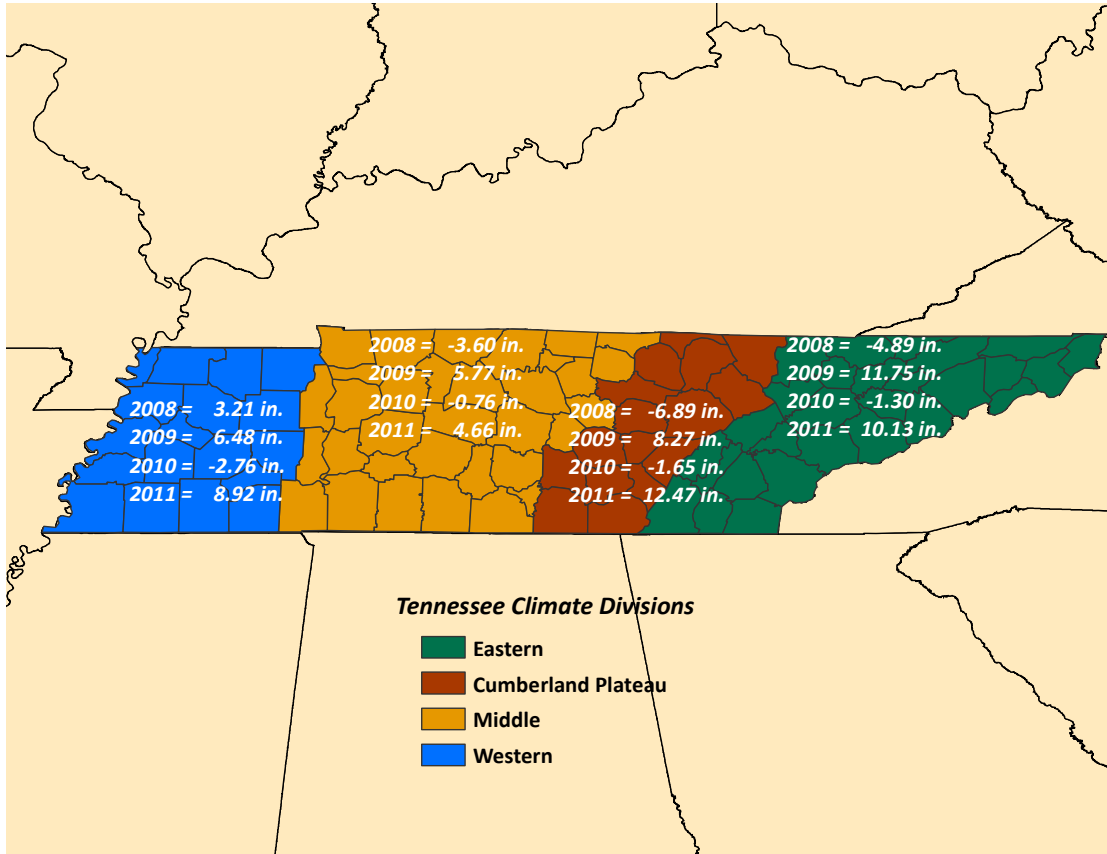


Figure 11. Departure from Normal Precipitation for Tennessee’s Climate Divisions.

departure from normal precipitation. For example, for the western climate division in 2008, rainfall was 3.21 inches above normal precipitation values. Likewise, for that same climate division for 2010, rainfall was 2.76 inches below normal. Rainfall for years 2009 and 2011 were above normal for much of the state. On the other hand, rainfall was below normal for all climate divisions in 2010. For 2008, rainfall was below normal for all climate divisions except for West Tennessee where rainfall was 3.21 inches above normal.

Changes in acres, yields, and prices impacted the total industry output (value of production) contributed to the state’s economy from crops. Of the five major crops, cotton, corn, and wheat had an increase in gross receipts from comparing 2009 to 2011. Soybeans and

tobacco had a decrease in gross receipts during this timeframe (Tennessee Department of Agriculture, 2010 and 2012).

Input-Output Analysis: Data and Methods Used

The Tennessee Agri-Industry Model (TN-AIM) was used to model industry and institutional interrelationships in each of five regions within Tennessee. TN-AIM is based on the Impact Analysis for Planning (IMPLAN) model and databases (Olson and Lindall, 1999). The five regions followed those used by the Bureau of Economic Analysis to represent areas of economic consumption (consumption regions), as displayed in Figure 12 (for county listings, see Appendix C) (USDOC, 2011a). Regional values were then aggregated to the state level. For additional information on IMPLAN see Appendix A.

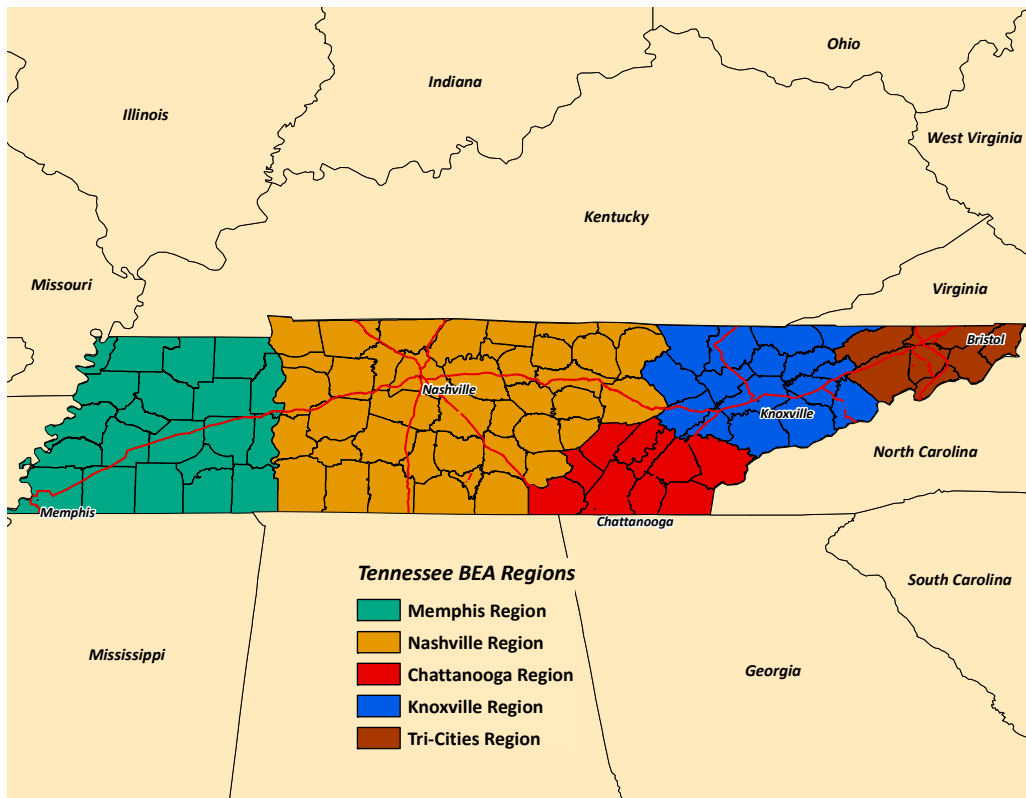


Figure 12. Tennessee Agri-Industry Model Analysis Regions.

IMPLAN (Version 3.0) utilizes a National Trade Flows Model (NTFM) (doubly-constrained gravity model) to estimate a new set of regional purchase coefficients and other trade data that predict local purchases based on a region's characteristics (Lindall, Olson, and Alward, 2006). Output from the model includes descriptive measures of the economy including total industry output, employment, and value-added for 440 industries in the Tennessee economy (Appendix B). *Total industry output* is defined as the value of production by industry per year. *Employment* represents total wage and salary employees, as well as self-employed jobs in a region, for both full-time and part-time workers. *Total value added* is defined as all income to workers paid by employers; self-employed income; interests, rents, royalties, dividends, and profit payments; and excise and sales taxes paid by individuals to businesses. Not only can the model describe a regional economy, but the model also can be used for predictive purposes by providing estimates of multipliers.

Multipliers measure the response of the economy to a change in demand or production. Multiplier analysis generally focuses on the impacts of exogenous changes on: a) output of the sectors in the economy, b) income earned by households because of new outputs, and c) employment (in physical terms) that is expected to be generated because of the new outputs. The notion of multipliers rests on the difference between the initial impact of an exogenous change (final demand) and the total impacts of a change. *Direct* impacts measure the response of a given industry given a change in final demand for that same industry. *Indirect* impacts represent the response by all local industries that occur as a result of a change in final demand for a specific industry. *Induced* impacts represent the response by all local industries caused by increased (decreased) expenditures of new household income and inter-institutional transfers generated (lost) from the direct and indirect impacts of the change in final demand for

a specific industry. This study uses Type I and Type SAM (Social Accounting Matrix) multipliers. Type I multipliers are calculated by dividing direct plus indirect impacts by the direct impacts, where the Type SAM multipliers = (direct + indirect + induced impacts)/direct impacts. The Type SAM multipliers take into account the expenditures resulting from increased incomes of households as well as inter-institutional transfers resulting from the economic activity. Therefore, Type SAM multipliers assume that as final demand changes, incomes also increase along with inter-institutional transfers. As consumers and institutions increase expenditures this leads to increased demands from local industries.

Results

According to IMPLAN data, Tennessee had a \$500 billion economy in 2011. The services industry was the largest sector of the economy at \$144.1 billion (Figure 13) and over 1.4 million jobs (Figure 14). The agro-forestry industrial complex ranked fourth in terms of total industry output at \$43.6 billion. The state's value-added, or state gross domestic product (GDP)², is estimated at \$259.4 billion with the agro-forestry industrial complex contributing \$11.8 billion towards the state's GDP. For every dollar of sales, the agro-forestry industrial complex contributed \$0.27 to the state's GDP, which is less than all of the sectors except manufacturing (Table 7).

Economic Impacts at the State & In-State Region Levels

Direct economic activity for total industry output (TIO), employment, labor income, and total value-added (TVA) for agriculture and forestry for the state and by analysis regions within the state are presented in Table 8. In 2011, agriculture and forestry related industries

² The state domestic product is measuring by summing employee compensation, proprietor income, other property type income, and indirect business taxes.

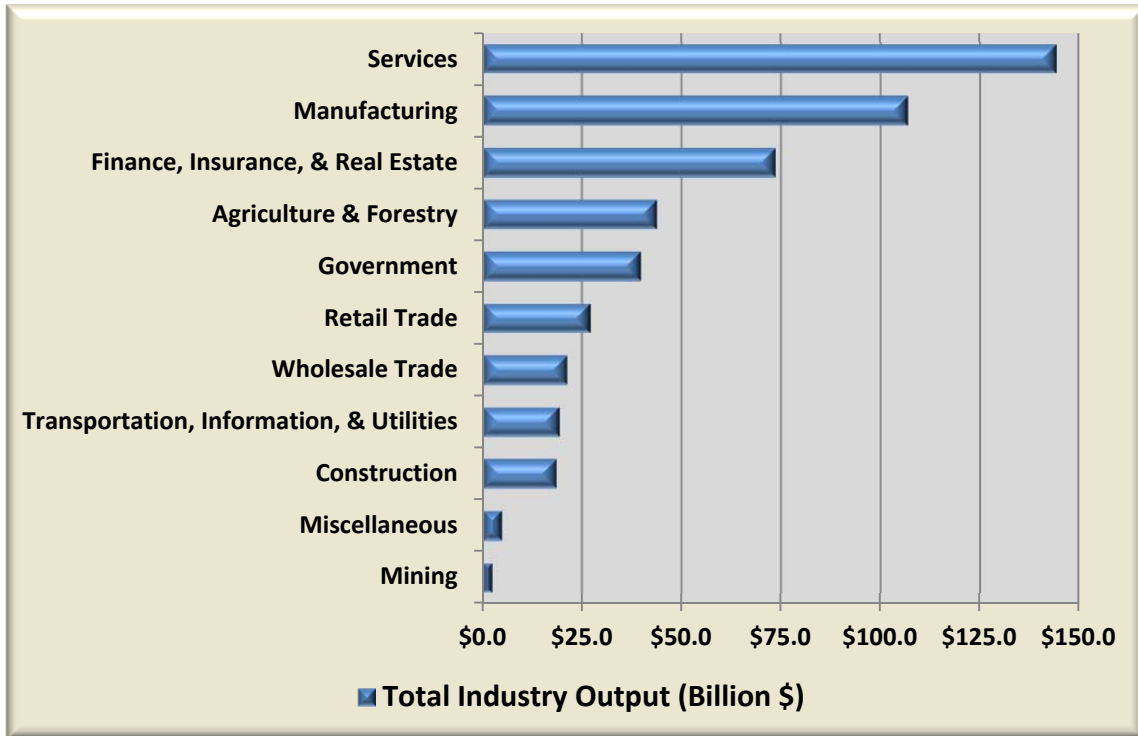


Figure 13. Total Industry Output by Sector, Tennessee, 2011



Figure 14. Employment by Sector, Tennessee, 2011

Table 7. Estimated Economic Indicators for Tennessee, 2011

| Sector | TIO ¹ | TVA ² | Jobs | TVA/Job | TVA/TIO |
|--|------------------|------------------|----------------|-----------|---------|
| | (Billion \$) | | (1,000) | | |
| Services | \$144.1 | \$91.0 | 1,447.5 | \$62,840 | 0.63 |
| Manufacturing | \$106.7 | \$24.1 | 226.6 | \$106,164 | 0.23 |
| Finance, Insurance, & Real Estate | \$73.4 | \$46.1 | 279.6 | \$165,007 | 0.63 |
| Agro-Forest Industry | \$43.6 | \$11.8 | 176.3 | \$67,031 | 0.27 |
| Government | \$39.6 | \$30.0 | 511.3 | \$58,630 | 0.76 |
| Retail Trade | \$26.8 | \$19.2 | 387.7 | \$49,420 | 0.71 |
| Wholesale Trade | \$21.1 | \$15.1 | 125.1 | \$120,770 | 0.72 |
| Transportation, Information, & Utilities | \$19.1 | \$9.2 | 104.9 | \$87,518 | 0.48 |
| Construction | \$18.5 | \$9.6 | 175.0 | \$54,837 | 0.52 |
| Miscellaneous | \$4.7 | \$2.6 | 76.2 | \$33,774 | 0.55 |
| Mining | \$2.3 | \$0.9 | 7.7 | \$112,163 | 0.38 |
| Total³ | \$499.9 | \$259.4 | 3,517.9 | | |

¹Total Industry Output – annual value of production by industry.

²Total Value Added – income to workers paid by employers; self-employed income; interest, rents, royalties, dividends, and profit payments; and excise and sales taxes paid by individuals to businesses.

³State totals may not add due to rounding.

Table 8. Direct Economic Activity in Agriculture and Forestry

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|---|------------------|-------|------------|-------|--------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| All Sectors (Including Non-Agricultural and Non-Forestry): | | | | | | | | |
| State ³ | 499,904 | | 3,517,918 | | 169,529 | | 259,435 | |
| Chattanooga | 53,176 | 10.6% | 361,388 | 10.3% | 16,955 | 10.0% | 24,137 | 9.3% |
| Knoxville | 80,556 | 16.1% | 615,484 | 17.5% | 27,204 | 16.0% | 42,864 | 16.5% |
| Memphis | 128,004 | 25.6% | 892,748 | 25.4% | 45,239 | 26.7% | 69,802 | 26.9% |
| Nashville | 202,448 | 40.5% | 1,402,688 | 39.9% | 69,967 | 41.3% | 106,355 | 41.0% |
| Tri-Cities | 35,721 | 7.1% | 245,610 | 7.0% | 10,164 | 6.0% | 16,278 | 6.3% |
| Agriculture & Forestry: | | | | | | | | |
| State ³ | 43,609 | | 176,282 | | 5,693 | | 11,817 | |
| Chattanooga | 6,097 | 14.0% | 22,366 | 12.7% | 906 | 15.9% | 1,463 | 12.4% |
| Knoxville | 5,842 | 13.4% | 22,408 | 12.7% | 842 | 14.8% | 1,306 | 11.1% |
| Memphis | 15,275 | 35.0% | 55,619 | 31.6% | 1,993 | 35.0% | 4,343 | 36.8% |
| Nashville | 14,251 | 32.7% | 65,084 | 36.9% | 1,661 | 29.2% | 4,209 | 35.6% |
| Tri-Cities | 2,143 | 4.9% | 10,805 | 6.1% | 291 | 5.1% | 497 | 4.2% |
| Primary & Secondary Agriculture | | | | | | | | |
| State ³ | 31,061 | | 136,815 | | 3,210 | | 8,017 | |
| Chattanooga | 4,126 | 13.3% | 15,819 | 11.6% | 542 | 16.9% | 876 | 10.9% |
| Knoxville | 4,204 | 13.5% | 15,357 | 11.2% | 426 | 13.3% | 779 | 9.7% |
| Memphis | 9,800 | 31.6% | 43,331 | 31.7% | 968 | 30.2% | 2,588 | 32.3% |
| Nashville | 11,601 | 37.3% | 53,992 | 39.5% | 1,128 | 35.1% | 3,513 | 43.8% |

Table 8. Direct Economic Activity in Agriculture and Forestry (Cont.)

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|---|------------------|-------|------------|-------|--------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Tri-Cities | 1,330 | 4.3% | 8,315 | 6.1% | 146 | 4.5% | 262 | 3.3% |
| Primary Agriculture | | | | | | | | |
| State ³ | 3,870 | | 83,909 | | 333 | | 1,318 | |
| Chattanooga | 240 | 6.2% | 4,745 | 5.7% | 17 | 5.1% | 66 | 5.0% |
| Knoxville | 327 | 8.5% | 8,381 | 10.0% | 58 | 17.5% | 107 | 8.1% |
| Memphis | 1,540 | 39.8% | 30,127 | 35.9% | 123 | 36.8% | 562 | 42.6% |
| Nashville | 1,554 | 40.1% | 34,764 | 41.4% | 119 | 35.6% | 525 | 39.8% |
| Tri-Cities | 209 | 5.4% | 5,891 | 7.0% | 16 | 4.9% | 58 | 4.4% |
| Secondary Agriculture | | | | | | | | |
| State ³ | 27,191 | | 52,906 | | 2,876 | | 6,699 | |
| Chattanooga | 3,886 | 14.3% | 11,074 | 20.9% | 524 | 18.2% | 810 | 12.1% |
| Knoxville | 3,876 | 14.3% | 6,976 | 13.2% | 368 | 12.8% | 672 | 10.0% |
| Memphis | 8,260 | 30.4% | 13,204 | 25.0% | 846 | 29.4% | 2,026 | 30.2% |
| Nashville | 10,048 | 37.0% | 19,228 | 36.3% | 1,009 | 35.1% | 2,988 | 44.6% |
| Tri-Cities | 1,121 | 4.1% | 2,424 | 4.6% | 130 | 4.5% | 204 | 3.0% |
| Primary & Secondary Forestry | | | | | | | | |
| State ³ | 12,548 | | 39,467 | | 2,483 | | 3,800 | |
| Chattanooga | 1,971 | 15.7% | 6,547 | 16.6% | 364 | 14.7% | 587 | 15.4% |
| Knoxville | 1,639 | 13.1% | 7,051 | 17.9% | 416 | 16.8% | 527 | 13.9% |
| Memphis | 5,475 | 43.6% | 12,288 | 31.1% | 1,025 | 41.3% | 1,755 | 46.2% |
| Nashville | 2,650 | 21.1% | 11,092 | 28.1% | 533 | 21.5% | 696 | 18.3% |
| Tri-Cities | 813 | 6.5% | 2,489 | 6.3% | 145 | 5.8% | 235 | 6.2% |
| Primary Forestry | | | | | | | | |
| State ³ | 5,809 | | 11,715 | | 970 | | 1,808 | |
| Chattanooga | 873 | 15.0% | 1,505 | 12.8% | 113 | 11.7% | 246 | 13.6% |
| Knoxville | 192 | 3.3% | 562 | 4.8% | 31 | 3.2% | 49 | 2.7% |
| Memphis | 3,768 | 64.9% | 6,081 | 51.9% | 679 | 70.0% | 1,267 | 70.1% |
| Nashville | 646 | 11.1% | 2,941 | 25.1% | 95 | 9.8% | 140 | 7.8% |
| Tri-Cities | 329 | 5.7% | 626 | 5.3% | 52 | 5.3% | 106 | 5.9% |
| Secondary Forestry | | | | | | | | |
| State ³ | 6,740 | | 27,752 | | 1,514 | | 1,992 | |
| Chattanooga | 1,098 | 16.3% | 5,042 | 18.2% | 251 | 16.6% | 341 | 17.1% |
| Knoxville | 1,447 | 21.5% | 6,489 | 23.4% | 386 | 25.5% | 477 | 24.0% |
| Memphis | 1,707 | 25.3% | 6,207 | 22.4% | 346 | 22.8% | 489 | 24.5% |
| Nashville | 2,004 | 29.7% | 8,151 | 29.4% | 438 | 29.0% | 556 | 27.9% |
| Tri-Cities | 484 | 7.2% | 1,863 | 6.7% | 93 | 6.1% | 129 | 6.5% |

¹Total Industry Output – annual value of production by industry.

²Total Value Added – income to workers paid by employers; self-employed income; interest, rents, royalties, dividends, and profit payments; and excise and sales taxes paid by individuals to businesses.

³State totals may not add due to rounding.

contributed a total of \$43.6 billion in direct economic activity to the state of Tennessee, or 8.7 percent of the state’s economy. Employment in agriculture and forestry related industries were over 176 thousand persons, or 5.0 percent of the workforce. Total value added was \$11.8 billion, with \$5.7 billion in labor income. Much of the industry output generated from agriculture and forestry was through secondary or manufactured products. For agriculture, approximately 38.7 percent of the workforce was employed in secondary industries (agriculture input supplying industries plus manufacturing) and the rest (61.3 percent) in primary industries (crop and livestock commodities). For forestry, however, 70.3 percent of the forestry workforce was employed in secondary industries (wood products manufacturing) and 29.7

Relatively Stagnant Agriculture and Forestry Growth

Growth in direct agriculture and forestry as a percentage of Tennessee’s total economy has remained relatively stagnant for the years depicted. For both agriculture and forestry, the largest growth as a percentage of the state’s total economy occurred in 2003. For 2009 and 2011, growth in the agro-forestry industry has been relatively stagnant.

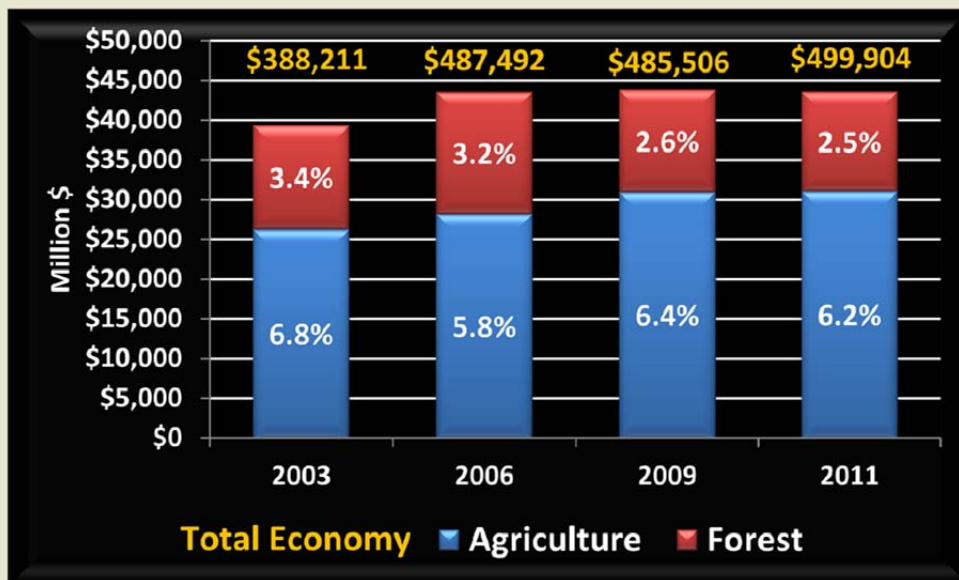


Figure 15. Growth in Direct Agriculture and Forestry as a Percentage of Tennessee’s Total Economy.

percent in primary (commercial logging; pulp, paper, and paperboard mills; sawmills; and nursery/timber tracts).

The largest value of output from primary agriculture, 40.2 percent, originated in the Nashville Region (Figure 12 on page 17), followed by the Memphis Region at 39.8 percent. The Nashville and Memphis Regions also have the largest value of outputs for secondary agriculture at 37.0 percent and 30.4 percent, respectively. For both primary and secondary forestry, the Memphis Region had the largest value of total industry output followed by the Nashville Region. The Memphis Region dominates the economic activity for primary forestry for the state followed by the Chattanooga and Nashville Regions. For secondary forestry, the Nashville Region had more jobs followed by the Knoxville and Memphis Regions. Yet for total industry output, the Memphis Region was larger than the Knoxville Region.

Primary Agricultural Products:

The largest output value (16.2 percent) for the state from farm production was from cattle ranching and farming (Table 9), followed by grain farming (14.8 percent); poultry and egg production (14.5 percent), oilseed farming (primary soybeans) (12.7 percent); cotton farming (11.1 percent); all other crop farming (primarily hay and seed farming) (9.3 percent); greenhouse, nursery, and floriculture production (8.7 percent); dairy cattle and milk production (4.9 percent); agriculture and forestry support activities (4.3 percent); and animal production, except cattle, poultry, and eggs (3.3 percent). Agriculture and forestry support activities includes support activities for crop production [i.e., cotton ginning; soil preparation, planting, and cultivating; crop harvesting; and farm management services], animal production [i.e., breeding services, pedigree record services, boarding horses, dairy herd improvement activities, livestock spraying, and sheep dipping and shearing], and forestry [i.e., estimating timber, forest

Table 9. State Level: Direct Economic Activity in Farm Production

| Rank | Sector | TIO ¹ (Million \$) | Employment (Number) | Labor Income (Million \$) | TVA ² (Million \$) |
|------|---|----------------------------------|------------------------|---------------------------------|----------------------------------|
| | All Farm Production | 3,620 | 78,933 | 323 | 1,239 |
| 1 | Cattle ranching & farming | 586 | 10,035 | 26 | 98 |
| 2 | Grain farming | 537 | 23,391 | 12 | 168 |
| 3 | Poultry & egg production | 524 | 2,197 | 30 | 105 |
| 4 | Oilseed farming | 461 | 13,182 | 2 | 205 |
| 5 | Cotton farming | 401 | 4,446 | 38 | 131 |
| 6 | All other crop farming | 337 | 3,726 | 15 | 89 |
| 7 | Greenhouse, nursery, & floriculture production | 317 | 5,270 | 49 | 208 |
| 8 | Dairy cattle & milk production | 179 | 2,854 | 5 | 65 |
| 9 | Agriculture & forestry support activities | 157 | 7,009 | 135 | 109 |
| 10 | Animal production, except cattle/poultry/eggs | 120 | 6,823 | 12 | 60 |

¹Total Industry Output – annual value of production by industry.

²Total Value Added – income to workers paid by employers; self-employed income; interests, rents, royalties, dividends, and profit payments; and excise and sales taxes paid by individuals to businesses.

fire-fighting, forest pest control, and consulting on wood attributes and reforestation])). In terms of labor income, agriculture and forestry support activities had the largest value followed by greenhouse, nursery, and floriculture production; cotton farming; poultry and egg production; and cattle ranching and farming. The largest total value added contributors included greenhouse, nursery, and floriculture production followed by oilseed farming (primarily soybeans); grain farming; and cotton farming.

The direct economic activity from farm production of the top ten sectors for each trading region within the state is summarized in Table 10. Poultry and egg production, cattle ranching and farming, dairy cattle and milk production, all other crop farming (primarily hay and seed farming), and vegetable and melon farming were primary contributors to total industry output from farm production in the Chattanooga Region. In the Knoxville Region, cattle ranching and farming; poultry and egg production; all other crop farming (primarily hay

Table 10. Region Level: Direct Economic Activity in Farm Production (Top Ten Sectors)

| Rank | Sector | TIO ¹ (Million \$) | Employment (Number) | Labor Income (Million \$) | TVA ² (Million \$) |
|---------------------|--|----------------------------------|------------------------|---------------------------------|----------------------------------|
| Chattanooga: | | 234 | 4,347 | 17 | 63 |
| 1 | Poultry & egg production | 66 | 300 | 5 | 13 |
| 2 | Cattle ranching & farming | 56 | 1,028 | 3 | 9 |
| 3 | Dairy cattle & milk production | 37 | 605 | 1 | 14 |
| 4 | All other crop farming | 28 | 345 | 2 | 7 |
| 5 | Vegetable & melon farming | 18 | 213 | 1 | 10 |
| 6 | Agriculture & forestry support activities | 6 | 590 | 4 | 2 |
| 7 | Greenhouse, nursery, & floriculture production | 6 | 192 | 1 | 4 |
| 8 | Commercial hunting & trapping | 6 | 81 | 0 ³ | 0 ³ |
| 9 | Grain farming | 5 | 614 | 0 ³ | 2 |
| 10 | Animal production, except cattle/poultry/eggs | 4 | 380 | 0 ³ | 2 |
| Knoxville: | | 318 | 7,877 | 58 | 102 |
| 1 | Cattle ranching & farming | 87 | 1,979 | 9 | 15 |
| 2 | Poultry & egg production | 66 | 382 | 6 | 13 |
| 3 | All other crop farming | 49 | 741 | 6 | 13 |
| 4 | Greenhouse, nursery, & floriculture production | 29 | 1,059 | 16 | 19 |
| 5 | Dairy cattle & milk production | 28 | 593 | 3 | 10 |
| 6 | Vegetable & melon farming | 22 | 320 | 1 | 12 |
| 7 | Agriculture & forestry support activities | 16 | 530 | 15 | 13 |
| 8 | Animal production, except cattle/poultry/eggs | 9 | 947 | 1 | 4 |
| 9 | Grain farming | 6 | 947 | 1 | 2 |
| 10 | Tobacco farming | 6 | 379 | 0 ³ | 1 |
| Memphis: | | 1,510 | 29,938 | 121 | 549 |
| 1 | Grain farming | 408 | 12,321 | 8 | 128 |
| 2 | Cotton farming | 389 | 4,053 | 37 | 127 |
| 3 | Oilseed farming | 374 | 8,059 | 2 | 166 |
| 4 | Cattle ranching & farming | 72 | 574 | 2 | 12 |
| 5 | Agriculture & forestry support activities | 69 | 2,729 | 59 | 49 |
| 6 | Poultry & egg production | 54 | 118 | 2 | 11 |
| 7 | Animal production, except cattle/poultry/eggs | 52 | 1,287 | 6 | 26 |
| 8 | All other crop farming | 46 | 246 | 1 | 12 |
| 9 | Greenhouse, nursery, & floriculture production | 26 | 288 | 4 | 17 |

**Table 10. Region Level: Direct Economic Activity in Farm Production (Top Ten Sectors)
(Cont.)**

| Rank | Sector | TIO ¹ (Million \$) | Employment (Number) | Labor Income (Million \$) | TVA ² (Million \$) |
|------|---|----------------------------------|------------------------|---------------------------------|----------------------------------|
| 10 | Commercial hunting & trapping | 19 | 263 | 0 ³ | 1 |
| | Nashville: | 1,490 | 33,773 | 115 | 502 |
| 1 | Poultry & egg production | 306 | 1,201 | 14 | 61 |
| 2 | Cattle ranching & farming | 305 | 4,884 | 10 | 51 |
| 3 | Greenhouse, nursery, & floriculture production | 247 | 3,363 | 25 | 163 |
| 4 | All other crop farming | 175 | 1,794 | 5 | 46 |
| 5 | Grain farming | 114 | 8,798 | 3 | 36 |
| 6 | Oilseed farming | 80 | 4,351 | 0 ³ | 36 |
| 7 | Dairy cattle & milk production | 77 | 1,039 | 0 ³ | 28 |
| 8 | Tobacco farming | 76 | 2,000 | 2 | 15 |
| 9 | Agriculture & forestry support activities | 60 | 2,854 | 53 | 42 |
| 10 | Animal production, except cattle/poultry/eggs | 49 | 3,488 | 3 | 24 |
| | Tri-Cities: | 205 | 5,826 | 16 | 58 |
| 1 | Cattle ranching & farming | 65 | 1,570 | 3 | 11 |
| 2 | All other crop farming | 38 | 600 | 1 | 10 |
| 3 | Poultry & egg production | 31 | 195 | 2 | 6 |
| 4 | Dairy cattle & milk production | 28 | 573 | 0 ³ | 10 |
| 5 | Tobacco farming | 9 | 648 | 0 ³ | 2 |
| 6 | Greenhouse, nursery, & floriculture production | 9 | 368 | 3 | 6 |
| 7 | Vegetable & melon farming | 8 | 134 | 1 | 4 |
| 8 | Animal production, except cattle/poultry/eggs | 6 | 721 | 1 | 3 |
| 9 | Agriculture & forestry support activities | 6 | 307 | 5 | 4 |
| 10 | Grain farming | 4 | 711 | 0 ³ | 1 |

¹Total Industry Output – annual value of production by industry.

²Total Value Added – income to workers paid by employers; self-employed income; interests, rents, royalties, dividends, and profit payments; and excise and sales taxes paid by individuals to businesses.

³Values of 0 are nonzero values that are less than 1.

and seed farming); greenhouse, nursery, and floriculture production; dairy cattle and milk production; and vegetable and melon farming were important sectors. For the Memphis Region, grain farming, cotton farming, oilseed farming, cattle ranching and farming, and agriculture and forestry support activities had the largest total industry output, while in the

Nashville Region the greatest total industry output values were from poultry and egg production; cattle ranching and farming; greenhouse, nursery, and floriculture production; all other crop farming (primarily hay and seed farming); and grain farming. Cattle ranching and farming; all other crop farming (primarily hay and seed farming); poultry and egg production; dairy cattle and milk production; tobacco farming; and greenhouse, nursery, and floriculture production were important contributors to total industry output for the Tri-Cities Region. For all regions except Memphis and Nashville, cattle ranching and farming employed the largest number of workers. For the Memphis Region, cotton farming employed the largest numbers, followed by oilseed and cotton farming. For Nashville, grain farming employed the largest numbers, followed by cattle ranching and farming and oilseed farming.

Secondary Agricultural Products:

Among secondary agricultural products, food manufacturing contributed the largest total industry output, followed by beverage manufacturing, tobacco products manufacturing, textile mills, agricultural chemicals, agricultural machinery, apparel manufacturing, textile product mills, and leather and allied product manufacturing (Table 11). Approximately 65.2 percent of the value of total industry output from processed agricultural products came from food manufacturing. In addition, food manufacturing employed the largest number of workers, had the largest amount of labor income, and contributed the largest amount in total value added. Both Nashville and Memphis Regions had the largest economic activity in food manufacturing. The Nashville Region had the largest total industry output for beverage manufacturing, tobacco products manufacturing, textile mills, textile product mills, and leather and allied product manufacturing. The Memphis Region had the largest total industry output for agricultural chemicals and agricultural machinery. For apparel manufacturing, the

Table 11. Direct Economic Activity in Secondary Agricultural Products

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|---------------------------------------|------------------|-------|------------|-------|--------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Total Secondary Agriculture | | | | | | | | |
| State ³ | 27,191 | | 52,906 | | 2,876 | | 6,699 | |
| Chattanooga | 3,886 | 14.3% | 11,074 | 20.9% | 524 | 18.2% | 810 | 12.1% |
| Knoxville | 3,876 | 14.3% | 6,976 | 13.2% | 368 | 12.8% | 672 | 10.0% |
| Memphis | 8,260 | 30.4% | 13,204 | 25.0% | 846 | 29.4% | 2,026 | 30.2% |
| Nashville | 10,048 | 37.0% | 19,228 | 36.3% | 1,009 | 35.1% | 2,988 | 44.6% |
| Tri-Cities | 1,121 | 4.1% | 2,424 | 4.6% | 130 | 4.5% | 204 | 3.0% |
| Food Manufacturing: | | | | | | | | |
| State ³ | 17,731 | | 33,146 | | 1,812 | | 3,376 | |
| Chattanooga | 2,503 | 14.1% | 6,553 | 19.8% | 306 | 16.9% | 514 | 15.2% |
| Knoxville | 2,764 | 15.6% | 3,906 | 11.8% | 224 | 12.4% | 412 | 12.2% |
| Memphis | 5,594 | 31.5% | 9,008 | 27.2% | 588 | 32.4% | 1,095 | 32.4% |
| Nashville | 6,567 | 37.0% | 13,210 | 39.9% | 668 | 36.9% | 1,315 | 38.9% |
| Tri-Cities | 303 | 1.7% | 468 | 1.4% | 26 | 1.4% | 40 | 1.2% |
| Beverage Manufacturing: | | | | | | | | |
| State ³ | 3,379 | | 4,235 | | 283 | | 819 | |
| Chattanooga | 599 | 17.7% | 840 | 19.8% | 63 | 22.4% | 79 | 9.6% |
| Knoxville | 687 | 20.3% | 911 | 21.5% | 53 | 18.7% | 125 | 15.3% |
| Memphis | 679 | 20.1% | 973 | 23.0% | 61 | 21.5% | 79 | 9.7% |
| Nashville | 1,160 | 34.3% | 1,147 | 27.1% | 84 | 29.8% | 507 | 61.9% |
| Tri-Cities | 254 | 7.5% | 365 | 8.6% | 22 | 7.6% | 28 | 3.5% |
| Tobacco Products Manufacturing | | | | | | | | |
| State ³ | 2,100 | | 877 | | 89 | | 1,389 | |
| Chattanooga | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Knoxville | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Memphis | 778 | 37.1% | 323 | 36.8% | 38 | 42.1% | 516 | 37.2% |
| Nashville | 1,322 | 62.9% | 554 | 63.2% | 52 | 57.9% | 872 | 62.8% |
| Tri-Cities | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Textile Mills: | | | | | | | | |
| State ³ | 1,187 | | 3,647 | | 199 | | 278 | |
| Chattanooga | 326 | 27.4% | 1,037 | 28.4% | 49 | 24.9% | 69 | 24.7% |
| Knoxville | 86 | 7.3% | 402 | 11.0% | 19 | 9.6% | 24 | 8.5% |
| Memphis | 133 | 11.2% | 484 | 13.3% | 27 | 13.8% | 34 | 12.2% |
| Nashville | 358 | 30.1% | 869 | 23.8% | 56 | 28.2% | 89 | 32.1% |
| Tri-Cities | 285 | 24.0% | 855 | 23.4% | 47 | 23.5% | 63 | 22.6% |
| Agricultural Chemicals: | | | | | | | | |
| State ³ | 809 | | 689 | | 82 | | 253 | |
| Chattanooga | 12 | 1.5% | 7 | 1.0% | 1 | 0.7% | 4 | 1.5% |
| Knoxville | 105 | 13.0% | 145 | 21.0% | 10 | 12.7% | 32 | 12.8% |
| Memphis | 544 | 67.1% | 330 | 47.9% | 52 | 63.4% | 169 | 66.8% |
| Nashville | 86 | 10.6% | 169 | 24.5% | 15 | 18.4% | 28 | 11.1% |

Table 11. Direct Economic Activity in Secondary Agricultural Products (Cont.)

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|--|------------------|-------|------------|-------|----------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Tri-Cities | 63 | 7.8% | 38 | 5.6% | 4 | 4.8% | 20 | 7.8% |
| Agricultural Machinery: | | | | | | | | |
| State ³ | 757 | | 1,751 | | 97 | | 179 | |
| Chattanooga | 102 | 13.5% | 186 | 10.6% | 11 | 11.4% | 24 | 13.4% |
| Knoxville | 6 | 0.8% | 12 | 0.7% | 1 | 0.8% | 2 | 0.9% |
| Memphis | 389 | 51.4% | 955 | 54.6% | 46 | 47.6% | 88 | 48.9% |
| Nashville | 75 | 9.9% | 143 | 8.2% | 15 | 15.6% | 23 | 12.8% |
| Tri-Cities | 185 | 24.4% | 455 | 26.0% | 24 | 24.7% | 43 | 24.1% |
| Apparel Manufacturing | | | | | | | | |
| State ³ | 651 | | 5,080 | | 189 | | 242 | |
| Chattanooga | 287 | 44.1% | 2,027 | 39.9% | 82 | 43.3% | 105 | 43.2% |
| Knoxville | 83 | 12.8% | 676 | 13.3% | 26 | 14.0% | 34 | 13.9% |
| Memphis | 64 | 9.8% | 582 | 11.4% | 15 | 7.7% | 20 | 8.2% |
| Nashville | 202 | 31.0% | 1,668 | 32.8% | 62 | 33.0% | 79 | 32.8% |
| Tri-Cities | 15 | 2.3% | 128 | 2.5% | 4 | 2.0% | 5 | 2.0% |
| Textile Product Mills: | | | | | | | | |
| State ³ | 460 | | 2,714 | | 103 | | 133 | |
| Chattanooga | 54 | 11.7% | 381 | 14.0% | 12 | 11.7% | 15 | 11.5% |
| Knoxville | 141 | 30.7% | 898 | 33.1% | 33 | 32.5% | 43 | 32.0% |
| Memphis | 42 | 9.2% | 259 | 9.5% | 12 | 11.2% | 14 | 10.7% |
| Nashville | 206 | 44.8% | 1,063 | 39.2% | 42 | 41.1% | 56 | 42.2% |
| Tri-Cities | 17 | 3.6% | 113 | 4.2% | 4 | 3.4% | 5 | 3.5% |
| Leather & Allied Product Manufacturing: | | | | | | | | |
| State ³ | 118 | | 767 | | 24 | | 30 | |
| Chattanooga | 4 | 3.3% | 43 | 5.6% | 0 ⁴ | 1.3% | 0 ⁴ | 1.5% |
| Knoxville | 3 | 2.9% | 27 | 3.5% | 1 | 3.9% | 1 | 4.0% |
| Memphis | 38 | 32.2% | 290 | 37.8% | 8 | 34.2% | 10 | 34.5% |
| Nashville | 72 | 61.4% | 405 | 52.8% | 15 | 60.2% | 18 | 59.6% |
| Tri-Cities | 0 | 0.3% | 2 | 0.3% | 0 ⁴ | 0.4% | 0 ⁴ | 0.3% |

¹Total Industry Output – annual value of production by industry.

²Total Value Added – income to workers paid by employers; self-employed income; interests, rents, royalties, dividends, and profit payments; and excise and sales taxes paid by individuals to businesses.

³State totals may not add due to rounding.

⁴Values of 0 are nonzero values that are less than 1.

Chattanooga Regions had the largest total industry output. A more detailed presentation of the total industry output from processing by sub-sector is shown in Appendixes D and E.

Primary Forest Products:

The largest output value for primary forest products was from paper mills, followed by paperboard mills; sawmills and wood preservation; pulp mills; commercial logging; and forestry, forest products, and timber tract production (i.e., growing trees for reforestation; gathering forest products, such as gums, barks, balsam needles, rhizomes, fibers, and ginseng; and timber tracts for selling timber) (Table 12). The Memphis Region had the largest output value for paper mills at \$2.8 billion or 72.5 percent of the output value for the state. Paper mills employed the largest number individuals again with the Memphis Region employing the largest number. The Memphis Region also had the largest output value for paperboard mills and commercial logging. The Nashville Region had the largest output value for sawmills and wood preservation and forestry, forest products, and timber track production. For pulp mills, 59.4 percent of the economic activity originates from the Chattanooga Region.

Table 12. Direct Economic Activity in Primary Forest Products

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|--------------------------------------|------------------|-------|------------|-------|--------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Total Primary Forest Products | | | | | | | | |
| State ³ | 5,809 | | 11,715 | | 970 | | 1,808 | |
| Chattanooga | 873 | 15.0% | 1,505 | 12.8% | 113 | 11.7% | 246 | 13.6% |
| Knoxville | 192 | 3.3% | 562 | 4.8% | 31 | 3.2% | 49 | 2.7% |
| Memphis | 3,768 | 64.9% | 6,081 | 51.9% | 679 | 70.0% | 1,267 | 70.1% |
| Nashville | 646 | 11.1% | 2,941 | 25.1% | 95 | 9.8% | 140 | 7.8% |
| Tri-Cities | 329 | 5.7% | 626 | 5.3% | 52 | 5.3% | 106 | 5.9% |
| Paper Mills: | | | | | | | | |
| State ³ | 3,876 | | 4,487 | | 671 | | 1,388 | |
| Chattanooga | 528 | 13.6% | 648 | 14.4% | 65 | 9.7% | 168 | 12.1% |
| Knoxville | 49 | 1.3% | 55 | 1.2% | 9 | 1.4% | 18 | 1.3% |
| Memphis | 2,810 | 72.5% | 3,190 | 71.1% | 532 | 79.3% | 1,041 | 75.1% |
| Nashville | 205 | 5.3% | 258 | 5.8% | 21 | 3.1% | 62 | 4.5% |
| Tri-Cities | 284 | 7.3% | 335 | 7.5% | 44 | 6.6% | 98 | 7.1% |
| Paperboard Mills: | | | | | | | | |
| State ³ | 788 | | 968 | | 101 | | 196 | |
| Chattanooga | 143 | 18.1% | 169 | 17.4% | 23 | 22.5% | 39 | 20.1% |

Table 12. Direct Economic Activity in Primary Forest Products (Cont.)

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|--|------------------|-------|------------|-------|----------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Knoxville | 65 | 8.3% | 82 | 8.4% | 7 | 7.1% | 15 | 7.7% |
| Memphis | 581 | 73.7% | 718 | 74.1% | 71 | 70.4% | 141 | 72.2% |
| Nashville | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Tri-Cities | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Sawmills & Wood Preservation: | | | | | | | | |
| State ³ | 741 | | 3,148 | | 102 | | 117 | |
| Chattanooga | 51 | 6.9% | 222 | 7.0% | 6 | 6.2% | 7 | 6.3% |
| Knoxville | 67 | 9.1% | 281 | 8.9% | 10 | 10.1% | 12 | 9.9% |
| Memphis | 212 | 28.6% | 898 | 28.5% | 30 | 29.1% | 34 | 29.0% |
| Nashville | 372 | 50.2% | 1,584 | 50.3% | 50 | 49.4% | 58 | 49.6% |
| Tri-Cities | 38 | 5.2% | 163 | 5.2% | 5 | 5.2% | 6 | 5.2% |
| Pulp Mills: | | | | | | | | |
| State ³ | 229 | | 310 | | 34 | | 54 | |
| Chattanooga | 136 | 59.4% | 194 | 62.5% | 14 | 41.9% | 27 | 49.5% |
| Knoxville | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Memphis | 93 | 40.6% | 117 | 37.5% | 20 | 58.1% | 27 | 50.5% |
| Nashville | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Tri-Cities | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Commercial Logging: | | | | | | | | |
| State ³ | 162 | | 2,745 | | 60 | | 50 | |
| Chattanooga | 15 | 9.2% | 269 | 9.8% | 5 | 8.1% | 4 | 7.8% |
| Knoxville | 9 | 5.4% | 139 | 5.1% | 4 | 5.9% | 3 | 6.0% |
| Memphis | 68 | 42.3% | 1,141 | 41.6% | 26 | 43.5% | 22 | 43.9% |
| Nashville | 63 | 39.0% | 1,069 | 38.9% | 23 | 39.0% | 20 | 39.0% |
| Tri-Cities | 7 | 4.2% | 126 | 4.6% | 2 | 3.5% | 2 | 3.3% |
| Forestry, Forest Products, & Timber Tract Production: | | | | | | | | |
| State ³ | 13 | | 57 | | 1 | | 3 | |
| Chattanooga | 1 | 4.2% | 3 | 4.8% | 0 ⁴ | 2.5% | 0 ⁴ | 1.8% |
| Knoxville | 2 | 17.2% | 5 | 8.1% | 0 ⁴ | 43.7% | 1 | 52.6% |
| Memphis | 4 | 30.2% | 19 | 32.7% | 0 ⁴ | 22.0% | 1 | 20.2% |
| Nashville | 6 | 45.2% | 29 | 51.8% | 0 ⁴ | 27.6% | 1 | 19.3% |
| Tri-Cities | 0 ⁴ | 3.3% | 1 | 2.5% | 0 ⁴ | 4.2% | 0 ⁴ | 6.1% |

¹Total Industry Output – annual value of production by industry.

²Total Value Added – income to workers paid by employers; self-employed income; interests, rents, royalties, dividends, and profit payments; and excise and sales taxes paid by individuals to businesses.

³State totals may not add due to rounding.

⁴Values of 0 are nonzero values that are less than 1.

Secondary Forest Products:

The largest output value for secondary forest products was produced by the paper manufacturing sector, followed by furniture and related products manufacturing; wood windows and doors and millwork; manufactured home manufacturing; other wood products manufacturing; and veneer, plywood, and engineered wood product manufacturing (Table 13). The paper manufacturing sector was comprised of paperboard containers, paper bags and coated and treated paper, stationery products, and other converted paper products. Furniture and related products manufacturing was comprised of household and institutional, office, and other (mattress, blind and shades) furniture categories. The other wood products manufacturing category was comprised of wood containers and pallets, miscellaneous wood products, and kitchen cabinets. The Nashville Region had the largest values for output, employment, and labor income for paper manufacturing. In addition the Nashville Region had the largest output values for other wood products manufacturing and veneer, plywood, and engineered wood products manufacturing. The Memphis Region had large output values for paper manufacturing and millwork. The Knoxville Region had the largest output value for manufactured home manufacturing and was second to the Chattanooga Region in output value for furniture and related product manufacturing. The Chattanooga Region has the largest output value for furniture and related product manufacturing and was second to the Nashville Region for veneer, plywood, and engineered wood product manufacturing. Continuing with the veneer, plywood, and engineered wood products manufacturing category, the Tri-Cities Region had the third largest output value, followed by the Knoxville and Memphis Regions.

Table 13. Direct Economic Activity in Secondary Forest Products

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|--|------------------|-------|------------|-------|--------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Total Secondary Forest Products | | | | | | | | |
| State ³ | 6,740 | | 27,752 | | 1,514 | | 1,992 | |
| Chattanooga | 1,098 | 16.3% | 5,042 | 18.2% | 251 | 16.6% | 341 | 17.1% |
| Knoxville | 1,447 | 21.5% | 6,489 | 23.4% | 386 | 25.5% | 477 | 24.0% |
| Memphis | 1,707 | 25.3% | 6,207 | 22.4% | 346 | 22.8% | 489 | 24.5% |
| Nashville | 2,004 | 29.7% | 8,151 | 29.4% | 438 | 29.0% | 556 | 27.9% |
| Tri-Cities | 484 | 7.2% | 1,863 | 6.7% | 93 | 6.1% | 129 | 6.5% |
| Paper Manufacturing: | | | | | | | | |
| State ³ | 3,627 | | 9,528 | | 621 | | 851 | |
| Chattanooga | 446 | 12.3% | 1,229 | 12.9% | 72 | 11.6% | 89 | 10.5% |
| Knoxville | 596 | 16.4% | 1,718 | 18.0% | 120 | 19.3% | 147 | 17.2% |
| Memphis | 1,111 | 30.6% | 2,486 | 26.1% | 169 | 27.1% | 281 | 33.0% |
| Nashville | 1,148 | 31.6% | 3,164 | 33.2% | 213 | 34.4% | 264 | 31.0% |
| Tri-Cities | 326 | 9.0% | 930 | 9.8% | 48 | 7.7% | 71 | 8.3% |
| Furniture & Related Products Manufacturing: | | | | | | | | |
| State ³ | 1,600 | | 7,834 | | 456 | | 685 | |
| Chattanooga | 483 | 30.2% | 2,659 | 33.9% | 131 | 28.7% | 199 | 29.1% |
| Knoxville | 470 | 29.4% | 2,295 | 29.3% | 141 | 31.0% | 209 | 30.5% |
| Memphis | 162 | 10.1% | 706 | 9.0% | 50 | 11.0% | 74 | 10.8% |
| Nashville | 407 | 25.4% | 1,758 | 22.4% | 110 | 24.1% | 170 | 24.8% |
| Tri-Cities | 79 | 4.9% | 416 | 5.3% | 24 | 5.2% | 33 | 4.9% |
| Other Wood Products Manufacturing: | | | | | | | | |
| State ³ | 529 | | 4,226 | | 162 | | 167 | |
| Chattanooga | 100 | 18.9% | 781 | 18.5% | 30 | 18.4% | 32 | 19.0% |
| Knoxville | 49 | 9.2% | 395 | 9.3% | 13 | 8.2% | 13 | 7.9% |
| Memphis | 151 | 28.6% | 1,231 | 29.1% | 49 | 30.0% | 51 | 30.6% |
| Nashville | 202 | 38.1% | 1,587 | 37.6% | 62 | 38.2% | 62 | 37.1% |
| Tri-Cities | 28 | 5.2% | 232 | 5.5% | 8 | 5.1% | 9 | 5.3% |
| Wood Windows & Doors & Millwork: | | | | | | | | |
| State ³ | 461 | | 2,950 | | 113 | | 122 | |
| Chattanooga | 15 | 3.2% | 104 | 3.5% | 3 | 2.4% | 3 | 2.5% |
| Knoxville | 80 | 17.4% | 529 | 17.9% | 18 | 15.8% | 19 | 16.0% |
| Memphis | 206 | 44.8% | 1,276 | 43.3% | 56 | 49.6% | 60 | 49.2% |
| Nashville | 133 | 28.8% | 885 | 30.0% | 28 | 25.1% | 31 | 25.5% |
| Tri-Cities | 26 | 5.7% | 157 | 5.3% | 8 | 7.1% | 8 | 6.9% |
| Manufactured Homes Manufacturing: | | | | | | | | |
| State ³ | 350 | | 2,310 | | 125 | | 116 | |
| Chattanooga | 3 | 0.7% | 18 | 0.8% | 1 | 0.7% | 1 | 0.8% |
| Knoxville | 230 | 65.7% | 1,446 | 62.6% | 88 | 70.6% | 82 | 70.2% |
| Memphis | 61 | 17.5% | 431 | 18.7% | 19 | 15.3% | 17 | 15.0% |
| Nashville | 55 | 15.8% | 407 | 17.6% | 16 | 13.1% | 16 | 13.7% |

Table 13. Direct Economic Activity in Secondary Forest Products (Cont.)

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|---|------------------|-------|------------|-------|----------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Tri-Cities | 1 | 0.3% | 7 | 0.3% | 0 ⁴ | 0.3% | 0 ⁴ | 0.3% |
| Veneer, Plywood, & Engineered Wood Products Manufacturing: | | | | | | | | |
| State ³ | 172 | | 903 | | 37 | | 50 | |
| Chattanooga | 51 | 29.8% | 250 | 27.7% | 15 | 41.0% | 17 | 34.1% |
| Knoxville | 22 | 12.7% | 106 | 11.8% | 5 | 14.3% | 7 | 14.9% |
| Memphis | 15 | 8.7% | 76 | 8.4% | 3 | 8.4% | 5 | 9.3% |
| Nashville | 60 | 34.9% | 350 | 38.7% | 8 | 22.2% | 13 | 26.4% |
| Tri-Cities | 24 | 13.9% | 121 | 13.4% | 5 | 14.0% | 8 | 15.3% |

¹Total Industry Output – annual value of production by industry.

²Total Value Added – income to workers paid by employers; self-employed income; interests, rents, royalties, dividends, and profit payments; and excise and sales taxes paid by individuals to businesses.

³State totals may not add due to rounding.

⁴Values of 0 are nonzero values that are less than 1.

Estimated Total Economic Impacts of Agriculture and Forestry:

The estimated total economic impacts of agriculture and forestry included not only the direct impacts from the industry, but also the impacts the industry had on input supplying industries (indirect impacts) and on expenditures by households and other institutions (induced impacts). The total economic impacts from agriculture and forestry included direct, indirect, and induced impacts. Values for total industry output, employment, labor income, and value added resulting from agriculture and forestry, including each of these impacts, are shown in Table 14. Agriculture and forestry contributed an estimated value of over \$66.4 billion to

Table 14. Estimated Total Economic Impacts from Agriculture and Forestry

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|------------------------------------|------------------|-------|------------|-------|--------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Agriculture & Forestry: | | | | | | | | |
| State | 66,359 | | 337,880 | | 13,110 | | 23,494 | |
| Chattanooga | 8,606 | 13.0% | 41,023 | 12.1% | 1,701 | 13.0% | 2,638 | 11.2% |
| Knoxville | 8,855 | 13.3% | 45,352 | 13.4% | 1,835 | 14.0% | 2,921 | 12.4% |
| Memphis | 22,054 | 33.2% | 103,008 | 30.5% | 4,209 | 32.1% | 7,947 | 33.8% |
| Nashville | 21,454 | 32.3% | 117,595 | 34.8% | 4,061 | 31.0% | 8,079 | 34.4% |
| Tri-Cities | 2,890 | 4.4% | 17,355 | 5.1% | 501 | 3.8% | 860 | 3.7% |
| Intrastate Trade | 2,501 | 3.8% | 13,547 | 4.0% | 802 | 6.1% | 1,050 | 4.5% |

Table 14. Estimated Total Economic Impacts from Agriculture and Forestry (Cont.)

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|--|------------------|-------|------------|-------|--------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Primary & Secondary Agriculture | | | | | | | | |
| State | 46,712 | | 246,885 | | 8,190 | | 15,935 | |
| Chattanooga | 5,839 | 12.5% | 28,401 | 11.5% | 1,068 | 13.0% | 1,667 | 10.5% |
| Knoxville | 6,300 | 13.5% | 31,032 | 12.6% | 1,107 | 13.5% | 1,882 | 11.8% |
| Memphis | 13,911 | 29.8% | 71,804 | 29.1% | 2,274 | 27.8% | 4,748 | 29.8% |
| Nashville | 17,316 | 37.1% | 95,390 | 38.6% | 2,989 | 36.5% | 6,535 | 41.0% |
| Tri-Cities | 1,795 | 3.8% | 12,574 | 5.1% | 268 | 3.3% | 477 | 3.0% |
| Intrastate Trade | 1,551 | 3.3% | 7,683 | 3.1% | 484 | 5.9% | 625 | 3.9% |
| Primary Agriculture | | | | | | | | |
| State | 5,985 | | 106,318 | | 921 | | 2,384 | |
| Chattanooga | 346 | 5.8% | 6,196 | 5.8% | 42 | 4.6% | 108 | 4.5% |
| Knoxville | 516 | 8.6% | 10,494 | 9.9% | 111 | 12.1% | 203 | 8.5% |
| Memphis | 2,329 | 38.9% | 37,584 | 35.4% | 349 | 37.8% | 992 | 41.6% |
| Nashville | 2,444 | 40.8% | 44,902 | 42.2% | 353 | 38.3% | 961 | 40.3% |
| Tri-Cities | 332 | 5.5% | 7,687 | 7.2% | 40 | 4.4% | 107 | 4.5% |
| Intrastate Trade | 18 | 0.3% | -545 | -0.5% | 26 | 2.9% | 14 | 0.6% |
| Secondary Agriculture | | | | | | | | |
| State | 40,728 | | 140,566 | | 7,268 | | 13,551 | |
| Chattanooga | 5,493 | 13.5% | 22,205 | 15.8% | 1,026 | 14.1% | 1,026 | 7.6% |
| Knoxville | 5,784 | 14.2% | 20,538 | 14.6% | 996 | 13.7% | 996 | 7.4% |
| Memphis | 11,583 | 28.4% | 34,220 | 24.3% | 1,925 | 26.5% | 1,925 | 14.2% |
| Nashville | 14,872 | 36.5% | 50,488 | 35.9% | 2,636 | 36.3% | 2,636 | 19.5% |
| Tri-Cities | 1,463 | 3.6% | 4,887 | 3.5% | 228 | 3.1% | 228 | 1.7% |
| Intrastate Trade | 1,532 | 3.8% | 8,228 | 5.9% | 457 | 6.3% | 6,740 | 49.7% |
| Primary & Secondary Forestry | | | | | | | | |
| State | 19,647 | | 90,995 | | 4,920 | | 7,559 | |
| Chattanooga | 2,767 | 14.1% | 12,622 | 13.9% | 633 | 12.9% | 971 | 12.8% |
| Knoxville | 2,555 | 13.0% | 14,320 | 15.7% | 728 | 14.8% | 1,039 | 13.7% |
| Memphis | 8,143 | 41.4% | 31,204 | 34.3% | 1,936 | 39.3% | 3,199 | 42.3% |
| Nashville | 4,137 | 21.1% | 22,205 | 24.4% | 1,072 | 21.8% | 1,544 | 20.4% |
| Tri-Cities | 1,095 | 5.6% | 4,781 | 5.3% | 233 | 4.7% | 383 | 5.1% |
| Intrastate Trade | 950 | 4.8% | 5,864 | 6.4% | 318 | 6.5% | 424 | 5.6% |
| Primary Forestry | | | | | | | | |
| State | 9,244 | | 35,901 | | 2,114 | | 3,516 | |
| Chattanooga | 1,252 | 13.5% | 4,249 | 11.8% | 238 | 11.2% | 405 | 11.5% |
| Knoxville | 293 | 3.2% | 1,346 | 3.7% | 64 | 3.0% | 102 | 2.9% |
| Memphis | 5,663 | 61.3% | 19,326 | 53.8% | 1,318 | 62.3% | 2,270 | 64.6% |
| Nashville | 1,025 | 11.1% | 5,812 | 16.2% | 225 | 10.6% | 336 | 9.6% |
| Tri-Cities | 449 | 4.9% | 1,583 | 4.4% | 88 | 4.2% | 165 | 4.7% |
| Intrastate Trade | 561 | 6.1% | 3,586 | 10.0% | 181 | 8.5% | 238 | 6.8% |

Table 14. Estimated Total Economic Impacts from Agriculture and Forestry (Cont.)

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|---------------------------|------------------|-------|------------|-------|--------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Secondary Forestry | | | | | | | | |
| State | 10,403 | | 55,094 | | 2,807 | | 4,044 | |
| Chattanooga | 1,514 | 14.6% | 8,373 | 15.2% | 396 | 14.1% | 566 | 14.0% |
| Knoxville | 2,262 | 21.7% | 12,974 | 23.5% | 664 | 23.6% | 937 | 23.2% |
| Memphis | 2,480 | 23.8% | 11,878 | 21.6% | 618 | 22.0% | 929 | 23.0% |
| Nashville | 3,112 | 29.9% | 16,393 | 29.8% | 847 | 30.2% | 1,207 | 29.9% |
| Tri-Cities | 646 | 6.2% | 3,198 | 5.8% | 144 | 5.1% | 217 | 5.4% |
| Intrastate Trade | 389 | 3.7% | 2,278 | 4.1% | 138 | 4.9% | 187 | 4.6% |

¹Total Industry Output – annual value of production by industry.

²Total Value Added – income to workers paid by employers; self-employed income; interests, rents, royalties, dividends, and profit payments; and excise and sales taxes paid by individuals to businesses.

Decrease in Agriculture and Forestry Growth

Growth in total agriculture and forestry, or with the multiplier effects, as a percentage of Tennessee’s total economy decreased for the years 2006, 2009, and 2011. For both agriculture and forestry, the largest growth as a percentage of the state’s total economy occurred in 2003. However, for 2006, 2009, and 2011, growth in the agro-forestry industry has decreased.

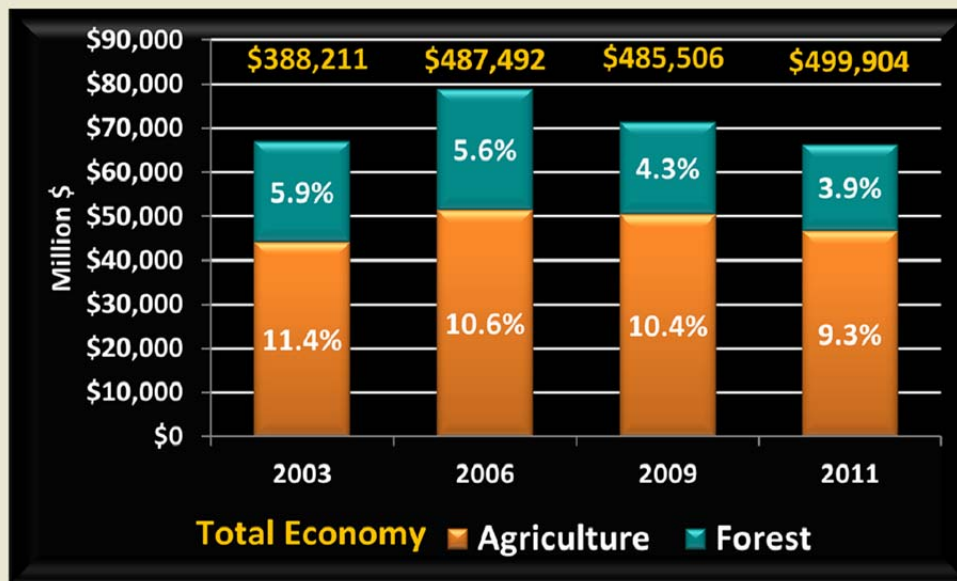


Figure 16. Growth in Total Agriculture and Forestry as a Percentage of Tennessee’s Total Economy.

Tennessee's close to \$500.0 billion economy in 2011. An estimated 70.4 percent of the total economic impacts came from primary and secondary agriculture, while forest operations and forest products contributed about 29.7 percent. Employment in both agriculture and forestry totaled close to 338 thousand workers. Of that value, 73.1 percent were related with primary and secondary agriculture production, with 26.9 percent from primary and secondary forest products production. Intrastate trade represented values purchased or imported from outside the regions but within the state. A more detailed total impact presentation of output, employment, labor income, and value added by sub-sector is shown in Appendix E.

Primary Agriculture Products Total Impacts:

Figures 17 through 22 show the estimated direct, indirect, and induced impacts for oilseed farming; grain farming; vegetables and melon farming; greenhouse, nursery, and floriculture production; tobacco farming; cotton farming; all other crops farming; cattle ranching and farming; dairy cattle and milk production; poultry and egg production; and animal production, except cattle, poultry, and eggs. The top ten indirect and induced sectors based on output value are also listed. Using oilseed farming as an example, which has direct sales of \$461.3 million, the indirect economic impacts caused by input supplying industries are \$139.3 million (21.9 percent) and the induced impacts (expenditures by households are \$35.2 million (5.5 percent). The top ten sectors most impacted from the indirect impact in descending order included real estate establishments; banking (depository credit intermediation); agriculture and forestry support activities; oilseed farming; petroleum refineries; wholesale trade businesses; cotton farming; maintenance/repair construction nonresidential; warehousing and storage; and securities, commodity contracts, and investments. Likewise, from household expenditures (induced impacts) the sectors most impacted in descending order based on output value

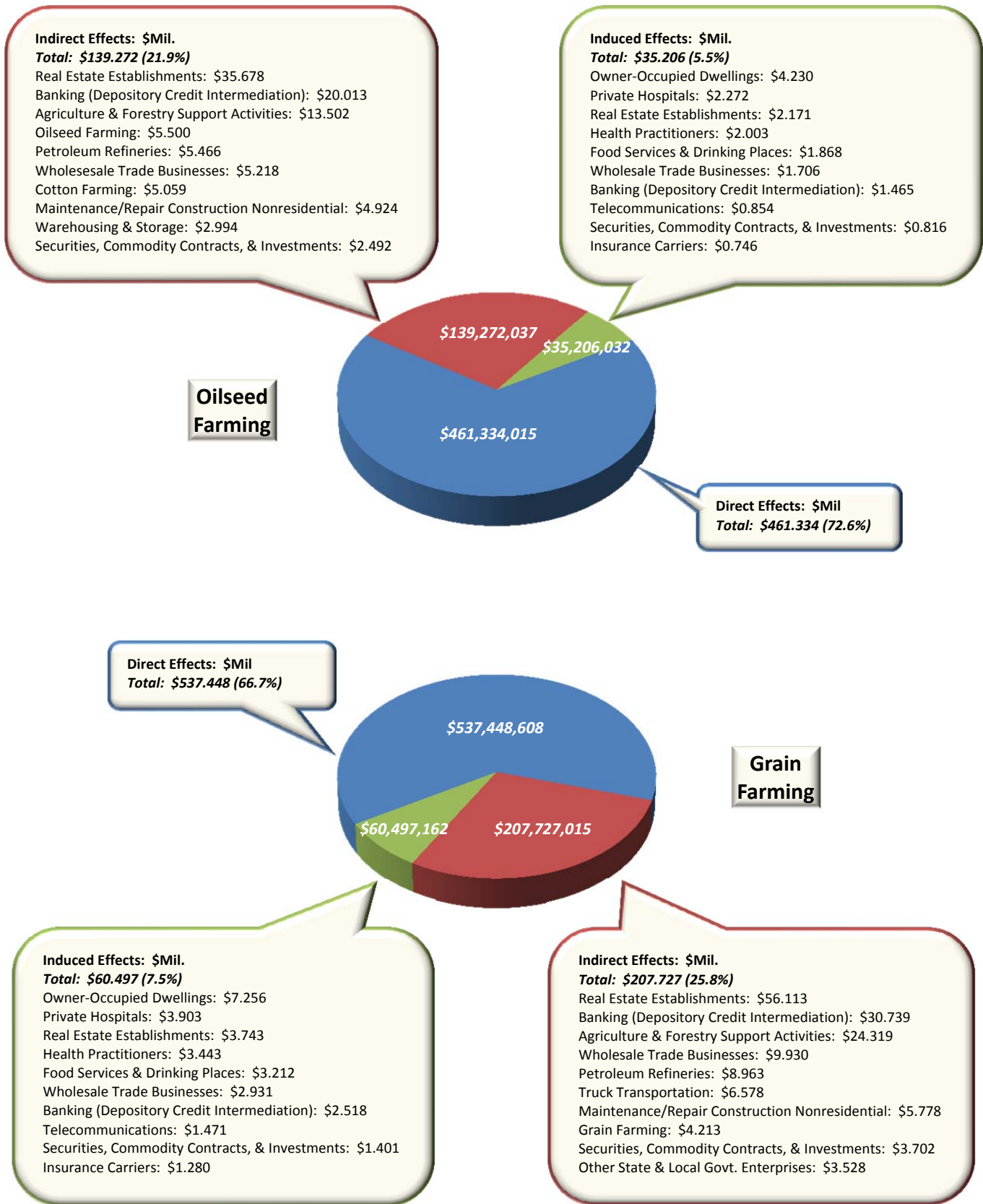


Figure 17. Estimated Direct, Indirect, and Induced Impacts for Oilseed Farming and Grain Farming.

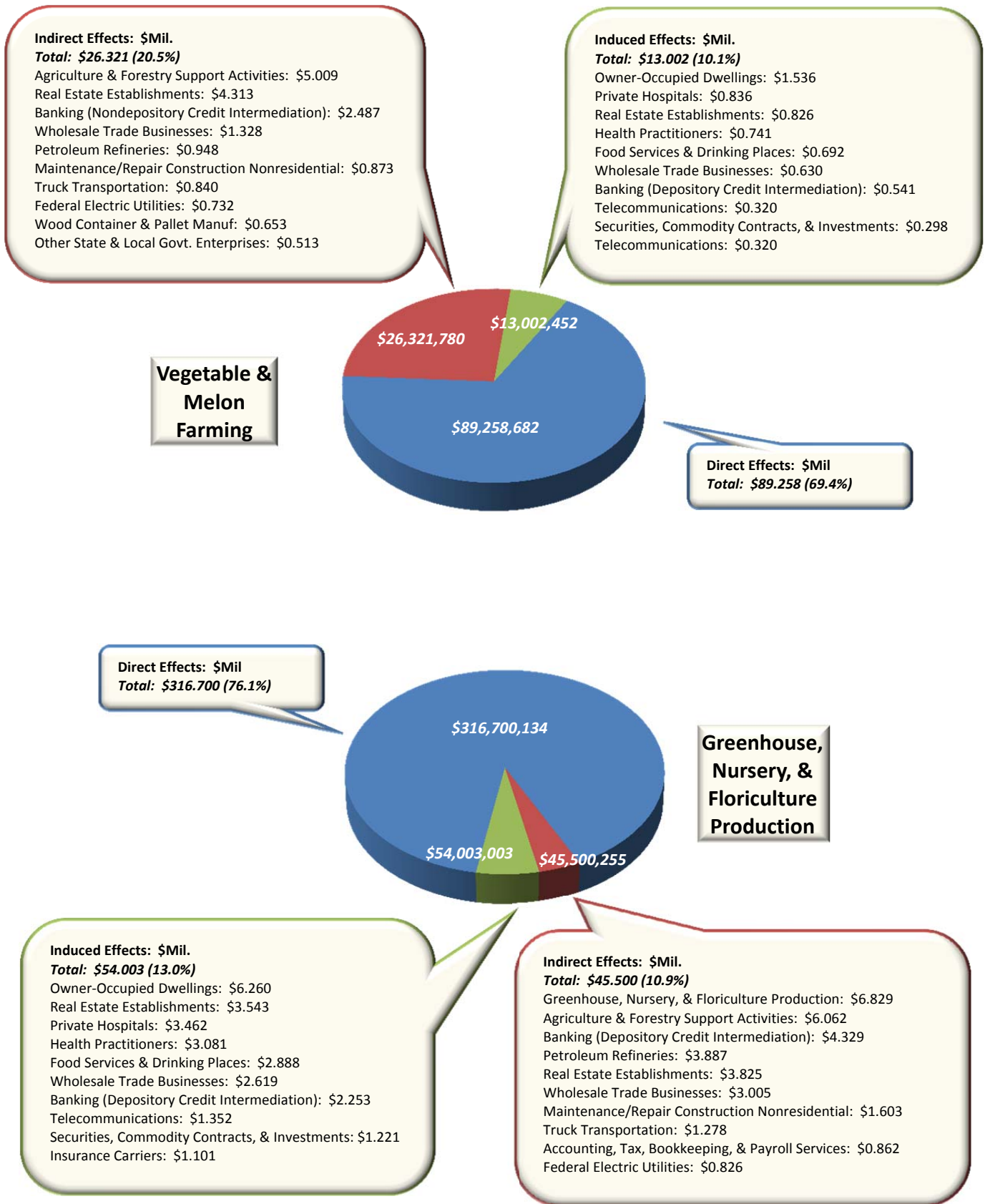


Figure 18. Estimated Direct, Indirect, and Induced Impacts for Vegetable & Melon Farming and Greenhouse, Nursery, & Floriculture Production.

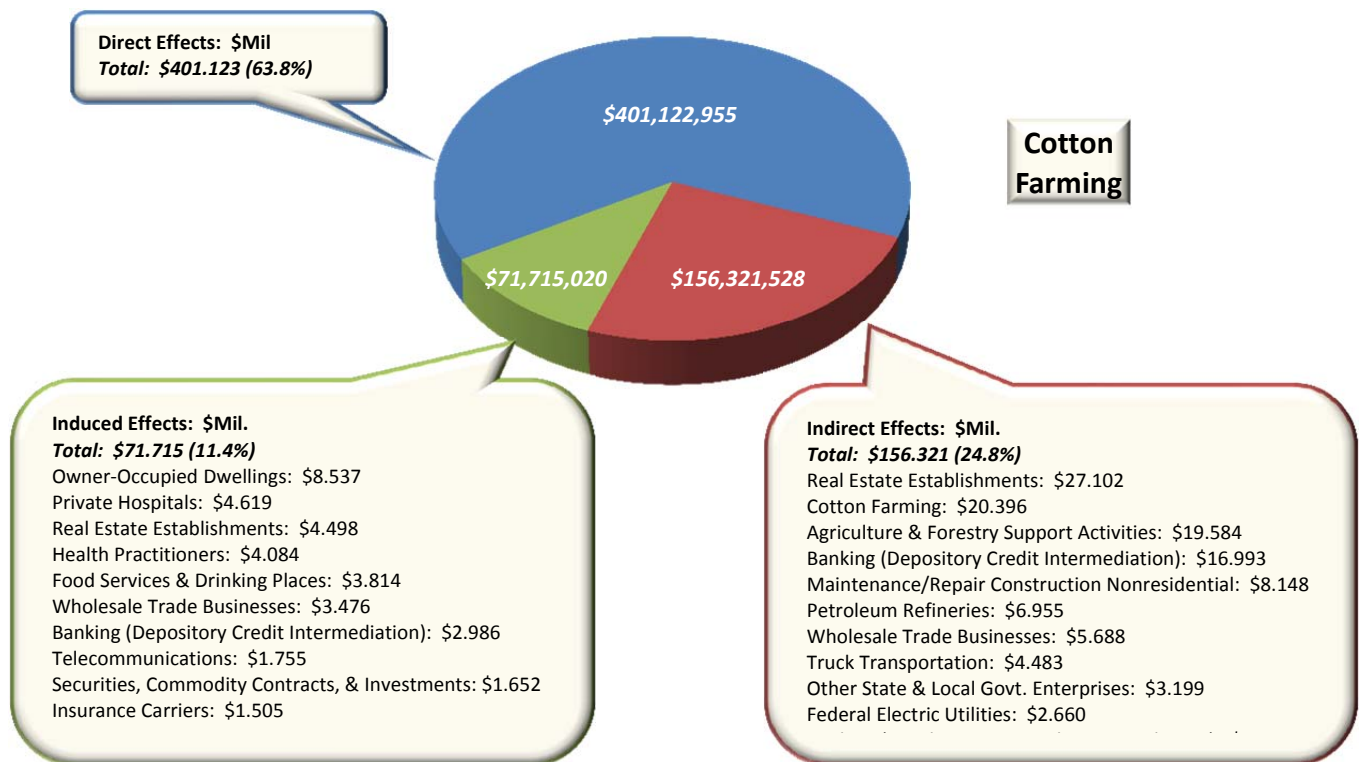
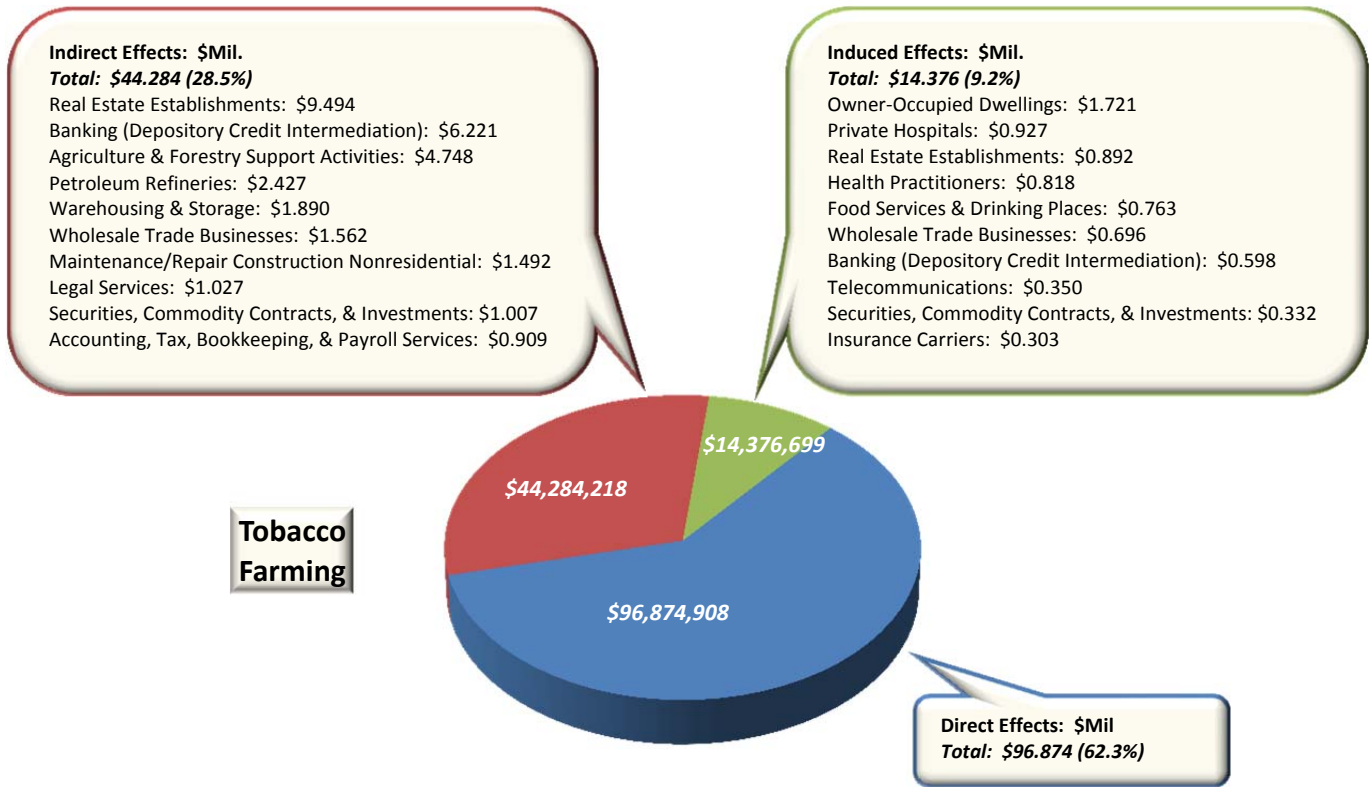


Figure 19. Estimated Direct, Indirect, and Induced Impacts for Tobacco Farming and Cotton Farming.

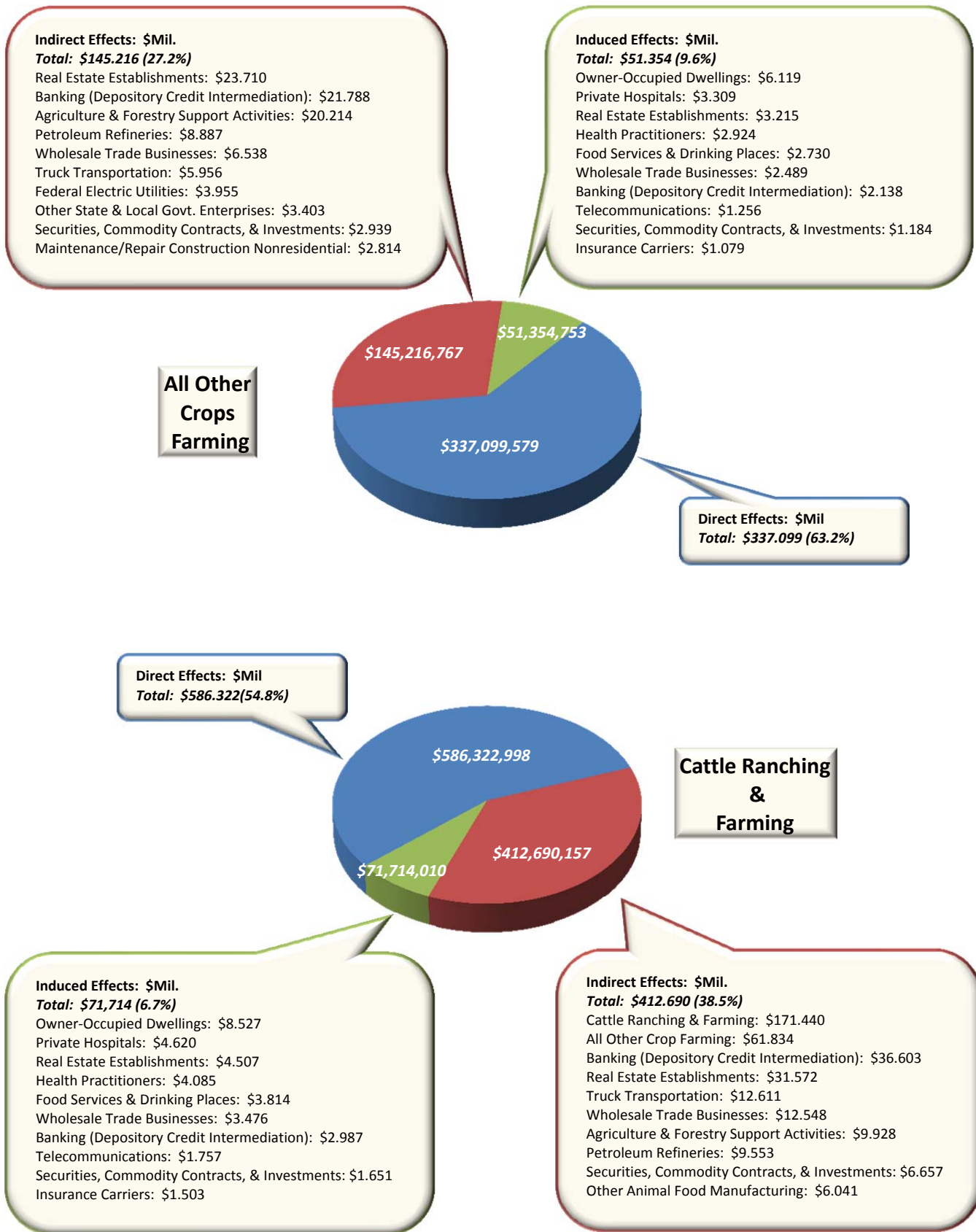


Figure 20. Estimated Direct, Indirect, and Induced Impacts for All Other Crops Farming and Cattle Ranching & Farming.

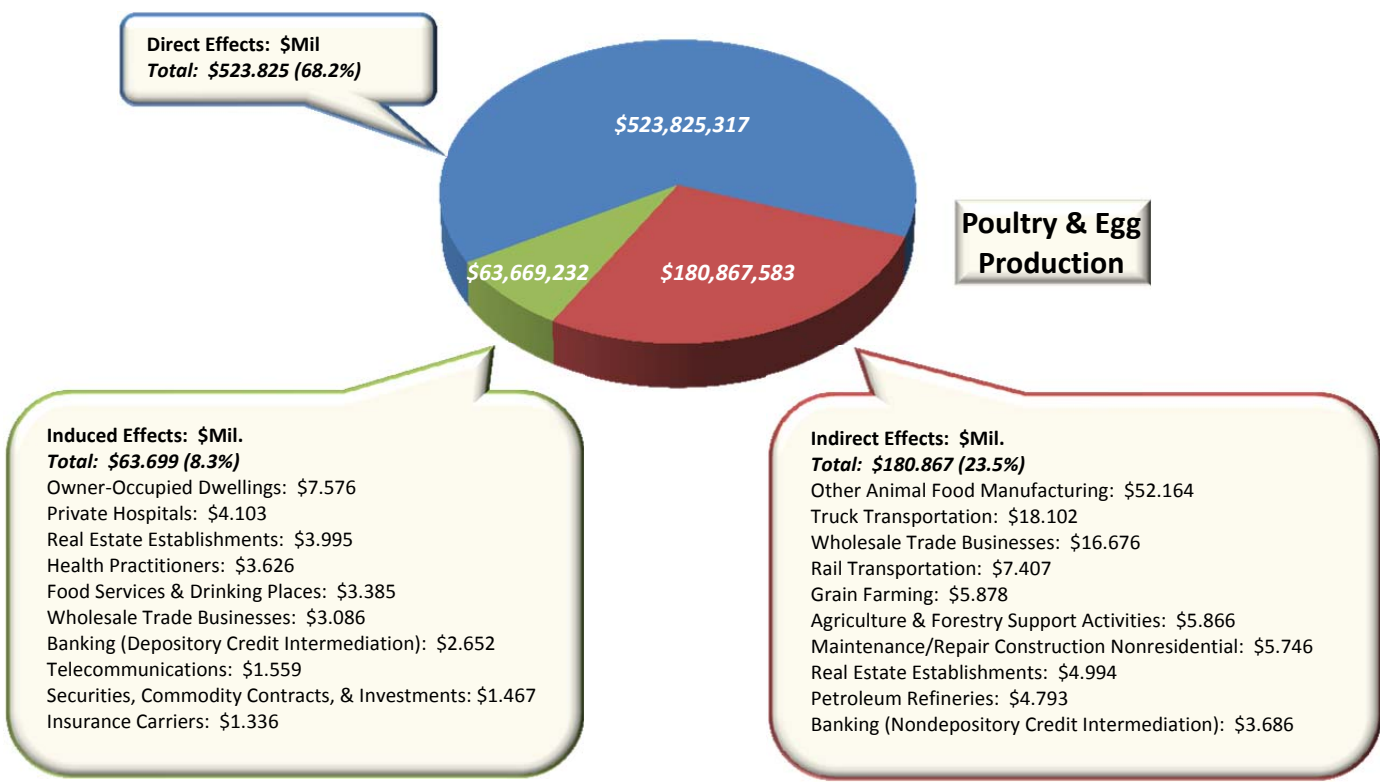
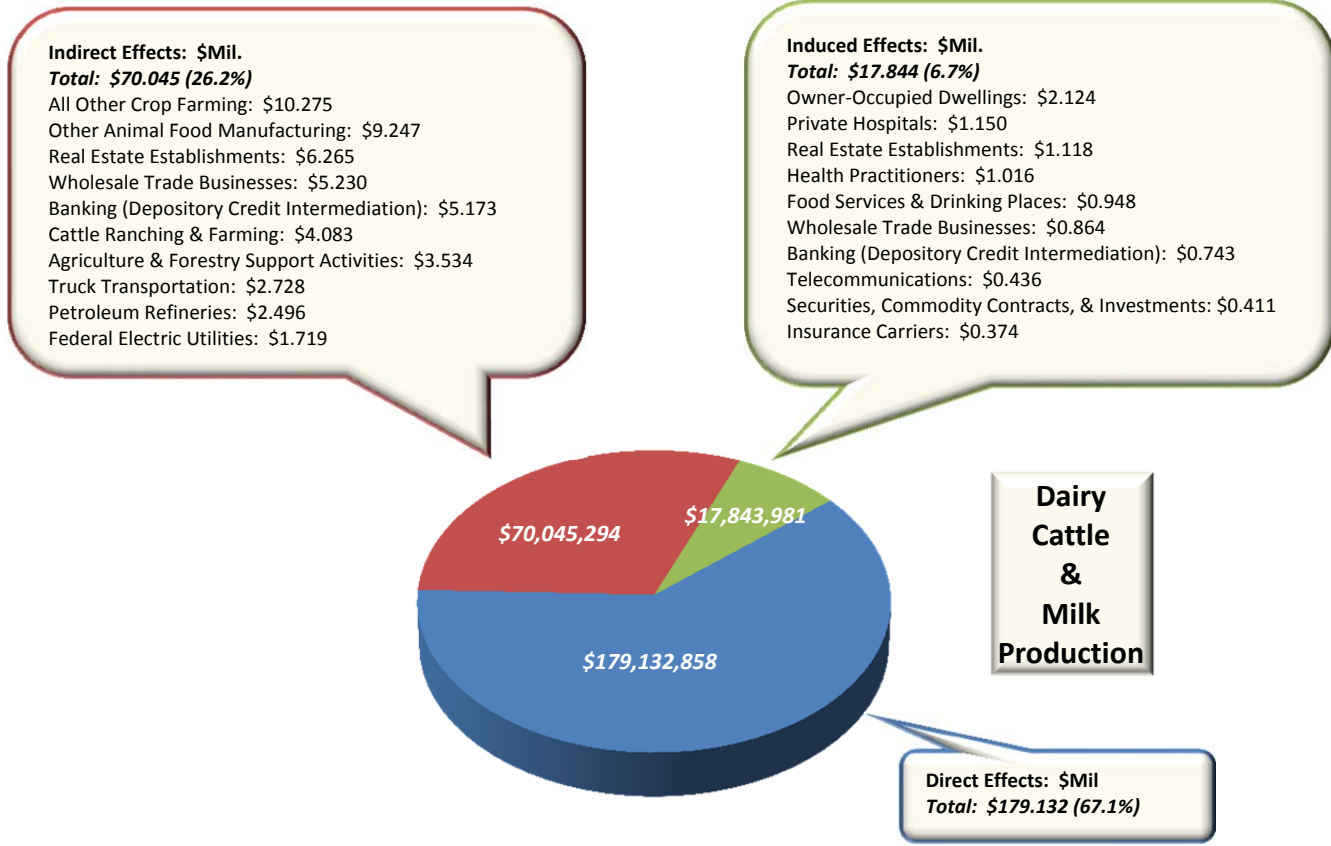


Figure 21. Estimated Direct, Indirect, and Induced Impacts for Dairy Cattle & Milk Production and Poultry & Egg Production.

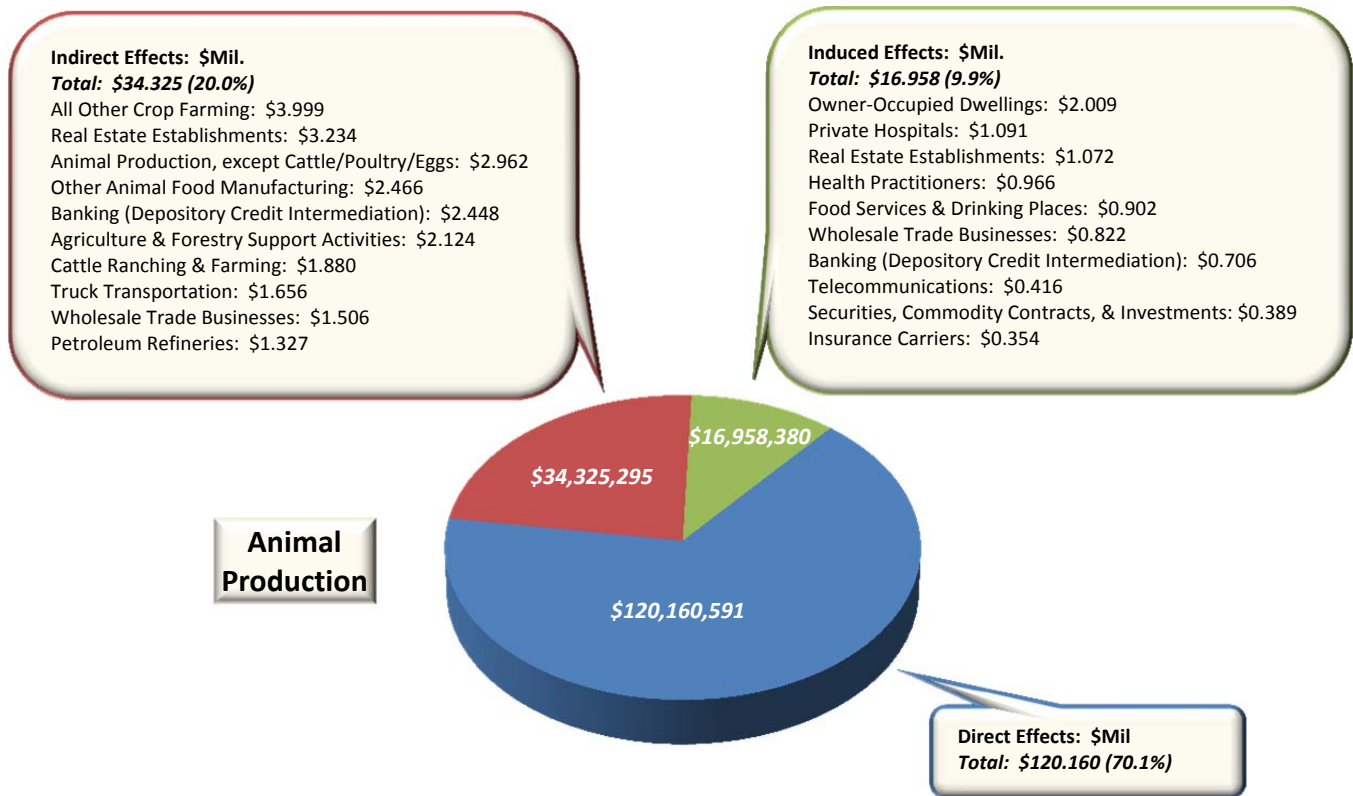


Figure 22. Estimated Direct, Indirect, and Induced Impacts for Animal Production, except Cattle, Poultry, & Eggs.

included owner-occupied dwellings; private hospitals; real estate establishments; health practitioners; food services and drinking places; wholesale trade businesses; banking (depository credit intermediation); telecommunications; securities, commodity contracts, and investments; and insurance carriers.

Secondary Agriculture Products Total Impacts:

Table 15 shows the estimated total economic impacts from secondary agricultural products. For all categories (output, employment, labor income, and value added), food manufacturing contributed the greatest total economic impact values for secondary agricultural products. The Nashville Region (primarily from animal slaughtering and processing, bakeries and tortillas (*cookie, cracker, and pastas*), other foods (*snack foods*), and pet foods, followed by the Memphis Region (primarily from grain and oilseed milling (*soybean and other oilseed processing, fats and oils refining and blending, and breakfast cereal manufacturing*), fruit and

Table 15. Estimated Total Economic Impacts from Secondary Agricultural Products

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|--|------------------|-------|------------|-------|--------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Total Secondary Agricultural Products | | | | | | | | |
| State | 40,728 | | 140,566 | | 7,268 | | 13,551 | |
| Chattanooga | 5,493 | 13.5% | 22,205 | 15.8% | 1,026 | 14.1% | 1,560 | 11.5% |
| Knoxville | 5,784 | 14.2% | 20,538 | 14.6% | 996 | 13.7% | 1,679 | 12.4% |
| Memphis | 11,583 | 28.4% | 34,220 | 24.3% | 1,925 | 26.5% | 3,756 | 27.7% |
| Nashville | 14,872 | 36.5% | 50,488 | 35.9% | 2,636 | 36.3% | 5,575 | 41.1% |
| Tri-Cities | 1,463 | 3.6% | 4,887 | 3.5% | 228 | 3.1% | 370 | 2.7% |
| Intrastate Trade | 1,532 | 3.8% | 8,228 | 5.9% | 457 | 6.3% | 611 | 4.5% |
| Food Manufacturing: | | | | | | | | |
| State | 27,074 | | 93,943 | | 4,870 | | 8,074 | |
| Chattanooga | 3,607 | 13.3% | 14,066 | 15.0% | 647 | 13.3% | 1,015 | 12.6% |
| Knoxville | 4,121 | 15.2% | 13,715 | 14.6% | 683 | 14.0% | 1,141 | 14.1% |
| Memphis | 7,956 | 29.4% | 23,960 | 25.5% | 1,359 | 27.9% | 2,312 | 28.6% |
| Nashville | 10,138 | 37.4% | 36,411 | 38.8% | 1,879 | 38.6% | 3,184 | 39.4% |
| Tri-Cities | 410 | 1.5% | 1,160 | 1.2% | 55 | 1.1% | 87 | 1.1% |
| Intrastate Trade | 842 | 3.1% | 4,632 | 4.9% | 247 | 5.1% | 334 | 4.1% |
| Beverage Manufacturing: | | | | | | | | |
| State | 4,937 | | 13,725 | | 761 | | 1,592 | |
| Chattanooga | 815 | 16.5% | 2,187 | 15.9% | 126 | 16.5% | 181 | 11.4% |
| Knoxville | 1,022 | 20.7% | 2,934 | 21.4% | 148 | 19.4% | 281 | 17.7% |
| Memphis | 942 | 19.1% | 2,682 | 19.5% | 147 | 19.3% | 217 | 13.6% |
| Nashville | 1,599 | 32.4% | 3,872 | 28.2% | 229 | 30.1% | 757 | 47.5% |
| Tri-Cities | 321 | 6.5% | 867 | 6.3% | 41 | 5.4% | 61 | 3.8% |
| Intrastate Trade | 238 | 4.8% | 1,183 | 8.6% | 70 | 9.2% | 95 | 5.9% |
| Tobacco Products: | | | | | | | | |
| State | 2,624 | | 3,618 | | 236 | | 1,661 | |
| Chattanooga | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Knoxville | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Memphis | 952 | 36.3% | 1,197 | 33.1% | 84 | 35.7% | 612 | 36.8% |
| Nashville | 1,644 | 62.6% | 2,207 | 61.0% | 144 | 60.9% | 1,055 | 63.5% |
| Tri-Cities | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Intrastate Trade | 29 | 1.1% | 215 | 5.9% | 8 | 3.4% | -6 | -0.4% |
| Textile Mills: | | | | | | | | |
| State | 1,743 | | 7,134 | | 373 | | 548 | |
| Chattanooga | 411 | 23.6% | 1,641 | 23.0% | 76 | 20.5% | 107 | 19.4% |
| Knoxville | 123 | 7.1% | 698 | 9.8% | 32 | 8.5% | 45 | 8.1% |
| Memphis | 182 | 10.5% | 851 | 11.9% | 45 | 12.0% | 62 | 11.3% |
| Nashville | 478 | 27.4% | 1,716 | 24.1% | 98 | 26.3% | 157 | 28.6% |
| Tri-Cities | 373 | 21.4% | 1,496 | 21.0% | 73 | 19.5% | 107 | 19.5% |
| Intrastate Trade | 176 | 10.1% | 733 | 10.3% | 49 | 13.1% | 72 | 13.1% |

Table 15. Estimated Total Economic Impacts from Secondary Agricultural Products (Cont.)

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|--|------------------|-------|------------|-------|----------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Agricultural Chemicals: | | | | | | | | |
| State | 1,216 | | 3,340 | | 219 | | 461 | |
| Chattanooga | 14 | 1.2% | 25 | 0.7% | 1 | 0.7% | 5 | 1.1% |
| Knoxville | 162 | 13.3% | 544 | 16.3% | 29 | 13.4% | 62 | 13.4% |
| Memphis | 776 | 63.8% | 1,723 | 51.6% | 126 | 57.4% | 286 | 61.9% |
| Nashville | 145 | 11.9% | 573 | 17.2% | 36 | 16.3% | 60 | 13.0% |
| Tri-Cities | 79 | 6.5% | 150 | 4.5% | 9 | 4.0% | 27 | 6.0% |
| Intrastate Trade | 39 | 3.2% | 325 | 9.7% | 18 | 8.4% | 21 | 4.6% |
| Apparel Manufacturing: | | | | | | | | |
| State | 1,120 | | 8,898 | | 364 | | 517 | |
| Chattanooga | 433 | 38.6% | 3,260 | 36.6% | 134 | 36.7% | 183 | 35.5% |
| Knoxville | 141 | 12.6% | 1,176 | 13.2% | 47 | 12.9% | 68 | 13.1% |
| Memphis | 106 | 9.5% | 929 | 10.4% | 31 | 8.5% | 46 | 8.8% |
| Nashville | 351 | 31.3% | 2,886 | 32.4% | 120 | 33.0% | 171 | 33.1% |
| Tri-Cities | 21 | 1.9% | 191 | 2.1% | 6 | 1.7% | 9 | 1.7% |
| Intrastate Trade | 68 | 6.1% | 456 | 5.1% | 26 | 7.2% | 40 | 7.7% |
| Agricultural Machinery: | | | | | | | | |
| State | 1,118 | | 4,208 | | 214 | | 367 | |
| Chattanooga | 135 | 12.0% | 435 | 10.3% | 22 | 10.3% | 41 | 11.2% |
| Knoxville | 9 | 0.8% | 33 | 0.8% | 2 | 0.8% | 3 | 0.8% |
| Memphis | 551 | 49.3% | 2,040 | 48.5% | 100 | 46.9% | 175 | 47.7% |
| Nashville | 112 | 10.0% | 407 | 9.7% | 28 | 13.0% | 44 | 11.9% |
| Tri-Cities | 235 | 21.0% | 858 | 20.4% | 39 | 18.3% | 70 | 19.1% |
| Intrastate Trade | 76 | 6.8% | 434 | 10.3% | 23 | 10.7% | 34 | 9.3% |
| Textile Product Mills: | | | | | | | | |
| State | 704 | | 4,382 | | 182 | | 260 | |
| Chattanooga | 73 | 10.3% | 534 | 12.2% | 19 | 10.2% | 26 | 9.9% |
| Knoxville | 201 | 28.6% | 1,394 | 31.8% | 54 | 29.5% | 78 | 29.9% |
| Memphis | 60 | 8.6% | 398 | 9.1% | 18 | 9.8% | 25 | 9.5% |
| Nashville | 288 | 40.9% | 1,673 | 38.2% | 71 | 39.2% | 104 | 39.8% |
| Tri-Cities | 23 | 3.3% | 162 | 3.7% | 5 | 3.0% | 8 | 3.0% |
| Intrastate Trade | 59 | 8.4% | 221 | 5.0% | 15 | 8.4% | 20 | 7.8% |
| Leather & Allied Product Manufacturing: | | | | | | | | |
| State | 191 | | 1,317 | | 50 | | 70 | |
| Chattanooga | 6 | 2.9% | 56 | 4.3% | 1 | 1.8% | 1 | 2.0% |
| Knoxville | 5 | 2.9% | 44 | 3.3% | 2 | 3.3% | 2 | 3.5% |
| Memphis | 57 | 30.1% | 441 | 33.5% | 15 | 30.8% | 22 | 30.9% |
| Nashville | 118 | 61.6% | 742 | 56.3% | 31 | 61.8% | 43 | 61.8% |
| Tri-Cities | 0 ³ | 0.2% | 3 | 0.3% | 0 ³ | 0.3% | 0 ³ | 0.2% |
| Intrastate Trade | 4 | 2.3% | 31 | 2.4% | 1 | 2.1% | 1 | 1.7% |

Table 15. Estimated Total Economic Impacts from Secondary Agricultural Products (Cont.)

¹Total Industry Output – annual value of production by industry.

²Total Value Added – income to workers paid by employers; self-employed income; interests, rents, royalties, dividends, and profit payments; and excise and sales taxes paid by individuals to businesses.

³Values of 0 are nonzero values that are less than 1.

vegetable preserving and specialty foods (*frozen foods*), and other foods (*snack foods*). The Nashville Region also had the largest output values for beverage manufacturing (*primarily from distilleries and soft drinks and ice*), tobacco products, textile mills (*nonwoven fabric mills*), apparel manufacturing (*men's and boy's cut and sew apparel*), textile product mills (*all other textile product mills and carpet and rug mills*), and leather and allied product manufacturing (*footwear and leather and hide tanning and finishing*). The Memphis Region had the largest output values for agricultural chemicals (*pesticides and other agricultural chemicals*) and agricultural machinery (*lawn and garden equipment*). Food manufacturing (primarily from grain and oilseed milling (*wet corn milling*), fruit and vegetable preserving and specialty foods (*fruit and vegetable canning, pickling, and drying*), animal slaughtering and processing, bakeries and tortillas (*break and bakery products*), beverage manufacturing (*soft drinks and ice*) and textile product mills (*all other textile product mills*) are important industries for the Knoxville Region. The Chattanooga Region had significant economic activity for food manufacturing (primarily from animal slaughtering and processing (poultry processing), bakeries and tortillas (*cookies, cracker, and pastas manufacturing*), grain and oilseed milling (fats and oils refining and blending), sugar and confectionary products (*confectionery from purchased chocolate*), and beverage manufacturing (*soft drinks and ice*)), textile mills (*fiber, yarn, and thread mills*), and apparel manufacturing (*apparel knitting mills and men's and boy's cut and sew apparel*). Food manufacturing (primarily from dairy products (*dry, condensed, and evaporated dairy products and cheese*) and beverages (*soft drinks and ice*), textile mills (*fabric coating mills and fiber, yard,*

and thread mills coating mills), and agricultural machinery (lawn and garden equipment) are important industries in the Tri-Cities Region.

Primary Forest Products Total Impacts:

Figures 23 and 24 show the estimated direct, indirect, and induced impacts for sawmills and wood preservation and commercial logging. The top ten indirect and induced sectors based on output value are also listed.

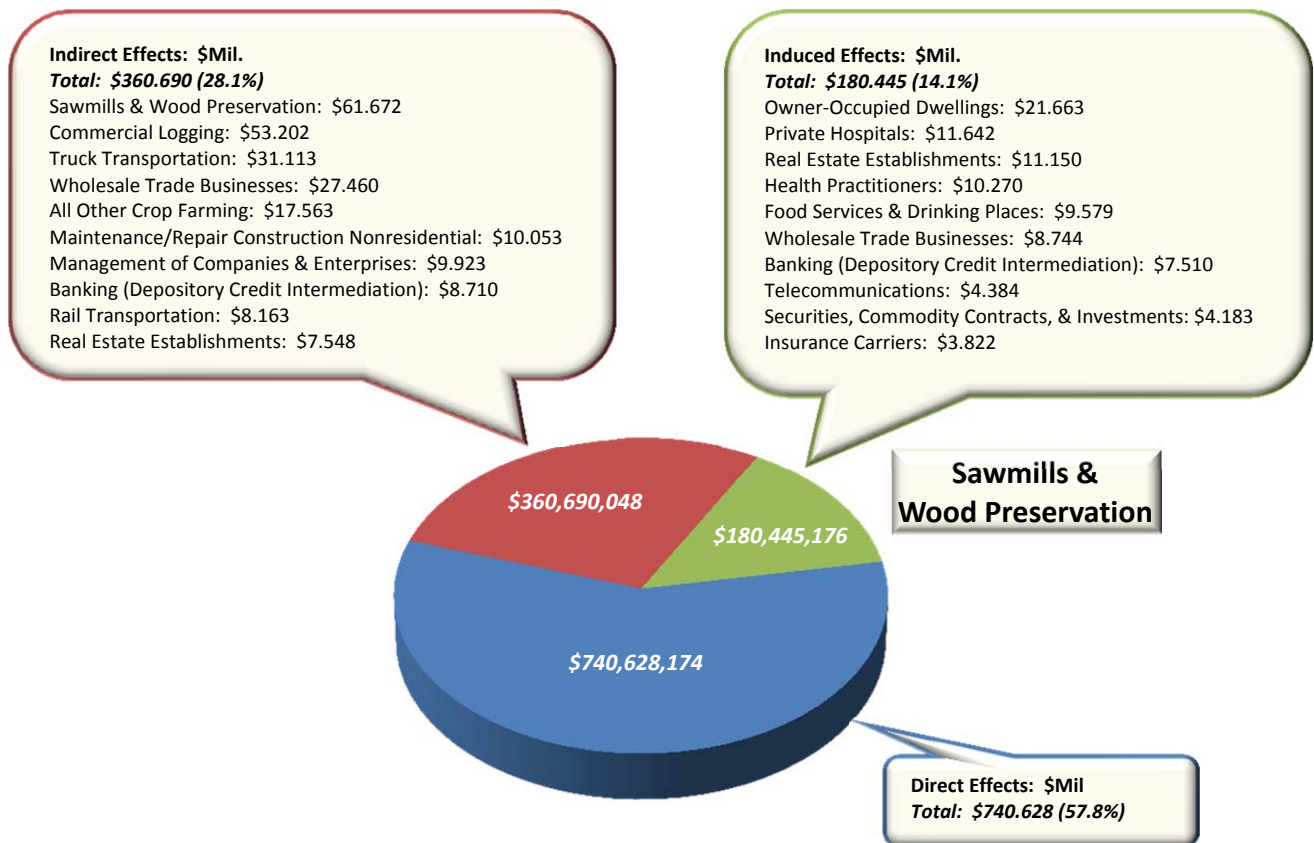


Figure 23. Estimated Direct, Indirect, and Induced Impacts for Sawmills & Wood Preservation.

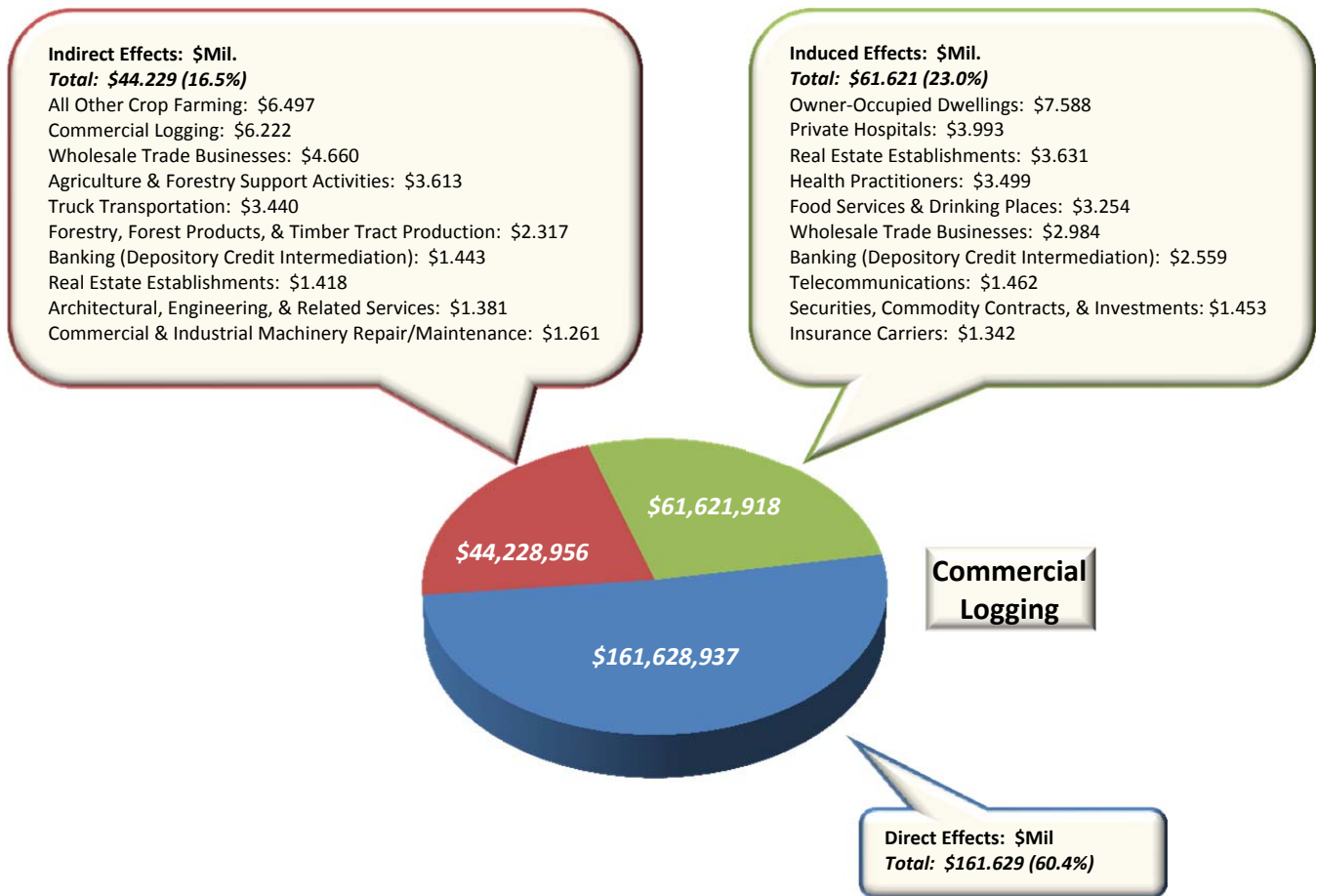


Figure 24. Estimated Direct, Indirect, and Induced Impacts for Commercial Logging.

Paper mills contributed the largest values for all the categories analyzed compared to the other four primary forest products sectors combined (Table 16). The Memphis Region dominated all value categories for this sector, with the Chattanooga Region having the next largest values. The Memphis Region also had the largest values for paperboard mills and commercial logging. The Nashville Region had the largest output values for sawmills and wood preservation and forestry, forest products, and timber tract production and closely ranked with Memphis for commercial logging based on output value. The Chattanooga Region had the largest output value for pulp mills. For all the primary forest products categories, the largest output value for the Knoxville Region came from paperboard mills and sawmills and wood preservation. Likewise, for the Tri-Cities Region, paper mills had the largest output value.

Table 16. Estimated Total Economic Impacts from Primary Forest Products

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|---|------------------|-------|------------|-------|--------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Total Primary Forest Products | | | | | | | | |
| State | 9,244 | | 35,901 | | 2,114 | | 3,516 | |
| Chattanooga | 1,252 | 13.5% | 4,249 | 11.8% | 238 | 11.2% | 405 | 11.5% |
| Knoxville | 293 | 3.2% | 1,346 | 3.7% | 64 | 3.0% | 102 | 2.9% |
| Memphis | 5,663 | 61.3% | 19,326 | 53.8% | 1,318 | 62.3% | 2,270 | 64.6% |
| Nashville | 1,025 | 11.1% | 5,812 | 16.2% | 225 | 10.6% | 336 | 9.6% |
| Tri-Cities | 449 | 4.9% | 1,583 | 4.4% | 88 | 4.2% | 165 | 4.7% |
| Intrastate Trade | 561 | 6.1% | 3,586 | 10.0% | 181 | 8.5% | 238 | 6.8% |
| Paper Mills: | | | | | | | | |
| State | 6,097 | | 19,708 | | 1,411 | | 2,497 | |
| Chattanooga | 741 | 12.2% | 2,156 | 10.9% | 135 | 9.6% | 257 | 10.3% |
| Knoxville | 73 | 1.2% | 238 | 1.2% | 17 | 1.2% | 31 | 1.2% |
| Memphis | 4,183 | 68.6% | 12,654 | 64.2% | 994 | 70.5% | 1,772 | 71.0% |
| Nashville | 312 | 5.1% | 984 | 5.0% | 58 | 4.1% | 118 | 4.7% |
| Tri-Cities | 385 | 6.3% | 1,131 | 5.7% | 75 | 5.3% | 148 | 5.9% |
| Intrastate Trade | 402 | 6.6% | 2,545 | 12.9% | 131 | 9.3% | 170 | 6.8% |
| Paperboard Mills: | | | | | | | | |
| State | 1,300 | | 4,497 | | 270 | | 443 | |
| Chattanooga | 211 | 16.3% | 668 | 14.8% | 46 | 16.9% | 68 | 15.3% |
| Knoxville | 101 | 7.8% | 351 | 7.8% | 19 | 7.1% | 34 | 7.6% |
| Memphis | 897 | 69.0% | 2,906 | 64.6% | 178 | 65.6% | 305 | 69.0% |
| Nashville | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Tri-Cities | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Intrastate Trade | 90 | 6.9% | 572 | 12.7% | 28 | 10.4% | 36 | 8.2% |
| Sawmills & Wood Preservation | | | | | | | | |
| State | 1,163 | | 6,167 | | 242 | | 326 | |
| Chattanooga | 72 | 6.2% | 376 | 6.1% | 13 | 5.4% | 17 | 5.1% |
| Knoxville | 101 | 8.7% | 540 | 8.8% | 21 | 8.8% | 29 | 8.9% |
| Memphis | 317 | 27.3% | 1,652 | 26.8% | 65 | 27.0% | 89 | 27.2% |
| Nashville | 596 | 51.3% | 3,153 | 51.1% | 125 | 51.7% | 171 | 52.4% |
| Tri-Cities | 53 | 4.6% | 280 | 4.5% | 10 | 4.0% | 13 | 4.1% |
| Intrastate Trade | 24 | 2.0% | 166 | 2.7% | 8 | 3.1% | 7 | 2.3% |
| Pulp Mills: | | | | | | | | |
| State | 391 | | 1,434 | | 87 | | 132 | |
| Chattanooga | 205 | 52.4% | 683 | 47.6% | 36 | 41.9% | 56 | 42.1% |
| Knoxville | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Memphis | 149 | 38.2% | 519 | 36.2% | 39 | 44.7% | 57 | 42.9% |
| Nashville | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Tri-Cities | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |
| Intrastate Trade | 36 | 9.3% | 231 | 16.1% | 12 | 13.4% | 20 | 15.0% |

Table 16. Estimated Total Economic Impacts from Primary Forest Products (Cont.)

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|--|------------------|-------|------------|-------|----------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Commercial Logging: | | | | | | | | |
| State | 268 | | 3,809 | | 97 | | 109 | |
| Chattanooga | 22 | 8.2% | 352 | 9.2% | 7 | 7.4% | 8 | 7.0% |
| Knoxville | 14 | 5.3% | 195 | 5.1% | 5 | 5.6% | 6 | 5.7% |
| Memphis | 108 | 40.3% | 1,512 | 39.7% | 40 | 41.3% | 44 | 40.7% |
| Nashville | 106 | 39.5% | 1,515 | 39.8% | 39 | 39.9% | 43 | 40.0% |
| Tri-Cities | 10 | 3.7% | 165 | 4.3% | 3 | 3.2% | 3 | 3.1% |
| Intrastate Trade | 8 | 3.0% | 72 | 1.9% | 3 | 2.6% | 4 | 3.6% |
| Forestry, Forest Products, & Timber Tract Production: | | | | | | | | |
| State | 25 | | 286 | | 6 | | 9 | |
| Chattanooga | 1 | 3.4% | 14 | 4.8% | 0 ³ | 2.3% | 0 ³ | 1.9% |
| Knoxville | 3 | 13.7% | 22 | 7.6% | 1 | 15.3% | 2 | 22.4% |
| Memphis | 8 | 30.7% | 83 | 29.1% | 2 | 28.8% | 3 | 28.0% |
| Nashville | 12 | 47.1% | 159 | 55.7% | 3 | 49.5% | 4 | 42.3% |
| Tri-Cities | 1 | 2.6% | 7 | 2.4% | 0 ³ | 2.2% | 0 ³ | 3.0% |
| Intrastate Trade | 1 | 2.4% | 1 | 0.3% | 0 ³ | 2.0% | 0 ³ | 2.4% |

¹Total Industry Output – annual value of production by industry.

²Total Value Added – income to workers paid by employers; self-employed income; interests, rents, royalties, dividends, and profit payments; and excise and sales taxes paid by individuals to businesses

³Values of 0 are nonzero values that are less than 1.

Secondary Forest Products Total Impacts:

Secondary forest products estimated total impacts are shown in Table 17. Paper manufacturing and furniture and related product manufacturing were the largest contributors for all categories. The Nashville and Memphis Regions had the largest output value for the paper manufacturing (for Nashville, primarily from paperboard containers; for Memphis, from paperboard containers and other converted paper products (*sanitary paper products*). For furniture, the Knoxville (primarily from household and institutional furniture (*upholstered household furniture and institutional furniture*), Chattanooga (primarily household and institutional furniture (*upholstered household furniture*), and Nashville Regions (primarily from office furniture (*showcase, partition, shelving, and locker furniture*) and other furniture (*mattresses*) were the leaders. The Knoxville Region had the largest output values for

Table 17. Estimated Total Economic Impacts from Secondary Forest Products

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|--|------------------|-------|------------|-------|--------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Total Secondary Forest Products | | | | | | | | |
| State | 10,403 | | 55,094 | | 2,807 | | 4,044 | |
| Chattanooga | 1,514 | 14.6% | 8,373 | 15.2% | 396 | 14.1% | 566 | 14.0% |
| Knoxville | 2,262 | 21.7% | 12,974 | 23.5% | 664 | 23.6% | 937 | 23.2% |
| Memphis | 2,480 | 23.8% | 11,878 | 21.6% | 618 | 22.0% | 929 | 23.0% |
| Nashville | 3,112 | 29.9% | 16,393 | 29.8% | 847 | 30.2% | 1,207 | 29.9% |
| Tri-Cities | 646 | 6.2% | 3,198 | 5.8% | 144 | 5.1% | 217 | 5.4% |
| Intrastate Trade | 389 | 3.7% | 2,278 | 4.1% | 138 | 4.9% | 187 | 4.6% |
| Paper Manufacturing: | | | | | | | | |
| State | 5,352 | | 22,219 | | 1,235 | | 1,822 | |
| Chattanooga | 602 | 11.2% | 2,449 | 11.0% | 127 | 10.2% | 172 | 9.5% |
| Knoxville | 886 | 16.5% | 4,002 | 18.0% | 220 | 17.8% | 315 | 17.3% |
| Memphis | 1,544 | 28.8% | 5,581 | 25.1% | 321 | 26.0% | 527 | 28.9% |
| Nashville | 1,718 | 32.1% | 7,386 | 33.2% | 426 | 34.5% | 603 | 33.1% |
| Tri-Cities | 425 | 7.9% | 1,718 | 7.7% | 79 | 6.4% | 123 | 6.8% |
| Intrastate Trade | 179 | 3.3% | 1,083 | 4.9% | 62 | 5.0% | 82 | 4.5% |
| Furniture & Related Products Manufacturing: | | | | | | | | |
| State | 2,487 | | 14,497 | | 762 | | 1,182 | |
| Chattanooga | 662 | 26.6% | 4,114 | 28.4% | 192 | 25.3% | 298 | 25.2% |
| Knoxville | 704 | 28.3% | 4,190 | 28.9% | 219 | 28.8% | 343 | 29.0% |
| Memphis | 250 | 10.0% | 1,362 | 9.4% | 80 | 10.5% | 124 | 10.5% |
| Nashville | 645 | 25.9% | 3,507 | 24.2% | 195 | 25.6% | 307 | 25.9% |
| Tri-Cities | 110 | 4.4% | 680 | 4.7% | 33 | 4.4% | 50 | 4.3% |
| Intrastate Trade | 116 | 4.7% | 645 | 4.5% | 42 | 5.5% | 60 | 5.0% |
| Other Wood Products Manufacturing: | | | | | | | | |
| State | 905 | | 7,140 | | 296 | | 381 | |
| Chattanooga | 152 | 16.8% | 1,204 | 16.9% | 48 | 16.1% | 60 | 15.7% |
| Knoxville | 83 | 9.2% | 678 | 9.5% | 25 | 8.5% | 33 | 8.6% |
| Memphis | 243 | 26.8% | 1,927 | 27.0% | 81 | 27.4% | 104 | 27.3% |
| Nashville | 353 | 39.0% | 2,755 | 38.6% | 118 | 39.9% | 152 | 39.8% |
| Tri-Cities | 40 | 4.4% | 339 | 4.7% | 12 | 4.1% | 16 | 4.1% |
| Intrastate Trade | 35 | 3.9% | 237 | 3.3% | 12 | 4.1% | 17 | 4.5% |
| Wood Windows & Doors & Millwork: | | | | | | | | |
| State | 744 | | 5,072 | | 215 | | 283 | |
| Chattanooga | 21 | 2.9% | 155 | 3.0% | 5 | 2.3% | 6 | 2.3% |
| Knoxville | 124 | 16.7% | 878 | 17.3% | 33 | 15.5% | 45 | 15.9% |
| Memphis | 319 | 42.9% | 2,123 | 41.9% | 97 | 45.0% | 126 | 44.5% |
| Nashville | 213 | 28.6% | 1,479 | 29.2% | 58 | 27.2% | 78 | 27.7% |
| Tri-Cities | 38 | 5.1% | 253 | 5.0% | 12 | 5.4% | 15 | 5.2% |
| Intrastate Trade | 29 | 3.9% | 184 | 3.6% | 10 | 4.7% | 13 | 4.5% |

Table 17. Estimated Total Economic Impacts from Secondary Forest Products (Cont.)

| Sector | TIO ¹ | | Employment | | Labor Income | | TVA ² | |
|---|------------------|-------|------------|-------|--------------|-------|------------------|-------|
| | (Million \$) | % | (Number) | % | (Million \$) | % | (Million \$) | % |
| Manufactured Homes Manufacturing: | | | | | | | | |
| State | 650 | | 4,568 | | 229 | | 273 | |
| Chattanooga | 4 | 0.6% | 29 | 0.6% | 1 | 0.6% | 2 | 0.6% |
| Knoxville | 431 | 66.4% | 3,028 | 66.3% | 157 | 68.5% | 187 | 68.5% |
| Memphis | 103 | 15.8% | 754 | 16.5% | 33 | 14.6% | 39 | 14.4% |
| Nashville | 93 | 14.3% | 693 | 15.2% | 30 | 13.0% | 37 | 13.6% |
| Tri-Cities | 2 | 0.2% | 12 | 0.3% | 1 | 0.2% | 1 | 0.2% |
| Intrastate Trade | 18 | 2.7% | 53 | 1.2% | 7 | 3.1% | 7 | 2.7% |
| Veneer, Plywood, & Engineered Wood Products Manufacturing: | | | | | | | | |
| State | 265 | | 1,599 | | 70 | | 101 | |
| Chattanooga | 74 | 27.8% | 424 | 26.5% | 23 | 32.5% | 28 | 27.3% |
| Knoxville | 33 | 12.4% | 198 | 12.4% | 9 | 13.2% | 14 | 13.8% |
| Memphis | 22 | 8.3% | 131 | 8.2% | 6 | 8.2% | 9 | 8.8% |
| Nashville | 90 | 34.0% | 573 | 35.8% | 19 | 27.7% | 30 | 30.1% |
| Tri-Cities | 33 | 12.4% | 196 | 12.3% | 8 | 11.5% | 13 | 12.4% |
| Intrastate Trade | 14 | 5.1% | 76 | 4.8% | 5 | 6.8% | 8 | 7.6% |

¹Total Industry Output – annual value of production by industry.

²Total Value Added – income to workers paid by employers; self-employed income; interests, rents, royalties, dividends, and profit payments; and excise and sales taxes paid by individuals to businesses.

manufactured home manufacturing. For wood windows and doors and millwork, the Memphis Region had the largest value followed by the Nashville and Knoxville Regions. The Nashville (primarily from wood kitchen cabinets and countertops and wood containers and pallets) and Memphis Regions (wood containers and pallets) were the leaders in all categories for other wood product manufacturing. Veneer, plywood, and engineered wood products manufacturing economic activity were the largest in the Nashville Region (primarily from *engineered wood members and trusses*), followed by the Chattanooga (primarily from *reconstituted wood products*), Knoxville (primarily from *engineered wood members and trusses*), and Tri-Cities (primarily from *engineered wood members and trusses*) Regions.

The output and employment multipliers for 2011 for primary agricultural and forestry activities ranged from 1.14 to 1.90 for total industrial output and 1.02 to 5.05 for employment

(Table 18). For instance, if commercial logging increased total industry output by \$1 million, the state’s economy would increase by an estimated \$.66 million overall and for each job created in this same industry an estimated 0.39 additional jobs would be added. Cattle farmers that produce \$1 million of total industry output generated an additional \$.70 million indirectly through the purchase of inputs and \$.83 million in total economic activity (purchased inputs and household spending) within the state.

Table 18. Output and Employment Multipliers for Selected Agriculture and Forestry Sectors

| IMPLAN Sector | TIO ¹ | | Employment | |
|---|------------------|--------------------|------------|--------------------|
| | Indirect | Indirect & Induced | Indirect | Indirect & Induced |
| Oilseed farming | 1.30 | 1.38 | 1.13 | 1.15 |
| Grain farming | 1.39 | 1.50 | 1.11 | 1.13 |
| Vegetable & melon farming | 1.29 | 1.44 | 1.39 | 1.50 |
| Fruit farming | 1.29 | 1.44 | 1.40 | 1.50 |
| Tree nut farming | 1.27 | 1.47 | 1.19 | 1.25 |
| Greenhouse, nursery, and floriculture | 1.14 | 1.31 | 1.12 | 1.20 |
| Tobacco farming | 1.46 | 1.61 | 1.17 | 1.21 |
| Cotton farming | 1.39 | 1.57 | 1.43 | 1.57 |
| All other crop farming | 1.43 | 1.58 | 1.48 | 1.60 |
| Cattle ranching & farming | 1.70 | 1.83 | 1.52 | 1.57 |
| Dairy cattle & milk production | 1.39 | 1.49 | 1.23 | 1.28 |
| Poultry & egg production | 1.35 | 1.47 | 1.60 | 1.84 |
| Animal production, except cattle/poultry/eggs | 1.29 | 1.43 | 1.07 | 1.09 |
| Commercial hunting & trapping | 1.51 | 1.68 | 1.34 | 1.45 |
| Agriculture & forestry support activities | 1.16 | 1.90 | 1.02 | 1.16 |
| Commercial logging | 1.28 | 1.66 | 1.20 | 1.39 |
| Sawmills & wood preservation | 1.36 | 1.57 | 1.55 | 1.96 |
| Pulp mills | 1.46 | 1.71 | 3.12 | 4.62 |
| Paper mills | 1.34 | 1.57 | 2.71 | 4.39 |
| Paperboard mills | 1.43 | 1.65 | 3.15 | 4.65 |
| Forestry, forest products, & timber tracts | 1.57 | 1.88 | 4.45 | 5.05 |

¹Total Industry Output – annual value of production by industry.

Figures 25 through 30 show the estimated direct and total level of economic activity derived from agriculture, forestry, and both agriculture and forestry combined by county for Tennessee. These values were based on total industry output and were compared to the total

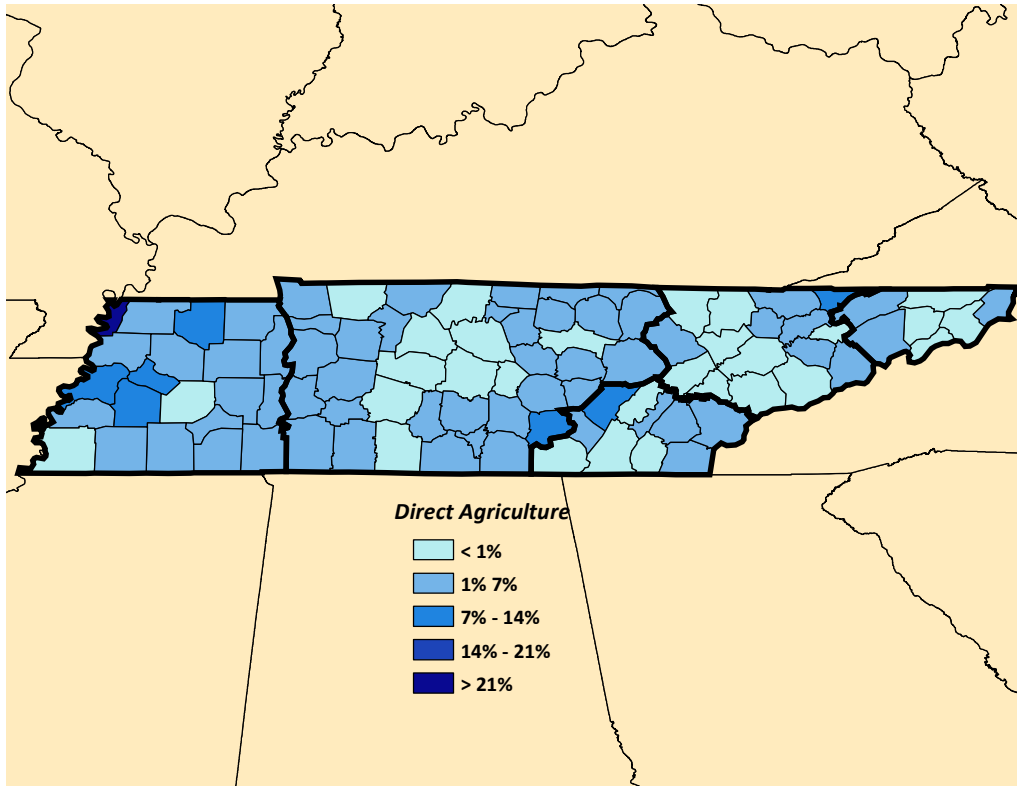


Figure 25. Percent of Economic Activity from Direct Agriculture, 2011.

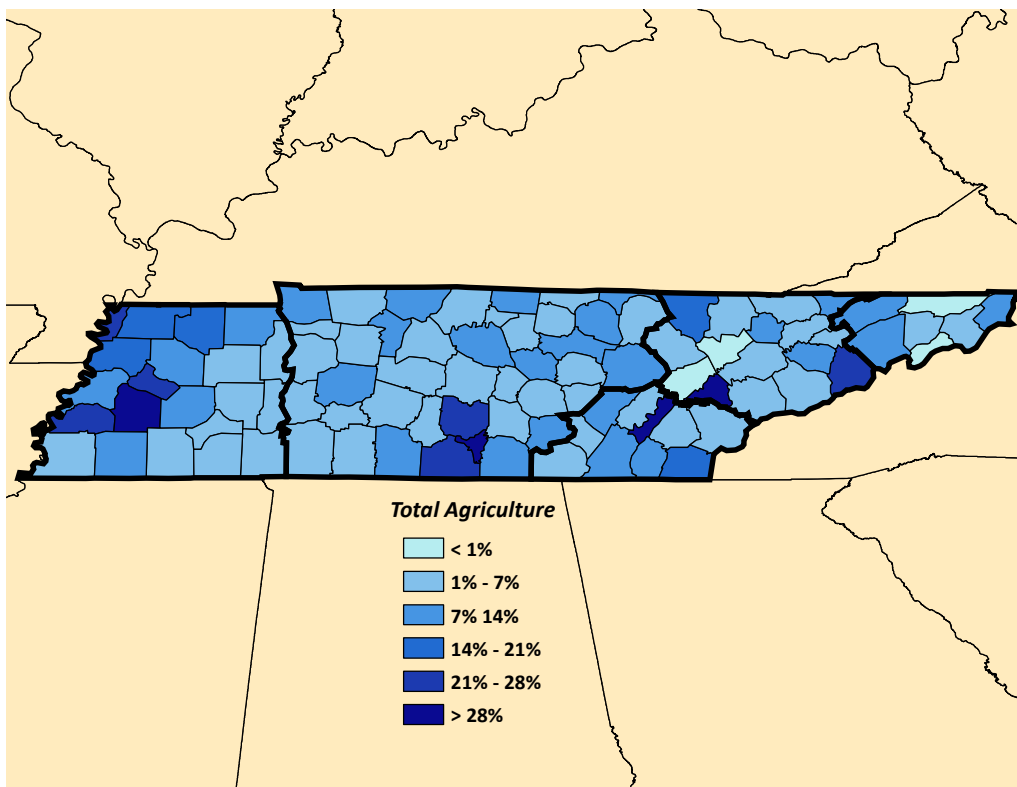


Figure 26. Percent of Economic Activity from Total Agriculture, 2011.

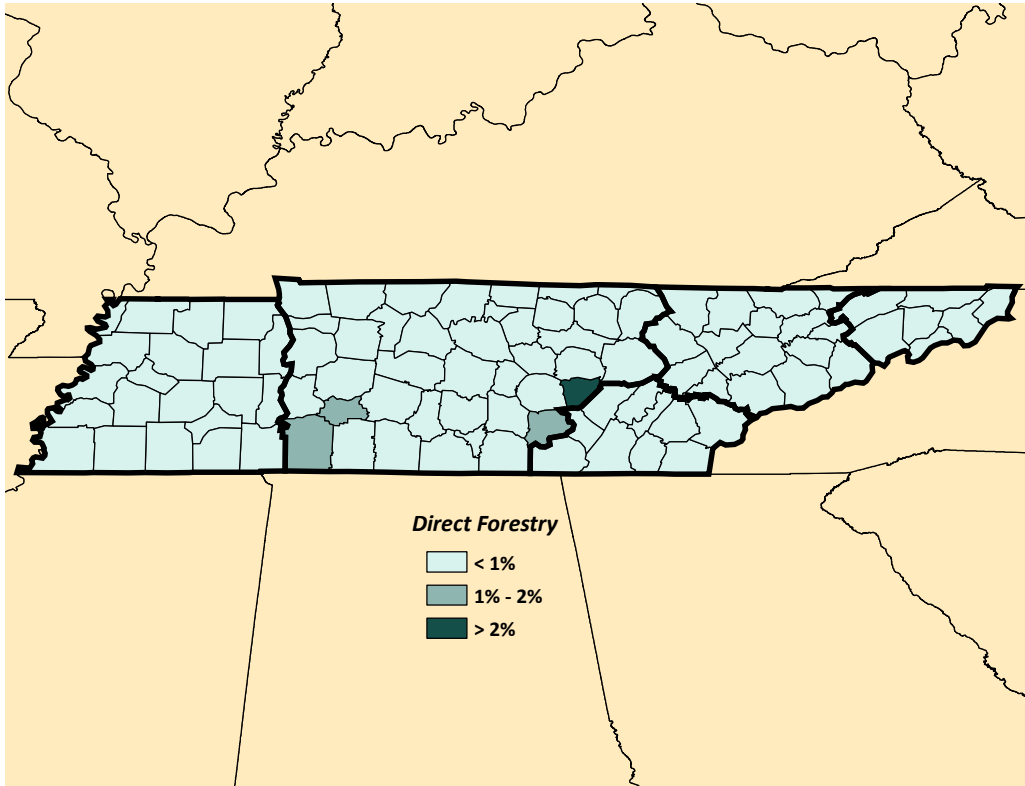


Figure 27. Percent of Economic Activity from Direct Forestry, 2011.

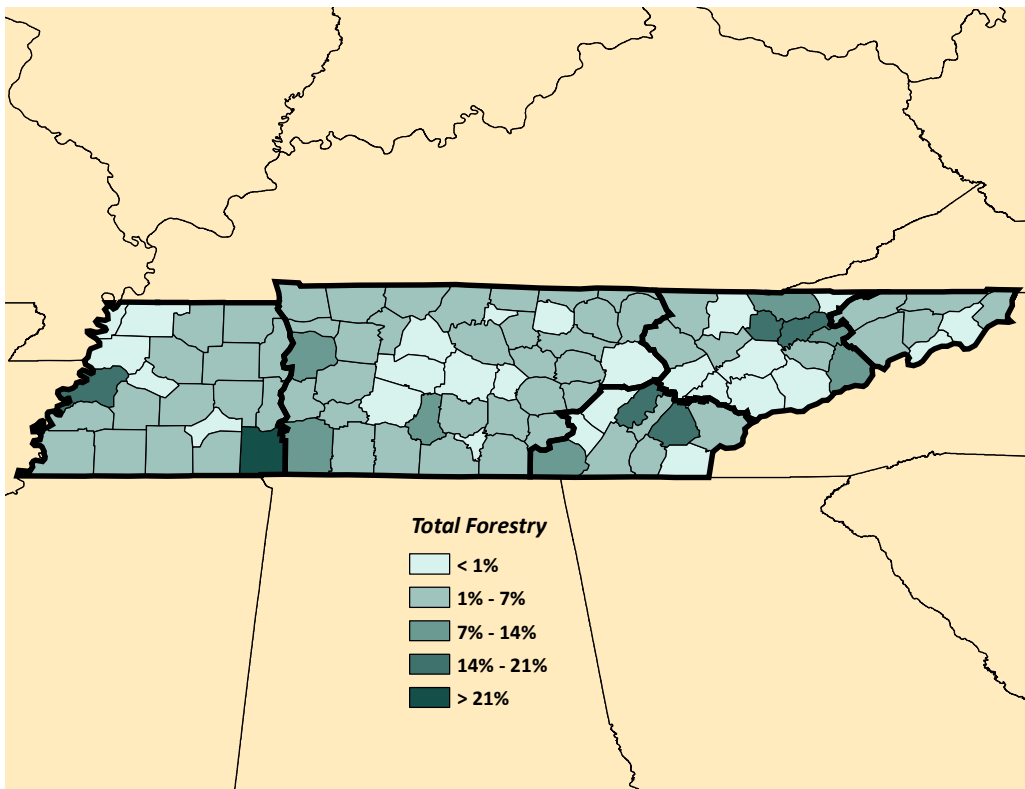


Figure 28. Percent of Economic Activity from Total Forestry, 2011.

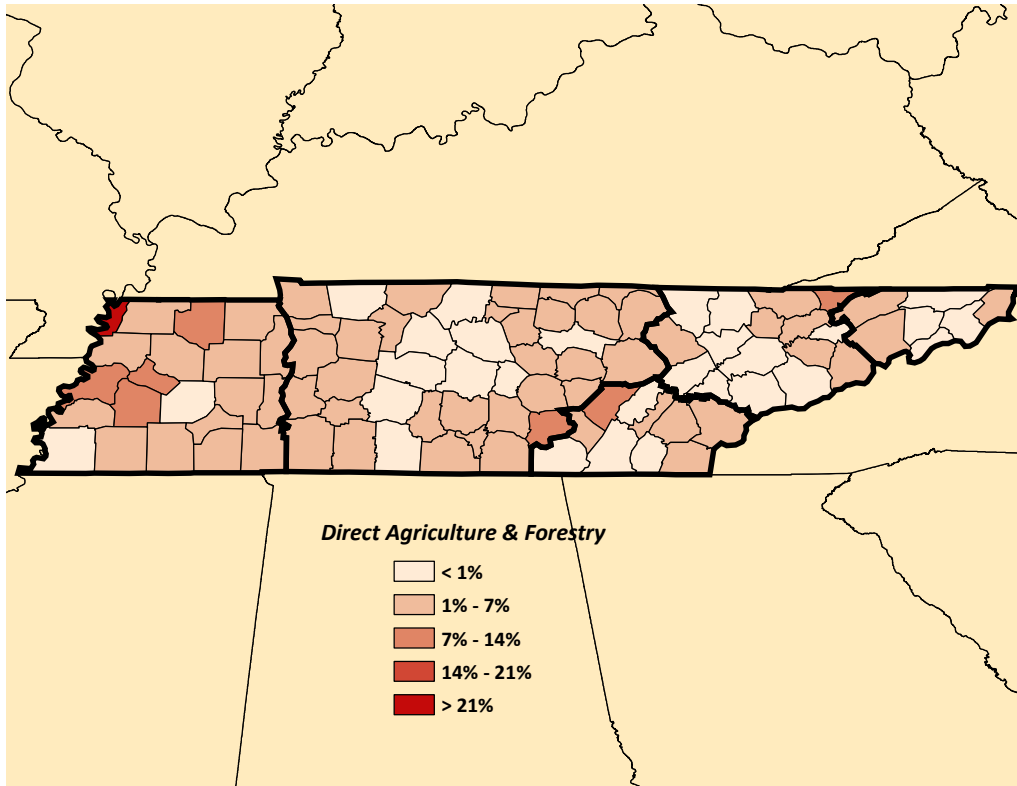


Figure 29. Percent of Economic Activity from Direct Agriculture and Forestry, 2011.

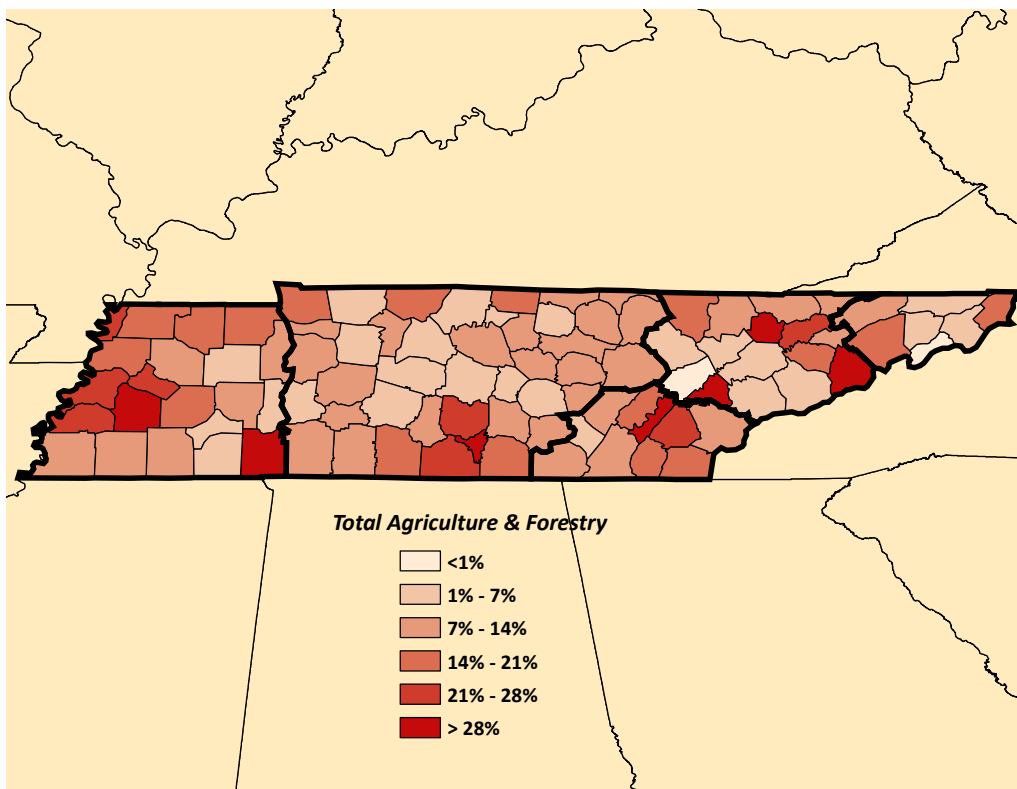


Figure 30. Percent of Economic Activity from Total Agriculture and Forestry, 2011.

level of economic activity for each county. Direct agriculture included crop production and livestock breeding and feeding, whereas direct forestry included the management and logging of trees. Total agriculture included direct agriculture, plus the input supplying industries and secondary agriculture, which included manufacturing. Likewise, total forestry included direct forestry, plus input supplying industries and secondary forestry. Lake County in the Memphis Region and Bledsoe County in the Chattanooga Region had the highest level of economic activity for direct agriculture at 25.0 percent and 9.4 percent, respectively (Table 19); for total agriculture, Moore County in the Nashville Region and Loudon County in the Knoxville Region had the highest level at 85.0 percent and 38.1 percent, respectively. For direct forestry, Van Buren County in the Nashville Region had the highest level of economic activity at 2.5 percent; for total forestry, Hardin County in the Memphis Region had the highest level at 33.0 percent. Likewise, for both agriculture and forestry combined, Lake County in the Memphis Region (25.0 percent direct) and Moore County (85.0 percent total) in the Nashville Region had the largest levels of economic activity.

Table 19. Counties with the Highest Proportion of Economic Activity for Agriculture and Forestry by Analysis Region, 2011

| | Region and County | | | | | | | | | |
|---------------------|-------------------|------|-----------|------|----------|------|-----------|------|------------|------|
| | Chattanooga | % | Knoxville | % | Memphis | % | Nashville | % | Tri-Cities | % |
| Agriculture: | | | | | | | | | | |
| Direct | Bledsoe | 9.4 | Hancock | 7.2 | Lake | 25.0 | Grundy | 8.6 | Greene | 1.5 |
| Total | Meigs | 32.1 | Loudon | 38.1 | Haywood | 31.5 | Moore | 85.0 | Greene | 13.0 |
| Forestry: | | | | | | | | | | |
| Direct | Sequatchie | 0.3 | Claiborne | 0.2 | Hardeman | 0.9 | Van Buren | 2.5 | Hawkins | 0.2 |
| Total | McMinn | 15.2 | Grainger | 17.8 | Hardin | 33.0 | Wayne | 10.0 | Greene | 5.4 |
| Combined: | | | | | | | | | | |
| Direct | Bledsoe | 9.5 | Hancock | 7.2 | Lake | 25.0 | Grundy | 10.4 | Hawkins | 1.6 |
| Total | Meigs | 34.8 | Loudon | 38.3 | Hardin | 34.8 | Moore | 85.0 | Greene | 18.4 |

Tennessee Agriculture and Forestry Tax Impacts

Actual Tennessee revenue for 2010-2011 was estimated at \$10.5 billion in the form of taxes, and \$1.6 billion in the form of fees and fines (TN Department of Finance & Administration, 2013). Based on the IMPLAN data for Tennessee in 2011, tax impacts at the state and local level as a result of direct and multiplier effects for agriculture and forestry (includes the production and processing of agricultural and forest products and the input suppliers of these products) are estimated at \$2.27 billion (Table 20). An additional \$2.9 billion is generated for the federal government. Agriculture tax revenues are estimated at \$1.8 billion for state/local and \$1.9 billion for federal; for forestry, \$0.5 billion in tax revenues are generated for state/local and close to \$1.0 billion in federal. For state/local tax revenues,

Table 20. Estimated State/Local and Federal Tax Revenues from Tennessee Agriculture and Forestry, 2011

| | State & Local Revenues | Federal Revenues |
|--|-------------------------|-------------------------|
| | (Million \$) | |
| <i>Agriculture</i>¹ | | |
| Indirect Business Taxes ² | \$1,659.1 | \$169.5 |
| Corporate Profits Taxes ³ | \$75.0 | \$415.5 |
| Personal (Household) Taxes ⁴ | \$48.8 | \$1,327.2 |
| <i>Total</i> | <i>\$1,782.9</i> | <i>\$1,912.2</i> |
| <i>Forestry</i>¹ | | |
| Indirect Business Taxes ² | \$430.2 | \$43.9 |
| Corporate Profits Taxes ³ | \$27.1 | \$150.1 |
| Personal (Household) Taxes ⁴ | \$29.9 | \$802.3 |
| <i>Total</i> | <i>\$487.2</i> | <i>\$996.3</i> |
| <i>Agriculture & Forestry Total</i> | <i>\$2,270.1</i> | <i>\$2,908.5</i> |

¹ Includes the production and processing of agricultural and forest products and the input suppliers of these products.

² For state, sales taxes, property taxes, motor vehicle licenses taxes, severance taxes, other taxes, and state/local non-taxes (rents, royalties, special assessments, fines, settlements, and donations); for federal, excise taxes, custom duty taxes, and non-taxes.

³ Includes dividends and corporate profits tax.

⁴ For state, income taxes, non-taxes (fines & fees), motor vehicle license taxes, property taxes, and other taxes (fishing/hunting); for federal, income taxes.

Source: Source: Minnesota IMPLAN Group, Inc., 2011a and 2012

indirect business taxes for both agriculture and forestry have the largest value; for federal tax revenues, personal taxes have the largest value.

Summary and Conclusion

Input-output modeling is useful for evaluating and analyzing information on the interrelationships of a regional economy and impacts of changes on that economy. The model is a useful planning tool for policy-makers in evaluating potential impacts of their decisions concerning agriculture and forestry industries for the state. For this analysis, a baseline for 2011 was developed using Tennessee Agricultural Statistics Service information, along with the Minnesota IMPLAN Group's input-output model information. The state was divided into five trade regions. These five regions will be used in future analyses to gauge the performance of individual sectors and the impacts of new sectors to the state's agro-forestry industrial complex.

Comparing agricultural data for 2009 and 2011 revealed that most of Tennessee's crops harvested increased with the exception of soybeans, wheat, tomatoes, and hay. Crop prices also increased for all the crops examined in this report (Table 6). Livestock and livestock products increased for eggs and only slightly increased for cattle and calves and broilers during that timeframe. Livestock prices also increased for livestock and livestock products examined (Table 5). Below average rainfall occurred in the state for the years 2008 and 2010 followed by above normal rainfall for the years 2009 and 2011 (Figure 11).

In 2011, agriculture and forestry contributed to 13.3 percent of Tennessee's total economy. The agro-forestry industrial complex included the primary industries typically associated with agriculture and forest operations such as crop production, livestock breeding

and feeding, and the management and logging of trees. Also included in the industrial complex were the input supplying industries and value-added subsectors, which included food and beverage manufacturing, apparel and textiles, and forestry products manufacturing. In 2011, the agro-forestry industrial complex contributed \$66.4 billion to the Tennessee economy and employed an estimated 337,880 individuals.

Agriculture, a subset of Tennessee's agro-forestry industrial complex, included farming and related industries, as well as value-added food and fiber production, processing and manufacturing. Agriculture accounted for 9.3 percent of the state's economy and generated \$46.7 billion in output. Close to 247,000 Tennesseans, with over 106,000 in the production sector (both full- and part-time), were employed in agriculture.

Forestry included the management and logging of trees; sawmills (primary forestry products), including pulp and paper mills, plus forestry products manufacturing (secondary forestry products). Forestry accounted for 4.0 percent of the state's economy, employed close to 91,000 Tennesseans, and generated close to \$20.0 billion in output.

From a regional perspective, the agro-forestry industrial complex was more important to the Memphis and Chattanooga Regions relative to other regions in the state followed by the Nashville, Knoxville, and Tri-Cities Regions (Table 21). The Memphis Region contributed the largest amount of economic activity, \$22.1 billion, representing 17.2 percent of the total for the region.

When comparing county level total economic activity (across all industries) with county level agricultural economic activity, the counties with the highest percentage levels were Moore (85.0 percent) in the Nashville Region, Loudon (38.1 percent) in the Knoxville Region, Meigs (32.1 percent) in the Chattanooga Region, Haywood (31.5 percent) in the Memphis

Table 21. Regional Importance of Agriculture to that Region's Economy, 2011

| Location | Total Economic Activity | Estimated Agro-Forestry Industrial Complex Contributions to the State's Economy | | | Proportion* |
|-------------|-------------------------|---|--------------|---------------------|-------------|
| | | Agriculture | Forestry | Total Ag & Forestry | |
| | (Million \$) | (Million \$) | (Million \$) | (Million \$) | (Ratio) |
| State | \$499,904 | \$46,712 | \$19,647 | \$66,359 | 0.13 |
| Chattanooga | \$53,176 | \$5,839 | \$2,767 | \$8,606 | 0.16 |
| Knoxville | \$80,556 | \$6,300 | \$2,555 | \$8,855 | 0.11 |
| Memphis | \$128,004 | \$13,911 | \$8,143 | \$22,054 | 0.17 |
| Nashville | \$202,448 | \$17,316 | \$4,137 | \$21,454 | 0.11 |
| Tri-Cities | \$35,721 | \$1,795 | \$1,095 | \$2,890 | 0.08 |

*Total Economic Activity ÷ Total Ag & Forestry

Source: Minnesota IMPLAN Group, Inc., 2011a

Region, and Greene (13.0 percent) in the Tri-Cities Region. Likewise, for forestry, Hardin County (33.0 percent) had the highest level of forestry economic activity percentage in the Memphis Region, followed by Grainer County (17.8 percent) in the Knoxville Region, McMinn County (15.2 percent) in the Chattanooga Region, Wayne County (10.0 percent) in the Nashville Region, and Greene County (5.4 percent) in the Tri-Cities Region. Combining both agriculture and forestry economic activity levels and comparing to the total, the counties with the highest percentages were Moore (85.0 percent) in the Nashville Region, Loudon (38.3 percent) in the Knoxville Region, Hardin (34.8 percent) in the Memphis Region, Meigs (34.8 percent) in the Chattanooga Region, and Greene (18.4 percent) in the Tri-Cities Region.

Comparing some 2011 major industry sectors to 2006 and 2009, direct economic activity for agriculture increased an average of 5.1 percent, whereas economic activity for forestry decreased an average of 9.3 percent in nominal terms. Other major industries that had a decrease in economic activity include transportation, information, and utilities (23.4 percent); construction (12.1 percent); wholesale trade (5.7 percent); manufacturing (4.1 percent); and retail trade (0.6 percent). Major industries with increases in economic activity included mining

(26.8 percent); services (16.6 percent); government (14.7 percent); and finance, insurance, and real estate (3.0 percent).

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Appendix A: IMPLAN Methodology

Input-output model results from previous studies (English, Jensen, and Menard, 2001 and 2003) in this series were based on the Standard Industrial Classification (SIC) system as defined by the United States Census Bureau. Beginning in 2006 (Menard, English, and Jensen), results are based on the North American Industrial Classification System (NAICS) (Census NAICS, 2002, 2007, 2012). The reader is cautioned to not compare industry sector level results from the previous studies using the SIC system with the results from this most recent study using NAICS. For readers who are interested in time series data, this creates a problem since many industries are grouped in different or entirely new categories.

Like the previous analysis conducted for 2009, this analysis uses IMPLAN Version 3.0. IMPLAN's sectoring scheme relies on the Bureau of Economic (BEA) Analysis's Benchmark input-output study (Minnesota IMPLAN Group, 2011b; USDOC, 2011b). When a new BEA Benchmark is released, the IMPLAN sectoring scheme requires modification. Previous studies used IMPLAN Pro 2.0 and had either a 528 or 509 industrial sectoring scheme. With the release of the 2002 Benchmark, which is what IMPLAN Version 3.0 uses and affects the IMPLAN 2007 data release year, a 440 industrial sectoring scheme is used.

IMPLAN employs a regional social accounting system and can be used to generate a set of balanced economic/social accounts and multipliers. The social accounting system is an extension of input-output analysis.³ Input-output analysis can provide important and timely information on the interrelationships in a regional economy and the impacts of changes on that economy. Input-output analysis has been expanded beyond market-based transaction accounting to include non-market financial flows by using a social accounting matrix or SAM

³ Input-output (I-O) analysis, also known as inter-industry analysis, is the name given to an analytical work conducted by Wassily Leontief (1936) in the late 1930's. The fundamental purpose of the I-O framework is to analyze the interdependence of industries in an economy through market-based transactions.

framework (Pyatt and Round, 1985). The model describes the transfer of money between industries and institutions and contains both market-based transactions and non-market financial flows, such as inter-institutional transfers (see Figure A.1). The 'Make' and 'Use' components of the SAM include the commodities made and used by industries. Factors represent the value-added by industries, including wages and compensation to workers, interest, profits, and indirect business taxes. Capital includes expenditures made by industries and institutions to obtain equipment and construction. The SAM takes into account corporate profits as 'Enterprises'. The SAM also accounts for non-industrial financial flows, including factor exports and imports, institution exports, factor distribution, and inter-institutional transfers. Factor exports include payments reimbursed from outside the region for exports less the payments for imports. Institutional exports would include situations such as jobs commuting outside the region. Factor distributions are payments from the factor sectors to institutions, such as households or governments. Inter-institutional transfers include payments between institutions, such as federal government grants to state governments, welfare, social security payments, and taxes paid to governments.

| | Industry | Commodity | Factors | Institutions | Enterprises | Capital | Trade | Total |
|---------------------|-----------------------|------------------------|---------------------|--------------------------|-------------------------|----------------------|---------------------|----------------------------|
| Industry | | <i>Make</i> | | | | | <i>Exports</i> | Total Industry Income |
| Commodity | <i>Use</i> | | | <i>Consumption</i> | | <i>Consumption</i> | | Total Commodity Income |
| Factors | <i>Value Added</i> | | | | | | <i>Exports</i> | Total Factor Income |
| Institutions | | <i>Sales</i> | <i>Transfers</i> | <i>Transfers</i> | <i>Transfers</i> | | <i>Exports</i> | Total Institutional Income |
| Enterprises | | | | | | | | Total Enterprise Income |
| Capital | | | | | | <i>Transfers</i> | <i>Exports</i> | Total Capital Income |
| Trade | <i>Imports</i> | | <i>Factor Trade</i> | <i>Imports</i> | | <i>Transfers</i> | <i>Exports</i> | Total Trade Income |
| Total | Total Industry Outlay | Total Commodity Outlay | Total Factor Outlay | Total Institution Outlay | Total Enterprise Outlay | Total Capital Outlay | Total Trade Exports | |

Figure A.1. Social Accounting Matrix Framework

Source: Olson and Lindall, 1999.

Appendix B: IMPLAN Sectors with Descriptions

Table B.1. IMPLAN 440 Industry Sector Descriptions, NAICS, and Agro-Forestry Designation

| Sector | Description | 2007 NAICS | Agro-Forestry |
|---------------|---|--------------------|----------------------|
| 1 | Oilseed farming | 11111-2 | Primary Ag |
| 2 | Grain farming | 11113-6, 11119 | Primary Ag |
| 3 | Vegetable & melon farming | 1112 | Primary Ag |
| | | 11131-2,111331-4, | |
| 4 | Fruit farming | 111336, 111339 | Primary Ag |
| 5 | Tree nut farming | 111335, 111336 | Primary Ag |
| 6 | Greenhouse, nursery, & floriculture production | 1114 | Primary Ag |
| 7 | Tobacco farming | 11191 | Primary Ag |
| 8 | Cotton farming | 11192 | Primary Ag |
| 9 | Sugarcane & sugar beet farming | 11193, 111991 | Primary Ag |
| | | 11194, 111992, | |
| 10 | All other crop farming | 111998 | Primary Ag |
| 11 | Cattle ranching & farming | 11211, 11213 | Primary Ag |
| 12 | Dairy cattle & milk production | 11212 | Primary Ag |
| 13 | Poultry & egg production | 1123 | Primary Ag |
| 14 | Animal production, except cattle & poultry & eggs | 1122, 1124-5, 1129 | Primary Ag |
| 15 | Forest nurseries, forest products, & timber tracts | 1131-2 | For Inputs |
| 16 | Logging | 1133 | For Inputs |
| 17 | Commercial Fishing | 1141 | Primary Ag |
| 18 | Commercial Hunting & trapping | 1142 | Primary Ag |
| 19 | Support activities for Agriculture & forestry | 115 | Primary Ag |
| 20 | Oil & gas extraction | 211 | |
| 21 | Coal mining | 2121 | |
| 22 | Iron ore mining | 21221 | |
| 23 | Copper, nickel, lead, & zinc mining | 21223 | |
| 24 | Gold, silver, & other metal ore mining | 21222, 21229 | |
| 25 | Stone mining & quarrying | 21231 | |
| | Sand, gravel, clay, & ceramic & refractory minerals | | |
| 26 | mining & quarrying | 21232 | |
| 27 | Other nonmetallic mineral mining & quarrying | 21239 | |
| 28 | Drilling oil & gas wells | 213111 | |
| 29 | Support activities for oil & gas operations | 213112 | |
| 30 | Support activities for other mining | 213113-5 | |
| | Electric power generation, transmission, & | | |
| 31 | distribution | 2211 | |
| 32 | Natural gas distribution | 2212 | |
| 33 | Water, sewage & other systems | 2213 | |
| | Construction of new nonresidential commercial & | | |
| 34 | health care structures | 23 | |
| | Construction of new nonresidential manuf | | |
| 35 | structures | 23 | |
| 36 | Construction of other new nonresidential structures | 23 | |
| | Construction of new residential permanent site | | |
| 37 | single- & multi-family structures | 23 | |
| 38 | Construction of other new residential structures | 23 | |

Table B.1. IMPLAN 440 Industry Sector Descriptions and NAICS (Cont.)

| Sector | Description | 2007 NAICS | Agro-Forestry |
|---------------|--|-------------------|----------------------|
| 39 | Maintenance & repair construction of nonresidential maintenance & repair | 23 | |
| 40 | Maintenance & repair construction of residential structures | 23 | |
| 41 | Dog & cat food manuf | 311111 | Secondary Ag |
| 42 | Other animal food manuf | 311119 | Secondary Ag |
| 43 | Flour milling & malt manuf | 31121 | Secondary Ag |
| 44 | Wet corn milling | 311221 | Secondary Ag |
| 45 | Soybean & other oilseed processing | 311222-3 | Secondary Ag |
| 46 | Fats & oils refining & blending | 311225 | Secondary Ag |
| 47 | Breakfast cereal manuf | 311230 | Secondary Ag |
| 48 | Sugar cane mills & refining | 311311-2 | Secondary Ag |
| 49 | Beet sugar manuf | 311313 | Secondary Ag |
| 50 | Chocolate & confectionery manuf from cacao beans | 31132 | Secondary Ag |
| 51 | Confectionery manuf from purchased chocolate | 31133 | Secondary Ag |
| 52 | Nonchocolate confectionery manuf | 31134 | Secondary Ag |
| 53 | Frozen food manuf | 31141 | Secondary Ag |
| 54 | Fruit & vegetable canning, pickling, & drying | 31142 | Secondary Ag |
| 55 | Fluid milk & butter manuf | 311511-2 | Secondary Ag |
| 56 | Cheese manuf | 311513 | Secondary Ag |
| 57 | Dry, condensed, & evaporated dairy product manuf | 311514 | Secondary Ag |
| 58 | Ice cream & frozen dessert manuf | 311520 | Secondary Ag |
| 59 | Animal (except poultry) slaughtering, rendering, & processing | 311611-3 | Secondary Ag |
| 60 | Poultry processing | 311615 | Secondary Ag |
| 61 | Seafood product preparation & packaging | 3117 | Secondary Ag |
| 62 | Bread & bakery product manuf | 31181 | Secondary Ag |
| 63 | Cookie, cracker, & pasta manuf | 31182 | Secondary Ag |
| 64 | Tortilla manuf | 31183 | Secondary Ag |
| 65 | Snack food manuf | 31191 | Secondary Ag |
| 66 | Coffee & tea manuf | 31192 | Secondary Ag |
| 67 | Flavoring syrup & concentrate manuf | 31193 | Secondary Ag |
| 68 | Seasoning & dressing manuf | 31194 | Secondary Ag |
| 69 | All other food manuf | 31199 | Secondary Ag |
| 70 | Soft drink & ice manuf | 31211 | Secondary Ag |
| 71 | Breweries | 31212 | Secondary Ag |
| 72 | Wineries | 31213 | Secondary Ag |
| 73 | Distilleries | 31214 | Secondary Ag |
| 74 | Tobacco product manuf | 3122 | Secondary Ag |
| 75 | Fiber, yarn, & thread mills | 3131 | Secondary Ag |
| 76 | Broadwoven fabric mills | 31321 | Secondary Ag |
| 77 | Narrow fabric mills & schiffli machine embroidery | 31322 | Secondary Ag |
| 78 | Nonwoven fabric mills | 31323 | Secondary Ag |
| 79 | Knit fabric mills | 31324 | Secondary Ag |
| 80 | Textile & fabric finishing mills | 31331 | Secondary Ag |
| 81 | Fabric coating mills | 31332 | Secondary Ag |
| 82 | Carpet & rug mills | 31411 | Secondary Ag |

Table B.1. IMPLAN 440 Industry Sector Descriptions and NAICS (Cont.)

| Sector | Description | 2007 NAICS | Agro-Forestry |
|---------------|---|-------------------|----------------------|
| 83 | Curtain & linen mills | 31412 | Secondary Ag |
| 84 | Textile bag & canvas mills | 31491 | Secondary Ag |
| 85 | All other textile product mills | 31499 | Secondary Ag |
| 86 | Apparel knitting mills | 31511, 31519 | Secondary Ag |
| 87 | Cut & sew apparel contractors | 31521 | Secondary Ag |
| 88 | Men's & boys' cut & sew apparel manuf | 31522 | Secondary Ag |
| 89 | Women's & girls' cut & sew apparel manuf | 31523 | Secondary Ag |
| 90 | Other cut & sew apparel manuf | 31529 | Secondary Ag |
| 91 | Apparel accessories & other apparel manuf | 3159 | Secondary Ag |
| 92 | Leather & hide tanning & finishing | 3161 | Secondary Ag |
| 93 | Footwear manuf | 3162 | Secondary Ag |
| 94 | Other leather & allied product manuf | 3169 | Secondary Ag |
| 95 | Sawmills & wood preservation | 3211 | Primary For |
| 96 | Veneer & plywood manuf | 321211-2 | Secondary For |
| 97 | Engineered wood member & truss manuf | 321213-4 | Secondary For |
| 98 | Reconstituted wood product manuf | 321219 | Secondary For |
| 99 | Wood windows & doors & millwork | 32191 | Secondary For |
| 100 | Wood container & pallet manuf | 32192 | Secondary For |
| 101 | Manufactured home (mobile home) manuf | 321991 | Secondary For |
| 102 | Prefabricated wood building manuf | 321992 | Secondary For |
| 103 | All other miscellaneous wood product manuf | 321999 | Secondary For |
| 104 | Pulp mills | 32211 | Primary For |
| 105 | Paper mills | 32212 | Primary For |
| 106 | Paperboard Mills | 32213 | Primary For |
| 107 | Paperboard container manuf | 32221 | Secondary For |
| 108 | Coated & laminated paper, packaging paper & plastics film manuf | 322221-2 | Secondary For |
| 109 | All other paper bag & coated & treated paper manuf | 322223-6 | Secondary For |
| 110 | Stationery product manuf | 32223 | Secondary For |
| 111 | Sanitary paper product manuf | 322291 | Secondary For |
| 112 | All other converted paper product manuf | 322299 | Secondary For |
| 113 | Printing | 32311 | |
| 114 | Support activities for printing | 32312 | |
| 115 | Petroleum refineries | 32411 | |
| 116 | Asphalt paving mixture & block manuf | 324121 | |
| 117 | Asphalt shingle & coating materials manuf | 324122 | |
| 118 | Petroleum lubricating oil & grease manuf | 324191 | |
| 119 | All other petroleum & coal products manuf | 324199 | |
| 120 | Petrochemical manuf | 32511 | |
| 121 | Industrial gas manuf | 32512 | |
| 122 | Synthetic dye & pigment manuf | 32513 | |
| 123 | Alkalies & chlorine manuf | 325181 | |
| 124 | Carbon black manuf | 325182 | |
| 125 | All other basic inorganic chemical manuf | 325188 | |
| 126 | Other basic organic chemical manuf | 32519 | |
| 127 | Plastics material & resin manuf | 325211 | |

Table B.1. IMPLAN 440 Industry Sector Descriptions and NAICS (Cont.)

| Sector | Description | 2007 NAICS | Agro-Forestry |
|---------------|---|-------------------|----------------------|
| 128 | Synthetic rubber manuf | 325212 | |
| 129 | Artificial & synthetic fibers & filaments manuf | 32522 | |
| 130 | Fertilizer manuf | 325311-4 | Ag Inputs |
| 131 | Pesticide & other agricultural chemical manuf | 325320 | Ag Inputs |
| 132 | Medicinal & botanical manuf | 325411 | |
| 133 | Pharmaceutical preparation manuf | 325412 | |
| 134 | In-vitro diagnostic substance manuf | 325413 | |
| 135 | Biological product (except diagnostic) manuf | 325414 | |
| 136 | Paint & coating manuf | 32551 | |
| 137 | Adhesive manuf | 32552 | |
| 138 | Soap & cleaning compound manuf | 32561 | |
| 139 | Toilet preparation manuf | 32562 | |
| 140 | Printing ink manuf | 32591 | |
| 141 | All other chemical product & preparation manuf | 32592, 32599 | |
| 142 | Plastics packaging materials & unlaminated film & sheet manuf | 32611 | |
| 143 | Unlaminated plastics profile shape manuf | 326121 | |
| 144 | Plastics pipe & pipe fitting manuf | 326122 | |
| 145 | Laminated plastics plate, sheet (except packaging), & shape manuf | 32613 | |
| 146 | Polystyrene foam product manuf | 32614 | |
| 147 | Urethane & other foam product (except polystyrene) manuf | 32615 | |
| 148 | Plastics bottle manuf | 32616 | |
| 149 | Other plastics product manuf | 32619 | |
| 150 | Tire manuf | 32621 | |
| 151 | Rubber & plastics hoses & belting manuf | 32622 | |
| 152 | Other rubber product manuf | 32629 | |
| 153 | Pottery, ceramics, & plumbing fixture manuf | 32711 | |
| 154 | Brick, tile, & other structural clay product manuf | 327121-3 | |
| 155 | Clay & nonclay refractory manuf | 327124-5 | |
| 156 | Flat glass manuf | 327211 | |
| 157 | Other pressed & blown glass & glassware manuf | 327212 | |
| 158 | Glass container manuf | 327213 | |
| 159 | Glass product manuf made of purchased glass | 327215 | |
| 160 | Cement manuf | 32731 | |
| 161 | Ready-mix concrete manuf | 32732 | |
| 162 | Concrete pipe, brick, & block manuf | 32733 | |
| 163 | Other concrete product manuf | 32739 | |
| 164 | Lime & gypsum product manuf | 3274 | Ag Inputs |
| 165 | Abrasive product manuf | 32791 | |
| 166 | Cut stone & stone product manuf | 327991 | |
| 167 | Ground or treated mineral & earth manuf | 327992 | |
| 168 | Mineral wool manuf | 327993 | |
| 169 | Miscellaneous nonmetallic mineral products | 327999 | |
| 170 | Iron & steel mills & ferroalloy manuf | 3311 | |
| 171 | Steel product manuf from purchased steel | 33121, 33122 | |

Table B.1. IMPLAN 440 Industry Sector Descriptions and NAICS (Cont.)

| Sector | Description | 2007 NAICS | Agro-Forestry |
|---------------|--|-------------------------|----------------------|
| 172 | Alumina refining & primary aluminum production | 331311-2 | |
| 173 | Secondary smelting & alloying of aluminum | 331314 | |
| 174 | Aluminum product manuf from purchased aluminum | 331315, 331316, 331319 | |
| 175 | Primary smelting & refining of copper | 331411 | |
| 176 | Primary smelting & refining of nonferrous metal (except copper & aluminum) | 331419 | |
| 177 | Copper rolling, drawing, extruding & alloying | 33142 | |
| 178 | Nonferrous metal (except copper & aluminum) rolling, drawing, extruding & alloying | 33149 | |
| 179 | Ferrous metal foundries | 33151 | |
| 180 | Nonferrous metal foundries | 33152 | |
| 181 | All other forging, stamping, & sintering | 332111-2, 332117 | |
| 182 | Custom roll forming | 332114 | |
| 183 | Crown & closure manuf & metal stamping | 332115-6 | |
| 184 | Cutlery, utensil, pot, & pan manuf | 332211, 332214 | |
| 185 | Handtool manuf | 332212-3 | |
| 186 | Plate work & fabricated structural product manuf | 33231 | |
| 187 | Ornamental & architectural metal products manuf | 33232 | |
| 188 | Power boiler & heat exchanger manuf | 33241 | |
| 189 | Metal tank (heavy gauge) manuf | 33242 | |
| 190 | Metal can, box, & other metal container (light gauge) manuf | 33243 | |
| 191 | Ammunition manuf | 332992-3 | |
| 192 | Arms, ordnance, & accessories manuf | 332994-5 | |
| 193 | Hardware manuf | 3325 | |
| 194 | Spring & wire product manuf | 3326 | |
| 195 | Machine shops | 33271 | |
| 196 | Turned product & screw, nut, & bolt manuf | 33272 | |
| 197 | Coating, engraving, heat treating & allied activities | 3328 | |
| 198 | Valve & fittings other than plumbing | 332911-2, 332919 | |
| 199 | Plumbing fixture fitting & trim manuf | 332913 | |
| 200 | Ball & roller bearing manuf | 332991 | |
| 201 | Fabricated pipe & pipe fitting manuf | 332996 | |
| 202 | Other fabricated metal manuf | 332997-9 | |
| 203 | Farm machinery & equipment manuf | 333111 | Ag Inputs |
| 204 | Lawn & garden equipment manuf | 333112 | Ag Inputs |
| 205 | Construction machinery manuf | 33312 | |
| 206 | Mining & oil & gas field machinery manuf | 33313 | |
| 207 | Other industrial machinery manuf | 33321, 333291-4, 333298 | |
| 208 | Plastics & rubber industry machinery manuf | 33322 | |
| 209 | Semiconductor machinery manuf | 333295 | |
| 210 | Vending, commercial, industrial, & office machinery manuf | 333311-3 | |
| 211 | Optical instrument & lens manuf | 333314 | |
| 212 | Photographic & photocopying equipment manuf | 333315 | |

Table B.1. IMPLAN 440 Industry Sector Descriptions and NAICS (Cont.)

| Sector | Description | 2007 NAICS | Agro-Forestry |
|---------------|--|-------------------|----------------------|
| 213 | Other commercial & service industry machinery manuf | 333319 | |
| 214 | Air purification & ventilation equipment manuf | 333411-2 | |
| 215 | Heating equipment (except warm air furnaces) manuf | 333414 | |
| 216 | Air conditioning, refrigeration, & warm air heating equipment manuf | 333415 | |
| 217 | Industrial mold manuf | 333511 | |
| 218 | Metal cutting & forming machine tool manuf | 333512-3 | |
| 219 | Special tool, die, jig, & fixture manuf | 333514 | |
| 220 | Cutting tool & machine tool accessory manuf | 333515 | |
| 221 | Rolling mill & other metalworking machinery manuf | 333516, 333518 | |
| 222 | Turbine & turbine generator set units manuf | 333611 | |
| 223 | Speed changer, industrial high-speed drive, & gear manuf | 333612 | |
| 224 | Mechanical power transmission equipment manuf | 333613 | |
| 225 | Other engine equipment manuf | 333618 | |
| 226 | Pump & pumping equipment manuf | 333911, 333913 | |
| 227 | Air & gas compressor manuf | 333912 | |
| 228 | Material handling equipment manuf | 333921-4 | |
| 229 | Power-driven handtool manuf | 333991 | |
| | | 333992, 333997, | |
| 230 | Other general purpose machinery manuf | 333999 | |
| 231 | Packaging machinery manuf | 333993 | |
| 232 | Industrial process furnace & oven manuf | 333994 | |
| 233 | Fluid power process machinery | 333995-6 | |
| 234 | Electronic computer manuf | 334111 | |
| 235 | Computer storage device manuf | 334112 | |
| 236 | Computer terminals & other computer peripheral equipment manuf | 334113, 334119 | |
| 237 | Telephone apparatus manuf | 33421 | |
| 238 | Broadcast & wireless communications equipment | 33422 | |
| 239 | Other communications equipment manuf | 33429 | |
| 240 | Audio & video equipment manuf | 3343 | |
| 241 | Electron tube manuf | 334411 | |
| 242 | Bare printed circuit board manuf | 334412 | |
| 243 | Semiconductor & related device manuf | 334413 | |
| 244 | Electronic capacitor, resistor, coil, transformer, & other inductor manuf | 334414-6 | |
| 245 | Electronic connector manuf | 334417 | |
| 246 | Printed circuit assembly (electronic assembly) manuf | 334418 | |
| 247 | Other electronic component manuf | 334419 | |
| 248 | Electromedical & electrotherapeutic apparatus manuf | 334510 | |
| 249 | Search, detection, & navigation instruments manuf | 334511 | |
| 250 | Automatic environmental control manuf | 334512 | |

Table B.1. IMPLAN 440 Industry Sector Descriptions and NAICS (Cont.)

| Sector | Description | 2007 NAICS | Agro-Forestry |
|---------------|--|-------------------|----------------------|
| 251 | Industrial process variable instruments manuf | 334513 | |
| 252 | Totalizing fluid meters & counting devices manuf | 334514 | |
| 253 | Electricity & signal testing instruments manuf | 334515 | |
| 254 | Analytical laboratory instrument manuf | 334516 | |
| 255 | Irradiation apparatus manuf | 334517 | |
| 256 | Watch, clock, & other measuring & controlling device manuf | 334518-9 | |
| 257 | Software, audio, & video media reproducing | 334611-2 | |
| 258 | Magnetic & optical recording media manuf | 334613 | |
| 259 | Electric lamp bulb & part manuf | 33511 | |
| 260 | Lighting fixture manuf | 33512 | |
| 261 | Small electrical appliance manuf | 33521 | |
| 262 | Household cooking appliance manuf | 335221 | |
| 263 | Household refrigerator & home freezer manuf | 335222 | |
| 264 | Household laundry equipment manuf | 335224 | |
| 265 | Other major household appliance manuf | 335228 | |
| 266 | Power, distribution, & specialty transformer manuf | 335311 | |
| 267 | Motor & generator manuf | 335312 | |
| 268 | Switchgear & switchboard apparatus manuf | 335313 | |
| 269 | Relay & industrial control manuf | 335314 | |
| 270 | Storage battery manuf | 335911 | |
| 271 | Primary battery manuf | 335912 | |
| 272 | Communication & energy wire & cable manuf | 33592 | |
| 273 | Wiring device manuf | 33593 | |
| 274 | Carbon & graphite product manuf | 335991 | |
| 275 | All other miscellaneous electrical equipment & component manuf | 335999 | |
| 276 | Automobile manuf | 336111 | |
| 277 | Light truck & utility vehicle manuf | 336112 | |
| 278 | Heavy duty truck manuf | 336120 | |
| 279 | Motor vehicle body manuf | 336211 | |
| 280 | Truck trailer manuf | 336212 | |
| 281 | Motor home manuf | 336213 | |
| 282 | Travel trailer & camper manuf | 336214 | |
| 283 | Motor vehicle parts manuf | 3363 | |
| 284 | Aircraft manuf | 336411 | |
| 285 | Aircraft engine & engine parts manuf | 336412 | |
| 286 | Other aircraft parts & auxiliary equipment manuf | 336413 | |
| 287 | Guided missile & space vehicle manuf | 336414 | |
| 288 | Propulsion units & parts for space vehicles & guided missiles | 336415, 336419 | |
| 289 | Railroad rolling stock manuf | 3365 | |
| 290 | Ship building & repairing | 336611 | |
| 291 | Boat building | 336612 | |
| 292 | Motorcycle, bicycle, & parts manuf | 336991 | |
| 293 | Military armored vehicle, tank, & tank component manuf | 336992 | |

Table B.1. IMPLAN 440 Industry Sector Descriptions and NAICS (Cont.)

| Sector | Description | 2007 NAICS | Agro-Forestry |
|---------------|---|------------------------|----------------------|
| 294 | All other transportation equipment manuf | 336999 | |
| 295 | Wood kitchen cabinet & countertop manuf | 33711 | Secondary For |
| 296 | Upholstered household furniture manuf | 337121 | Secondary For |
| 297 | Nonupholstered wood household furniture manuf | 337122 | Secondary For |
| 298 | Metal & other household furniture (except wood) manuf | 337124-5 | |
| 299 | Institutional furniture manuf | 337127 | Secondary For |
| 300 | Wood television, radio, & sewing machine cabinet manuf | 337129 | Secondary For |
| 301 | Office furniture & custom architectural woodwork & millwork manuf | 337211, 337212, 337214 | Secondary For |
| 302 | Showcase, partition, shelving, & locker manuf | 337215 | Secondary For |
| 303 | Mattress manuf | 33791 | Secondary For |
| 304 | Blind & shade manuf | 33792 | Secondary For |
| 305 | Surgical & medical instrument manuf | 339112 | |
| 306 | Surgical appliance & supplies manuf | 339113 | |
| 307 | Dental equipment & supplies manuf | 339114 | |
| 308 | Ophthalmic goods manuf | 339115 | |
| 309 | Dental laboratories | 339116 | |
| 310 | Jewelry & silverware manuf | 33991 | |
| 311 | Sporting & athletic goods manuf | 33992 | |
| 312 | Doll, toy, & game manuf | 33993 | |
| 313 | Office supplies (except paper) manuf | 33994 | |
| 314 | Sign manuf | 33995 | |
| 315 | Gasket, packing, & sealing device manuf | 339991 | |
| 316 | Musical instrument manuf | 339992 | |
| 317 | All other miscellaneous manuf | 339993, 339995, 339999 | |
| 318 | Broom, brush, & mop manuf | 339994 | |
| 319 | Wholesale trade | 42 | |
| 320 | Retail - Motor vehicle & parts | 441 | |
| 321 | Retail - Furniture & home furnishings | 442 | |
| 322 | Retail - Electronics & appliances | 443 | |
| 323 | Retail - Building material & garden supply | 444 | |
| 324 | Retail - Food & beverage | 445 | |
| 325 | Retail - Health & personal care | 446 | |
| 326 | Retail - Gasoline stations | 447 | |
| 327 | Retail - Clothing & clothing accessories | 448 | |
| 328 | Retail - Sporting goods, hobby, book & music | 451 | |
| 329 | Retail - General merchandise | 452 | |
| 330 | Retail - Miscellaneous | 453 | |
| 331 | Retail - Nonstore | 454 | |
| 332 | Air transportation | 481 | |
| 333 | Rail transportation | 482 | |
| 334 | Water transportation | 483 | |
| 324 | Retail - Food & beverage | 445 | |
| 325 | Retail - Health & personal care | 446 | |

Table B.1. IMPLAN 440 Industry Sector Descriptions and NAICS (Cont.)

| Sector | Description | 2007 NAICS | Agro-Forestry |
|---------------|--|----------------------|----------------------|
| 326 | Retail - Gasoline stations | 447 | |
| 327 | Retail - Clothing & clothing accessories | 448 | |
| 328 | Retail - Sporting goods, hobby, book & music | 451 | |
| 329 | Retail - General merchandise | 452 | |
| 330 | Retail - Miscellaneous | 453 | |
| 331 | Retail - Nonstore | 454 | |
| 332 | Air transportation | 481 | |
| 333 | Rail transportation | 482 | |
| 334 | Water transportation | 483 | |
| 335 | Truck transportation | 484 | |
| 336 | Transit & ground passenger transportation | 485 | |
| 337 | Pipeline transportation | 486 | |
| | Scenic & sightseeing transportation & support | | |
| 338 | activities for transportation | 487, 488 | |
| 339 | Couriers & messengers | 492 | |
| 340 | Warehousing & storage | 493 | |
| 341 | Newspaper publishers | 51111 | |
| 342 | Periodical publishers | 51112 | |
| 343 | Book publishers | 51113 | |
| 344 | Directory, mailing list, & other publishers | 51114, 51119 | |
| 345 | Software publishers | 51121 | |
| 346 | Motion picture & video industries | 5121 | |
| 347 | Sound recording industries | 5122 | |
| 348 | Radio & television broadcasting | 5151 | |
| 349 | Cable & other subscription programming | 5152 | |
| 350 | Internet publishing & broadcasting | 51913 | |
| 351 | Telecommunications | 517 | |
| 352 | Data processing, hosting, & related services | 518 | |
| 353 | Other information services | 51911-2 | |
| | Monetary authorities & depository credit | | |
| 354 | intermediation | 521, 5221 | |
| | Nondepository credit intermediation & related | | |
| 355 | activities | 5222-3 | |
| | Securities, commodity contracts, investments, & | | |
| 356 | related activities | 523 | |
| 357 | Insurance carriers | 5241 | |
| 358 | Insurance agencies, brokerages, & related activities | 5242 | |
| 359 | Funds, trusts, & other financial vehicles | 525 | |
| 360 | Real estate | 531 | |
| 361 | Imputed rental value for owner-occupied dwellings | n.a. | |
| 362 | Automotive equipment rental & leasing | 5321 | |
| | General & consumer goods rental except video | | |
| 363 | tapes & discs | 53221-2, 53229, 5323 | |
| 364 | Video tape & disc rental | 53223 | |
| | Commercial & industrial machinery & equipment | | |
| 365 | rental & leasing | 5324 | |
| 366 | Lessors of nonfinancial intangible assets | 533 | |

Table B.1. IMPLAN 440 Industry Sector Descriptions and NAICS (Cont.)

| Sector | Description | 2007 NAICS | Agro-Forestry |
|---------------|---|---------------------|----------------------|
| 367 | Legal services | 5411 | |
| 368 | Accounting, tax preparation, bookkeeping, & payroll services | 5412 | |
| 369 | Architectural, engineering, & related services | 5413 | |
| 370 | Specialized design services | 5414 | |
| 371 | Custom computer programming services | 541511 | |
| 372 | Computer systems design services | 541512 | |
| 373 | Other computer related services, including facilities management | 541513, 541519 | |
| 374 | Management, scientific, & technical consulting services | 54161, 5613 | |
| 375 | Environmental & other technical consulting services | 54162, 54169 | |
| 376 | Scientific research & development services | 5417 | |
| 377 | Advertising & related services | 5418 | |
| 378 | Photographic services | 54192 | |
| 379 | Veterinary services | 54194 | |
| 380 | All other miscellaneous professional, scientific, & technical services | 54191, 54193, 54199 | |
| 381 | Management of companies & enterprises | 55 | |
| 382 | Employment services | 5613 | |
| 383 | Travel arrangement & reservation services | 5615 | |
| 384 | Office administrative services | 5611 | |
| 385 | Facilities support services | 5612 | |
| 386 | Business support services | 5614 | |
| 387 | Investigation & security services | 5616 | |
| 388 | Services to buildings & dwellings | 5617 | |
| 389 | Other support services | 5619 | |
| 390 | Waste management & remediation services | 562 | |
| 391 | Elementary & secondary schools | 6111 | |
| 392 | Junior colleges, colleges, universities, & professional schools | 6112-3 | |
| 393 | Other educational services | 6114-7 | |
| 394 | Offices of physicians, dentists, & other health practitioners | 6211-3 | |
| 395 | Home health care services | 6216 | |
| 396 | Medical & diagnostic labs & outpatient & other ambulatory care services | 6214-5, 6219 | |
| 397 | Hospitals | 622 | |
| 398 | Nursing & residential care facilities | 623 | |
| 399 | Child day care services | 6244 | |
| 400 | Individual & family services | 6241 | |
| 401 | Community food, housing, & other relief services, including rehabilitation services | 6242-3 | |
| 402 | Performing arts companies | 7111 | |
| 403 | Spectator sports | 7112 | |
| 404 | Promoters of performing arts & sports & agents for public figures | 7113-4 | |

Table B.1. IMPLAN 440 Industry Sector Descriptions and NAICS (Cont.)

| Sector | Description | 2007 NAICS | Agro-Forestry |
|---------------|--|-------------------------|----------------------|
| 405 | Independent artists, writers, & performers | 7115 | |
| 406 | Museums, historical sites, zoos, & parks | 712 | |
| 407 | Fitness & recreational sports centers | 71394 | |
| 408 | Bowling centers | 71395 | |
| 409 | Amusement parks, arcades, & gambling industries | 7131-2 | |
| 410 | Other amusement & recreation industries | 71391-3, 71399 | |
| 411 | Hotels & motels, including casino hotels | 72111-2 | |
| 412 | Other accommodations | 72119, 7212-3 | |
| 413 | Food services & drinking places | 722 | |
| 414 | Automotive repair & maintenance, except car washes | 81111-2, 811191, 811198 | |
| 415 | Car washes | 811192 | |
| 416 | Electronic & precision equipment repair & maintenance | 8112 | |
| 417 | Commercial & industrial machinery & equipment repair & maintenance | 8113 | |
| 418 | Personal & household goods repair & maintenance | 8114 | |
| 419 | Personal care services | 8121 | |
| 420 | Death care services | 8122 | |
| 421 | Dry-cleaning & laundry services | 8123 | |
| 422 | Other personal services | 8129 | |
| 423 | Religious organizations | 8131 | |
| 424 | Grantmaking, giving, & social advocacy organizations | 8132, 8133 | |
| 425 | Civic, social, professional, & similar organizations | 8134, 8139 | |
| 426 | Private households | 814 | |
| 427 | Postal service | 491 | |
| 428 | Federal electric utilities | n.a. | |
| 429 | Other Federal Government enterprises | n.a. | |
| 430 | State & local government passenger transit | n.a. | |
| 431 | State & local government electric utilities | n.a. | |
| 432 | Other state & local government enterprises | n.a. | |
| 433 | Not an industry (Used & secondhand goods) | n.a. | |
| 434 | Not an industry (Scrap) | n.a. | |
| 435 | Not an industry (Rest of the world adjustment) | n.a. | |
| 436 | Not an industry (Noncomparable imports) | n.a. | |
| 437 | Employment & payroll for SL Government Non-Education | n.a. | |
| 438 | Employment & payroll for SL Government Education | n.a. | |
| 439 | Employment & payroll for Federal Non-Military | n.a. | |
| 440 | Employment & payroll for Federal Military | n.a. | |

Appendix C: County Region Identification Table

Table C.1. County Assignment to TNAIM's Modeling Regions

| Memphis | Nashville | | Chattanooga | Knoxville | Tri-Cities |
|----------------|------------------|------------|--------------------|------------------|-------------------|
| Benton | Bedford | Macon | Bledsoe | Anderson | Carter |
| Carroll | Cannon | Marshall | Bradley | Blount | Greene |
| Chester | Cheatham | Mauzy | Hamilton | Campbell | Hawkins |
| Crockett | Clay | Montgomery | McMinn | Claiborne | Johnson |
| Decatur | Coffee | Moore | Marion | Cocke | Sullivan |
| Dyer | Cumberland | Overton | Meigs | Grainger | Unicoi |
| Fayette | Davidson | Perry | Monroe | Hamblen | Washington |
| Gibson | DeKalb | Pickett | Polk | Hancock | |
| Hardeman | Dickson | Putnam | Rhea | Jefferson | |
| Hardin | Fentress | Robertson | Sequatchie | Knox | |
| Haywood | Franklin | Rutherford | | Loudon | |
| Henderson | Giles | Smith | | Morgan | |
| Henry | Grundy | Stewart | | Roane | |
| Lake | Hickman | Sumner | | Scott | |
| Lauderdale | Houston | Trousdale | | Sevier | |
| McNairy | Humphreys | Van Buren | | Union | |
| Madison | Jackson | Warren | | | |
| Obion | Lawrence | Wayne | | | |
| Shelby | Lewis | White | | | |
| Tipton | Lincoln | Williamson | | | |
| Weakley | | Wilson | | | |

Appendix D: Total Industry Output, Employment, Labor Income, and Total Value-Added by Agriculture and Forestry Sectors for Tennessee, 2011

Table D.1. Direct Impacts from Agriculture and Forestry^a, Tennessee, 2011

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <i>Agricultural Inputs</i> | | | | |
| <u>Agricultural Chemicals</u> | | | | |
| Fertilizer | 102 | 84 | 4 | 7 |
| Pesticide & other agricultural chemical | 580 | 329 | 56 | 206 |
| Lime & gypsum product | 128 | 276 | 22 | 40 |
| Total -- | 809 | 689 | 82 | 253 |
| <u>Agricultural Machinery</u> | | | | |
| Farm machinery & equipment | 165 | 302 | 18 | 39 |
| Lawn & garden equipment | 591 | 1,449 | 79 | 140 |
| Total -- | 757 | 1,751 | 97 | 179 |
| <i>Agricultural Inputs Total --</i> | 1,566 | 2,440 | 179 | 432 |
| <i>Primary Agriculture</i> | | | | |
| Oilseed farming | 461 | 13,182 | 2 | 205 |
| Grain farming | 537 | 23,391 | 12 | 168 |
| Vegetable & melon farming | 89 | 1,010 | 6 | 47 |
| Fruit farming | 10 | 126 | 0 ^b | 5 |
| Tree nut farming | 1 | 20 | 0 ^b | 0 ^b |
| Greenhouse, nursery, & floriculture production | 317 | 5,270 | 49 | 208 |
| Tobacco farming | 97 | 3,150 | 3 | 19 |
| Cotton farming | 401 | 4,446 | 38 | 131 |
| Sugarcane & sugar beet farming | 0 | 0 | 0 | 0 |
| All other crop farming | 337 | 3,726 | 15 | 89 |
| Cattle ranching & farming | 586 | 10,035 | 26 | 98 |
| Dairy cattle & milk production | 179 | 2,854 | 5 | 65 |
| Poultry & egg production | 524 | 2,196 | 30 | 105 |
| Animal production, except cattle & poultry & eggs | 120 | 6,823 | 12 | 60 |
| Commercial fishing | 0 | 0 | 0 | 0 |
| Commercial hunting & trapping | 53 | 671 | 1 | 6 |
| Support activities for agriculture & forestry | 157 | 7,009 | 135 | 109 |
| <i>Primary Agriculture Total --</i> | 3,870 | 83,909 | 333 | 1,318 |
| <i>Secondary Agriculture</i> | | | | |
| <u>Foods</u> | | | | |
| Dog & cat food | 1,337 | 922 | 124 | 440 |
| Other animal food | 173 | 152 | 13 | 27 |
| Total -- | 1,510 | 1,074 | 137 | 467 |
| <u>Grain & Oilseed Milling</u> | | | | |
| Flour milling & malt | 524 | 458 | 34 | 64 |
| Wet corn milling | 1,382 | 573 | 66 | 152 |
| Soybean & other oilseed processing | 760 | 442 | 37 | 45 |
| Fats & oils refining & blending | 870 | 213 | 16 | 86 |
| Breakfast cereal | 370 | 421 | 38 | 139 |
| Total -- | 3,906 | 2,107 | 192 | 485 |

Table D.1. Direct Impacts from Agriculture and Forestry^a, Tennessee, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <u>Sugar & Confectionary Products</u> | | | | |
| Sugar cane mills & refining | 59 | 69 | 5 | 7 |
| Beet sugar | 0 | 0 | 0 | 0 |
| Chocolate & confectionery from cacao beans | 42 | 58 | 2 | 3 |
| Confectionery from purchased chocolate | 489 | 1,316 | 69 | 140 |
| Nonchocolate confectionery | 496 | 1,281 | 70 | 117 |
| Total -- | 1,086 | 2,724 | 145 | 266 |
| <u>Fruit & Vegetable Preserving & Specialty Foods</u> | | | | |
| Frozen food | 849 | 2,477 | 155 | 212 |
| Fruit & vegetable canning, pickling, & drying | 1,011 | 1,864 | 144 | 260 |
| Total -- | 1,860 | 4,340 | 299 | 472 |
| <u>Dairy Products</u> | | | | |
| Fluid milk & butter | 1,025 | 989 | 61 | 138 |
| Cheese | 164 | 200 | 9 | 12 |
| Dry, condensed, & evaporated dairy product | 447 | 559 | 41 | 62 |
| Ice cream & frozen dessert | 101 | 264 | 14 | 21 |
| Total -- | 1,737 | 2,011 | 125 | 233 |
| <u>Animal Slaughtering & Processing</u> | | | | |
| Animal (except poultry) slaughtering, rendering, & processing | 1,323 | 4,408 | 178 | 129 |
| Poultry processing | 2,588 | 7,031 | 232 | 371 |
| Total -- | 3,911 | 11,440 | 409 | 500 |
| <u>Seafood product Preparation & Packaging</u> | | | | |
| | 0 | 0 | 0 | 0 |
| <u>Bakeries & Tortillas</u> | | | | |
| Bread & bakery product | 670 | 3,866 | 178 | 224 |
| Cookie, cracker, & pasta | 1,196 | 2,686 | 156 | 296 |
| Tortilla | 35 | 167 | 7 | 10 |
| Total -- | 1,900 | 6,719 | 341 | 530 |
| <u>Other Foods</u> | | | | |
| Snack food | 1,299 | 1,765 | 110 | 329 |
| Coffee & tea | 148 | 191 | 12 | 24 |
| Flavoring syrup & concentrate | 28 | 9 | 2 | 15 |
| Seasoning & dressing | 240 | 456 | 20 | 27 |
| All other food | 104 | 309 | 19 | 28 |
| Total -- | 1,819 | 2,729 | 163 | 423 |
| <u>Beverages</u> | | | | |
| Soft drink & ice | 2,467 | 3,477 | 231 | 295 |
| Breweries | 25 | 28 | 1 | 5 |
| Wineries | 54 | 170 | 4 | 7 |
| Distilleries | 833 | 560 | 47 | 512 |
| Total -- | 3,379 | 4,235 | 283 | 819 |
| <u>Tobacco Products</u> | | | | |
| | 2,100 | 877 | 89 | 1,389 |

Table D.1. Direct Impacts from Agriculture and Forestry^a, Tennessee, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) | |
|--|---------------------------------------|------------------------|------------------------------|---------------------|--------------|
| <u>Textile Mills</u> | | | | | |
| Fiber, yarn, & thread mills | 461 | 1,514 | 70 | 92 | |
| Broadwoven fabric mills | 1 | 6 | 0 ^b | 0 ^b | |
| Narrow fabric mills & schiffli machine embroidery | 20 | 133 | 8 | 9 | |
| Nonwoven fabric mills | 409 | 809 | 65 | 110 | |
| Knit fabric mills | 34 | 168 | 9 | 9 | |
| Textile & fabric finishing mills | 138 | 665 | 27 | 33 | |
| Fabric coating mills | 123 | 352 | 19 | 24 | |
| Total -- | 1,187 | 3,647 | 199 | 278 | |
| <u>Textile Products Mills</u> | | | | | |
| Carpet & rug mills | 74 | 244 | 10 | 15 | |
| Curtain & linen mills | 21 | 143 | 4 | 5 | |
| Textile bag & canvas mills | 100 | 786 | 26 | 32 | |
| All other textile product mills | 264 | 1,542 | 62 | 80 | |
| Total -- | 460 | 2,714 | 103 | 133 | |
| <u>Apparel</u> | | | | | |
| Apparel knitting mills | 125 | 865 | 28 | 36 | |
| Cut & sew apparel contractors | 72 | 1,129 | 30 | 35 | |
| Men's & boys' cut & sew apparel | 377 | 2,533 | 117 | 155 | |
| Women's & girls' cut & sew apparel | 41 | 202 | 4 | 6 | |
| Other cut & sew apparel | 24 | 237 | 7 | 7 | |
| Apparel accessories & other apparel | 12 | 113 | 3 | 3 | |
| Total -- | 651 | 5,080 | 189 | 242 | |
| <u>Leather & Allied Products</u> | | | | | |
| Leather & hide tanning & finishing | 28 | 68 | 2 | 3 | |
| Footwear | 74 | 569 | 18 | 22 | |
| Other leather & allied product | 15 | 130 | 4 | 5 | |
| Total -- | 118 | 767 | 24 | 30 | |
| | Secondary Agriculture Total -- | 25,625 | 50,466 | 2,697 | 6,267 |
| | Agriculture Total -- | 31,061 | 136,815 | 3,210 | 8,017 |
| Forestry Inputs | | | | | |
| Forestry, forest products, & timber tract production | 13 | 57 | 1 | 3 | |
| Commercial logging | 162 | 2,745 | 60 | 50 | |
| | Forestry Inputs Total -- | 175 | 2,801 | 61 | 53 |
| Primary Forestry | | | | | |
| Sawmills & wood preservation | 741 | 3,148 | 102 | 117 | |
| Pulp mills | 229 | 310 | 34 | 54 | |
| Paper mills | 3,876 | 4,487 | 671 | 1,388 | |
| Paperboard Mills | 788 | 968 | 101 | 196 | |
| | Primary Forestry Total -- | 5,634 | 8,914 | 908 | 1,755 |

Table D.1. Direct Impacts from Agriculture and Forestry^a, Tennessee, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <i>Secondary Forestry</i> | | | | |
| <u>Veneer, Plywood, & Engineered Wood Products</u> | | | | |
| Veneer & plywood | 8 | 35 | 1 | 2 |
| Engineered wood member & truss | 102 | 537 | 20 | 31 |
| Reconstituted wood product | 62 | 331 | 16 | 17 |
| Total -- | 172 | 903 | 37 | 50 |
| <u>Wood Windows & Doors & Millwork</u> | | | | |
| | 461 | 2,950 | 113 | 122 |
| <u>Wood Container & Pallets</u> | | | | |
| | 254 | 2,181 | 72 | 82 |
| <u>Manufactured Homes (Mobile Homes)</u> | | | | |
| Manufactured home (mobile home) | 303 | 1,963 | 110 | 101 |
| Prefabricated wood building | 47 | 348 | 15 | 15 |
| Total -- | 350 | 2,310 | 125 | 116 |
| <u>All Other Miscellaneous Wood Products</u> | | | | |
| | 94 | 595 | 20 | 27 |
| <u>Paperboard Containers</u> | | | | |
| | 1,931 | 5,054 | 330 | 403 |
| <u>Paper Bags & Coated & Treated Paper</u> | | | | |
| Coated & laminated paper, packaging paper & plastics film | 599 | 1,586 | 119 | 168 |
| All other paper bag & coated & treated paper | 135 | 446 | 27 | 31 |
| Total -- | 734 | 2,031 | 147 | 199 |
| <u>Stationery Products</u> | | | | |
| | 395 | 1,320 | 74 | 93 |
| <u>Other Converted Paper Products</u> | | | | |
| Sanitary paper product | 400 | 540 | 42 | 119 |
| All other converted paper product | 168 | 582 | 28 | 38 |
| Total -- | 568 | 1,123 | 70 | 157 |
| <u>Wood Kitchen Cabinets & Countertops</u> | | | | |
| | 181 | 1,450 | 70 | 59 |
| <u>Household & Institutional Furniture</u> | | | | |
| Upholstered household furniture | 719 | 3,954 | 220 | 314 |
| Nonupholstered wood household furniture | 70 | 528 | 26 | 36 |
| Institutional furniture | 153 | 494 | 27 | 62 |
| Total -- | 942 | 4,977 | 274 | 412 |
| <u>Office Furniture</u> | | | | |
| Wood television, radio, & sewing machine cabinet | 48 | 235 | 15 | 25 |
| Office furniture & custom architectural woodwork & millwork | 43 | 314 | 21 | 21 |

Table D.1. Direct Impacts from Agriculture and Forestry^a, Tennessee, 2011 (Cont.)

| Sector | TIO | Employment | Labor Income | TVA |
|--|----------------|------------------|----------------|----------------|
| | (million \$) | (number) | (million \$) | (million \$) |
| Showcase, partition, shelving, & locker | 296 | 1,329 | 93 | 129 |
| Total -- | 387 | 1,878 | 130 | 176 |
| <u>Other Furniture Related Products</u> | | | | |
| Mattress | 248 | 814 | 45 | 90 |
| Blind & shade | 23 | 165 | 8 | 7 |
| Total -- | 271 | 980 | 52 | 97 |
| Secondary Forestry Total -- | 6,740 | 27,752 | 1,514 | 1,992 |
| Forestry Total -- | 12,548 | 39,467 | 2,483 | 3,800 |
| Agriculture & Forestry Total -- | 43,609 | 176,282 | 5,693 | 11,817 |
| Construction -- | 18,481 | 175,008 | 8,442 | 9,597 |
| Finance, Insurance, & Real Estate -- | 73,372 | 279,619 | 11,163 | 46,139 |
| Government -- | 39,552 | 511,329 | 28,989 | 29,979 |
| Manufacturing -- | 106,651 | 226,556 | 14,778 | 24,052 |
| Mining -- | 2,306 | 7,712 | 281 | 865 |
| Miscellaneous -- | 4,708 | 76,183 | 2,546 | 2,573 |
| Retail Trade -- | 26,842 | 387,720 | 12,459 | 19,161 |
| Services -- | 144,126 | 1,447,492 | 69,802 | 90,961 |
| Transportation, Information, & Utilities -- | 19,140 | 104,927 | 6,697 | 9,183 |
| Wholesale Trade -- | 21,116 | 125,089 | 8,679 | 15,107 |
| Total Economy -- | 499,904 | 3,517,918 | 169,529 | 259,435 |

^aTotals may not add due to rounding.

^bValues of zero are nonzero values less than 1.

Table D.2. Direct Impacts from Agriculture and Forestry^a, Chattanooga, 2011

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <i>Agricultural Inputs</i> | | | | |
| <u>Agricultural Chemicals</u> | | | | |
| Fertilizer | 0 | 0 | 0 | 0 |
| Pesticide & other agricultural chemical | 12 | 7 | 1 | 4 |
| Lime & gypsum product | 0 | 0 | 0 | 0 |
| Total -- | 12 | 7 | 1 | 4 |
| <u>Agricultural Machinery</u> | | | | |
| Farm machinery & equipment | 102 | 186 | 11 | 24 |
| Lawn & garden equipment | 0 | 0 | 0 | 0 |
| Total -- | 102 | 186 | 11 | 24 |
| <i>Agricultural Inputs Total --</i> | 114 | 193 | 12 | 28 |
| <i>Primary Agriculture</i> | | | | |
| Oilseed farming | 4 | 316 | 0 ^b | 2 |
| Grain farming | 5 | 614 | 0 ^b | 2 |
| Vegetable & melon farming | 18 | 213 | 1 | 10 |
| Fruit farming | 1 | 17 | 0 ^b | 1 |
| Tree nut farming | 0 ^b | 2 | 0 ^b | 0 ^b |
| Greenhouse, nursery, & floriculture production | 6 | 192 | 1 | 4 |
| Tobacco farming | 1 | 63 | 0 ^b | 0 ^b |
| Cotton farming | 0 | 0 | 0 | 0 |
| Sugarcane & sugar beet farming | 0 | 0 | 0 | 0 |
| All other crop farming | 28 | 344 | 2 | 7 |
| Cattle ranching & farming | 56 | 1,028 | 3 | 9 |
| Dairy cattle & milk production | 37 | 605 | 1 | 14 |
| Poultry & egg production | 66 | 300 | 5 | 13 |
| Animal production, except cattle & poultry & eggs | 4 | 380 | 0 ^b | 2 |
| Commercial fishing | 0 | 0 | 0 | 0 |
| Commercial hunting & trapping | 6 | 81 | 0 ^b | 0 ^b |
| Support activities for agriculture & forestry | 6 | 590 | 4 | 2 |
| <i>Primary Agriculture Total --</i> | 240 | 4,745 | 17 | 66 |
| <i>Secondary Agriculture</i> | | | | |
| <u>Foods</u> | | | | |
| Dog & cat food | 0 | 0 | 0 | 0 |
| Other animal food | 0 | 0 | 0 | 0 |
| Total -- | 0 | 0 | 0 | 0 |
| <u>Grain & Oilseed Milling</u> | | | | |
| Flour milling & malt | 137 | 121 | 8 | 16 |
| Wet corn milling | 0 | 0 | 0 | 0 |
| Soybean & other oilseed processing | 0 | 0 | 0 | 0 |
| Fats & oils refining & blending | 216 | 53 | 4 | 21 |
| Breakfast cereal | 19 | 21 | 2 | 7 |
| Total -- | 372 | 196 | 13 | 44 |

Table D.2. Direct Impacts from Agriculture and Forestry^a, Chattanooga, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <u>Sugar & Confectionary Products</u> | | | | |
| Sugar cane mills & refining | 0 | 0 | 0 | 0 |
| Beet sugar | 0 | 0 | 0 | 0 |
| Chocolate/confectionery from cacao beans | 0 | 0 | 0 | 0 |
| Confectionery from purchased chocolate | 180 | 476 | 28 | 54 |
| Nonchocolate confectionery | 141 | 365 | 19 | 33 |
| Total -- | 321 | 840 | 47 | 87 |
| <u>Fruit & Vegetable Preserving & Specialty Foods</u> | | | | |
| Frozen food | 28 | 79 | 6 | 8 |
| Fruit & vegetable canning, pickling, & drying | 0 | 0 | 0 | 0 |
| Total -- | 28 | 79 | 6 | 8 |
| <u>Dairy Products</u> | | | | |
| Fluid milk & butter | 0 | 0 | 0 | 0 |
| Cheese | 39 | 47 | 2 | 3 |
| Dry, condensed, & evaporated dairy product | 0 | 0 | 0 | 0 |
| Ice cream & frozen dessert | 77 | 201 | 12 | 17 |
| Total -- | 116 | 248 | 14 | 20 |
| <u>Animal Slaughtering & Processing</u> | | | | |
| Animal (except poultry) slaughtering, rendering, & processing | 22 | 76 | 2 | 2 |
| Poultry processing | 874 | 2,397 | 71 | 119 |
| Total -- | 897 | 2,474 | 73 | 120 |
| <u>Seafood product Preparation & Packaging</u> | | | | |
| | 0 | 0 | 0 | 0 |
| <u>Bakeries & Tortillas</u> | | | | |
| Bread & bakery product | 315 | 1,763 | 90 | 112 |
| Cookie, cracker, & pasta | 408 | 906 | 57 | 104 |
| Tortilla | 0 | 0 | 0 | 0 |
| Total -- | 723 | 2,669 | 148 | 216 |
| <u>Other Foods</u> | | | | |
| Snack food | 11 | 15 | 1 | 3 |
| Coffee & tea | 0 | 0 | 0 | 0 |
| Flavoring syrup & concentrate | 28 | 9 | 2 | 15 |
| Seasoning & dressing | 0 | 0 | 0 | 0 |
| All other food | 8 | 24 | 1 | 2 |
| Total -- | 47 | 48 | 4 | 20 |
| <u>Beverages</u> | | | | |
| Soft drink & ice | 595 | 827 | 63 | 78 |
| Breweries | 0 | 0 | 0 | 0 |
| Wineries | 4 | 13 | 1 | 1 |
| Distilleries | 0 | 0 | 0 | 0 |
| Total -- | 599 | 840 | 63 | 79 |
| <u>Tobacco Products</u> | | | | |
| | 0 | 0 | 0 | 0 |

Table D.2. Direct Impacts from Agriculture and Forestry^a, Chattanooga, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) | |
|--|---------------------------------------|------------------------|------------------------------|---------------------|------------|
| <u>Textile Mills</u> | | | | | |
| Fiber, yarn, & thread mills | 227 | 761 | 30 | 41 | |
| Broadwoven fabric mills | 0 | 0 | 0 | 0 | |
| Narrow fabric mills & schiffli machine embroidery | 0 | 0 | 0 | 0 | |
| Nonwoven fabric mills | 71 | 138 | 12 | 20 | |
| Knit fabric mills | 24 | 119 | 6 | 7 | |
| Textile & fabric finishing mills | 4 | 20 | 1 | 1 | |
| Fabric coating mills | 0 | 0 | 0 | 0 | |
| Total -- | 326 | 1,037 | 49 | 69 | |
| <u>Textile Products Mills</u> | | | | | |
| Carpet & rug mills | 7 | 21 | 1 | 2 | |
| Curtain & linen mills | 1 | 10 | 0 ^b | 0 ^b | |
| Textile bag & canvas mills | 36 | 296 | 8 | 11 | |
| All other textile product mills | 9 | 54 | 2 | 3 | |
| Total -- | 54 | 381 | 12 | 15 | |
| <u>Apparel</u> | | | | | |
| Apparel knitting mills | 125 | 863 | 28 | 36 | |
| Cut & sew apparel contractors | 13 | 191 | 6 | 7 | |
| Men's & boys' cut & sew apparel | 144 | 946 | 47 | 61 | |
| Women's & girls' cut & sew apparel | 4 | 22 | 0 ^b | 1 | |
| Other cut & sew apparel | 0 ^b | 5 | 0 ^b | 0 ^b | |
| Apparel accessories & other apparel | 0 | 0 | 0 | 0 | |
| Total -- | 287 | 2,027 | 82 | 105 | |
| <u>Leather & Allied Products</u> | | | | | |
| Leather & hide tanning & finishing | 0 | 0 | 0 | 0 | |
| Footwear | 0 | 0 | 0 | 0 | |
| Other leather & allied product | 4 | 43 | 0 ^b | 0 ^b | |
| Total -- | 4 | 43 | 0 ^b | 0 ^b | |
| | Secondary Agriculture Total -- | 3,772 | 10,881 | 513 | 782 |
| | Agriculture Total -- | 4,126 | 15,819 | 542 | 876 |
| <u>Forestry Inputs</u> | | | | | |
| Forestry, forest products, & timber tract production | 1 | 3 | 0 ^b | 0 ^b | |
| Commercial logging | 15 | 269 | 5 | 4 | |
| Forestry Inputs Total -- | 15 | 272 | 5 | 4 | |
| <u>Primary Forestry</u> | | | | | |
| Sawmills & wood preservation | 51 | 222 | 6 | 7 | |
| Pulp mills | 136 | 194 | 14 | 27 | |
| Paper mills | 528 | 648 | 65 | 168 | |
| Paperboard Mills | 143 | 169 | 23 | 39 | |
| Primary Forestry Total -- | 857 | 1,233 | 108 | 242 | |

Table D.2. Direct Impacts from Agriculture and Forestry^a, Chattanooga, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <i>Secondary Forestry</i> | | | | |
| <u>Veneer, Plywood, & Engineered Wood Products</u> | | | | |
| Veneer & plywood | 2 | 10 | 0 ^b | 1 |
| Engineered wood member & truss | 8 | 45 | 1 | 2 |
| Reconstituted wood product | 41 | 194 | 14 | 14 |
| Total -- | 51 | 250 | 15 | 17 |
| <u>Wood Windows & Doors & Millwork</u> | | | | |
| | 15 | 104 | 3 | 3 |
| <u>Wood Container & Pallets</u> | | | | |
| | 49 | 412 | 14 | 16 |
| <u>Manufactured Homes (Mobile Homes)</u> | | | | |
| Manufactured home (mobile home) | 0 | 0 | 0 | 0 |
| Prefabricated wood building | 3 | 18 | 1 | 1 |
| Total -- | 3 | 18 | 1 | 1 |
| <u>All Other Miscellaneous Wood Products</u> | | | | |
| | 24 | 162 | 4 | 6 |
| <u>Paperboard Containers</u> | | | | |
| | 384 | 1,019 | 61 | 76 |
| <u>Paper Bags & Coated & Treated Paper</u> | | | | |
| Coated & laminated paper, packaging paper & plastics film | 7 | 16 | 2 | 3 |
| All other paper bag & coated & treated paper | 32 | 106 | 6 | 7 |
| Total -- | 38 | 121 | 8 | 10 |
| <u>Stationery Products</u> | | | | |
| | 24 | 90 | 2 | 4 |
| <u>Other Converted Paper Products</u> | | | | |
| Sanitary paper product | 0 | 0 | 0 | 0 |
| All other converted paper product | 0 | 0 | 0 | 0 |
| Total -- | 0 | 0 | 0 | 0 |
| <u>Wood Kitchen Cabinets & Countertops</u> | | | | |
| | 27 | 207 | 11 | 10 |
| <u>Household & Institutional Furniture</u> | | | | |
| Upholstered household furniture | 400 | 2,286 | 112 | 166 |
| Nonupholstered wood household furniture | 1 | 5 | 0 ^b | 0 ^b |
| Institutional furniture | 0 | 0 | 0 | 0 |
| Total -- | 401 | 2,291 | 112 | 166 |
| <u>Office Furniture</u> | | | | |
| Wood television, radio, & sewing machine cabinet | 18 | 96 | 5 | 9 |
| Office furniture & custom architectural woodwork & millwork | 1 | 10 | 1 | 1 |

Table D.2. Direct Impacts from Agriculture and Forestry^a, Chattanooga, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|--|---------------------|------------------------|------------------------------|---------------------|
| Showcase, partition, shelving, & locker | 36 | 172 | 10 | 15 |
| Total -- | 55 | 278 | 15 | 24 |
| <u>Other Furniture Related Products</u> | | | | |
| Mattress | 26 | 90 | 4 | 9 |
| Blind & shade | 0 | 0 | 0 | 0 |
| Total -- | 26 | 90 | 4 | 9 |
| Secondary Forestry Total -- | 1,098 | 5,042 | 251 | 341 |
| Forestry Total -- | 1,971 | 6,547 | 364 | 587 |
| Agriculture & Forestry Total -- | 6,097 | 22,366 | 906 | 1,463 |
| Construction -- | 1,852 | 18,079 | 815 | 935 |
| Finance, Insurance, & Real Estate -- | 8,619 | 30,005 | 1,445 | 5,372 |
| Government -- | 5,540 | 51,110 | 3,247 | 1,504 |
| Manufacturing -- | 11,464 | 28,411 | 1,760 | 2,679 |
| Mining -- | 121 | 504 | 12 | 41 |
| Miscellaneous -- | 476 | 8,020 | 247 | 258 |
| Retail Trade -- | 2,962 | 42,863 | 1,366 | 2,139 |
| Services -- | 11,918 | 134,169 | 5,670 | 7,418 |
| Transportation, Information, & Utilities -- | 2,332 | 15,111 | 761 | 1,051 |
| Wholesale Trade -- | 1,795 | 10,752 | 726 | 1,278 |
| Total Economy -- | 53,176 | 361,388 | 16,955 | 24,137 |

^aTotals may not add due to rounding.

^bValues of zero are nonzero values less than 1.

Table D.3. Direct Impacts from Agriculture and Forestry^a, Knoxville, 2011

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <i>Agricultural Inputs</i> | | | | |
| <u>Agricultural Chemicals</u> | | | | |
| Fertilizer | 0 | 0 | 0 | 0 |
| Pesticide & other agricultural chemical | 54 | 32 | 3 | 18 |
| Lime & gypsum product | 50 | 112 | 7 | 15 |
| Total -- | 105 | 145 | 10 | 32 |
| <u>Agricultural Machinery</u> | | | | |
| Farm machinery & equipment | 6 | 12 | 1 | 2 |
| Lawn & garden equipment | 0 | 0 | 0 | 0 |
| Total -- | 6 | 12 | 1 | 2 |
| <i>Agricultural Inputs Total --</i> | 111 | 156 | 11 | 34 |
| <i>Primary Agriculture</i> | | | | |
| Oilseed farming | 4 | 455 | 0 | 2 |
| Grain farming | 6 | 947 | 1 | 2 |
| Vegetable & melon farming | 22 | 320 | 1 | 12 |
| Fruit farming | 2 | 36 | 0 ^b | 1 |
| Tree nut farming | 0 ^b | 4 | 0 ^b | 0 ^b |
| Greenhouse, nursery, & floriculture production | 29 | 1,059 | 16 | 19 |
| Tobacco farming | 6 | 379 | 0 ^b | 1 |
| Cotton farming | 0 | 0 | 0 | 0 |
| Sugarcane & sugar beet farming | 0 | 0 | 0 | 0 |
| All other crop farming | 49 | 741 | 6 | 13 |
| Cattle ranching & farming | 87 | 1,979 | 9 | 15 |
| Dairy cattle & milk production | 28 | 593 | 3 | 10 |
| Poultry & egg production | 66 | 382 | 6 | 13 |
| Animal production, except cattle & poultry & eggs | 9 | 947 | 1 | 4 |
| Commercial fishing | 0 | 0 | 0 | 0 |
| Commercial hunting & trapping | 3 | 10 | 0 ^b | 2 |
| Support activities for agriculture & forestry | 16 | 530 | 15 | 13 |
| <i>Primary Agriculture Total --</i> | 327 | 8,381 | 58 | 107 |
| <i>Secondary Agriculture</i> | | | | |
| <u>Foods</u> | | | | |
| Dog & cat food | 0 | 0 | 0 | 0 |
| Other animal food | 40 | 37 | 2 | 5 |
| Total -- | 40 | 37 | 2 | 5 |
| <u>Grain & Oilseed Milling</u> | | | | |
| Flour milling & malt | 58 | 51 | 4 | 8 |
| Wet corn milling | 1,382 | 573 | 66 | 152 |
| Soybean & other oilseed processing | 0 | 0 | 0 | 0 |
| Fats & oils refining & blending | 0 | 0 | 0 | 0 |
| Breakfast cereal | 0 | 0 | 0 | 0 |
| Total -- | 1,440 | 624 | 70 | 159 |

Table D.3. Direct Impacts from Agriculture and Forestry^a, Knoxville, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <u>Sugar & Confectionary Products</u> | | | | |
| Sugar cane mills & refining | 0 | 0 | 0 | 0 |
| Beet sugar | 0 | 0 | 0 | 0 |
| Chocolate & confectionery from cacao beans | 0 | 0 | 0 | 0 |
| Confectionery from purchased chocolate | 32 | 94 | 3 | 8 |
| Nonchocolate confectionery | 10 | 30 | 1 | 2 |
| Total -- | 43 | 123 | 3 | 9 |
| <u>Fruit & Vegetable Preserving & Specialty Foods</u> | | | | |
| Frozen food | 46 | 131 | 9 | 12 |
| Fruit & vegetable canning, pickling, & drying | 503 | 949 | 62 | 121 |
| Total -- | 549 | 1,080 | 71 | 133 |
| <u>Dairy Products</u> | | | | |
| Fluid milk & butter | 29 | 28 | 2 | 4 |
| Cheese | 9 | 10 | 1 | 1 |
| Dry, condensed, & evaporated dairy product | 0 | 0 | 0 | 0 |
| Ice cream & frozen dessert | 0 | 0 | 0 | 0 |
| Total -- | 38 | 38 | 3 | 5 |
| <u>Animal Slaughtering & Processing</u> | | | | |
| Animal (except poultry) slaughtering, rendering, & processing | 200 | 702 | 17 | 9 |
| Poultry processing | 167 | 455 | 15 | 24 |
| Total -- | 367 | 1,157 | 32 | 33 |
| <u>Seafood product Preparation & Packaging</u> | | | | |
| | 0 | 0 | 0 | 0 |
| <u>Bakeries & Tortillas</u> | | | | |
| Bread & bakery product | 86 | 514 | 21 | 27 |
| Cookie, cracker, & pasta | 62 | 135 | 10 | 17 |
| Tortilla | 0 | 0 | 0 | 0 |
| Total -- | 148 | 649 | 30 | 44 |
| <u>Other Foods</u> | | | | |
| Snack food | 0 | 0 | 0 | 0 |
| Coffee & tea | 128 | 164 | 11 | 21 |
| Flavoring syrup & concentrate | 0 | 0 | 0 | 0 |
| Seasoning & dressing | 0 | 0 | 0 | 0 |
| All other food | 12 | 34 | 2 | 3 |
| Total -- | 139 | 198 | 13 | 24 |
| <u>Beverages</u> | | | | |
| Soft drink & ice | 585 | 832 | 50 | 66 |
| Breweries | 0 | 0 | 0 | 0 |
| Wineries | 3 | 11 | 0 ^b | 0 ^b |
| Distilleries | 98 | 68 | 3 | 59 |
| Total -- | 687 | 911 | 53 | 125 |
| <u>Tobacco Products</u> | | | | |
| | 0 | 0 | 0 | 0 |

Table D.3. Direct Impacts from Agriculture and Forestry^a, Knoxville, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|--|---------------------|------------------------|------------------------------|---------------------|
| <u>Textile Mills</u> | | | | |
| Fiber, yarn, & thread mills | 13 | 44 | 2 | 2 |
| Broadwoven fabric mills | 0 | 0 | 0 | 0 |
| Narrow fabric mills & schiffli machine embroidery | 20 | 133 | 8 | 9 |
| Nonwoven fabric mills | 14 | 28 | 2 | 4 |
| Knit fabric mills | 10 | 49 | 2 | 3 |
| Textile & fabric finishing mills | 29 | 148 | 5 | 6 |
| Fabric coating mills | 0 | 0 | 0 | 0 |
| Total -- | 86 | 402 | 19 | 24 |
| <u>Textile Products Mills</u> | | | | |
| Carpet & rug mills | 0 | 0 | 0 | 0 |
| Curtain & linen mills | 1 | 8 | 0 ^b | 0 ^b |
| Textile bag & canvas mills | 34 | 262 | 9 | 11 |
| All other textile product mills | 106 | 628 | 24 | 31 |
| Total -- | 141 | 898 | 33 | 43 |
| <u>Apparel</u> | | | | |
| Apparel knitting mills | 0 | 0 | 0 | 0 |
| Cut & sew apparel contractors | 10 | 166 | 4 | 4 |
| Men's & boys' cut & sew apparel | 61 | 403 | 20 | 26 |
| Women's & girls' cut & sew apparel | 3 | 13 | 0 ^b | 0 ^b |
| Other cut & sew apparel | 6 | 65 | 2 | 2 |
| Apparel accessories & other apparel | 3 | 28 | 1 | 1 |
| Total -- | 83 | 676 | 26 | 34 |
| <u>Leather & Allied Products</u> | | | | |
| Leather & hide tanning & finishing | 0 | 0 | 0 | 0 |
| Footwear | 0 | 0 | 0 | 0 |
| Other leather & allied product | 3 | 27 | 1 | 1 |
| Total -- | 3 | 27 | 1 | 1 |
| Secondary Agriculture Total -- | 3,765 | 6,820 | 357 | 638 |
| Agriculture Total -- | 4,204 | 15,357 | 426 | 779 |
| Forestry Inputs | | | | |
| Forestry, forest products, & timber tract production | 2 | 5 | 0 ^b | 1 |
| Commercial logging | 9 | 139 | 4 | 3 |
| Forestry Inputs Total -- | 11 | 143 | 4 | 4 |
| Primary Forestry | | | | |
| Sawmills & wood preservation | 67 | 281 | 10 | 12 |
| Pulp mills | 0 | 0 | 0 | 0 |
| Paper mills | 49 | 55 | 9 | 18 |
| Paperboard Mills | 65 | 82 | 7 | 15 |
| Primary Forestry Total -- | 181 | 419 | 27 | 45 |

Table D.3. Direct Impacts from Agriculture and Forestry^a, Knoxville, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <i>Secondary Forestry</i> | | | | |
| <u>Veneer, Plywood, & Engineered Wood Products</u> | | | | |
| Veneer & plywood | 1 | 8 | 0 ^b | 0 ^b |
| Engineered wood member & truss | 20 | 99 | 5 | 7 |
| Reconstituted wood product | 0 | 0 | 0 | 0 |
| Total -- | 22 | 106 | 5 | 7 |
| <u>Wood Windows & Doors & Millwork</u> | 80 | 529 | 18 | 19 |
| <u>Wood Container & Pallets</u> | 13 | 108 | 4 | 5 |
| <u>Manufactured Homes (Mobile Homes)</u> | | | | |
| Manufactured home (mobile home) | 224 | 1,414 | 85 | 78 |
| Prefabricated wood building | 6 | 32 | 3 | 3 |
| Total -- | 230 | 1,446 | 88 | 82 |
| <u>All Other Miscellaneous Wood Products</u> | 14 | 96 | 2 | 3 |
| <u>Paperboard Containers</u> | 281 | 717 | 54 | 64 |
| <u>Paper Bags & Coated & Treated Paper</u> | | | | |
| Coated & laminated paper, packaging paper & plastics film | 41 | 105 | 10 | 13 |
| All other paper bag & coated & treated paper | 6 | 20 | 1 | 1 |
| Total -- | 48 | 125 | 11 | 14 |
| <u>Stationery Products</u> | 191 | 613 | 41 | 51 |
| <u>Other Converted Paper Products</u> | | | | |
| Sanitary paper product | 0 | 0 | 0 | 0 |
| All other converted paper product | 77 | 263 | 14 | 18 |
| Total -- | 77 | 263 | 14 | 18 |
| <u>Wood Kitchen Cabinets & Countertops</u> | 22 | 191 | 7 | 6 |
| <u>Household & Institutional Furniture</u> | | | | |
| Upholstered household furniture | 270 | 1,410 | 92 | 125 |
| Nonupholstered wood household furniture | 26 | 207 | 9 | 12 |
| Institutional furniture | 73 | 226 | 16 | 32 |
| Total -- | 369 | 1,843 | 116 | 169 |
| <u>Office Furniture</u> | | | | |
| Wood television, radio, & sewing machine cabinet | 1 | 8 | 0 ^b | 1 |
| Office furniture & custom architectural woodwork & millwork | 5 | 43 | 2 | 2 |

Table D.3. Direct Impacts from Agriculture and Forestry^a, Knoxville, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|--|---------------------|------------------------|------------------------------|---------------------|
| Showcase, partition, shelving, & locker | 64 | 293 | 19 | 27 |
| Total -- | 70 | 344 | 22 | 30 |
| <u>Other Furniture Related Products</u> | | | | |
| Mattress | 31 | 108 | 4 | 10 |
| Blind & shade | 0 | 0 | 0 | 0 |
| Total -- | 31 | 108 | 4 | 10 |
| Secondary Forestry Total -- | 1,447 | 6,489 | 386 | 477 |
| Forestry Total -- | 1,639 | 7,051 | 416 | 527 |
| Agriculture & Forestry Total -- | 5,842 | 22,408 | 842 | 1,306 |
| Construction -- | 3,493 | 33,747 | 1,557 | 1,780 |
| Finance, Insurance, & Real Estate -- | 12,667 | 50,668 | 1,433 | 7,998 |
| Government -- | 6,406 | 87,245 | 4,827 | 5,313 |
| Manufacturing -- | 14,700 | 37,136 | 2,200 | 3,819 |
| Mining -- | 770 | 2,379 | 88 | 297 |
| Miscellaneous -- | 839 | 13,233 | 427 | 436 |
| Retail Trade -- | 4,993 | 74,240 | 2,230 | 3,525 |
| Services -- | 24,797 | 258,959 | 11,201 | 14,671 |
| Transportation, Information, & Utilities -- | 2,737 | 15,874 | 1,035 | 1,348 |
| Wholesale Trade -- | 3,312 | 19,593 | 1,364 | 2,371 |
| Total Economy -- | 80,556 | 615,484 | 27,204 | 42,864 |

^aTotals may not add due to rounding.

^bValues of zero are nonzero values less than 1.

Table D.4. Direct Impacts from Agriculture and Forestry^a, Memphis, 2011

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <i>Agricultural Inputs</i> | | | | |
| <u>Agricultural Chemicals</u> | | | | |
| Fertilizer | 97 | 80 | 4 | 7 |
| Pesticide & other agricultural chemical | 447 | 251 | 48 | 162 |
| Lime & gypsum product | 0 | 0 | 0 | 0 |
| Total -- | 544 | 330 | 52 | 169 |
| <u>Agricultural Machinery</u> | | | | |
| Farm machinery & equipment | 21 | 38 | 2 | 5 |
| Lawn & garden equipment | 368 | 917 | 44 | 82 |
| Total -- | 389 | 955 | 46 | 88 |
| <i>Agricultural Inputs Total --</i> | 933 | 1,285 | 98 | 257 |
| <i>Primary Agriculture</i> | | | | |
| Oilseed farming | 374 | 8,059 | 2 | 166 |
| Grain farming | 408 | 12,321 | 8 | 128 |
| Vegetable & melon farming | 16 | 79 | 1 | 8 |
| Fruit farming | 1 | 4 | 0 ^b | 0 ^b |
| Tree nut farming | 0 ^b | 2 | 0 ^b | 0 ^b |
| Greenhouse, nursery, & floriculture production | 26 | 288 | 4 | 17 |
| Tobacco farming | 4 | 59 | 0 ^b | 1 |
| Cotton farming | 389 | 4,053 | 37 | 127 |
| Sugarcane & sugar beet farming | 0 | 0 | 0 | 0 |
| All other crop farming | 46 | 246 | 1 | 12 |
| Cattle ranching & farming | 72 | 574 | 2 | 12 |
| Dairy cattle & milk production | 9 | 44 | 0 ^b | 3 |
| Poultry & egg production | 54 | 118 | 2 | 11 |
| Animal production, except cattle & poultry & eggs | 52 | 1,287 | 6 | 26 |
| Commercial fishing | 0 | 0 | 0 | 0 |
| Commercial hunting & trapping | 19 | 263 | 0 ^b | 1 |
| Support activities for agriculture & forestry | 69 | 2,729 | 59 | 49 |
| <i>Primary Agriculture Total --</i> | 1,540 | 30,127 | 123 | 562 |
| <i>Secondary Agriculture</i> | | | | |
| <u>Foods</u> | | | | |
| Dog & cat food | 494 | 343 | 43 | 161 |
| Other animal food | 32 | 28 | 3 | 5 |
| Total -- | 526 | 371 | 46 | 166 |
| <u>Grain & Oilseed Milling</u> | | | | |
| Flour milling & malt | 239 | 209 | 16 | 30 |
| Wet corn milling | 0 | 0 | 0 | 0 |
| Soybean & other oilseed processing | 760 | 442 | 37 | 45 |
| Fats & oils refining & blending | 384 | 94 | 9 | 39 |
| Breakfast cereal | 327 | 371 | 35 | 123 |
| Total -- | 1,710 | 1,115 | 96 | 237 |

Table D.4. Direct Impacts from Agriculture and Forestry^a, Memphis, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <u>Sugar & Confectionary Products</u> | | | | |
| Sugar cane mills & refining | 59 | 69 | 5 | 7 |
| Beet sugar | 0 | 0 | 0 | 0 |
| Chocolate & confectionery from cacao beans | 10 | 13 | 0 ^b | 1 |
| Confectionery from purchased chocolate | 85 | 236 | 10 | 23 |
| Nonchocolate confectionery | 339 | 871 | 49 | 81 |
| Total -- | 493 | 1,189 | 65 | 111 |
| <u>Fruit & Vegetable Preserving & Specialty Foods</u> | | | | |
| Frozen food | 593 | 1,733 | 107 | 147 |
| Fruit & vegetable canning, pickling, & drying | 229 | 426 | 31 | 58 |
| Total -- | 822 | 2,159 | 139 | 205 |
| <u>Dairy Products</u> | | | | |
| Fluid milk & butter | 270 | 258 | 18 | 38 |
| Cheese | 7 | 9 | 0 ^b | 0 ^b |
| Dry, condensed, & evaporated dairy product | 287 | 358 | 26 | 40 |
| Ice cream & frozen dessert | 24 | 63 | 3 | 5 |
| Total -- | 587 | 688 | 48 | 83 |
| <u>Animal Slaughtering & Processing</u> | | | | |
| Animal (except poultry) slaughtering, rendering, & processing | 645 | 2,059 | 109 | 87 |
| Poultry processing | 0 | 0 | 0 | 0 |
| Total -- | 645 | 2,059 | 109 | 87 |
| <u>Seafood product Preparation & Packaging</u> | | | | |
| | 0 | 0 | 0 | 0 |
| <u>Bakeries & Tortillas</u> | | | | |
| Bread & bakery product | 34 | 203 | 8 | 10 |
| Cookie, cracker, & pasta | 58 | 130 | 8 | 14 |
| Tortilla | 0 | 0 | 0 | 0 |
| Total -- | 92 | 333 | 16 | 25 |
| <u>Other Foods</u> | | | | |
| Snack food | 632 | 855 | 57 | 162 |
| Coffee & tea | 0 | 0 | 0 | 0 |
| Flavoring syrup & concentrate | 0 | 0 | 0 | 0 |
| Seasoning & dressing | 18 | 36 | 1 | 2 |
| All other food | 68 | 203 | 12 | 18 |
| Total -- | 719 | 1,094 | 69 | 182 |
| <u>Beverages</u> | | | | |
| Soft drink & ice | 668 | 944 | 60 | 78 |
| Breweries | 4 | 5 | 0 ^b | 1 |
| Wineries | 7 | 24 | 0 ^b | 1 |
| Distilleries | 0 | 0 | 0 | 0 |
| Total -- | 679 | 973 | 61 | 79 |
| <u>Tobacco Products</u> | | | | |
| | 778 | 323 | 38 | 516 |

Table D.4. Direct Impacts from Agriculture and Forestry^a, Memphis, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|--|---------------------------------------|------------------------|------------------------------|---------------------|
| <u>Textile Mills</u> | | | | |
| Fiber, yarn, & thread mills | 58 | 187 | 10 | 13 |
| Broadwoven fabric mills | 0 | 0 | 0 | 0 |
| Narrow fabric mills & schiffli machine embroidery | 0 | 0 | 0 | 0 |
| Nonwoven fabric mills | 9 | 18 | 1 | 2 |
| Knit fabric mills | 0 | 0 | 0 | 0 |
| Textile & fabric finishing mills | 58 | 259 | 14 | 17 |
| Fabric coating mills | 8 | 20 | 2 | 2 |
| Total -- | 133 | 484 | 27 | 34 |
| <u>Textile Products Mills</u> | | | | |
| Carpet & rug mills | 0 | 0 | 0 | 0 |
| Curtain & linen mills | 9 | 57 | 2 | 2 |
| Textile bag & canvas mills | 10 | 70 | 3 | 4 |
| All other textile product mills | 24 | 131 | 6 | 8 |
| Total -- | 42 | 259 | 12 | 14 |
| <u>Apparel</u> | | | | |
| Apparel knitting mills | 0 | 0 | 0 | 0 |
| Cut & sew apparel contractors | 15 | 233 | 6 | 8 |
| Men's & boys' cut & sew apparel | 29 | 229 | 6 | 9 |
| Women's & girls' cut & sew apparel | 16 | 76 | 2 | 2 |
| Other cut & sew apparel | 0 | 0 | 0 | 0 |
| Apparel accessories & other apparel | 4 | 43 | 1 | 1 |
| Total -- | 64 | 582 | 15 | 20 |
| <u>Leather & Allied Products</u> | | | | |
| Leather & hide tanning & finishing | 2 | 4 | 0 ^b | 0 ^b |
| Footwear | 35 | 273 | 8 | 10 |
| Other leather & allied product | 2 | 14 | 0 ^b | 1 |
| Total -- | 38 | 290 | 8 | 10 |
| | Secondary Agriculture Total -- | 7,328 | 11,919 | 748 |
| | Agriculture Total -- | 9,800 | 43,331 | 968 |
| Forestry Inputs | | | | |
| Forestry, forest products, & timber tract production | 4 | 19 | 0 ^b | 1 |
| Commercial logging | 68 | 1,141 | 26 | 22 |
| Forestry Inputs Total -- | 72 | 1,160 | 26 | 23 |
| Primary Forestry | | | | |
| Sawmills & wood preservation | 212 | 898 | 30 | 34 |
| Pulp mills | 93 | 117 | 20 | 27 |
| Paper mills | 2,810 | 3,190 | 532 | 1,041 |
| Paperboard Mills | 581 | 718 | 71 | 141 |
| Primary Forestry Total -- | 3,696 | 4,921 | 653 | 1,244 |

Table D.4. Direct Impacts from Agriculture and Forestry^a, Memphis, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <i>Secondary Forestry</i> | | | | |
| <u>Veneer, Plywood, & Engineered Wood Products</u> | | | | |
| Veneer & plywood | 2 | 7 | 0 ^b | 0 ^b |
| Engineered wood member & truss | 13 | 69 | 3 | 4 |
| Reconstituted wood product | 0 | 0 | 0 | 0 |
| Total -- | 15 | 76 | 3 | 5 |
| <u>Wood Windows & Doors & Millwork</u> | 206 | 1,276 | 56 | 60 |
| <u>Wood Container & Pallets</u> | 108 | 907 | 32 | 36 |
| <u>Manufactured Homes (Mobile Homes)</u> | | | | |
| Manufactured home (mobile home) | 54 | 379 | 16 | 15 |
| Prefabricated wood building | 8 | 53 | 3 | 3 |
| Total -- | 61 | 431 | 19 | 17 |
| <u>All Other Miscellaneous Wood Products</u> | 6 | 35 | 2 | 2 |
| <u>Paperboard Containers</u> | 407 | 1,079 | 65 | 81 |
| <u>Paper Bags & Coated & Treated Paper</u> | | | | |
| Coated & laminated paper, packaging paper & plastics film | 213 | 557 | 44 | 61 |
| All other paper bag & coated & treated paper | 55 | 178 | 12 | 14 |
| Total -- | 268 | 735 | 56 | 75 |
| <u>Stationery Products</u> | 36 | 132 | 5 | 6 |
| <u>Other Converted Paper Products</u> | | | | |
| Sanitary paper product | 400 | 540 | 42 | 119 |
| All other converted paper product | 0 | 0 | 0 | 0 |
| Total -- | 400 | 540 | 42 | 119 |
| <u>Wood Kitchen Cabinets & Countertops</u> | 38 | 288 | 15 | 13 |
| <u>Household & Institutional Furniture</u> | | | | |
| Upholstered household furniture | 10 | 38 | 5 | 6 |
| Nonupholstered wood household furniture | 13 | 97 | 5 | 6 |
| Institutional furniture | 64 | 213 | 10 | 25 |
| Total -- | 87 | 349 | 20 | 37 |
| <u>Office Furniture</u> | | | | |
| Wood television, radio, & sewing machine cabinet | 13 | 45 | 6 | 8 |
| Office furniture & custom architectural woodwork & millwork | 10 | 74 | 5 | 5 |

Table D.4. Direct Impacts from Agriculture and Forestry^a, Memphis, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|--|---------------------|------------------------|------------------------------|---------------------|
| Showcase, partition, shelving, & locker | 30 | 122 | 12 | 15 |
| Total -- | 53 | 240 | 23 | 28 |
| <u>Other Furniture Related Products</u> | | | | |
| Mattress | 9 | 29 | 2 | 4 |
| Blind & shade | 13 | 89 | 5 | 5 |
| Total -- | 23 | 118 | 7 | 9 |
| Secondary Forestry Total -- | 1,707 | 6,207 | 346 | 489 |
| Forestry Total -- | 5,475 | 12,288 | 1,025 | 1,755 |
| Agriculture & Forestry Total -- | 15,275 | 55,619 | 1,993 | 4,343 |
| Construction -- | 3,946 | 35,427 | 1,915 | 2,148 |
| Finance, Insurance, & Real Estate -- | 17,435 | 64,565 | 3,147 | 11,093 |
| Government -- | 10,779 | 134,891 | 8,464 | 9,466 |
| Manufacturing -- | 24,850 | 49,565 | 3,802 | 6,744 |
| Mining -- | 169 | 759 | 18 | 49 |
| Miscellaneous -- | 1,074 | 16,942 | 696 | 652 |
| Retail Trade -- | 6,138 | 87,815 | 2,902 | 4,382 |
| Services -- | 36,543 | 379,484 | 17,855 | 23,835 |
| Transportation, Information, & Utilities -- | 5,326 | 29,095 | 1,815 | 2,472 |
| Wholesale Trade -- | 6,469 | 38,585 | 2,632 | 4,615 |
| Total Economy -- | 128,004 | 892,748 | 45,239 | 69,802 |

^aTotals may not add due to rounding.

^bValues of zero are nonzero values less than 1.

Table D.5. Direct Impacts from Agriculture and Forestry^a, Nashville, 2011

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <i>Agricultural Inputs</i> | | | | |
| <u>Agricultural Chemicals</u> | | | | |
| Fertilizer | 0 | 0 | 0 | 0 |
| Pesticide & other agricultural chemical | 9 | 5 | 1 | 3 |
| Lime & gypsum product | 77 | 164 | 14 | 25 |
| Total -- | 86 | 169 | 15 | 28 |
| <u>Agricultural Machinery</u> | | | | |
| Farm machinery & equipment | 36 | 67 | 4 | 8 |
| Lawn & garden equipment | 39 | 76 | 12 | 15 |
| Total -- | 75 | 143 | 15 | 23 |
| <i>Agricultural Inputs Total --</i> | 161 | 312 | 30 | 51 |
| <i>Primary Agriculture</i> | | | | |
| Oilseed farming | 80 | 4,351 | 0 ^b | 36 |
| Grain farming | 114 | 8,798 | 3 | 36 |
| Vegetable & melon farming | 25 | 264 | 2 | 14 |
| Fruit farming | 4 | 48 | 0 ^b | 2 |
| Tree nut farming | 0 ^b | 10 | 0 ^b | 0 ^b |
| Greenhouse, nursery, & floriculture production | 247 | 3,363 | 25 | 163 |
| Tobacco farming | 76 | 2,000 | 2 | 15 |
| Cotton farming | 12 | 393 | 2 | 4 |
| Sugarcane & sugar beet farming | 0 | 0 | 0 | 0 |
| All other crop farming | 175 | 1,794 | 5 | 46 |
| Cattle ranching & farming | 305 | 4,884 | 10 | 51 |
| Dairy cattle & milk production | 77 | 1,039 | 0 ^b | 28 |
| Poultry & egg production | 306 | 1,201 | 14 | 61 |
| Animal production, except cattle & poultry & eggs | 49 | 3,488 | 3 | 24 |
| Commercial fishing | 0 | 0 | 0 | 0 |
| Commercial hunting & trapping | 22 | 277 | 0 ^b | 3 |
| Support activities for agriculture & forestry | 60 | 2,854 | 53 | 42 |
| <i>Primary Agriculture Total --</i> | 1,554 | 34,764 | 119 | 525 |
| <i>Secondary Agriculture</i> | | | | |
| <u>Foods</u> | | | | |
| Dog & cat food | 843 | 579 | 81 | 280 |
| Other animal food | 76 | 66 | 6 | 12 |
| Total -- | 919 | 645 | 88 | 292 |
| <u>Grain & Oilseed Milling</u> | | | | |
| Flour milling & malt | 89 | 78 | 6 | 11 |
| Wet corn milling | 0 | 0 | 0 | 0 |
| Soybean & other oilseed processing | 0 | 0 | 0 | 0 |
| Fats & oils refining & blending | 270 | 67 | 3 | 25 |
| Breakfast cereal | 24 | 28 | 2 | 9 |
| Total -- | 384 | 172 | 11 | 45 |

Table D.5. Direct Impacts from Agriculture and Forestry^a, Nashville, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <u>Sugar & Confectionary Products</u> | | | | |
| Sugar cane mills & refining | 0 | 0 | 0 | 0 |
| Beet sugar | 0 | 0 | 0 | 0 |
| Chocolate & confectionery from cacao beans | 33 | 45 | 2 | 2 |
| Confectionery from purchased chocolate | 191 | 511 | 28 | 56 |
| Nonchocolate confectionery | 3 | 8 | 0 ^b | 1 |
| Total -- | 227 | 563 | 30 | 59 |
| <u>Fruit & Vegetable Preserving & Specialty Foods</u> | | | | |
| Frozen food | 182 | 534 | 33 | 45 |
| Fruit & vegetable canning, pickling, & drying | 279 | 489 | 51 | 81 |
| Total -- | 461 | 1,023 | 84 | 127 |
| <u>Dairy Products</u> | | | | |
| Fluid milk & butter | 698 | 675 | 39 | 92 |
| Cheese | 60 | 74 | 3 | 4 |
| Dry, condensed, & evaporated dairy product | 0 | 0 | 0 | 0 |
| Ice cream & frozen dessert | 0 | 0 | 0 | 0 |
| Total -- | 758 | 749 | 43 | 96 |
| <u>Animal Slaughtering & Processing</u> | | | | |
| Animal (except poultry) slaughtering, rendering, & processing | 439 | 1,508 | 47 | 30 |
| Poultry processing | 1,547 | 4,179 | 146 | 229 |
| Total -- | 1,986 | 5,688 | 193 | 260 |
| <u>Seafood product Preparation & Packaging</u> | | | | |
| | 0 | 0 | 0 | 0 |
| <u>Bakeries & Tortillas</u> | | | | |
| Bread & bakery product | 225 | 1,326 | 57 | 73 |
| Cookie, cracker, & pasta | 668 | 1,515 | 81 | 160 |
| Tortilla | 35 | 167 | 7 | 10 |
| Total -- | 928 | 3,008 | 145 | 243 |
| <u>Other Foods</u> | | | | |
| Snack food | 655 | 895 | 53 | 164 |
| Coffee & tea | 20 | 27 | 1 | 3 |
| Flavoring syrup & concentrate | 0 | 0 | 0 | 0 |
| Seasoning & dressing | 222 | 420 | 19 | 25 |
| All other food | 7 | 21 | 1 | 2 |
| Total -- | 905 | 1,363 | 75 | 194 |
| <u>Beverages</u> | | | | |
| Soft drink & ice | 370 | 519 | 36 | 46 |
| Breweries | 19 | 21 | 1 | 4 |
| Wineries | 37 | 115 | 3 | 5 |
| Distilleries | 735 | 492 | 44 | 452 |
| Total -- | 1,160 | 1,147 | 84 | 507 |
| <u>Tobacco Products</u> | | | | |
| | 1,322 | 554 | 52 | 872 |

Table D.5. Direct Impacts from Agriculture and Forestry^a, Nashville, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) | |
|--|---------------------------------------|------------------------|------------------------------|---------------------|--------------|
| <u>Textile Mills</u> | | | | | |
| Fiber, yarn, & thread mills | 72 | 239 | 10 | 14 | |
| Broadwoven fabric mills | 1 | 5 | 0 ^b | 0 ^b | |
| Narrow fabric mills & schiffli machine embroidery | 0 | 0 | 0 | 0 | |
| Nonwoven fabric mills | 262 | 519 | 42 | 70 | |
| Knit fabric mills | 0 | 0 | 0 | 0 | |
| Textile & fabric finishing mills | 20 | 98 | 3 | 4 | |
| Fabric coating mills | 3 | 7 | 0 ^b | 1 | |
| Total -- | 358 | 869 | 56 | 89 | |
| <u>Textile Products Mills</u> | | | | | |
| Carpet & rug mills | 68 | 223 | 9 | 14 | |
| Curtain & linen mills | 9 | 66 | 1 | 2 | |
| Textile bag & canvas mills | 14 | 110 | 3 | 4 | |
| All other textile product mills | 115 | 664 | 28 | 36 | |
| Total -- | 206 | 1,063 | 42 | 56 | |
| <u>Apparel</u> | | | | | |
| Apparel knitting mills | 0 ^b | 2 | 0 ^b | 0 ^b | |
| Cut & sew apparel contractors | 33 | 519 | 13 | 16 | |
| Men's & boys' cut & sew apparel | 134 | 891 | 43 | 56 | |
| Women's & girls' cut & sew apparel | 18 | 88 | 2 | 2 | |
| Other cut & sew apparel | 14 | 137 | 4 | 4 | |
| Apparel accessories & other apparel | 4 | 31 | 1 | 1 | |
| Total -- | 202 | 1,668 | 62 | 79 | |
| <u>Leather & Allied Products</u> | | | | | |
| Leather & hide tanning & finishing | 27 | 64 | 2 | 3 | |
| Footwear | 39 | 295 | 10 | 12 | |
| Other leather & allied product | 7 | 46 | 2 | 3 | |
| Total -- | 72 | 405 | 15 | 18 | |
| | Secondary Agriculture Total -- | 9,887 | 18,916 | 979 | 2,937 |
| | Agriculture Total -- | 11,601 | 53,992 | 1,128 | 3,513 |
| Forestry Inputs | | | | | |
| Forestry, forest products, & timber tract production | 6 | 29 | 0 ^b | 1 | |
| Commercial logging | 63 | 1,069 | 23 | 20 | |
| Forestry Inputs Total -- | 69 | 1,098 | 24 | 20 | |
| Primary Forestry | | | | | |
| Sawmills & wood preservation | 372 | 1,584 | 50 | 58 | |
| Pulp mills | 0 | 0 | 0 | 0 | |
| Paper mills | 205 | 258 | 21 | 62 | |
| Paperboard Mills | 0 | 0 | 0 | 0 | |
| Primary Forestry Total -- | 577 | 1,843 | 71 | 120 | |

Table D.5. Direct Impacts from Agriculture and Forestry^a, Nashville, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <i>Secondary Forestry</i> | | | | |
| <u>Veneer, Plywood, & Engineered Wood Products</u> | | | | |
| Veneer & plywood | 0 | 0 | 0 | 0 |
| Engineered wood member & truss | 39 | 213 | 6 | 10 |
| Reconstituted wood product | 21 | 136 | 2 | 3 |
| Total -- | 60 | 350 | 8 | 13 |
| <u>Wood Windows & Doors & Millwork</u> | 133 | 885 | 28 | 31 |
| <u>Wood Container & Pallets</u> | 63 | 567 | 16 | 18 |
| <u>Manufactured Homes (Mobile Homes)</u> | | | | |
| Manufactured home (mobile home) | 25 | 170 | 9 | 8 |
| Prefabricated wood building | 30 | 238 | 8 | 8 |
| Total -- | 55 | 407 | 16 | 16 |
| <u>All Other Miscellaneous Wood Products</u> | 49 | 299 | 12 | 15 |
| <u>Paperboard Containers</u> | 772 | 1,995 | 140 | 169 |
| <u>Paper Bags & Coated & Treated Paper</u> | | | | |
| Coated & laminated paper, packaging paper & plastics film | 125 | 318 | 29 | 39 |
| All other paper bag & coated & treated paper | 37 | 128 | 7 | 8 |
| Total -- | 163 | 446 | 36 | 47 |
| <u>Stationery Products</u> | 143 | 485 | 25 | 32 |
| <u>Other Converted Paper Products</u> | | | | |
| Sanitary paper product | 0 | 0 | 0 | 0 |
| All other converted paper product | 69 | 239 | 12 | 16 |
| Total -- | 69 | 239 | 12 | 16 |
| <u>Wood Kitchen Cabinets & Countertops</u> | 90 | 721 | 34 | 29 |
| <u>Household & Institutional Furniture</u> | | | | |
| Upholstered household furniture | 11 | 65 | 2 | 4 |
| Nonupholstered wood household furniture | 20 | 161 | 7 | 10 |
| Institutional furniture | 8 | 29 | 1 | 3 |
| Total -- | 39 | 255 | 10 | 17 |
| <u>Office Furniture</u> | | | | |
| Wood television, radio, & sewing machine cabinet | 14 | 79 | 3 | 7 |
| Office furniture & custom architectural woodwork & millwork | 22 | 151 | 12 | 12 |

Table D.5. Direct Impacts from Agriculture and Forestry^a, Nashville, 2011 (Cont.)

| Sector | TIO | Employment | Labor Income | TVA |
|--|---------------|---------------|----------------|----------------|
| | (million \$) | (number) | (million \$) | (million \$) |
| Showcase, partition, shelving, & locker | 161 | 724 | 51 | 70 |
| Total -- | 198 | 955 | 66 | 89 |
| <u>Other Furniture Related Products</u> | | | | |
| Mattress | 169 | 542 | 33 | 64 |
| Blind & shade | 1 | 6 | 0 ^b | 0 ^b |
| Total -- | 170 | 548 | 34 | 64 |
| <i>Secondary Forestry Total --</i> | <i>2,004</i> | <i>8,151</i> | <i>438</i> | <i>556</i> |
| <i>Forestry Total --</i> | <i>2,650</i> | <i>11,092</i> | <i>533</i> | <i>696</i> |
| <i>Agriculture & Forestry Total --</i> | <i>14,251</i> | <i>65,084</i> | <i>1,661</i> | <i>4,209</i> |
| <i>Construction --</i> | 7,664 | 71,369 | 3,569 | 4,040 |
| <i>Finance, Insurance, & Real Estate --</i> | 30,392 | 120,560 | 4,704 | 18,967 |
| <i>Government --</i> | 14,481 | 201,770 | 10,775 | 11,828 |
| <i>Manufacturing --</i> | 43,171 | 86,028 | 5,093 | 7,842 |
| <i>Mining --</i> | 1,049 | 3,219 | 151 | 438 |
| <i>Miscellaneous --</i> | 2,012 | 32,133 | 1,015 | 1,067 |
| <i>Retail Trade --</i> | 10,870 | 153,371 | 5,159 | 7,809 |
| <i>Services --</i> | 62,415 | 580,468 | 31,504 | 40,200 |
| <i>Transportation, Information, & Utilities --</i> | 7,680 | 39,135 | 2,800 | 3,874 |
| <i>Wholesale Trade --</i> | 8,462 | 49,549 | 3,535 | 6,081 |
| <i>Total Economy --</i> | 202,448 | 1,402,688 | 69,967 | 106,355 |

^aTotals may not add due to rounding.

^bValues of zero are nonzero values less than 1.

Table D.6. Direct Impacts from Agriculture and Forestry^a, Tri-Cities, 2011

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <i>Agricultural Inputs</i> | | | | |
| <u>Agricultural Chemicals</u> | | | | |
| Fertilizer | 5 | 4 | 0 ^b | 0 ^b |
| Pesticide & other agricultural chemical | 58 | 34 | 4 | 19 |
| Lime & gypsum product | 0 | 0 | 0 | 0 |
| Total -- | 63 | 38 | 4 | 20 |
| <u>Agricultural Machinery</u> | | | | |
| Farm machinery & equipment | 0 | 0 | 0 | 0 |
| Lawn & garden equipment | 185 | 455 | 24 | 43 |
| Total -- | 185 | 455 | 24 | 43 |
| <i>Agricultural Inputs Total --</i> | 248 | 493 | 28 | 63 |
| <i>Primary Agriculture</i> | | | | |
| Oilseed farming | 0 | 0 | 0 | 0 |
| Grain farming | 4 | 711 | 0 ^b | 1 |
| Vegetable & melon farming | 8 | 134 | 1 | 4 |
| Fruit farming | 1 | 22 | 0 ^b | 1 |
| Tree nut farming | 0 ^b | 2 | 0 ^b | 0 ^b |
| Greenhouse, nursery, & floriculture production | 9 | 368 | 3 | 6 |
| Tobacco farming | 9 | 648 | 0 ^b | 2 |
| Cotton farming | 0 | 0 | 0 | 0 |
| Sugarcane & sugar beet farming | 0 | 0 | 0 | 0 |
| All other crop farming | 38 | 600 | 1 | 10 |
| Cattle ranching & farming | 65 | 1,570 | 3 | 11 |
| Dairy cattle & milk production | 28 | 572 | 0 ^b | 10 |
| Poultry & egg production | 31 | 195 | 2 | 6 |
| Animal production, except cattle & poultry & eggs | 6 | 721 | 1 | 3 |
| Commercial fishing | 0 | 0 | 0 | 0 |
| Commercial hunting & trapping | 3 | 41 | 0 ^b | 0 ^b |
| Support activities for agriculture & forestry | 6 | 307 | 5 | 4 |
| <i>Primary Agriculture Total --</i> | 209 | 5,891 | 16 | 58 |
| <i>Secondary Agriculture</i> | | | | |
| <u>Foods</u> | | | | |
| Dog & cat food | 0 | 0 | 0 | 0 |
| Other animal food | 25 | 22 | 3 | 4 |
| Total -- | 25 | 22 | 3 | 4 |
| <u>Grain & Oilseed Milling</u> | | | | |
| Flour milling & malt | 0 | 0 | 0 | 0 |
| Wet corn milling | 0 | 0 | 0 | 0 |
| Soybean & other oilseed processing | 0 | 0 | 0 | 0 |
| Fats & oils refining & blending | 0 | 0 | 0 | 0 |
| Breakfast cereal | 0 | 0 | 0 | 0 |
| Total -- | 0 | 0 | 0 | 0 |

Table D.6. Direct Impacts from Agriculture and Forestry^a, Tri-Cities, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <u>Sugar & Confectionary Products</u> | | | | |
| Sugar cane mills & refining | 0 | 0 | 0 | 0 |
| Beet sugar | 0 | 0 | 0 | 0 |
| Chocolate & confectionery from cacao beans | 0 | 0 | 0 | 0 |
| Confectionery from purchased chocolate | 0 | 0 | 0 | 0 |
| Nonchocolate confectionery | 3 | 8 | 0 ^b | 1 |
| Total -- | 3 | 8 | 0 ^b | 1 |
| <u>Fruit & Vegetable Preserving & Specialty Foods</u> | | | | |
| Frozen food | 0 | 0 | 0 | 0 |
| Fruit & vegetable canning, pickling, & drying | 0 | 0 | 0 | 0 |
| Total -- | 0 | 0 | 0 | 0 |
| <u>Dairy Products</u> | | | | |
| Fluid milk & butter | 28 | 28 | 2 | 4 |
| Cheese | 49 | 60 | 2 | 3 |
| Dry, condensed, & evaporated dairy product | 161 | 201 | 15 | 22 |
| Ice cream & frozen dessert | 0 | 0 | 0 | 0 |
| Total -- | 238 | 289 | 18 | 29 |
| <u>Animal Slaughtering & Processing</u> | | | | |
| Animal (except poultry) slaughtering, rendering, & processing | 18 | 62 | 1 | 1 |
| Poultry processing | 0 | 0 | 0 | 0 |
| Total -- | 18 | 62 | 1 | 1 |
| <u>Seafood product Preparation & Packaging</u> | | | | |
| | 0 | 0 | 0 | 0 |
| <u>Bakeries & Tortillas</u> | | | | |
| Bread & bakery product | 10 | 60 | 2 | 3 |
| Cookie, cracker, & pasta | 0 | 0 | 0 | 0 |
| Tortilla | 0 | 0 | 0 | 0 |
| Total -- | 10 | 60 | 2 | 3 |
| <u>Other Foods</u> | | | | |
| Snack food | 0 | 0 | 0 | 0 |
| Coffee & tea | 0 | 0 | 0 | 0 |
| Flavoring syrup & concentrate | 0 | 0 | 0 | 0 |
| Seasoning & dressing | 0 | 0 | 0 | 0 |
| All other food | 9 | 27 | 2 | 3 |
| Total -- | 9 | 27 | 2 | 3 |
| <u>Beverages</u> | | | | |
| Soft drink & ice | 250 | 355 | 21 | 28 |
| Breweries | 2 | 2 | 0 ^b | 0 ^b |
| Wineries | 2 | 7 | 0 ^b | 0 ^b |
| Distilleries | 0 | 0 | 0 | 0 |
| Total -- | 254 | 365 | 22 | 28 |
| <u>Tobacco Products</u> | | | | |
| | 0 | 0 | 0 | 0 |

Table D.6. Direct Impacts from Agriculture and Forestry^a, Tri-Cities, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|--|---------------------|------------------------|------------------------------|---------------------|
| <u>Textile Mills</u> | | | | |
| Fiber, yarn, & thread mills | 91 | 284 | 17 | 21 |
| Broadwoven fabric mills | 0 | 0 | 0 | 0 |
| Narrow fabric mills & schiffli machine embroidery | 0 | 0 | 0 | 0 |
| Nonwoven fabric mills | 53 | 106 | 8 | 14 |
| Knit fabric mills | 0 | 0 | 0 | 0 |
| Textile & fabric finishing mills | 28 | 140 | 4 | 6 |
| Fabric coating mills | 113 | 325 | 17 | 22 |
| Total -- | 285 | 855 | 47 | 63 |
| <u>Textile Products Mills</u> | | | | |
| Carpet & rug mills | 0 | 0 | 0 | 0 |
| Curtain & linen mills | 0 ^b | 2 | 0 ^b | 0 ^b |
| Textile bag & canvas mills | 7 | 48 | 2 | 2 |
| All other textile product mills | 10 | 64 | 1 | 2 |
| Total -- | 17 | 113 | 4 | 5 |
| <u>Apparel</u> | | | | |
| Apparel knitting mills | 0 | 0 | 0 | 0 |
| Cut & sew apparel contractors | 1 | 20 | 1 | 1 |
| Men's & boys' cut & sew apparel | 8 | 64 | 2 | 3 |
| Women's & girls' cut & sew apparel | 1 | 3 | 0 ^b | 0 ^b |
| Other cut & sew apparel | 3 | 30 | 1 | 1 |
| Apparel accessories & other apparel | 1 | 10 | 0 ^b | 0 ^b |
| Total -- | 15 | 128 | 4 | 5 |
| <u>Leather & Allied Products</u> | | | | |
| Leather & hide tanning & finishing | 0 | 0 | 0 | 0 |
| Footwear | 0 ^b | 2 | 0 ^b | 0 ^b |
| Other leather & allied product | 0 | 0 | 0 | 0 |
| Total -- | 0 ^b | 2 | 0 ^b | 0 ^b |
| Secondary Agriculture Total -- | | | | |
| | 873 | 1,931 | 102 | 141 |
| Agriculture Total -- | | | | |
| | 1,330 | 8,315 | 146 | 262 |
| Forestry Inputs | | | | |
| Forestry, forest products, & timber tract production | 0 ^b | 1 | 0 ^b | 0 ^b |
| Commercial logging | 7 | 126 | 2 | 2 |
| Forestry Inputs Total -- | 7 | 128 | 2 | 2 |
| Primary Forestry | | | | |
| Sawmills & wood preservation | 38 | 163 | 5 | 6 |
| Pulp mills | 0 | 0 | 0 | 0 |
| Paper mills | 284 | 335 | 44 | 98 |
| Paperboard Mills | 0 | 0 | 0 | 0 |
| Primary Forestry Total -- | 322 | 498 | 50 | 104 |

Table D.6. Direct Impacts from Agriculture and Forestry^a, Tri-Cities, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|---|---------------------|------------------------|------------------------------|---------------------|
| <i>Secondary Forestry</i> | | | | |
| <u>Veneer, Plywood, & Engineered Wood Products</u> | | | | |
| Veneer & plywood | 2 | 10 | 0 ^b | 1 |
| Engineered wood member & truss | 22 | 111 | 5 | 7 |
| Reconstituted wood product | 0 | 0 | 0 | 0 |
| Total -- | 24 | 121 | 5 | 8 |
| <u>Wood Windows & Doors & Millwork</u> | 26 | 157 | 8 | 8 |
| <u>Wood Container & Pallets</u> | 22 | 187 | 6 | 7 |
| <u>Manufactured Homes (Mobile Homes)</u> | | | | |
| Manufactured home (mobile home) | 0 | 0 | 0 | 0 |
| Prefabricated wood building | 1 | 7 | 0 ^b | 0 ^b |
| Total -- | 1 | 7 | 0 ^b | 0 ^b |
| <u>All Other Miscellaneous Wood Products</u> | 0 ^b | 2 | 0 ^b | 0 ^b |
| <u>Paperboard Containers</u> | 87 | 246 | 10 | 13 |
| <u>Paper Bags & Coated & Treated Paper</u> | | | | |
| Coated & laminated paper, packaging paper & plastics film | 213 | 590 | 34 | 52 |
| All other paper bag & coated & treated paper | 4 | 14 | 1 | 1 |
| Total -- | 217 | 604 | 35 | 53 |
| <u>Stationery Products</u> | 0 | 0 | 0 | 0 |
| <u>Other Converted Paper Products</u> | | | | |
| Sanitary paper product | 0 | 0 | 0 | 0 |
| All other converted paper product | 22 | 80 | 3 | 4 |
| Total -- | 22 | 80 | 3 | 4 |
| <u>Wood Kitchen Cabinets & Countertops</u> | 5 | 43 | 2 | 2 |
| <u>Household & Institutional Furniture</u> | | | | |
| Upholstered household furniture | 29 | 155 | 9 | 13 |
| Nonupholstered wood household furniture | 11 | 58 | 6 | 7 |
| Institutional furniture | 8 | 26 | 1 | 3 |
| Total -- | 47 | 239 | 16 | 23 |
| <u>Office Furniture</u> | | | | |
| Wood television, radio, & sewing machine cabinet | 1 | 7 | 0 ^b | 1 |
| Office furniture & custom architectural woodwork & millwork | 4 | 36 | 2 | 2 |

Table D.6. Direct Impacts from Agriculture and Forestry^a, Tri-Cities, 2011 (Cont.)

| Sector | TIO (million \$) | Employment (number) | Labor Income (million \$) | TVA (million \$) |
|--|---------------------|------------------------|------------------------------|---------------------|
| Showcase, partition, shelving, & locker | 4 | 18 | 2 | 2 |
| Total -- | 10 | 61 | 4 | 4 |
| <u>Other Furniture Related Products</u> | | | | |
| Mattress | 13 | 45 | 2 | 4 |
| Blind & shade | 9 | 70 | 2 | 2 |
| Total -- | 22 | 115 | 4 | 6 |
| <i>Secondary Forestry Total --</i> | 484 | 1,863 | 93 | 129 |
| <i>Forestry Total --</i> | 813 | 2,489 | 145 | 235 |
| <i>Agriculture & Forestry Total --</i> | 2,143 | 10,805 | 291 | 497 |
| <i>Construction --</i> | 1,526 | 16,386 | 586 | 694 |
| <i>Finance, Insurance, & Real Estate --</i> | 4,260 | 13,820 | 433 | 2,708 |
| <i>Government --</i> | 2,347 | 36,313 | 1,676 | 1,868 |
| <i>Manufacturing --</i> | 12,465 | 25,416 | 1,922 | 2,968 |
| <i>Mining --</i> | 196 | 851 | 13 | 40 |
| <i>Miscellaneous --</i> | 308 | 5,854 | 161 | 160 |
| <i>Retail Trade --</i> | 1,880 | 29,431 | 802 | 1,306 |
| <i>Services --</i> | 8,453 | 94,411 | 3,572 | 4,837 |
| <i>Transportation, Information, & Utilities --</i> | 1,065 | 5,712 | 287 | 438 |
| <i>Wholesale Trade --</i> | 1,079 | 6,610 | 422 | 761 |
| <i>Total Economy --</i> | 35,721 | 245,610 | 10,164 | 16,278 |

^aTotals may not add due to rounding.

^bValues of zero are nonzero values less than 1.

**Appendix E. Total Impacts from the Agriculture and Forestry Sectors,
Tennessee, 2011**

Table E.1. Total Impacts from Agriculture and Forestry^a, Tennessee, 2011

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|--------------|----------|--------------|------------|--------------|----------|--------------|--------------|----------------|----------|----------------|--------------|------------|----------|------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <i>Agricultural Inputs</i> | | | | | | | | | | | | | | | | |
| <i>Agricultural Chemicals</i> | | | | | | | | | | | | | | | | |
| Fertilizers | 1.48 | 150 | 1.62 | 165 | 4.02 | 338 | 5.50 | 462 | 4.32 | 18 | 5.59 | 23 | 3.82 | 27 | 5.10 | 36 |
| Pesticide & other agricultural chemicals | 1.26 | 734 | 1.42 | 826 | 3.61 | 1,190 | 5.92 | 1,949 | 1.95 | 110 | 2.52 | 142 | 1.37 | 282 | 1.63 | 337 |
| Lime & gypsum products | 1.49 | 190 | 1.76 | 225 | 2.32 | 642 | 3.37 | 930 | 1.91 | 42 | 2.47 | 54 | 1.69 | 67 | 2.22 | 88 |
| Total -- | | 1,074 | | 1,216 | | 2,169 | | 3,340 | | 169 | | 219 | | 376 | | 461 |
| <i>Agricultural Machinery</i> | | | | | | | | | | | | | | | | |
| Farm machinery & equipment | 1.33 | 219 | 1.50 | 249 | 2.10 | 634 | 2.90 | 877 | 1.96 | 35 | 2.54 | 45 | 1.66 | 65 | 2.12 | 82 |
| Lawn & garden equipment | 1.28 | 760 | 1.47 | 869 | 1.68 | 2,432 | 2.30 | 3,331 | 1.66 | 131 | 2.14 | 169 | 1.56 | 220 | 2.03 | 285 |
| Total -- | | 979 | | 1,118 | | 3,065 | | 4,208 | | 166 | | 214 | | 284 | | 367 |
| <i>Agricultural Inputs Total --</i> | | 2,053 | | 2,334 | | 5,234 | | 7,548 | | 335 | | 433 | | 660 | | 829 |
| <i>Primary Agriculture</i> | | | | | | | | | | | | | | | | |
| Oilseed farming | 1.30 | 601 | 1.38 | 636 | 1.13 | 14,835 | 1.15 | 15,124 | 16.81 | 42 | 21.74 | 54 | 1.39 | 285 | 1.49 | 306 |
| Grain farming | 1.39 | 745 | 1.50 | 806 | 1.11 | 25,849 | 1.13 | 26,347 | 6.21 | 72 | 8.04 | 93 | 1.72 | 290 | 1.94 | 326 |
| Vegetable & melon farming | 1.29 | 116 | 1.44 | 129 | 1.39 | 1,403 | 1.50 | 1,510 | 2.67 | 15 | 3.45 | 20 | 1.31 | 62 | 1.47 | 70 |
| Fruit farming | 1.29 | 12 | 1.44 | 14 | 1.40 | 176 | 1.50 | 188 | 3.46 | 2 | 4.47 | 2 | 1.29 | 7 | 1.46 | 8 |
| Tree nut farming | 1.27 | 1 | 1.47 | 1 | 1.19 | 23 | 1.25 | 24 | 1.90 | 0 ^b | 2.47 | 0 ^b | 1.25 | 1 | 1.46 | 1 |
| Greenhouse, nursery, & floriculture production | 1.14 | 362 | 1.31 | 416 | 1.12 | 5,885 | 1.20 | 6,330 | 1.30 | 63 | 1.69 | 82 | 1.12 | 233 | 1.27 | 266 |
| Tobacco farming | 1.46 | 141 | 1.61 | 156 | 1.17 | 3,698 | 1.21 | 3,817 | 5.24 | 17 | 6.77 | 22 | 2.31 | 45 | 2.76 | 53 |
| Cotton farming | 1.39 | 557 | 1.57 | 629 | 1.43 | 6,378 | 1.57 | 6,968 | 2.23 | 86 | 2.89 | 111 | 1.63 | 214 | 1.96 | 256 |
| Sugarcane & sugar beet farming | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| All other crop farming | 1.43 | 482 | 1.58 | 534 | 1.48 | 5,520 | 1.60 | 5,942 | 4.13 | 61 | 5.35 | 79 | 1.88 | 167 | 2.22 | 198 |
| Cattle ranching & farming | 1.70 | 999 | 1.83 | 1,071 | 1.52 | 15,207 | 1.57 | 15,797 | 3.30 | 85 | 4.27 | 110 | 2.44 | 240 | 2.88 | 283 |
| Dairy cattle & milk production | 1.39 | 249 | 1.49 | 267 | 1.23 | 3,515 | 1.28 | 3,662 | 4.18 | 21 | 5.42 | 27 | 1.45 | 94 | 1.61 | 105 |
| Poultry & egg production | 1.35 | 705 | 1.47 | 768 | 1.60 | 3,519 | 1.84 | 4,043 | 2.55 | 75 | 3.31 | 98 | 1.65 | 173 | 2.01 | 211 |
| Animal production, except cattle/poultry/eggs | 1.29 | 154 | 1.43 | 171 | 1.07 | 7,324 | 1.09 | 7,464 | 1.71 | 20 | 2.22 | 26 | 1.26 | 75 | 1.43 | 85 |
| Commercial fishing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |

Table E.1. Total Impacts from Agriculture and Forestry^a, Tennessee, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|--------------|----------|--------------|------------|----------------|----------|----------------|--------------|--------------|--------|------------|----------|--------------|--------|--------------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| Commercial hunting & trapping | 1.51 | 80 | 1.68 | 88 | 1.34 | 899 | 1.45 | 970 | 17.48 | 10 | 22.60 | 13 | 3.33 | 20 | 4.18 | 26 |
| Support activities for agriculture & forestry | 1.16 | 182 | 1.90 | 299 | 1.02 | 7,165 | 1.16 | 8,132 | 1.05 | 142 | 1.35 | 183 | 1.10 | 120 | 1.74 | 190 |
| Primary Agriculture Total -- | | 5,387 | | 5,985 | | 101,394 | | 106,318 | | 712 | | 921 | | 2,026 | | 2,384 |
| Secondary Agriculture | | | | | | | | | | | | | | | | |
| <u>Foods</u> | | | | | | | | | | | | | | | | |
| Dog & cat food | 1.29 | 1,728 | 1.45 | 1,942 | 3.26 | 3,011 | 5.16 | 4,763 | 1.97 | 244 | 2.57 | 319 | 1.39 | 612 | 1.68 | 740 |
| Other animal foods | 1.32 | 229 | 1.47 | 255 | 2.85 | 432 | 4.25 | 646 | 2.24 | 30 | 2.93 | 39 | 1.92 | 51 | 2.50 | 67 |
| Total -- | | 1,957 | | 2,197 | | 3,443 | | 5,408 | | 274 | | 358 | | 663 | | 807 |
| <u>Grain & Oilseed Milling</u> | | | | | | | | | | | | | | | | |
| Flour milling & malt | 1.46 | 763 | 1.65 | 862 | 3.99 | 1,829 | 5.77 | 2,643 | 3.41 | 117 | 4.43 | 152 | 2.96 | 191 | 3.89 | 250 |
| Wet corn milling | 1.39 | 1,923 | 1.55 | 2,141 | 7.08 | 4,055 | 10.20 | 5,842 | 3.93 | 260 | 5.09 | 337 | 2.79 | 423 | 3.65 | 554 |
| Soybean & other oilseed processing | 1.12 | 849 | 1.19 | 904 | 2.16 | 954 | 3.19 | 1,411 | 1.81 | 66 | 2.34 | 86 | 1.95 | 87 | 2.70 | 121 |
| Fats & oils refining & blending | 1.30 | 1,127 | 1.37 | 1,192 | 6.13 | 1,309 | 8.61 | 1,837 | 4.86 | 77 | 6.28 | 100 | 2.07 | 178 | 2.52 | 216 |
| Breakfast cereal | 1.32 | 490 | 1.50 | 554 | 2.54 | 1,068 | 3.79 | 1,593 | 1.99 | 77 | 2.57 | 99 | 1.39 | 192 | 1.66 | 230 |
| Total -- | | 5,151 | | 5,653 | | 9,214 | | 13,325 | | 598 | | 773 | | 1,071 | | 1,371 |
| <u>Sugar & Confectionary Products</u> | | | | | | | | | | | | | | | | |
| Sugar cane mills & refining | 1.28 | 76 | 1.44 | 85 | 2.46 | 170 | 3.54 | 246 | 2.06 | 11 | 2.67 | 14 | 2.18 | 15 | 3.00 | 20 |
| Beet sugar | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Chocolate & confectionery from cacao beans | 1.36 | 57 | 1.48 | 63 | 2.39 | 139 | 3.16 | 183 | 3.54 | 6 | 4.59 | 8 | 3.32 | 10 | 4.44 | 13 |
| Confectionery from purchased chocolate | 1.34 | 657 | 1.55 | 756 | 1.65 | 2,170 | 2.27 | 2,984 | 1.73 | 119 | 2.24 | 154 | 1.52 | 213 | 1.94 | 273 |
| Nonchocolate confectionery | 1.38 | 687 | 1.60 | 795 | 1.78 | 2,283 | 2.47 | 3,165 | 1.84 | 128 | 2.38 | 166 | 1.73 | 202 | 2.29 | 267 |
| Total -- | | 1,477 | | 1,698 | | 4,763 | | 6,578 | | 264 | | 342 | | 439 | | 572 |
| <u>Fruit & Vegetable Preserving & Specialty Foods</u> | | | | | | | | | | | | | | | | |
| Frozen foods | 1.40 | 1,190 | 1.66 | 1,410 | 1.76 | 4,362 | 2.49 | 6,170 | 1.70 | 264 | 2.20 | 342 | 1.72 | 365 | 2.34 | 497 |

Table E.1. Total Impacts from Agriculture and Forestry^a, Tennessee, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|--------------|----------|-------|------------|----------|----------|----------|--------------|--------------|--------|----------|----------|--------------|--------|--------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| Fruit & vegetable canning, pickling, & drying | 1.33 | 1,345 | 1.54 | 1,552 | 1.98 | 3,693 | 2.89 | 5,391 | 1.72 | 248 | 2.23 | 321 | 1.59 | 412 | 2.07 | 536 |
| Total -- | | 2,535 | | 2,963 | | 8,055 | | 11,562 | | 512 | | 662 | | 777 | | 1,034 |
| <u>Dairy Products</u> | | | | | | | | | | | | | | | | |
| Fluid milk & butter | 1.37 | 1,409 | 1.51 | 1,548 | 2.96 | 2,931 | 4.12 | 4,072 | 2.74 | 167 | 3.54 | 216 | 2.13 | 294 | 2.73 | 377 |
| Cheese | 1.29 | 211 | 1.41 | 231 | 2.30 | 461 | 3.10 | 620 | 2.69 | 23 | 3.48 | 30 | 2.82 | 33 | 3.82 | 44 |
| Dry, condensed, & evaporated dairy products | 1.40 | 626 | 1.57 | 701 | 2.53 | 1,413 | 3.63 | 2,028 | 2.18 | 90 | 2.82 | 116 | 2.15 | 134 | 2.88 | 179 |
| Ice cream & frozen desserts | 1.50 | 152 | 1.74 | 176 | 1.94 | 511 | 2.68 | 706 | 1.97 | 28 | 2.54 | 37 | 1.97 | 41 | 2.64 | 56 |
| Total -- | | 2,398 | | 2,655 | | 5,316 | | 7,426 | | 308 | | 398 | | 502 | | 656 |
| <u>Animal Slaughtering & Processing</u> | | | | | | | | | | | | | | | | |
| Animal (except poultry) slaughtering, rendering, & processing | 1.20 | 1,592 | 1.37 | 1,814 | 1.39 | 6,133 | 1.80 | 7,957 | 1.50 | 267 | 1.94 | 345 | 1.97 | 254 | 3.01 | 387 |
| Poultry processing | 1.44 | 3,721 | 1.63 | 4,211 | 1.95 | 13,692 | 2.52 | 17,717 | 2.54 | 589 | 3.28 | 761 | 2.34 | 868 | 3.13 | 1,162 |
| Total -- | | 5,312 | | 6,025 | | 19,825 | | 25,674 | | 856 | | 1,105 | | 1,122 | | 1,549 |
| <u>Seafood Product Preparation & Packaging</u> | | | | | | | | | | | | | | | | |
| | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| <u>Bakeries & Tortillas</u> | | | | | | | | | | | | | | | | |
| Bread & bakery products | 1.44 | 965 | 1.79 | 1,200 | 1.52 | 5,869 | 2.02 | 7,793 | 1.58 | 281 | 2.04 | 363 | 1.67 | 373 | 2.29 | 514 |
| Cookie, cracker, & pastas | 1.41 | 1,686 | 1.62 | 1,943 | 1.96 | 5,277 | 2.75 | 7,386 | 1.97 | 308 | 2.55 | 398 | 1.77 | 523 | 2.29 | 677 |
| Tortillas | 1.44 | 50 | 1.73 | 60 | 1.57 | 263 | 2.06 | 344 | 1.75 | 12 | 2.26 | 15 | 1.75 | 17 | 2.36 | 23 |
| Total -- | | 2,701 | | 3,203 | | 11,409 | | 15,523 | | 601 | | 776 | | 913 | | 1,214 |
| <u>Other Foods</u> | | | | | | | | | | | | | | | | |
| Snack foods | 1.31 | 1,698 | 1.46 | 1,902 | 2.31 | 4,071 | 3.26 | 5,745 | 2.21 | 244 | 2.86 | 315 | 1.58 | 520 | 1.95 | 642 |
| Coffee & tea | 1.25 | 185 | 1.39 | 206 | 2.25 | 430 | 3.17 | 606 | 2.09 | 25 | 2.70 | 33 | 1.83 | 43 | 2.37 | 56 |
| Flavoring syrup & concentrates | 1.12 | 31 | 1.22 | 34 | 3.04 | 28 | 5.37 | 49 | 1.60 | 3 | 2.13 | 4 | 1.10 | 16 | 1.21 | 18 |

Table E.1. Total Impacts from Agriculture and Forestry^a, Tennessee, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|----------|--------------|-------|------------|--------|----------|----------|--------------|----------------|--------|--------------|----------|-------|--------|--------------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | | | | | | | | | | | | | | | | |
| | | | (million \$) | | | | (number) | | | | | (million \$) | | | | (million \$) |
| Seasoning & dressing | 1.38 | 332 | 1.55 | 373 | 2.15 | 978 | 2.88 | 1,315 | 2.42 | 49 | 3.14 | 63 | 2.58 | 70 | 3.49 | 94 |
| All other foods | 1.34 | 139 | 1.58 | 165 | 1.70 | 524 | 2.37 | 731 | 1.62 | 30 | 2.10 | 39 | 1.62 | 46 | 2.16 | 61 |
| Total -- | | 2,385 | | 2,680 | | 6,032 | | 8,447 | | 351 | | 454 | | 695 | | 872 |
| <u>Beverages</u> | | | | | | | | | | | | | | | | |
| Soft drink & ice | 1.35 | 3,329 | 1.51 | 3,726 | 2.25 | 7,814 | 3.18 | 11,072 | 2.05 | 472 | 2.65 | 611 | 2.23 | 660 | 3.04 | 898 |
| Breweries | 1.34 | 33 | 1.47 | 36 | 2.58 | 73 | 3.49 | 98 | 3.77 | 4 | 4.90 | 5 | 1.75 | 9 | 2.13 | 11 |
| Wineries | 1.28 | 69 | 1.44 | 77 | 1.56 | 266 | 1.97 | 335 | 2.31 | 10 | 3.02 | 13 | 2.19 | 15 | 2.92 | 20 |
| Distilleries | 1.21 | 1,010 | 1.32 | 1,097 | 2.69 | 1,506 | 3.96 | 2,220 | 2.17 | 101 | 2.83 | 132 | 1.19 | 611 | 1.30 | 663 |
| Total -- | | 4,441 | | 4,937 | | 9,658 | | 13,725 | | 587 | | 761 | | 1,295 | | 1,592 |
| <u>Tobacco Products</u> | 1.18 | 2,471 | 1.25 | 2,624 | 2.69 | 2,358 | 4.13 | 3,618 | 2.04 | 182 | 2.65 | 236 | 1.13 | 1,569 | 1.20 | 1,661 |
| <u>Textile Mills</u> | | | | | | | | | | | | | | | | |
| Fiber, yarn, & thread mills | 1.26 | 582 | 1.45 | 667 | 1.31 | 1,984 | 1.77 | 2,675 | 1.45 | 101 | 1.87 | 130 | 1.45 | 133 | 2.00 | 184 |
| Broadwoven fabric mills | 1.26 | 2 | 1.54 | 2 | 1.38 | 8 | 1.99 | 11 | 1.33 | 0 ^b | 1.72 | 1 | 1.34 | 1 | 1.85 | 1 |
| Narrow fabric mills & schiffli machine embroidery | 1.24 | 24 | 1.65 | 33 | 1.19 | 158 | 1.68 | 224 | 1.18 | 10 | 1.52 | 13 | 1.23 | 11 | 1.77 | 16 |
| Nonwoven fabric mills | 1.23 | 502 | 1.41 | 578 | 1.54 | 1,246 | 2.31 | 1,870 | 1.39 | 91 | 1.80 | 118 | 1.33 | 147 | 1.75 | 192 |
| Knit fabric mills | 1.35 | 45 | 1.67 | 56 | 1.42 | 239 | 1.94 | 325 | 1.43 | 13 | 1.85 | 16 | 1.56 | 15 | 2.23 | 21 |
| Textile & fabric finishing mills | 1.34 | 185 | 1.60 | 221 | 1.45 | 962 | 1.89 | 1,256 | 1.59 | 43 | 2.05 | 55 | 1.69 | 56 | 2.34 | 77 |
| Fabric coating mills | 1.30 | 160 | 1.51 | 186 | 1.59 | 561 | 2.20 | 773 | 1.60 | 31 | 2.08 | 40 | 1.71 | 42 | 2.34 | 57 |
| Total -- | | 1,502 | | 1,743 | | 5,157 | | 7,134 | | 288 | | 373 | | 404 | | 548 |
| <u>Textile Product Mills</u> | | | | | | | | | | | | | | | | |
| Carpet & rug mills | 1.27 | 94 | 1.44 | 107 | 1.30 | 318 | 1.73 | 423 | 1.47 | 15 | 1.90 | 20 | 1.44 | 22 | 1.94 | 30 |
| Curtain & linen mills | 1.24 | 26 | 1.45 | 31 | 1.22 | 174 | 1.47 | 211 | 1.45 | 5 | 1.88 | 7 | 1.46 | 8 | 1.95 | 11 |
| Textile bag & canvas mills | 1.28 | 129 | 1.58 | 159 | 1.23 | 968 | 1.55 | 1,215 | 1.36 | 36 | 1.76 | 47 | 1.46 | 47 | 2.02 | 65 |
| All other textile product mills | 1.28 | 338 | 1.55 | 408 | 1.27 | 1,958 | 1.64 | 2,534 | 1.36 | 84 | 1.76 | 109 | 1.41 | 113 | 1.93 | 155 |
| Total -- | | 587 | | 704 | | 3,418 | | 4,382 | | 141 | | 182 | | 190 | | 260 |

Table E.1. Total Impacts from Agriculture and Forestry^a, Tennessee, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|---------------|----------|---------------|------------|----------------|----------|----------------|--------------|--------------|--------|--------------|--------------|---------------|--------|---------------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| Apparel | | | | | | | | | | | | | | | | |
| Apparel knitting mills | 1.38 | 173 | 1.68 | 211 | 1.38 | 1,192 | 1.73 | 1,498 | 1.59 | 45 | 2.05 | 58 | 1.65 | 59 | 2.27 | 82 |
| Cut & sew apparel contractors | 1.38 | 100 | 1.85 | 133 | 1.18 | 1,335 | 1.43 | 1,610 | 1.36 | 40 | 1.76 | 52 | 1.45 | 51 | 2.02 | 71 |
| Mens & boys cut & sew apparel | 1.32 | 499 | 1.69 | 639 | 1.42 | 3,587 | 1.87 | 4,736 | 1.43 | 168 | 1.85 | 217 | 1.47 | 227 | 2.01 | 311 |
| Womens & girls cut & sew apparel | 1.53 | 62 | 1.80 | 74 | 1.94 | 392 | 2.40 | 485 | 3.04 | 13 | 3.93 | 17 | 3.27 | 19 | 4.42 | 26 |
| Other cut & sew apparel | 1.43 | 34 | 1.80 | 43 | 1.34 | 317 | 1.64 | 390 | 1.62 | 11 | 2.09 | 14 | 1.83 | 13 | 2.56 | 19 |
| Apparel accessories & other apparel | 1.42 | 17 | 1.73 | 21 | 1.32 | 148 | 1.59 | 179 | 1.68 | 5 | 2.17 | 6 | 2.00 | 6 | 2.80 | 8 |
| Total -- | | 885 | | 1,120 | | 6,972 | | 8,898 | | 282 | | 364 | | 376 | | 517 |
| Leather & Allied Products | | | | | | | | | | | | | | | | |
| Leather & hide tanning & finishing | 1.47 | 42 | 1.66 | 47 | 2.31 | 157 | 2.97 | 203 | 2.96 | 7 | 3.82 | 9 | 3.00 | 9 | 4.08 | 12 |
| Footwear | 1.31 | 97 | 1.60 | 118 | 1.28 | 730 | 1.59 | 907 | 1.46 | 26 | 1.88 | 34 | 1.56 | 34 | 2.16 | 47 |
| Other leather & allied products | 1.35 | 21 | 1.67 | 26 | 1.29 | 167 | 1.60 | 207 | 1.47 | 6 | 1.91 | 8 | 1.59 | 8 | 2.18 | 11 |
| Total -- | | 159 | | 191 | | 1,054 | | 1,317 | | 39 | | 50 | | 51 | | 70 |
| Secondary Agriculture Total -- | | 33,962 | | 38,393 | | 96,674 | | 133,018 | | 5,282 | | 6,835 | | 10,067 | | 12,722 |
| Agriculture Total -- | | 41,402 | | 46,712 | | 203,302 | | 246,885 | | 6,329 | | 8,190 | | 12,754 | | 15,935 |
| Forestry Inputs | | | | | | | | | | | | | | | | |
| Forestry, forest products, & timber tract production | 1.57 | 21 | 1.88 | 25 | 4.45 | 252 | 5.05 | 286 | 4.74 | 5 | 6.11 | 6 | 2.60 | 7 | 3.51 | 9 |
| Commercial logging | 1.28 | 207 | 1.66 | 268 | 1.20 | 3,301 | 1.39 | 3,809 | 1.25 | 76 | 1.61 | 97 | 1.43 | 72 | 2.16 | 109 |
| Forestry Inputs Total -- | | 227 | | 293 | | 3,553 | | 4,095 | | 80 | | 104 | | 79 | | 118 |
| Sawmills & wood preservation | 1.36 | 1,006 | 1.57 | 1,163 | 1.55 | 4,875 | 1.96 | 6,167 | 1.84 | 188 | 2.37 | 242 | 1.98 | 232 | 2.78 | 326 |
| Pulp mills | 1.46 | 334 | 1.71 | 391 | 3.12 | 967 | 4.62 | 1,434 | 1.96 | 67 | 2.54 | 87 | 1.82 | 98 | 2.44 | 132 |
| Paper mills | 1.34 | 5,181 | 1.57 | 6,097 | 2.71 | 12,170 | 4.39 | 19,708 | 1.62 | 1,090 | 2.10 | 1,411 | 1.40 | 1,948 | 1.80 | 2,497 |
| Paperboard Mills | 1.43 | 1,124 | 1.65 | 1,300 | 3.15 | 3,052 | 4.65 | 4,497 | 2.07 | 209 | 2.68 | 270 | 1.72 | 337 | 2.26 | 443 |
| Primary Forestry Total -- | | 7,645 | | 8,950 | | 21,063 | | 31,806 | | 1,554 | | 2,010 | | 2,616 | | 3,398 |

Table E.1. Total Impacts from Agriculture and Forestry^a, Tennessee, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------------|----------|----------|-------|------------|--------|----------|----------|--------------|--------|--------|----------|--------------|-------|--------|--------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <i>Secondary Forestry</i> | | | | | | | | | | | | | | | | |
| <i>Veneer, Plywood, & Engineered Wood Products</i> | | | | | | | | | | | | | | | | |
| Veneer & plywood | 1.23 | 9 | 1.43 | 11 | 1.34 | 47 | 1.70 | 60 | 1.53 | 2 | 1.98 | 2 | 1.46 | 3 | 1.96 | 4 |
| Engineered wood member & truss | 1.28 | 131 | 1.54 | 157 | 1.39 | 746 | 1.78 | 959 | 1.56 | 31 | 2.01 | 40 | 1.52 | 47 | 2.02 | 62 |
| Reconstituted wood products | 1.27 | 79 | 1.56 | 97 | 1.31 | 433 | 1.75 | 579 | 1.34 | 21 | 1.73 | 28 | 1.40 | 24 | 2.02 | 35 |
| Total -- | | 220 | | 265 | | 1,226 | | 1,599 | | 54 | | 70 | | 74 | | 101 |
| <i>Wood Windows & Doors & Millwork</i> | | | | | | | | | | | | | | | | |
| Wood Windows & Doors & Millwork | 1.31 | 605 | 1.62 | 744 | 1.33 | 3,926 | 1.72 | 5,072 | 1.48 | 167 | 1.91 | 215 | 1.64 | 200 | 2.32 | 283 |
| <i>Wood Containers & Pallets</i> | | | | | | | | | | | | | | | | |
| Wood Containers & Pallets | 1.28 | 326 | 1.60 | 408 | 1.23 | 2,675 | 1.53 | 3,346 | 1.36 | 98 | 1.75 | 126 | 1.46 | 120 | 2.06 | 168 |
| <i>Manufactured Homes (Mobile Homes)</i> | | | | | | | | | | | | | | | | |
| Manufactured homes (mobile homes) | 1.46 | 441 | 1.89 | 571 | 1.48 | 2,895 | 2.02 | 3,971 | 1.43 | 157 | 1.85 | 203 | 1.60 | 162 | 2.38 | 240 |
| Prefabricated wood buildings | 1.31 | 62 | 1.66 | 79 | 1.31 | 457 | 1.71 | 596 | 1.36 | 20 | 1.76 | 26 | 1.51 | 23 | 2.17 | 33 |
| Total -- | | 503 | | 650 | | 3,352 | | 4,568 | | 177 | | 229 | | 185 | | 273 |
| <i>All Other Miscellaneous Wood Products</i> | | | | | | | | | | | | | | | | |
| All Other Miscellaneous Wood Products | 1.40 | 131 | 1.71 | 160 | 1.47 | 876 | 1.87 | 1,114 | 1.72 | 35 | 2.23 | 45 | 1.78 | 48 | 2.43 | 65 |
| <i>Paperboard Containers Paper Bags & Coated & Treated Paper</i> | | | | | | | | | | | | | | | | |
| Paperboard Containers Paper Bags & Coated & Treated Paper | 1.26 | 2,427 | 1.48 | 2,857 | 1.68 | 8,481 | 2.38 | 12,023 | 1.56 | 515 | 2.01 | 665 | 1.68 | 677 | 2.32 | 935 |
| Coated & laminated paper, packaging paper & plastics film | 1.23 | 737 | 1.46 | 876 | 1.52 | 2,410 | 2.24 | 3,551 | 1.39 | 166 | 1.80 | 214 | 1.40 | 235 | 1.90 | 318 |
| All other paper bag & coated & treated paper | 1.23 | 166 | 1.47 | 198 | 1.45 | 647 | 2.04 | 909 | 1.40 | 38 | 1.81 | 49 | 1.51 | 47 | 2.11 | 66 |
| Total -- | | 903 | | 1,073 | | 3,057 | | 4,460 | | 204 | | 263 | | 282 | | 384 |

Table E.1. Total Impacts from Agriculture and Forestry^a, Tennessee, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|--------------|----------|---------------|------------|---------------|----------|---------------|--------------|--------------|--------|--------------|--------------|--------------|--------|--------------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <u>Stationery Products</u> | 1.30 | 514 | 1.55 | 611 | 1.60 | 2,110 | 2.21 | 2,913 | 1.57 | 116 | 2.03 | 150 | 1.69 | 157 | 2.32 | 215 |
| <u>Other Converted Paper Products</u> | | | | | | | | | | | | | | | | |
| Sanitary paper products | 1.22 | 488 | 1.37 | 548 | 1.96 | 1,057 | 2.87 | 1,547 | 1.69 | 71 | 2.19 | 92 | 1.34 | 160 | 1.64 | 196 |
| All other converted paper products | 1.32 | 222 | 1.56 | 263 | 1.61 | 936 | 2.19 | 1,276 | 1.74 | 49 | 2.26 | 64 | 1.79 | 67 | 2.45 | 92 |
| Total -- | | 710 | | 811 | | 1,993 | | 2,823 | | 121 | | 156 | | 227 | | 288 |
| <u>Wood Kitchen Cabinets & Countertops</u> | 1.41 | 257 | 1.86 | 337 | 1.39 | 2,018 | 1.85 | 2,679 | 1.39 | 97 | 1.79 | 125 | 1.70 | 100 | 2.52 | 148 |
| <u>Household & Institutional Furniture</u> | | | | | | | | | | | | | | | | |
| Upholstered household furniture | 1.20 | 866 | 1.52 | 1,090 | 1.25 | 4,942 | 1.72 | 6,784 | 1.23 | 271 | 1.59 | 349 | 1.25 | 392 | 1.67 | 526 |
| Nonupholstered wood household furniture | 1.26 | 88 | 1.64 | 115 | 1.24 | 656 | 1.66 | 878 | 1.24 | 33 | 1.60 | 42 | 1.26 | 45 | 1.72 | 61 |
| Institutional furniture | 1.31 | 200 | 1.54 | 236 | 1.65 | 815 | 2.24 | 1,107 | 1.56 | 43 | 2.02 | 55 | 1.39 | 87 | 1.73 | 108 |
| Total -- | | 1,154 | | 1,440 | | 6,412 | | 8,769 | | 346 | | 447 | | 523 | | 695 |
| <u>Office Furniture</u> | | | | | | | | | | | | | | | | |
| Wood television, radio, & sewing machine cabinet | 1.24 | 59 | 1.58 | 75 | 1.39 | 326 | 1.95 | 458 | 1.29 | 19 | 1.66 | 25 | 1.25 | 32 | 1.63 | 41 |
| Custom architectural woodwork & millwork | 1.26 | 54 | 1.74 | 75 | 1.25 | 393 | 1.79 | 563 | 1.18 | 25 | 1.52 | 32 | 1.27 | 27 | 1.85 | 39 |
| Showcase, partition, shelving, & locker | 1.29 | 381 | 1.62 | 480 | 1.39 | 1,849 | 2.00 | 2,662 | 1.28 | 119 | 1.65 | 154 | 1.31 | 169 | 1.77 | 228 |
| Total -- | | 495 | | 630 | | 2,568 | | 3,682 | | 164 | | 211 | | 227 | | 308 |
| <u>Other Furniture Related Products</u> | | | | | | | | | | | | | | | | |
| Mattresses | 1.29 | 320 | 1.52 | 378 | 1.58 | 1,285 | 2.17 | 1,764 | 1.58 | 70 | 2.04 | 91 | 1.42 | 128 | 1.81 | 163 |
| Blind & shades | 1.33 | 31 | 1.70 | 39 | 1.28 | 212 | 1.70 | 281 | 1.30 | 10 | 1.68 | 13 | 1.51 | 11 | 2.20 | 16 |
| Total -- | | 350 | | 417 | | 1,496 | | 2,046 | | 81 | | 104 | | 139 | | 179 |
| Secondary Forestry Total -- | | 8,593 | | 10,403 | | 40,190 | | 55,094 | | 2,174 | | 2,807 | | 2,960 | | 4,044 |

Table E.1. Total Impacts from Agriculture and Forestry^a, Tennessee, 2011 (Cont.)

| Sector | TIO | | | Employment | | | Labor Income | | | TVA | | | | |
|--|--------|---------------|----------------|------------|----------------|----------------|--------------|---------------|--------|---------------|--------------|---------------|--------|---------------|
| | Type I | Indirect | Type Sam Total | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | | (million \$) | | | (number) | | | (million \$) | | | (million \$) | | | |
| Forestry Total -- | | 16,465 | 19,647 | | 64,807 | 90,995 | | 3,808 | | 4,920 | | 5,655 | | 7,559 |
| Agriculture & Forestry Total -- | | 57,867 | 66,359 | | 268,109 | 337,880 | | 10,137 | | 13,110 | | 18,408 | | 23,494 |
| Construction -- | | 24,808 | 33,658 | | 222,674 | 295,485 | | 10,725 | | 13,818 | | 12,943 | | 18,241 |
| Finance, Insurance, & Real Estate -- | | 100,382 | 117,935 | | 429,823 | 556,866 | | 18,161 | | 23,559 | | 61,677 | | 72,180 |
| Government -- | | 46,691 | 73,158 | | 566,255 | 784,063 | | 31,561 | | 40,813 | | 33,972 | | 48,534 |
| Manufacturing -- | | 138,946 | 160,331 | | 414,912 | 590,879 | | 24,932 | | 32,408 | | 38,843 | | 51,636 |
| Mining -- | | 3,440 | 3,998 | | 14,707 | 19,303 | | 659 | | 854 | | 1,429 | | 1,763 |
| Miscellaneous -- | | 6,745 | 9,463 | | 92,039 | 114,404 | | 3,238 | | 4,188 | | 3,706 | | 5,332 |
| Retail Trade -- | | 34,054 | 46,538 | | 444,981 | 547,699 | | 15,005 | | 19,369 | | 23,421 | | 30,892 |
| Services -- | | 187,815 | 259,208 | | 1,805,389 | 2,392,794 | | 85,804 | | 110,758 | | 116,358 | | 159,088 |
| Transportation, Information, & Utilities -- | | 25,375 | 33,144 | | 154,237 | 218,153 | | 9,209 | | 11,925 | | 12,761 | | 17,411 |
| Wholesale Trade -- | | 26,136 | 35,181 | | 165,705 | 240,128 | | 10,731 | | 13,892 | | 18,163 | | 23,575 |

^aTotals may not add due to rounding.

^bValues of zero are nonzero values less than 1.

Table E.2. Total Impacts from Agriculture and Forestry^a, Chattanooga, 2011

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|----------------|----------|----------------|------------|------------|----------|------------|--------------|----------------|----------|----------------|--------------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <i>Agricultural Inputs</i> | | | | | | | | | | | | | | | | |
| <u><i>Agricultural Chemicals</i></u> | | | | | | | | | | | | | | | | |
| Fertilizers | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Pesticide & other agricultural chemicals | 1.15 | 14 | 1.22 | 14 | 2.54 | 18 | 3.49 | 25 | 1.99 | 1 | 2.43 | 1 | 1.21 | 5 | 1.33 | 5 |
| Lime & gypsum products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 14 | | 14 | | 18 | | 25 | | 1 | | 1 | | 5 | | 5 |
| <u><i>Agricultural Machinery</i></u> | | | | | | | | | | | | | | | | |
| Farm machinery & equipment | 1.21 | 123 | 1.32 | 135 | 1.80 | 335 | 2.34 | 435 | 1.64 | 18 | 2.00 | 22 | 1.43 | 34 | 1.72 | 41 |
| Lawn & garden equipment | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 123 | | 135 | | 335 | | 435 | | 18 | | 22 | | 34 | | 41 |
| <i>Agricultural Inputs Total --</i> | | 137 | | 149 | | 353 | | 460 | | 19 | | 23 | | 39 | | 46 |
| <i>Primary Agriculture</i> | | | | | | | | | | | | | | | | |
| Oilseed farming | 1.19 | 4 | 1.23 | 5 | 1.03 | 327 | 1.04 | 329 | 6.24 | 0 ^b | 7.60 | 0 ^b | 1.23 | 2 | 1.28 | 2 |
| Grain farming | 1.26 | 6 | 1.33 | 7 | 1.03 | 635 | 1.04 | 638 | 3.24 | 1 | 3.95 | 1 | 1.45 | 2 | 1.57 | 2 |
| Vegetable & melon farming | 1.22 | 22 | 1.30 | 23 | 1.40 | 298 | 1.46 | 311 | 2.13 | 2 | 2.58 | 3 | 1.17 | 11 | 1.26 | 12 |
| Fruit farming | 1.21 | 2 | 1.28 | 2 | 1.44 | 24 | 1.49 | 25 | 2.90 | 0 ^b | 3.52 | 0 ^b | 1.14 | 1 | 1.22 | 1 |
| Tree nut farming | 1.19 | 0 ^b | 1.37 | 0 ^b | 1.16 | 2 | 1.21 | 2 | 1.30 | 0 ^b | 1.57 | 0 ^b | 1.12 | 0 ^b | 1.31 | 0 ^b |
| Greenhouse, nursery, & floriculture production | 1.08 | 6 | 1.23 | 7 | 1.05 | 202 | 1.09 | 210 | 1.13 | 1 | 1.37 | 2 | 1.05 | 4 | 1.19 | 5 |
| Tobacco farming | 1.31 | 1 | 1.43 | 2 | 1.09 | 69 | 1.10 | 70 | 2.05 | 0 ^b | 2.49 | 0 ^b | 1.80 | 0 ^b | 2.15 | 0 ^b |
| Cotton farming | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Sugarcane & sugar beet farming | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| All other crop farming | 1.30 | 37 | 1.40 | 40 | 1.44 | 497 | 1.51 | 519 | 2.67 | 4 | 3.24 | 5 | 1.50 | 11 | 1.71 | 13 |
| Cattle ranching & farming | 1.79 | 101 | 1.88 | 106 | 1.65 | 1,698 | 1.70 | 1,743 | 2.83 | 8 | 3.44 | 10 | 2.31 | 22 | 2.64 | 25 |
| Dairy cattle & milk production | 1.28 | 48 | 1.33 | 50 | 1.23 | 745 | 1.26 | 762 | 4.29 | 3 | 5.22 | 4 | 1.27 | 17 | 1.36 | 18 |
| Poultry & egg production | 1.15 | 77 | 1.23 | 82 | 1.38 | 414 | 1.53 | 459 | 1.74 | 8 | 2.11 | 10 | 1.31 | 17 | 1.54 | 21 |
| Animal production, except cattle/poultry/eggs | 1.20 | 5 | 1.29 | 5 | 1.04 | 394 | 1.05 | 397 | 1.48 | 1 | 1.79 | 1 | 1.15 | 2 | 1.26 | 3 |
| Commercial fishing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |

Table E.2. Total Impacts from Agriculture and Forestry^a, Chattanooga, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------------|------------|----------|------------|------------|--------------|----------|--------------|--------------|--------------|--------|-----------|--------------|-----------|--------|------------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | (million \$) | | | | | (number) | | | | (million \$) | | | (million \$) | | | |
| Commercial hunting & trapping | 1.37 | 8 | 1.47 | 9 | 1.28 | 104 | 1.34 | 109 | 10.71 | 1 | 13.05 | 1 | 4.46 | 2 | 5.45 | 2 |
| Support activities for agriculture & forestry | 1.19 | 7 | 1.63 | 10 | 1.01 | 598 | 1.05 | 621 | 1.09 | 4 | 1.32 | 5 | 1.32 | 2 | 2.23 | 4 |
| Primary Agriculture Total -- | | 325 | | 346 | | 6,008 | | 6,196 | | 35 | | 42 | | 95 | | 108 |
| Secondary Agriculture | | | | | | | | | | | | | | | | |
| <u>Foods</u> | | | | | | | | | | | | | | | | |
| Dog & cat food | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Other animal foods | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| <u>Grain & Oilseed Milling</u> | | | | | | | | | | | | | | | | |
| Flour milling & malt | 1.37 | 188 | 1.48 | 204 | 3.43 | 416 | 4.57 | 554 | 3.22 | 25 | 3.93 | 30 | 2.47 | 39 | 3.07 | 48 |
| Wet corn milling | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Soybean & other oilseed processing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Fats & oils refining & blending | 1.19 | 256 | 1.23 | 266 | 4.91 | 260 | 6.44 | 341 | 3.70 | 15 | 4.50 | 18 | 1.70 | 36 | 1.96 | 42 |
| Breakfast cereal | 1.24 | 23 | 1.34 | 25 | 2.19 | 47 | 2.97 | 64 | 1.82 | 3 | 2.21 | 4 | 1.26 | 9 | 1.42 | 10 |
| Total -- | | 467 | | 494 | | 723 | | 959 | | 43 | | 52 | | 84 | | 100 |
| <u>Sugar & Confectionary Products</u> | | | | | | | | | | | | | | | | |
| Sugar cane mills & refining | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Beet sugar | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Chocolate & confectionery from cacao beans | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Confectionery from purchased chocolate | 1.19 | 215 | 1.33 | 240 | 1.44 | 686 | 1.89 | 900 | 1.40 | 39 | 1.71 | 48 | 1.27 | 69 | 1.54 | 83 |
| Nonchocolate confectionery | 1.23 | 173 | 1.37 | 192 | 1.55 | 565 | 2.00 | 730 | 1.55 | 30 | 1.88 | 36 | 1.44 | 47 | 1.78 | 58 |
| Total -- | | 388 | | 432 | | 1,251 | | 1,630 | | 69 | | 84 | | 116 | | 141 |
| <u>Fruit & Vegetable Preserving & Specialty Foods</u> | | | | | | | | | | | | | | | | |
| Frozen foods | 1.29 | 36 | 1.49 | 42 | 1.60 | 126 | 2.20 | 173 | 1.41 | 9 | 1.72 | 10 | 1.41 | 11 | 1.81 | 14 |

Table E.2. Total Impacts from Agriculture and Forestry^a, Chattanooga, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------------|----------------|----------|----------------|------------|----------------|----------|----------|--------------|----------------|--------|----------------|--------------|----------------|--------|----------------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| Fruit & vegetable canning, pickling, & drying | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 36 | | 42 | | 126 | | 173 | | 9 | | 10 | | 11 | | 14 |
| <u>Dairy Products</u> | | | | | | | | | | | | | | | | |
| Fluid milk & butter | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Cheese | 1.20 | 47 | 1.28 | 50 | 2.03 | 96 | 2.61 | 123 | 2.03 | 5 | 2.47 | 6 | 2.05 | 6 | 2.64 | 8 |
| Dry, condensed, & evaporated dairy products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Ice cream & frozen desserts | 1.29 | 100 | 1.45 | 112 | 1.68 | 337 | 2.19 | 439 | 1.62 | 19 | 1.97 | 23 | 1.56 | 26 | 1.98 | 33 |
| Total -- | | 147 | | 162 | | 433 | | 562 | | 24 | | 29 | | 32 | | 41 |
| <u>Animal Slaughtering & Processing</u> | | | | | | | | | | | | | | | | |
| Animal (except poultry) slaughtering, rendering, & processing | 1.15 | 26 | 1.25 | 28 | 1.31 | 100 | 1.56 | 119 | 1.46 | 4 | 1.78 | 4 | 1.93 | 3 | 2.77 | 4 |
| Poultry processing | 1.39 | 1,216 | 1.51 | 1,319 | 1.82 | 4,355 | 2.19 | 5,242 | 2.29 | 162 | 2.78 | 197 | 2.00 | 237 | 2.51 | 297 |
| Total -- | | 1,241 | | 1,347 | | 4,455 | | 5,362 | | 166 | | 202 | | 240 | | 302 |
| <u>Seafood Product Preparation & Packaging</u> | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| <u>Bakeries & Tortillas</u> | | | | | | | | | | | | | | | | |
| Bread & bakery products | 1.30 | 409 | 1.55 | 488 | 1.42 | 2,503 | 1.80 | 3,179 | 1.37 | 124 | 1.67 | 151 | 1.41 | 158 | 1.82 | 203 |
| Cookie, cracker, & pastas | 1.29 | 526 | 1.43 | 584 | 1.74 | 1,573 | 2.29 | 2,072 | 1.60 | 91 | 1.94 | 111 | 1.48 | 154 | 1.80 | 188 |
| Tortillas | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 936 | | 1,072 | | 4,076 | | 5,252 | | 215 | | 262 | | 311 | | 391 |
| <u>Other Foods</u> | | | | | | | | | | | | | | | | |
| Snack foods | 1.22 | 13 | 1.32 | 14 | 2.02 | 30 | 2.69 | 40 | 1.78 | 2 | 2.17 | 2 | 1.37 | 4 | 1.61 | 5 |
| Coffee & tea | 1.19 | 0 ^b | 1.27 | 0 ^b | 2.00 | 0 ^b | 2.57 | 1 | 1.93 | 0 ^b | 2.35 | 0 ^b | 1.63 | 0 ^b | 1.97 | 0 ^b |
| Flavoring syrup & concentrates | 1.11 | 31 | 1.18 | 33 | 2.62 | 24 | 4.35 | 40 | 1.45 | 3 | 1.82 | 3 | 1.09 | 16 | 1.16 | 17 |
| Seasoning & dressing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |

Table E.2. Total Impacts from Agriculture and Forestry^a, Chattanooga, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------------|----------|----------|-------|------------|----------|----------|----------|--------------|----------------|--------|----------------|----------|----------------|--------|--------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | (million \$) | | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| All other foods | 1.24 | 10 | 1.41 | 11 | 1.56 | 37 | 2.06 | 49 | 1.43 | 2 | 1.73 | 3 | 1.40 | 3 | 1.76 | 4 |
| Total -- | | 54 | | 59 | | 91 | | 129 | | 6 | | 8 | | 23 | | 26 |
| <u>Beverages</u> | | | | | | | | | | | | | | | | |
| Soft drink & ice | 1.25 | 743 | 1.36 | 809 | 1.93 | 1,598 | 2.62 | 2,164 | 1.63 | 102 | 1.99 | 125 | 1.81 | 141 | 2.30 | 180 |
| Breweries | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Wineries | 1.19 | 5 | 1.32 | 6 | 1.43 | 19 | 1.82 | 24 | 1.51 | 1 | 1.85 | 1 | 1.52 | 1 | 1.95 | 2 |
| Distilleries | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 716 | | 794 | | 1,574 | | 2,272 | | 106 | | 132 | | 162 | | 209 |
| <u>Tobacco Products</u> | | | | | | | | | | | | | | | | |
| | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| <u>Textile Mills</u> | | | | | | | | | | | | | | | | |
| Fiber, yarn, & thread mills | 1.13 | 256 | 1.24 | 281 | 1.21 | 919 | 1.49 | 1,131 | 1.27 | 39 | 1.55 | 47 | 1.20 | 50 | 1.55 | 64 |
| Broadwoven fabric mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Narrow fabric mills & schiffli machine embroidery | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Nonwoven fabric mills | 1.13 | 80 | 1.27 | 90 | 1.39 | 193 | 1.98 | 274 | 1.24 | 15 | 1.51 | 18 | 1.17 | 23 | 1.45 | 28 |
| Knit fabric mills | 1.24 | 30 | 1.46 | 35 | 1.34 | 160 | 1.72 | 205 | 1.29 | 8 | 1.57 | 10 | 1.35 | 9 | 1.79 | 12 |
| Textile & fabric finishing mills | 1.26 | 5 | 1.41 | 5 | 1.37 | 27 | 1.63 | 32 | 1.60 | 1 | 1.95 | 1 | 1.59 | 1 | 2.05 | 2 |
| Fabric coating mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 371 | | 411 | | 1,298 | | 1,641 | | 63 | | 76 | | 83 | | 107 |
| <u>Textile Product Mills</u> | | | | | | | | | | | | | | | | |
| Carpet & rug mills | 1.12 | 7 | 1.26 | 8 | 1.20 | 25 | 1.59 | 33 | 1.17 | 1 | 1.42 | 2 | 1.17 | 2 | 1.49 | 2 |
| Curtain & linen mills | 1.17 | 2 | 1.31 | 2 | 1.18 | 12 | 1.34 | 13 | 1.40 | 0 ^b | 1.70 | 0 ^b | 1.36 | 0 ^b | 1.69 | 1 |
| Textile bag & canvas mills | 1.19 | 43 | 1.38 | 50 | 1.18 | 349 | 1.38 | 408 | 1.28 | 11 | 1.56 | 13 | 1.35 | 14 | 1.73 | 18 |
| All other textile product mills | 1.18 | 11 | 1.36 | 13 | 1.21 | 66 | 1.48 | 80 | 1.25 | 3 | 1.52 | 3 | 1.26 | 3 | 1.62 | 4 |
| Total -- | | 63 | | 73 | | 451 | | 534 | | 15 | | 19 | | 20 | | 26 |
| <u>Apparel</u> | | | | | | | | | | | | | | | | |
| Apparel knitting mills | 1.30 | 162 | 1.51 | 188 | 1.31 | 1,131 | 1.57 | 1,353 | 1.44 | 41 | 1.75 | 49 | 1.44 | 52 | 1.86 | 67 |
| Cut & sew apparel contractors | 1.25 | 16 | 1.59 | 21 | 1.13 | 216 | 1.33 | 254 | 1.20 | 7 | 1.46 | 8 | 1.25 | 8 | 1.63 | 11 |

Table E.2. Total Impacts from Agriculture and Forestry^a, Chattanooga, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|--------------|----------|--------------|------------|---------------|----------|---------------|--------------|----------------|--------|----------------|--------------|----------------|--------|----------------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| Mens & boys cut & sew apparel | 1.23 | 177 | 1.50 | 216 | 1.34 | 1,266 | 1.69 | 1,599 | 1.29 | 61 | 1.57 | 74 | 1.31 | 80 | 1.68 | 103 |
| Womens & girls cut & sew apparel | 1.41 | 6 | 1.58 | 7 | 1.81 | 40 | 2.12 | 47 | 2.58 | 1 | 3.14 | 2 | 2.73 | 2 | 3.46 | 2 |
| Other cut & sew apparel | 1.34 | 1 | 1.58 | 1 | 1.28 | 6 | 1.49 | 7 | 1.50 | 0 ^b | 1.82 | 0 ^b | 1.65 | 0 ^b | 2.15 | 0 ^b |
| Apparel accessories & other apparel | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 363 | | 433 | | 2,660 | | 3,260 | | 110 | | 134 | | 143 | | 183 |
| Leather & Allied Products | | | | | | | | | | | | | | | | |
| Leather & hide tanning & finishing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Footwear | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Other leather & allied products | 1.30 | 5 | 1.42 | 6 | 1.22 | 52 | 1.31 | 56 | 2.31 | 1 | 2.81 | 1 | 2.40 | 1 | 3.00 | 1 |
| Total -- | | 5 | | 6 | | 52 | | 56 | | 1 | | 1 | | 1 | | 1 |
| Secondary Agriculture Total -- | | 4,820 | | 5,344 | | 17,234 | | 21,745 | | 824 | | 1,002 | | 1,207 | | 1,513 |
| Agriculture Total -- | | 5,281 | | 5,839 | | 23,595 | | 28,401 | | 878 | | 1,068 | | 1,341 | | 1,667 |
| Forestry Inputs | | | | | | | | | | | | | | | | |
| Forestry, forest products, & timber tract production | 1.38 | 1 | 1.52 | 1 | 4.85 | 13 | 5.09 | 14 | 4.60 | 0 ^b | 5.60 | 0 ^b | 2.78 | 0 ^b | 3.72 | 0 ^b |
| Commercial logging | 1.22 | 18 | 1.47 | 22 | 1.18 | 319 | 1.31 | 352 | 1.21 | 6 | 1.48 | 7 | 1.36 | 5 | 1.94 | 8 |
| Forestry Inputs Total -- | | 19 | | 23 | | 332 | | 365 | | 6 | | 7 | | 5 | | 8 |
| Primary Forestry | | | | | | | | | | | | | | | | |
| Sawmills & wood preservation | 1.27 | 65 | 1.40 | 72 | 1.43 | 317 | 1.69 | 376 | 1.71 | 11 | 2.08 | 13 | 1.71 | 13 | 2.26 | 17 |
| Pulp mills | 1.37 | 185 | 1.51 | 205 | 2.66 | 516 | 3.52 | 683 | 2.08 | 30 | 2.54 | 36 | 1.65 | 44 | 2.08 | 56 |
| Paper mills | 1.27 | 670 | 1.40 | 741 | 2.38 | 1,544 | 3.33 | 2,156 | 1.71 | 111 | 2.09 | 135 | 1.28 | 215 | 1.53 | 257 |
| Paperboard Mills | 1.31 | 187 | 1.48 | 211 | 2.73 | 460 | 3.96 | 668 | 1.65 | 37 | 2.01 | 46 | 1.36 | 54 | 1.72 | 68 |
| Primary Forestry Total -- | | 1,108 | | 1,230 | | 2,837 | | 3,883 | | 189 | | 230 | | 326 | | 397 |

Table E.2. Total Impacts from Agriculture and Forestry^a, Chattanooga, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------------|----------|----------|-------|------------|--------|----------|----------|--------------|----------------|--------|----------|--------------|-------|--------|--------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <i>Secondary Forestry</i> | | | | | | | | | | | | | | | | |
| <i>Veneer, Plywood, & Engineered Wood Products</i> | | | | | | | | | | | | | | | | |
| Veneer & plywood | 1.20 | 3 | 1.34 | 3 | 1.30 | 14 | 1.55 | 16 | 1.48 | 0 ^b | 1.80 | 1 | 1.32 | 1 | 1.67 | 1 |
| Engineered wood member & truss | 1.23 | 10 | 1.39 | 11 | 1.32 | 59 | 1.55 | 70 | 1.56 | 2 | 1.90 | 2 | 1.45 | 3 | 1.78 | 4 |
| Reconstituted wood products | 1.20 | 49 | 1.45 | 59 | 1.28 | 249 | 1.74 | 338 | 1.20 | 16 | 1.45 | 20 | 1.16 | 17 | 1.58 | 23 |
| Total -- | | 62 | | 74 | | 322 | | 424 | | 19 | | 23 | | 21 | | 28 |
| <u>Wood Windows & Doors & Millwork</u> | 1.26 | 19 | 1.43 | 21 | 1.27 | 132 | 1.48 | 155 | 1.51 | 4 | 1.84 | 5 | 1.63 | 5 | 2.14 | 6 |
| <u>Wood Containers & Pallets</u> | 1.20 | 59 | 1.43 | 70 | 1.18 | 487 | 1.42 | 584 | 1.25 | 18 | 1.52 | 22 | 1.31 | 21 | 1.72 | 28 |
| <u>Manufactured Homes (Mobile Homes)</u> | | | | | | | | | | | | | | | | |
| Manufactured homes (mobile homes) | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Prefabricated wood buildings | 1.21 | 3 | 1.48 | 4 | 1.25 | 23 | 1.58 | 29 | 1.23 | 1 | 1.49 | 1 | 1.32 | 1 | 1.76 | 2 |
| Total -- | | 3 | | 4 | | 23 | | 29 | | 1 | | 1 | | 1 | | 2 |
| <u>All Other Miscellaneous Wood Products</u> | 1.33 | 33 | 1.52 | 37 | 1.41 | 228 | 1.65 | 268 | 1.69 | 7 | 2.05 | 9 | 1.66 | 10 | 2.10 | 13 |
| <u>Paperboard Containers</u> | 1.20 | 460 | 1.35 | 517 | 1.55 | 1,580 | 2.03 | 2,069 | 1.45 | 89 | 1.77 | 108 | 1.51 | 114 | 1.94 | 148 |
| <u>Paper Bags & Coated & Treated Paper</u> | | | | | | | | | | | | | | | | |
| Coated & laminated paper, packaging paper & plastics film | 1.14 | 8 | 1.36 | 9 | 1.40 | 22 | 2.24 | 35 | 1.16 | 2 | 1.40 | 3 | 1.17 | 3 | 1.51 | 4 |
| All other paper bag & coated & treated paper | 1.17 | 37 | 1.33 | 42 | 1.36 | 144 | 1.77 | 187 | 1.31 | 8 | 1.60 | 10 | 1.36 | 10 | 1.79 | 13 |
| Total -- | | 45 | | 51 | | 165 | | 222 | | 10 | | 13 | | 13 | | 16 |
| <u>Stationery Products</u> | 1.26 | 30 | 1.38 | 33 | 1.48 | 133 | 1.76 | 158 | 1.86 | 5 | 2.27 | 6 | 1.80 | 7 | 2.25 | 9 |

Table E.2. Total Impacts from Agriculture and Forestry^a, Chattanooga, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|--------------|----------|--------------|------------|--------------|----------|---------------|--------------|----------------|--------|----------------|--------------|----------------|--------|----------------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <u>Other Converted Paper Products</u> | | | | | | | | | | | | | | | | |
| Sanitary paper products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| All other converted paper products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| <u>Wood Kitchen Cabinets & Countertops</u> | 1.30 | 35 | 1.64 | 45 | 1.32 | 273 | 1.70 | 352 | 1.25 | 14 | 1.52 | 17 | 1.45 | 14 | 2.00 | 19 |
| <u>Household & Institutional Furniture</u> | | | | | | | | | | | | | | | | |
| Upholstered household furniture | 1.15 | 461 | 1.36 | 546 | 1.20 | 2,738 | 1.52 | 3,470 | 1.19 | 133 | 1.45 | 162 | 1.19 | 198 | 1.49 | 247 |
| Nonupholstered wood household furniture | 1.22 | 1 | 1.48 | 1 | 1.21 | 6 | 1.48 | 8 | 1.24 | 0 ^b | 1.51 | 0 ^b | 1.23 | 0 ^b | 1.55 | 0 ^b |
| Institutional furniture | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 462 | | 547 | | 2,744 | | 3,477 | | 133 | | 162 | | 198 | | 248 |
| <u>Office Furniture</u> | | | | | | | | | | | | | | | | |
| Wood television, radio, & sewing machine cabinet | 1.23 | 22 | 1.45 | 26 | 1.36 | 131 | 1.72 | 165 | 1.34 | 6 | 1.63 | 8 | 1.24 | 11 | 1.50 | 13 |
| Custom architectural woodwork & millwork | 1.20 | 2 | 1.54 | 2 | 1.20 | 12 | 1.57 | 16 | 1.15 | 1 | 1.40 | 1 | 1.22 | 1 | 1.65 | 1 |
| Showcase, partition, shelving, & locker | 1.21 | 44 | 1.42 | 51 | 1.30 | 224 | 1.69 | 291 | 1.24 | 12 | 1.51 | 15 | 1.24 | 18 | 1.55 | 23 |
| Total -- | | 67 | | 80 | | 366 | | 472 | | 19 | | 23 | | 30 | | 37 |
| <u>Other Furniture Related Products</u> | | | | | | | | | | | | | | | | |
| Mattresses | 1.21 | 32 | 1.35 | 36 | 1.47 | 133 | 1.82 | 164 | 1.50 | 6 | 1.83 | 7 | 1.32 | 12 | 1.56 | 14 |
| Blind & shades | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 32 | | 36 | | 133 | | 164 | | 6 | | 7 | | 12 | | 14 |
| Secondary Forestry Total -- | | 1,307 | | 1,514 | | 6,585 | | 8,373 | | 325 | | 396 | | 445 | | 566 |
| Forestry Total -- | | 2,434 | | 2,767 | | 9,754 | | 12,622 | | 520 | | 633 | | 776 | | 971 |

Table E.2. Total Impacts from Agriculture and Forestry^a, Chattanooga, 2011 (Cont.)

| Sector | TIO | | | Employment | | | Labor Income | | | TVA | | | | | | |
|--|--------------|--------------|----------|--------------|----------|---------------|--------------|---------------|--------------|--------------|--------|--------------|----------|--------------|--------|--------------|
| | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I | Indirect | Type Sam | Total | Sector | Type I |
| | (million \$) | | | | (number) | | | | (million \$) | | | (million \$) | | | | |
| <i>Agriculture & Forestry Total --</i> | | 7,715 | | 8,606 | | 33,349 | | 41,023 | | 1,398 | | 1,701 | | 2,117 | | 2,638 |
| <i>Construction --</i> | | 2,305 | | 2,940 | | 21,918 | | 27,390 | | 989 | | 1,205 | | 1,182 | | 1,553 |
| <i>Finance, Insurance, & Real Estate --</i> | | 10,547 | | 11,912 | | 40,192 | | 50,794 | | 1,897 | | 2,316 | | 6,461 | | 7,260 |
| <i>Government --</i> | | 7,212 | | 9,648 | | 65,525 | | 86,529 | | 3,847 | | 4,676 | | 3,157 | | 4,162 |
| <i>Manufacturing --</i> | | 13,892 | | 15,552 | | 44,923 | | 59,230 | | 2,579 | | 3,144 | | 3,708 | | 4,678 |
| <i>Mining --</i> | | 168 | | 185 | | 804 | | 951 | | 26 | | 32 | | 60 | | 70 |
| <i>Miscellaneous --</i> | | 620 | | 806 | | 9,175 | | 10,778 | | 293 | | 356 | | 335 | | 444 |
| <i>Retail Trade --</i> | | 3,599 | | 4,616 | | 48,274 | | 57,038 | | 1,588 | | 1,934 | | 2,482 | | 3,077 |
| <i>Services --</i> | | 14,778 | | 19,080 | | 159,446 | | 196,529 | | 6,710 | | 8,172 | | 9,002 | | 11,520 |
| <i>Transportation, Information, & Utilities --</i> | | 3,000 | | 3,663 | | 21,510 | | 27,222 | | 1,035 | | 1,261 | | 1,447 | | 1,835 |
| <i>Wholesale Trade --</i> | | 2,141 | | 2,697 | | 13,864 | | 18,659 | | 863 | | 1,052 | | 1,481 | | 1,806 |

^aTotals may not add due to rounding.

^bValues of zero are nonzero values less than 1.

Table E.3. Total Impacts from Agriculture and Forestry^a, Knoxville, 2011

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|----------------|----------|----------------|------------|------------|----------|------------|--------------|----------------|----------|----------------|--------------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <i>Agricultural Inputs</i> | | | | | | | | | | | | | | | | |
| <i>Agricultural Chemicals</i> | | | | | | | | | | | | | | | | |
| Fertilizers | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Pesticide & other agricultural chemicals | 1.29 | 70 | 1.41 | 77 | 4.01 | 130 | 5.86 | 189 | 2.85 | 9 | 3.59 | 11 | 1.45 | 26 | 1.68 | 30 |
| Lime & gypsum products | 1.45 | 73 | 1.68 | 85 | 2.25 | 253 | 3.16 | 355 | 1.98 | 15 | 2.50 | 19 | 1.70 | 25 | 2.18 | 32 |
| Total -- | | 143 | | 162 | | 382 | | 544 | | 23 | | 29 | | 51 | | 62 |
| <i>Agricultural Machinery</i> | | | | | | | | | | | | | | | | |
| Farm machinery & equipment | 1.28 | 8 | 1.44 | 9 | 2.03 | 23 | 2.84 | 33 | 1.75 | 1 | 2.20 | 2 | 1.57 | 2 | 1.97 | 3 |
| Lawn & garden equipment | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 8 | | 9 | | 23 | | 33 | | 1 | | 2 | | 2 | | 3 |
| <i>Agricultural Inputs Total --</i> | | 151 | | 171 | | 406 | | 577 | | 25 | | 31 | | 53 | | 65 |
| <i>Primary Agriculture</i> | | | | | | | | | | | | | | | | |
| Oilseed farming | 1.26 | 4 | 1.37 | 5 | 1.02 | 465 | 1.03 | 469 | 2.12 | 1 | 2.67 | 1 | 1.37 | 2 | 1.52 | 2 |
| Grain farming | 1.36 | 8 | 1.54 | 10 | 1.03 | 971 | 1.04 | 981 | 1.87 | 1 | 2.35 | 2 | 1.73 | 3 | 2.08 | 4 |
| Vegetable & melon farming | 1.26 | 27 | 1.38 | 30 | 1.24 | 397 | 1.32 | 422 | 2.69 | 4 | 3.39 | 4 | 1.30 | 15 | 1.44 | 17 |
| Fruit farming | 1.25 | 3 | 1.42 | 3 | 1.24 | 44 | 1.33 | 48 | 2.13 | 0 ^b | 2.68 | 1 | 1.28 | 1 | 1.48 | 2 |
| Tree nut farming | 1.23 | 0 ^b | 1.38 | 0 ^b | 1.08 | 4 | 1.11 | 4 | 2.30 | 0 ^b | 2.90 | 0 ^b | 1.24 | 0 ^b | 1.40 | 0 ^b |
| Greenhouse, nursery, & floriculture production | 1.10 | 32 | 1.56 | 46 | 1.04 | 1,104 | 1.15 | 1,220 | 1.08 | 17 | 1.36 | 21 | 1.10 | 21 | 1.51 | 29 |
| Tobacco farming | 1.40 | 9 | 1.53 | 9 | 1.08 | 408 | 1.09 | 415 | 4.93 | 1 | 6.20 | 1 | 2.26 | 3 | 2.65 | 3 |
| Cotton farming | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Sugarcane & sugar beet farming | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| All other crop farming | 1.37 | 68 | 1.56 | 77 | 1.29 | 955 | 1.40 | 1,038 | 2.14 | 12 | 2.69 | 15 | 1.86 | 24 | 2.29 | 30 |
| Cattle ranching & farming | 1.63 | 142 | 1.79 | 156 | 1.42 | 2,807 | 1.48 | 2,934 | 2.14 | 18 | 2.69 | 23 | 2.37 | 35 | 2.97 | 43 |
| Dairy cattle & milk production | 1.35 | 37 | 1.51 | 42 | 1.17 | 694 | 1.24 | 735 | 1.69 | 6 | 2.12 | 7 | 1.43 | 14 | 1.71 | 17 |
| Poultry & egg production | 1.27 | 83 | 1.40 | 92 | 1.31 | 501 | 1.52 | 579 | 1.75 | 11 | 2.21 | 14 | 1.54 | 20 | 1.95 | 26 |
| Animal production, except cattle/poultry/eggs | 1.24 | 11 | 1.42 | 12 | 1.03 | 979 | 1.05 | 993 | 1.40 | 2 | 1.76 | 3 | 1.23 | 5 | 1.45 | 6 |
| Commercial fishing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |

Table E.3. Total Impacts from Agriculture and Forestry^a, Knoxville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|--------------|----------|------------|------------|--------------|----------|---------------|--------------|----------------|----------|----------------|--------|--------------|----------|------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| Commercial hunting & trapping | 1.12 | 3 | 1.18 | 3 | 1.33 | 13 | 1.49 | 15 | 2.16 | 0 ^b | 2.71 | 0 ^b | 1.09 | 2 | 1.14 | 3 |
| Support activities for agriculture & forestry | 1.09 | 18 | 1.81 | 29 | 1.02 | 540 | 1.21 | 643 | 1.03 | 15 | 1.29 | 19 | 1.05 | 13 | 1.61 | 20 |
| Primary Agriculture Total -- | | 446 | | 516 | | 9,882 | | 10,494 | | 88 | | 111 | | 161 | | 203 |
| Secondary Agriculture | | | | | | | | | | | | | | | | |
| <u>Foods</u> | | | | | | | | | | | | | | | | |
| Dog & cat food | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Other animal foods | 1.28 | 52 | 1.39 | 56 | 2.76 | 101 | 3.80 | 140 | 3.12 | 5 | 4.00 | 7 | 2.10 | 10 | 2.64 | 13 |
| Total -- | | 52 | | 56 | | 101 | | 140 | | 5 | | 7 | | 10 | | 13 |
| <u>Grain & Oilseed Milling</u> | | | | | | | | | | | | | | | | |
| Flour milling & malt | 1.38 | 80 | 1.54 | 90 | 3.73 | 189 | 5.38 | 273 | 2.85 | 12 | 3.59 | 15 | 2.62 | 20 | 3.38 | 26 |
| Wet corn milling | 1.36 | 1,881 | 1.50 | 2,075 | 6.92 | 3,962 | 9.89 | 5,665 | 3.72 | 246 | 4.68 | 310 | 2.73 | 415 | 3.50 | 532 |
| Soybean & other oilseed processing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Fats & oils refining & blending | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Breakfast cereal | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 1,961 | | 2,165 | | 4,151 | | 5,938 | | 258 | | 325 | | 435 | | 557 |
| <u>Sugar & Confectionary Products</u> | | | | | | | | | | | | | | | | |
| Sugar cane mills & refining | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Beet sugar | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Chocolate & confectionery from cacao beans | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Confectionery from purchased chocolate | 1.31 | 43 | 1.45 | 47 | 1.63 | 153 | 2.05 | 192 | 2.27 | 6 | 2.86 | 7 | 1.62 | 12 | 1.98 | 15 |
| Nonchocolate confectionery | 1.44 | 15 | 1.58 | 16 | 1.82 | 54 | 2.25 | 66 | 3.52 | 2 | 4.44 | 2 | 2.25 | 4 | 2.80 | 4 |
| Total -- | | 57 | | 63 | | 206 | | 259 | | 8 | | 10 | | 16 | | 20 |
| <u>Fruit & Vegetable Preserving & Specialty Foods</u> | | | | | | | | | | | | | | | | |
| Frozen foods | 1.32 | 61 | 1.57 | 72 | 1.70 | 223 | 2.44 | 320 | 1.56 | 14 | 1.96 | 18 | 1.60 | 19 | 2.16 | 26 |
| Fruit & vegetable canning, pickling, & drying | 1.32 | 665 | 1.50 | 753 | 1.97 | 1,873 | 2.78 | 2,639 | 1.80 | 111 | 2.27 | 140 | 1.62 | 195 | 2.06 | 248 |
| Total -- | | 726 | | 824 | | 2,096 | | 2,959 | | 125 | | 158 | | 215 | | 274 |

Table E.3. Total Impacts from Agriculture and Forestry^a, Knoxville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------------|----------------|----------|----------------|------------|----------------|----------|-------|--------------|----------------|----------|----------------|--------------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <u>Dairy Products</u> | | | | | | | | | | | | | | | | |
| Fluid milk & butter | 1.27 | 36 | 1.38 | 40 | 2.74 | 76 | 3.80 | 105 | 2.38 | 4 | 2.99 | 5 | 1.93 | 8 | 2.44 | 10 |
| Cheese | 1.20 | 11 | 1.33 | 12 | 2.17 | 22 | 3.11 | 32 | 1.83 | 1 | 2.30 | 2 | 2.01 | 2 | 2.74 | 3 |
| Dry, condensed, & evaporated dairy products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Ice cream & frozen desserts | 1.34 | 0 ^b | 1.57 | 0 ^b | 1.83 | 0 ^b | 2.63 | 1 | 1.60 | 0 ^b | 2.02 | 0 ^b | 1.66 | 0 ^b | 2.22 | 0 ^b |
| Total -- | | 47 | | 52 | | 99 | | 138 | | 6 | | 7 | | 10 | | 12 |
| <u>Animal Slaughtering & Processing</u> | | | | | | | | | | | | | | | | |
| Animal (except poultry) slaughtering, rendering, & processing | 1.19 | 238 | 1.31 | 262 | 1.38 | 970 | 1.68 | 1,178 | 1.76 | 30 | 2.21 | 38 | 3.03 | 28 | 4.56 | 43 |
| Poultry processing | 1.38 | 230 | 1.54 | 258 | 1.90 | 862 | 2.43 | 1,105 | 2.41 | 35 | 3.04 | 44 | 2.26 | 53 | 2.97 | 70 |
| Total -- | | 468 | | 520 | | 1,833 | | 2,283 | | 65 | | 82 | | 82 | | 113 |
| <u>Seafood Product Preparation & Packaging</u> | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| <u>Bakeries & Tortillas</u> | | | | | | | | | | | | | | | | |
| Bread & bakery products | 1.45 | 125 | 1.76 | 152 | 1.53 | 788 | 1.99 | 1,021 | 1.63 | 34 | 2.05 | 42 | 1.72 | 46 | 2.32 | 62 |
| Cookie, cracker, & pastas | 1.34 | 83 | 1.55 | 97 | 1.94 | 262 | 2.79 | 377 | 1.70 | 17 | 2.14 | 21 | 1.63 | 27 | 2.10 | 35 |
| Tortillas | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 209 | | 248 | | 1,050 | | 1,398 | | 50 | | 63 | | 74 | | 98 |
| <u>Other Foods</u> | | | | | | | | | | | | | | | | |
| Snack foods | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Coffee & tea | 1.23 | 157 | 1.37 | 175 | 2.24 | 367 | 3.16 | 518 | 1.98 | 22 | 2.50 | 27 | 1.78 | 37 | 2.27 | 47 |
| Flavoring syrup & concentrates | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Seasoning & dressing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| All other foods | 1.31 | 15 | 1.55 | 18 | 1.70 | 58 | 2.42 | 82 | 1.50 | 4 | 1.89 | 4 | 1.54 | 5 | 2.04 | 7 |
| Total -- | | 173 | | 193 | | 425 | | 600 | | 25 | | 32 | | 42 | | 54 |
| <u>Beverages</u> | | | | | | | | | | | | | | | | |
| Soft drink & ice | 1.38 | 810 | 1.53 | 895 | 2.33 | 1,935 | 3.23 | 2,688 | 2.15 | 108 | 2.72 | 137 | 2.36 | 155 | 3.15 | 207 |

Table E.3. Total Impacts from Agriculture and Forestry^a, Knoxville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|--------------|----------|-------|------------|----------|----------|-------|--------------|----------------|----------|----------------|--------|----------------|----------|-------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| Breweries | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Wineries | 1.28 | 4 | 1.38 | 4 | 1.56 | 17 | 1.81 | 19 | 15.46 | 0 ^b | 19.82 | 0 ^b | 3.55 | 1 | 4.46 | 1 |
| Distilleries | 1.18 | 115 | 1.24 | 122 | 2.46 | 168 | 3.33 | 227 | 3.19 | 8 | 4.05 | 11 | 1.17 | 69 | 1.24 | 73 |
| Total -- | | 929 | | 1,022 | | 2,119 | | 2,934 | | 117 | | 148 | | 225 | | 281 |
| <u>Tobacco Products</u> | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| <u>Textile Mills</u> | | | | | | | | | | | | | | | | |
| Fiber, yarn, & thread mills | 1.09 | 14 | 1.23 | 16 | 1.20 | 52 | 1.55 | 68 | 1.25 | 2 | 1.58 | 3 | 1.27 | 3 | 1.70 | 4 |
| Broadwoven fabric mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Narrow fabric mills & schiffli machine embroidery | 1.14 | 23 | 1.51 | 30 | 1.16 | 154 | 1.64 | 218 | 1.13 | 9 | 1.42 | 12 | 1.17 | 10 | 1.67 | 15 |
| Nonwoven fabric mills | 1.16 | 17 | 1.33 | 19 | 1.48 | 42 | 2.20 | 63 | 1.31 | 3 | 1.65 | 4 | 1.28 | 5 | 1.65 | 6 |
| Knit fabric mills | 1.23 | 12 | 1.50 | 14 | 1.37 | 67 | 1.82 | 89 | 1.36 | 3 | 1.71 | 4 | 1.49 | 4 | 2.09 | 5 |
| Textile & fabric finishing mills | 1.29 | 38 | 1.49 | 44 | 1.41 | 208 | 1.76 | 260 | 1.66 | 8 | 2.09 | 10 | 1.76 | 10 | 2.37 | 14 |
| Fabric coating mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 103 | | 123 | | 524 | | 698 | | 25 | | 32 | | 33 | | 45 |
| <u>Textile Product Mills</u> | | | | | | | | | | | | | | | | |
| Carpet & rug mills | 1.08 | 0 | 1.22 | 0 | 1.17 | 0 | 1.53 | 0 | 1.22 | 0 | 1.53 | 0 | 1.22 | 0 | 1.61 | 0 |
| Curtain & linen mills | 1.18 | 1 | 1.39 | 2 | 1.20 | 9 | 1.48 | 11 | 1.31 | 0 ^b | 1.65 | 0 ^b | 1.35 | 0 ^b | 1.79 | 1 |
| Textile bag & canvas mills | 1.22 | 41 | 1.49 | 50 | 1.21 | 317 | 1.52 | 398 | 1.29 | 12 | 1.63 | 15 | 1.39 | 15 | 1.90 | 21 |
| All other textile product mills | 1.18 | 125 | 1.41 | 149 | 1.23 | 773 | 1.57 | 984 | 1.28 | 31 | 1.61 | 38 | 1.33 | 42 | 1.79 | 56 |
| Total -- | | 168 | | 201 | | 1,099 | | 1,394 | | 43 | | 54 | | 58 | | 78 |
| <u>Apparel</u> | | | | | | | | | | | | | | | | |
| Apparel knitting mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Cut & sew apparel contractors | 1.41 | 14 | 1.82 | 18 | 1.19 | 198 | 1.40 | 233 | 1.41 | 5 | 1.77 | 6 | 1.52 | 7 | 2.06 | 9 |
| Mens & boys cut & sew apparel | 1.30 | 80 | 1.65 | 102 | 1.41 | 570 | 1.89 | 760 | 1.37 | 28 | 1.72 | 35 | 1.42 | 37 | 1.92 | 50 |
| Womens & girls cut & sew apparel | 1.51 | 4 | 1.76 | 5 | 1.95 | 25 | 2.39 | 31 | 2.95 | 1 | 3.71 | 1 | 3.22 | 1 | 4.28 | 2 |
| Other cut & sew apparel | 1.43 | 9 | 1.76 | 11 | 1.34 | 88 | 1.63 | 106 | 1.64 | 3 | 2.06 | 3 | 1.89 | 4 | 2.58 | 5 |

Table E.3. Total Impacts from Agriculture and Forestry^a, Knoxville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------|--------------|----------|--------------|------------|---------------|----------|---------------|--------------|----------------|----------|----------------|--------|----------------|----------|--------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| Apparel accessories & other apparel | 1.39 | 4 | 1.69 | 5 | 1.32 | 38 | 1.60 | 46 | 1.59 | 1 | 2.00 | 1 | 1.91 | 1 | 2.63 | 2 |
| Total -- | | 111 | | 141 | | 918 | | 1,176 | | 37 | | 47 | | 50 | | 68 |
| Leather & Allied Products | | | | | | | | | | | | | | | | |
| Leather & hide tanning & finishing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Footwear | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Other leather & allied products | 1.33 | 4 | 1.63 | 5 | 1.29 | 35 | 1.63 | 44 | 1.41 | 1 | 1.77 | 2 | 1.51 | 2 | 2.03 | 2 |
| Total -- | | 4 | | 5 | | 35 | | 44 | | 1 | | 2 | | 2 | | 2 |
| Secondary Agriculture Total -- | | 5,009 | | 5,614 | | 14,658 | | 19,961 | | 766 | | 965 | | 1,250 | | 1,614 |
| Agriculture Total -- | | 5,606 | | 6,300 | | 24,946 | | 31,032 | | 879 | | 1,107 | | 1,464 | | 1,882 |
| Forestry Inputs | | | | | | | | | | | | | | | | |
| Forestry, forest products, & timber tract production | 1.22 | 3 | 1.49 | 3 | 3.58 | 16 | 4.74 | 22 | 1.70 | 1 | 2.13 | 1 | 1.24 | 2 | 1.49 | 2 |
| Commercial logging | 1.26 | 11 | 1.65 | 14 | 1.19 | 165 | 1.40 | 195 | 1.22 | 4 | 1.53 | 5 | 1.38 | 4 | 2.05 | 6 |
| Forestry Inputs Total -- | | 14 | | 18 | | 181 | | 216 | | 5 | | 6 | | 6 | | 8 |
| Primary Forestry | | | | | | | | | | | | | | | | |
| Sawmills & wood preservation | 1.30 | 87 | 1.50 | 101 | 1.50 | 422 | 1.92 | 540 | 1.65 | 17 | 2.08 | 21 | 1.81 | 21 | 2.50 | 29 |
| Pulp mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Paper mills | 1.28 | 62 | 1.50 | 73 | 2.59 | 144 | 4.29 | 238 | 1.49 | 14 | 1.88 | 17 | 1.35 | 24 | 1.71 | 31 |
| Paperboard Mills | 1.37 | 89 | 1.56 | 101 | 3.01 | 246 | 4.30 | 351 | 2.13 | 15 | 2.68 | 19 | 1.74 | 26 | 2.21 | 34 |
| Primary Forestry Total -- | | 239 | | 275 | | 812 | | 1,130 | | 46 | | 58 | | 72 | | 94 |
| Secondary Forestry | | | | | | | | | | | | | | | | |
| Veneer, Plywood, & Engineered Wood Products | | | | | | | | | | | | | | | | |
| Veneer & plywood | 1.23 | 2 | 1.35 | 2 | 1.32 | 10 | 1.53 | 12 | 2.30 | 0 ^b | 2.90 | 0 ^b | 1.75 | 0 ^b | 2.20 | 1 |
| Engineered wood member & truss | 1.25 | 25 | 1.53 | 31 | 1.39 | 137 | 1.89 | 186 | 1.37 | 7 | 1.72 | 9 | 1.39 | 10 | 1.86 | 13 |

Table E.3. Total Impacts from Agriculture and Forestry^a, Knoxville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|--------------|----------|-------|------------|----------|----------|-------|--------------|--------------|----------|-------|--------|--------------|----------|-------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| Reconstituted wood products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 27 | | 33 | | 147 | | 198 | | 7 | | 9 | | 11 | | 14 |
| <u>Wood Windows & Doors & Millwork</u> | 1.29 | 103 | 1.55 | 124 | 1.31 | 695 | 1.66 | 878 | 1.48 | 26 | 1.87 | 33 | 1.66 | 32 | 2.31 | 45 |
| <u>Wood Containers & Pallets</u> | 1.24 | 16 | 1.56 | 20 | 1.22 | 132 | 1.55 | 168 | 1.28 | 5 | 1.62 | 7 | 1.39 | 6 | 1.93 | 9 |
| <u>Manufactured Homes (Mobile Homes)</u> | | | | | | | | | | | | | | | | |
| Manufactured homes (mobile homes) | 1.46 | 326 | 1.88 | 421 | 1.50 | 2,126 | 2.09 | 2,961 | 1.43 | 121 | 1.79 | 152 | 1.59 | 124 | 2.32 | 182 |
| Prefabricated wood buildings | 1.20 | 7 | 1.66 | 10 | 1.30 | 42 | 2.09 | 67 | 1.14 | 4 | 1.44 | 5 | 1.21 | 4 | 1.74 | 6 |
| Total -- | | 334 | | 431 | | 2,168 | | 3,028 | | 125 | | 157 | | 128 | | 187 |
| <u>All Other Miscellaneous Wood Products</u> | 1.42 | 20 | 1.66 | 23 | 1.48 | 142 | 1.79 | 172 | 2.07 | 4 | 2.61 | 5 | 2.05 | 6 | 2.70 | 8 |
| <u>Paperboard Containers</u> | 1.24 | 347 | 1.46 | 409 | 1.68 | 1,203 | 2.44 | 1,747 | 1.46 | 78 | 1.83 | 99 | 1.59 | 102 | 2.17 | 139 |
| <u>Paper Bags & Coated & Treated Paper</u> | | | | | | | | | | | | | | | | |
| Coated & laminated paper, packaging paper & plastics film | 1.20 | 50 | 1.44 | 59 | 1.51 | 158 | 2.33 | 244 | 1.29 | 12 | 1.63 | 16 | 1.33 | 17 | 1.79 | 23 |
| All other paper bag & coated & treated paper | 1.21 | 7 | 1.43 | 9 | 1.45 | 29 | 2.04 | 41 | 1.36 | 2 | 1.71 | 2 | 1.47 | 2 | 2.03 | 3 |
| Total -- | | 57 | | 68 | | 188 | | 286 | | 14 | | 18 | | 19 | | 26 |
| <u>Stationery Products</u> | 1.27 | 243 | 1.52 | 290 | 1.59 | 977 | 2.27 | 1,391 | 1.44 | 60 | 1.81 | 75 | 1.57 | 79 | 2.13 | 108 |
| <u>Other Converted Paper Products</u> | | | | | | | | | | | | | | | | |
| Sanitary paper products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| All other converted paper products | 1.30 | 100 | 1.53 | 118 | 1.60 | 422 | 2.20 | 579 | 1.67 | 23 | 2.10 | 28 | 1.74 | 31 | 2.35 | 42 |
| Total -- | | 100 | | 118 | | 422 | | 579 | | 23 | | 28 | | 31 | | 42 |

Table E.3. Total Impacts from Agriculture and Forestry^a, Knoxville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------|--------------|----------|--------------|------------|---------------|----------|---------------|--------------|----------------|----------|--------------|--------|--------------|----------|--------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| <u>Wood Kitchen Cabinets & Countertops</u> | 1.43 | 31 | 1.81 | 39 | 1.39 | 266 | 1.77 | 339 | 1.47 | 10 | 1.85 | 13 | 1.94 | 11 | 2.83 | 16 |
| <u>Household & Institutional Furniture</u> | | | | | | | | | | | | | | | | |
| Upholstered household furniture | 1.17 | 315 | 1.48 | 399 | 1.23 | 1,737 | 1.76 | 2,475 | 1.17 | 108 | 1.47 | 135 | 1.20 | 150 | 1.60 | 201 |
| Nonupholstered wood household furniture | 1.24 | 32 | 1.58 | 40 | 1.23 | 254 | 1.59 | 329 | 1.25 | 11 | 1.58 | 14 | 1.28 | 16 | 1.70 | 21 |
| Institutional furniture | 1.27 | 93 | 1.51 | 110 | 1.63 | 369 | 2.30 | 520 | 1.40 | 22 | 1.76 | 27 | 1.33 | 42 | 1.66 | 52 |
| Total -- | | 440 | | 550 | | 2,361 | | 3,323 | | 140 | | 176 | | 208 | | 274 |
| <u>Office Furniture</u> | | | | | | | | | | | | | | | | |
| Wood television, radio, & sewing machine cabinet | 1.24 | 2 | 1.48 | 2 | 1.37 | 11 | 1.75 | 14 | 1.41 | 0 ^b | 1.77 | 1 | 1.30 | 1 | 1.61 | 1 |
| Custom architectural woodwork & millwork | 1.27 | 6 | 1.66 | 8 | 1.24 | 53 | 1.64 | 71 | 1.22 | 2 | 1.54 | 3 | 1.36 | 3 | 1.94 | 4 |
| Showcase, partition, shelving, & locker | 1.27 | 81 | 1.57 | 100 | 1.38 | 403 | 1.95 | 571 | 1.26 | 24 | 1.59 | 31 | 1.30 | 35 | 1.72 | 47 |
| Total -- | | 89 | | 111 | | 467 | | 655 | | 27 | | 34 | | 39 | | 52 |
| <u>Other Furniture Related Products</u> | | | | | | | | | | | | | | | | |
| Mattresses | 1.27 | 39 | 1.44 | 44 | 1.52 | 165 | 1.95 | 211 | 1.81 | 7 | 2.28 | 9 | 1.47 | 14 | 1.79 | 18 |
| Blind & shades | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 39 | | 44 | | 165 | | 211 | | 7 | | 9 | | 14 | | 18 |
| Secondary Forestry Total -- | | 1,847 | | 2,262 | | 9,332 | | 12,974 | | 528 | | 664 | | 688 | | 937 |
| Forestry Total -- | | 2,100 | | 2,555 | | 10,325 | | 14,320 | | 579 | | 728 | | 765 | | 1,039 |
| Agriculture & Forestry Total -- | | 7,707 | | 8,855 | | 35,271 | | 45,352 | | 1,458 | | 1,835 | | 2,229 | | 2,921 |
| Construction -- | | 4,566 | | 6,102 | | 42,829 | | 56,334 | | 1,964 | | 2,469 | | 2,378 | | 3,303 |
| Finance, Insurance, & Real Estate -- | | 17,263 | | 19,578 | | 77,260 | | 94,690 | | 2,473 | | 3,125 | | 10,619 | | 12,013 |
| Government -- | | 7,239 | | 11,270 | | 94,025 | | 129,475 | | 5,123 | | 6,448 | | 5,777 | | 8,100 |
| Manufacturing -- | | 18,905 | | 21,771 | | 65,209 | | 90,416 | | 3,585 | | 4,527 | | 5,911 | | 7,636 |
| Mining -- | | 1,155 | | 1,326 | | 4,826 | | 6,333 | | 214 | | 271 | | 493 | | 596 |

Table E.3. Total Impacts from Agriculture and Forestry^a, Knoxville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|----------|----------|--------|------------|----------|----------|---------|--------------|----------|----------|--------|--------------|----------|----------|--------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <i>Miscellaneous --</i> | | 1,196 | | 1,620 | | 16,267 | | 19,995 | | 537 | | 677 | | 632 | | 887 |
| <i>Retail Trade --</i> | | 6,321 | | 8,413 | | 85,122 | | 103,515 | | 2,665 | | 3,352 | | 4,315 | | 5,574 |
| <i>Services --</i> | | 32,820 | | 43,861 | | 327,631 | | 424,698 | | 14,018 | | 17,647 | | 19,327 | | 25,975 |
| <i>Transportation, Information, & Utilities --</i> | | 3,558 | | 4,636 | | 23,074 | | 32,557 | | 1,367 | | 1,722 | | 1,827 | | 2,476 |
| <i>Wholesale Trade --</i> | | 4,065 | | 5,379 | | 25,977 | | 37,529 | | 1,655 | | 2,087 | | 2,824 | | 3,615 |

^aTotals may not add due to rounding.

^bValues of zero are nonzero values less than 1.

Table E.4. Total Impacts from Agriculture and Forestry^a, Memphis, 2011

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|----------------|----------|----------------|------------|--------------|----------|--------------|--------------|----------------|----------|----------------|--------------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <i>Agricultural Inputs</i> | | | | | | | | | | | | | | | | |
| <i>Agricultural Chemicals</i> | | | | | | | | | | | | | | | | |
| Fertilizers | 1.55 | 150 | 1.68 | 162 | 3.91 | 312 | 5.19 | 414 | 4.25 | 17 | 5.33 | 21 | 3.92 | 26 | 5.03 | 34 |
| Pesticide & other agricultural chemicals | 1.24 | 554 | 1.37 | 614 | 3.23 | 810 | 5.23 | 1,309 | 1.73 | 83 | 2.17 | 105 | 1.32 | 215 | 1.55 | 252 |
| Lime & gypsum products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 704 | | 776 | | 1,122 | | 1,723 | | 100 | | 126 | | 241 | | 286 |
| <i>Agricultural Machinery</i> | | | | | | | | | | | | | | | | |
| Farm machinery & equipment | 1.30 | 27 | 1.45 | 30 | 2.00 | 76 | 2.73 | 103 | 1.81 | 5 | 2.27 | 6 | 1.60 | 8 | 1.99 | 10 |
| Lawn & garden equipment | 1.27 | 466 | 1.41 | 521 | 1.62 | 1,484 | 2.11 | 1,937 | 1.74 | 76 | 2.17 | 95 | 1.60 | 132 | 2.00 | 165 |
| Total -- | | 493 | | 551 | | 1,560 | | 2,040 | | 80 | | 100 | | 140 | | 175 |
| <i>Agricultural Inputs Total --</i> | | 1,197 | | 1,327 | | 2,682 | | 3,763 | | 180 | | 226 | | 381 | | 461 |
| <i>Primary Agriculture</i> | | | | | | | | | | | | | | | | |
| Oilseed farming | 1.33 | 497 | 1.39 | 522 | 1.15 | 9,305 | 1.18 | 9,511 | 19.73 | 34 | 24.74 | 43 | 1.41 | 235 | 1.50 | 250 |
| Grain farming | 1.42 | 578 | 1.51 | 617 | 1.14 | 14,031 | 1.17 | 14,355 | 6.81 | 54 | 8.53 | 68 | 1.75 | 223 | 1.94 | 247 |
| Vegetable & melon farming | 1.30 | 20 | 1.41 | 22 | 1.76 | 140 | 1.93 | 153 | 3.57 | 2 | 4.47 | 3 | 1.32 | 11 | 1.43 | 12 |
| Fruit farming | 1.30 | 1 | 1.40 | 1 | 1.75 | 6 | 1.89 | 7 | 7.06 | 0 ^b | 8.83 | 0 ^b | 1.31 | 0 ^b | 1.42 | 0 ^b |
| Tree nut farming | 1.27 | 0 ^b | 1.39 | 0 ^b | 1.49 | 3 | 1.61 | 3 | 2.78 | 0 ^b | 3.48 | 0 ^b | 1.26 | 0 ^b | 1.39 | 0 ^b |
| Greenhouse, nursery, & floriculture production | 1.15 | 29 | 1.29 | 33 | 1.13 | 325 | 1.23 | 355 | 1.27 | 5 | 1.59 | 6 | 1.11 | 19 | 1.24 | 21 |
| Tobacco farming | 1.50 | 6 | 1.67 | 7 | 1.33 | 79 | 1.43 | 84 | 2.47 | 1 | 3.09 | 1 | 2.38 | 2 | 2.90 | 2 |
| Cotton farming | 1.45 | 566 | 1.61 | 626 | 1.46 | 5,903 | 1.58 | 6,404 | 2.30 | 84 | 2.87 | 105 | 1.70 | 217 | 1.99 | 253 |
| Sugarcane & sugar beet farming | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| All other crop farming | 1.47 | 68 | 1.58 | 73 | 1.89 | 465 | 2.07 | 509 | 5.87 | 7 | 7.35 | 9 | 1.92 | 23 | 2.19 | 27 |
| Cattle ranching & farming | 1.39 | 101 | 1.46 | 106 | 1.36 | 782 | 1.44 | 825 | 3.35 | 7 | 4.20 | 9 | 1.98 | 24 | 2.23 | 27 |
| Dairy cattle & milk production | 1.33 | 12 | 1.40 | 13 | 1.52 | 68 | 1.64 | 73 | 5.31 | 1 | 6.65 | 1 | 1.41 | 5 | 1.52 | 5 |
| Poultry & egg production | 1.33 | 73 | 1.42 | 77 | 2.16 | 256 | 2.50 | 296 | 3.05 | 7 | 3.83 | 8 | 1.66 | 18 | 1.93 | 21 |
| Animal production, except cattle/poultry/eggs | 1.26 | 66 | 1.39 | 72 | 1.11 | 1,429 | 1.15 | 1,485 | 1.55 | 9 | 1.94 | 12 | 1.25 | 32 | 1.41 | 36 |
| Commercial fishing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Commercial hunting & trapping | 1.60 | 30 | 1.76 | 33 | 1.32 | 347 | 1.42 | 372 | 22.66 | 4 | 28.42 | 5 | 10.09 | 7 | 12.92 | 8 |

Table E.4. Total Impacts from Agriculture and Forestry^a, Memphis, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|--------------|----------|--------------|------------|---------------|----------|---------------|--------------|--------------|----------|------------|--------|--------------|----------|------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| Support activities for agriculture & forestry | 1.18 | 82 | 1.82 | 126 | 1.02 | 2,783 | 1.16 | 3,153 | 1.05 | 62 | 1.31 | 78 | 1.10 | 54 | 1.65 | 81 |
| Primary Agriculture Total -- | | 2,128 | | 2,329 | | 35,922 | | 37,584 | | 278 | | 349 | | 870 | | 992 |
| Secondary Agriculture | | | | | | | | | | | | | | | | |
| <u>Foods</u> | | | | | | | | | | | | | | | | |
| Dog & cat food | 1.27 | 630 | 1.40 | 694 | 3.10 | 1,063 | 4.66 | 1,598 | 1.99 | 86 | 2.52 | 108 | 1.39 | 223 | 1.63 | 262 |
| Other animal foods | 1.29 | 41 | 1.42 | 45 | 2.69 | 74 | 3.92 | 108 | 2.09 | 5 | 2.65 | 7 | 1.85 | 9 | 2.35 | 12 |
| Total -- | | 670 | | 739 | | 1,137 | | 1,706 | | 91 | | 115 | | 232 | | 274 |
| <u>Grain & Oilseed Milling</u> | | | | | | | | | | | | | | | | |
| Flour milling & malt | 1.46 | 347 | 1.62 | 386 | 3.90 | 813 | 5.45 | 1,136 | 3.32 | 53 | 4.17 | 67 | 3.01 | 90 | 3.81 | 113 |
| Wet corn milling | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Soybean & other oilseed processing | 1.12 | 849 | 1.18 | 896 | 2.11 | 930 | 3.00 | 1,324 | 1.80 | 66 | 2.25 | 82 | 1.97 | 88 | 2.62 | 117 |
| Fats & oils refining & blending | 1.28 | 492 | 1.35 | 516 | 5.69 | 533 | 7.87 | 737 | 3.88 | 34 | 4.86 | 43 | 1.98 | 78 | 2.36 | 93 |
| Breakfast cereal | 1.30 | 427 | 1.45 | 474 | 2.40 | 891 | 3.46 | 1,284 | 1.90 | 66 | 2.37 | 83 | 1.37 | 169 | 1.60 | 197 |
| Total -- | | 2,114 | | 2,273 | | 3,167 | | 4,482 | | 219 | | 275 | | 425 | | 521 |
| <u>Sugar & Confectionary Products</u> | | | | | | | | | | | | | | | | |
| Sugar cane mills & refining | 1.31 | 77 | 1.44 | 85 | 2.43 | 168 | 3.38 | 235 | 2.08 | 11 | 2.60 | 14 | 2.24 | 15 | 2.96 | 20 |
| Beet sugar | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Chocolate & confectionery from cacao beans | 1.35 | 13 | 1.44 | 14 | 2.31 | 31 | 2.89 | 39 | 4.89 | 1 | 6.15 | 2 | 3.99 | 2 | 5.11 | 3 |
| Confectionery from purchased chocolate | 1.33 | 113 | 1.48 | 127 | 1.59 | 375 | 2.06 | 485 | 1.83 | 19 | 2.29 | 23 | 1.55 | 36 | 1.90 | 44 |
| Nonchocolate confectionery | 1.33 | 451 | 1.51 | 512 | 1.70 | 1,477 | 2.28 | 1,986 | 1.73 | 85 | 2.16 | 107 | 1.66 | 135 | 2.12 | 172 |
| Total -- | | 654 | | 738 | | 2,051 | | 2,744 | | 116 | | 145 | | 187 | | 238 |
| <u>Fruit & Vegetable Preserving & Specialty Foods</u> | | | | | | | | | | | | | | | | |
| Frozen foods | 1.36 | 805 | 1.57 | 933 | 1.68 | 2,918 | 2.30 | 3,979 | 1.66 | 179 | 2.08 | 224 | 1.70 | 251 | 2.23 | 329 |
| Fruit & vegetable canning, pickling, & drying | 1.29 | 297 | 1.46 | 335 | 1.89 | 804 | 2.63 | 1,120 | 1.70 | 53 | 2.13 | 67 | 1.57 | 91 | 1.97 | 114 |
| Total -- | | 1,102 | | 1,268 | | 3,722 | | 5,099 | | 232 | | 290 | | 341 | | 443 |

Table E.4. Total Impacts from Agriculture and Forestry^a, Memphis, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------------|----------|----------|-------|------------|----------|----------|-------|--------------|----------|----------|-------|--------------|----------|----------|-------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <u>Dairy Products</u> | | | | | | | | | | | | | | | | |
| Fluid milk & butter | 1.37 | 371 | 1.49 | 403 | 2.85 | 737 | 3.90 | 1,007 | 2.48 | 45 | 3.10 | 57 | 2.07 | 80 | 2.59 | 99 |
| Cheese | 1.28 | 9 | 1.37 | 10 | 2.21 | 19 | 2.84 | 24 | 3.01 | 1 | 3.78 | 1 | 3.11 | 1 | 4.04 | 2 |
| Dry, condensed, & evaporated dairy products | 1.41 | 404 | 1.55 | 445 | 2.48 | 888 | 3.44 | 1,230 | 2.18 | 57 | 2.74 | 72 | 2.18 | 87 | 2.82 | 112 |
| Ice cream & frozen desserts | 1.49 | 35 | 1.67 | 39 | 1.86 | 117 | 2.44 | 153 | 2.05 | 6 | 2.57 | 8 | 2.03 | 9 | 2.62 | 12 |
| Total -- | | 819 | | 897 | | 1,761 | | 2,414 | | 110 | | 137 | | 177 | | 225 |
| <u>Animal Slaughtering & Processing</u> | | | | | | | | | | | | | | | | |
| Animal (except poultry) slaughtering, rendering, & processing | 1.18 | 758 | 1.34 | 865 | 1.36 | 2,792 | 1.79 | 3,676 | 1.36 | 149 | 1.70 | 187 | 1.66 | 143 | 2.41 | 208 |
| Poultry processing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 758 | | 865 | | 2,792 | | 3,676 | | 149 | | 187 | | 143 | | 208 |
| <u>Seafood Product Preparation & Packaging</u> | | | | | | | | | | | | | | | | |
| | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| <u>Bakeries & Tortillas</u> | | | | | | | | | | | | | | | | |
| Bread & bakery products | 1.40 | 47 | 1.68 | 56 | 1.46 | 297 | 1.85 | 376 | 1.60 | 13 | 2.00 | 17 | 1.72 | 17 | 2.29 | 23 |
| Cookie, cracker, & pastas | 1.37 | 80 | 1.55 | 90 | 1.88 | 245 | 2.54 | 330 | 1.88 | 14 | 2.36 | 18 | 1.72 | 25 | 2.16 | 31 |
| Tortillas | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 127 | | 147 | | 542 | | 706 | | 28 | | 35 | | 42 | | 54 |
| <u>Other Foods</u> | | | | | | | | | | | | | | | | |
| Snack foods | 1.29 | 815 | 1.42 | 900 | 2.21 | 1,893 | 3.04 | 2,598 | 2.09 | 118 | 2.62 | 148 | 1.56 | 253 | 1.88 | 305 |
| Coffee & tea | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Flavoring syrup & concentrates | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Seasoning & dressing | 1.35 | 25 | 1.47 | 27 | 2.04 | 73 | 2.56 | 91 | 3.09 | 3 | 3.87 | 4 | 3.04 | 5 | 3.92 | 6 |
| All other foods | 1.31 | 89 | 1.50 | 102 | 1.64 | 332 | 2.19 | 443 | 1.61 | 19 | 2.02 | 23 | 1.62 | 29 | 2.07 | 37 |
| Total -- | | 928 | | 1,029 | | 2,297 | | 3,133 | | 140 | | 175 | | 287 | | 348 |
| <u>Beverages</u> | | | | | | | | | | | | | | | | |
| Soft drink & ice | 1.26 | 842 | 1.39 | 926 | 2.05 | 1,932 | 2.78 | 2,624 | 1.92 | 115 | 2.41 | 145 | 2.09 | 162 | 2.74 | 213 |
| Breweries | 1.32 | 6 | 1.43 | 6 | 2.45 | 12 | 3.23 | 16 | 3.22 | 1 | 4.05 | 1 | 1.70 | 1 | 2.02 | 2 |

Table E.4. Total Impacts from Agriculture and Forestry^a, Memphis, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------------|----------------|----------|----------------|------------|----------------|----------|----------------|--------------|----------------|----------|----------------|--------------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| Wineries | 1.26 | 9 | 1.38 | 10 | 1.52 | 36 | 1.81 | 43 | 2.98 | 1 | 3.78 | 1 | 2.55 | 2 | 3.25 | 2 |
| Distilleries | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 857 | | 942 | | 1,980 | | 2,682 | | 117 | | 147 | | 165 | | 217 |
| <u>Tobacco Products</u> | 1.16 | 903 | 1.22 | 952 | 2.46 | 793 | 3.71 | 1,197 | 1.79 | 67 | 2.24 | 84 | 1.13 | 582 | 1.19 | 612 |
| <u>Textile Mills</u> | | | | | | | | | | | | | | | | |
| Fiber, yarn, & thread mills | 1.09 | 63 | 1.23 | 72 | 1.18 | 221 | 1.56 | 292 | 1.19 | 12 | 1.48 | 15 | 1.22 | 16 | 1.63 | 21 |
| Broadwoven fabric mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Narrow fabric mills & schiffli machine embroidery | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Nonwoven fabric mills | 1.18 | 11 | 1.31 | 12 | 1.45 | 27 | 2.00 | 37 | 1.37 | 2 | 1.71 | 2 | 1.32 | 3 | 1.65 | 4 |
| Knit fabric mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Textile & fabric finishing mills | 1.27 | 73 | 1.51 | 87 | 1.39 | 360 | 1.84 | 478 | 1.39 | 20 | 1.74 | 25 | 1.50 | 25 | 2.02 | 34 |
| Fabric coating mills | 1.22 | 9 | 1.45 | 11 | 1.52 | 30 | 2.23 | 44 | 1.32 | 2 | 1.65 | 3 | 1.42 | 3 | 1.92 | 4 |
| Total -- | | 157 | | 182 | | 638 | | 851 | | 36 | | 45 | | 46 | | 62 |
| <u>Textile Product Mills</u> | | | | | | | | | | | | | | | | |
| Carpet & rug mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Curtain & linen mills | 1.18 | 10 | 1.37 | 12 | 1.19 | 68 | 1.43 | 82 | 1.32 | 2 | 1.66 | 3 | 1.36 | 3 | 1.78 | 4 |
| Textile bag & canvas mills | 1.20 | 12 | 1.49 | 15 | 1.20 | 84 | 1.54 | 108 | 1.22 | 4 | 1.52 | 5 | 1.30 | 5 | 1.76 | 7 |
| All other textile product mills | 1.18 | 28 | 1.42 | 33 | 1.23 | 161 | 1.58 | 207 | 1.23 | 8 | 1.54 | 10 | 1.29 | 10 | 1.71 | 14 |
| Total -- | | 50 | | 60 | | 313 | | 398 | | 14 | | 18 | | 19 | | 25 |
| <u>Apparel</u> | | | | | | | | | | | | | | | | |
| Apparel knitting mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Cut & sew apparel contractors | 1.33 | 20 | 1.73 | 26 | 1.16 | 270 | 1.37 | 320 | 1.30 | 8 | 1.63 | 11 | 1.40 | 11 | 1.88 | 14 |
| Mens & boys cut & sew apparel | 1.35 | 39 | 1.59 | 46 | 1.37 | 314 | 1.63 | 373 | 1.77 | 10 | 2.22 | 12 | 1.70 | 15 | 2.18 | 20 |
| Womens & girls cut & sew apparel | 1.48 | 23 | 1.72 | 27 | 1.85 | 141 | 2.26 | 172 | 2.66 | 5 | 3.33 | 7 | 2.93 | 7 | 3.85 | 10 |
| Other cut & sew apparel | 1.29 | 0 ^b | 1.70 | 0 ^b | 1.30 | 0 ^b | 1.77 | 0 ^b | 1.25 | 0 ^b | 1.57 | 0 ^b | 1.37 | 0 ^b | 1.89 | 0 ^b |
| Apparel accessories & other apparel | 1.42 | 6 | 1.63 | 7 | 1.29 | 56 | 1.46 | 63 | 2.14 | 1 | 2.68 | 2 | 2.66 | 2 | 3.53 | 2 |
| Total -- | | 89 | | 106 | | 781 | | 929 | | 25 | | 31 | | 35 | | 46 |

Table E.4. Total Impacts from Agriculture and Forestry^a, Memphis, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|---------------|----------|---------------|------------|---------------|----------|---------------|--------------|----------------|----------|--------------|--------------|--------------|----------|--------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <u>Leather & Allied Products</u> | | | | | | | | | | | | | | | | |
| Leather & hide tanning & finishing | 1.45 | 2 | 1.63 | 3 | 2.25 | 9 | 2.89 | 11 | 2.52 | 0 ^b | 3.16 | 1 | 2.67 | 1 | 3.53 | 1 |
| Footwear | 1.28 | 44 | 1.51 | 52 | 1.25 | 342 | 1.50 | 409 | 1.46 | 11 | 1.83 | 14 | 1.57 | 15 | 2.09 | 20 |
| Other leather & allied products | 1.32 | 2 | 1.57 | 3 | 1.26 | 17 | 1.50 | 21 | 1.50 | 1 | 1.87 | 1 | 1.58 | 1 | 2.05 | 1 |
| Total -- | | 49 | | 57 | | 368 | | 441 | | 12 | | 15 | | 16 | | 22 |
| Secondary Agriculture Total -- | | 9,277 | | 10,255 | | 22,343 | | 30,457 | | 1,355 | | 1,699 | | 2,699 | | 3,296 |
| Agriculture Total -- | | 12,602 | | 13,911 | | 60,947 | | 71,804 | | 1,814 | | 2,274 | | 3,951 | | 4,748 |
| Forestry Inputs | | | | | | | | | | | | | | | | |
| Forestry, forest products, & timber tract production | | | | | | | | | | | | | | | | |
| | 1.65 | 7 | 1.91 | 8 | 4.02 | 74 | 4.49 | 83 | 6.38 | 1 | 7.99 | 2 | 3.68 | 2 | 4.86 | 3 |
| Commercial logging | 1.24 | 85 | 1.58 | 108 | 1.16 | 1,321 | 1.32 | 1,512 | 1.22 | 32 | 1.53 | 40 | 1.37 | 30 | 2.01 | 44 |
| Forestry Inputs Total -- | | 92 | | 116 | | 1,395 | | 1,595 | | 33 | | 42 | | 32 | | 47 |
| Primary Forestry | | | | | | | | | | | | | | | | |
| Sawmills & wood preservation | 1.32 | 280 | 1.50 | 317 | 1.49 | 1,340 | 1.84 | 1,652 | 1.76 | 52 | 2.20 | 65 | 1.93 | 66 | 2.60 | 89 |
| Pulp mills | 1.37 | 127 | 1.61 | 149 | 2.86 | 333 | 4.46 | 519 | 1.56 | 31 | 1.96 | 39 | 1.58 | 43 | 2.08 | 57 |
| Paper mills | 1.28 | 3,611 | 1.49 | 4,183 | 2.48 | 7,906 | 3.97 | 12,654 | 1.49 | 793 | 1.87 | 994 | 1.37 | 1,424 | 1.70 | 1,772 |
| Paperboard Mills | 1.37 | 795 | 1.55 | 897 | 2.87 | 2,058 | 4.05 | 2,906 | 2.00 | 142 | 2.50 | 178 | 1.72 | 243 | 2.16 | 305 |
| Primary Forestry Total -- | | 4,813 | | 5,547 | | 11,637 | | 17,731 | | 1,018 | | 1,276 | | 1,776 | | 2,223 |
| Secondary Forestry | | | | | | | | | | | | | | | | |
| <u>Veneer, Plywood, & Engineered Wood Products</u> | | | | | | | | | | | | | | | | |
| Veneer & plywood | 1.19 | 2 | 1.39 | 2 | 1.30 | 9 | 1.68 | 12 | 1.35 | 0 ^b | 1.68 | 1 | 1.36 | 1 | 1.78 | 1 |
| Engineered wood member & truss | 1.27 | 17 | 1.49 | 20 | 1.37 | 94 | 1.72 | 119 | 1.50 | 4 | 1.87 | 5 | 1.49 | 6 | 1.92 | 8 |
| Reconstituted wood products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 19 | | 22 | | 104 | | 131 | | 5 | | 6 | | 7 | | 9 |
| <u>Wood Windows & Doors & Millwork</u> | 1.28 | 264 | 1.55 | 319 | 1.30 | 1,662 | 1.66 | 2,123 | 1.38 | 78 | 1.73 | 97 | 1.54 | 92 | 2.10 | 126 |

Table E.4. Total Impacts from Agriculture and Forestry^a, Memphis, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|----------|--------------|-------|------------|----------|----------|-------|--------------|----------|--------------|-------|--------|----------|--------------|-------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | |
| <u>Wood Containers & Pallets</u> | 1.27 | 137 | 1.55 | 167 | 1.21 | 1,099 | 1.48 | 1,347 | 1.32 | 42 | 1.65 | 52 | 1.44 | 51 | 1.95 | 70 |
| <u>Manufactured Homes (Mobile Homes)</u> | | | | | | | | | | | | | | | | |
| Manufactured homes (mobile homes) | 1.38 | 74 | 1.69 | 90 | 1.39 | 527 | 1.76 | 665 | 1.42 | 23 | 1.77 | 29 | 1.63 | 24 | 2.32 | 34 |
| Prefabricated wood buildings | 1.26 | 10 | 1.59 | 12 | 1.29 | 68 | 1.69 | 89 | 1.28 | 4 | 1.60 | 4 | 1.39 | 4 | 1.93 | 6 |
| Total -- | | 84 | | 103 | | 595 | | 754 | | 27 | | 33 | | 28 | | 39 |
| <u>All Other Miscellaneous Wood Products</u> | 1.32 | 8 | 1.62 | 10 | 1.42 | 50 | 1.85 | 65 | 1.43 | 3 | 1.78 | 3 | 1.52 | 3 | 2.03 | 4 |
| <u>Paperboard Containers</u> | 1.25 | 510 | 1.44 | 584 | 1.64 | 1,773 | 2.21 | 2,387 | 1.58 | 103 | 1.98 | 129 | 1.73 | 139 | 2.29 | 184 |
| <u>Paper Bags & Coated & Treated Paper</u> | | | | | | | | | | | | | | | | |
| Coated & laminated paper, packaging paper & plastics film | 1.21 | 256 | 1.41 | 299 | 1.47 | 820 | 2.10 | 1,172 | 1.34 | 59 | 1.68 | 74 | 1.37 | 84 | 1.79 | 110 |
| All other paper bag & coated & treated paper | 1.21 | 67 | 1.42 | 79 | 1.42 | 253 | 1.97 | 351 | 1.33 | 16 | 1.67 | 21 | 1.44 | 20 | 1.96 | 27 |
| Total -- | | 323 | | 377 | | 1,073 | | 1,523 | | 76 | | 95 | | 104 | | 137 |
| <u>Stationery Products</u> | 1.30 | 48 | 1.48 | 54 | 1.56 | 206 | 1.96 | 259 | 1.81 | 9 | 2.26 | 11 | 2.00 | 12 | 2.63 | 16 |
| <u>Other Converted Paper Products</u> | | | | | | | | | | | | | | | | |
| Sanitary paper products | 1.20 | 479 | 1.32 | 529 | 1.85 | 1,001 | 2.61 | 1,412 | 1.63 | 69 | 2.04 | 86 | 1.33 | 159 | 1.58 | 189 |
| All other converted paper products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 479 | | 529 | | 1,001 | | 1,412 | | 69 | | 86 | | 159 | | 189 |
| <u>Wood Kitchen Cabinets & Countertops</u> | 1.37 | 52 | 1.76 | 66 | 1.36 | 393 | 1.79 | 514 | 1.34 | 20 | 1.68 | 26 | 1.60 | 21 | 2.28 | 30 |
| <u>Household & Institutional Furniture</u> | | | | | | | | | | | | | | | | |
| Upholstered household furniture | 1.13 | 11 | 1.53 | 16 | 1.23 | 47 | 2.12 | 81 | 1.09 | 6 | 1.36 | 7 | 1.12 | 7 | 1.52 | 9 |
| Nonupholstered wood household furniture | 1.24 | 15 | 1.56 | 20 | 1.22 | 119 | 1.56 | 152 | 1.24 | 6 | 1.56 | 7 | 1.27 | 8 | 1.66 | 10 |

Table E.4. Total Impacts from Agriculture and Forestry^a, Memphis, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------|---------------|----------|---------------|------------|---------------|----------|----------------|--------------|--------------|----------|--------------|--------|--------------|----------|--------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| Institutional furniture | 1.30 | 83 | 1.49 | 95 | 1.61 | 341 | 2.06 | 439 | 1.66 | 16 | 2.08 | 20 | 1.41 | 35 | 1.70 | 42 |
| Total -- | | 110 | | 130 | | 507 | | 672 | | 28 | | 35 | | 50 | | 62 |
| <u>Office Furniture</u> | | | | | | | | | | | | | | | | |
| Wood television, radio, & sewing machine cabinet | 1.15 | 15 | 1.56 | 20 | 1.35 | 60 | 2.31 | 103 | 1.12 | 7 | 1.40 | 9 | 1.14 | 10 | 1.51 | 13 |
| Custom architectural woodwork & millwork | 1.24 | 13 | 1.67 | 17 | 1.24 | 91 | 1.72 | 127 | 1.17 | 6 | 1.46 | 8 | 1.26 | 7 | 1.77 | 9 |
| Showcase, partition, shelving, & locker | 1.26 | 38 | 1.59 | 48 | 1.37 | 167 | 2.06 | 250 | 1.20 | 14 | 1.51 | 17 | 1.25 | 19 | 1.66 | 25 |
| Total -- | | 65 | | 85 | | 318 | | 480 | | 27 | | 34 | | 35 | | 47 |
| <u>Other Furniture Related Products</u> | | | | | | | | | | | | | | | | |
| Mattresses | 1.24 | 11 | 1.45 | 13 | 1.51 | 43 | 2.08 | 59 | 1.40 | 3 | 1.76 | 3 | 1.33 | 5 | 1.67 | 6 |
| Blind & shades | 1.25 | 17 | 1.60 | 22 | 1.24 | 111 | 1.68 | 150 | 1.22 | 7 | 1.52 | 8 | 1.36 | 7 | 1.93 | 10 |
| Total -- | | 28 | | 35 | | 154 | | 209 | | 9 | | 12 | | 12 | | 16 |
| Secondary Forestry Total -- | | 2,126 | | 2,480 | | 8,935 | | 11,878 | | 494 | | 618 | | 713 | | 929 |
| Forestry Total -- | | 7,030 | | 8,143 | | 21,967 | | 31,204 | | 1,546 | | 1,936 | | 2,521 | | 3,199 |
| Agriculture & Forestry Total -- | | 19,632 | | 22,054 | | 82,914 | | 103,008 | | 3,359 | | 4,209 | | 6,472 | | 7,947 |
| Construction -- | | 5,207 | | 6,889 | | 44,301 | | 58,263 | | 2,343 | | 2,933 | | 2,801 | | 3,826 |
| Finance, Insurance, & Real Estate -- | | 23,997 | | 28,105 | | 100,302 | | 130,714 | | 5,004 | | 6,290 | | 14,974 | | 17,476 |
| Government -- | | 11,737 | | 18,027 | | 141,633 | | 193,836 | | 8,787 | | 10,992 | | 9,995 | | 13,761 |
| Manufacturing -- | | 31,208 | | 35,401 | | 84,907 | | 119,704 | | 5,734 | | 7,202 | | 9,751 | | 12,304 |
| Mining -- | | 256 | | 290 | | 1,299 | | 1,577 | | 46 | | 58 | | 95 | | 115 |
| Miscellaneous -- | | 1,480 | | 2,088 | | 20,011 | | 25,054 | | 846 | | 1,059 | | 889 | | 1,259 |
| Retail Trade -- | | 7,656 | | 10,131 | | 99,849 | | 120,390 | | 3,450 | | 4,318 | | 5,320 | | 6,826 |
| Services -- | | 46,296 | | 61,689 | | 460,476 | | 588,232 | | 21,394 | | 26,792 | | 29,560 | | 38,933 |

Table E.4. Total Impacts from Agriculture and Forestry^a, Memphis, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|----------|----------|--------|------------|----------|----------|--------|--------------|----------|----------|-------|--------------|----------|----------|-------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| Transportation, Information, & Utilities -- | | 7,229 | | 9,058 | | 41,633 | | 56,817 | | 2,467 | | 3,109 | | 3,449 | | 4,563 |
| Wholesale Trade -- | | 7,942 | | 10,285 | | 50,272 | | 69,721 | | 3,235 | | 4,057 | | 5,525 | | 6,952 |

^aTotals may not add due to rounding.

^bZero values are nonzero values less than one.

Table E.5. Total Impacts from Agriculture and Forestry^a, Nashville, 2011

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|----------------|----------|----------------|------------|------------|----------|------------|--------------|----------------|----------|----------------|--------------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <i>Agricultural Inputs</i> | | | | | | | | | | | | | | | | |
| <u>Agricultural Chemicals</u> | | | | | | | | | | | | | | | | |
| Fertilizers | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Pesticide & other agricultural chemicals | 1.23 | 11 | 1.37 | 12 | 3.42 | 18 | 5.43 | 28 | 2.14 | 2 | 2.78 | 2 | 1.37 | 4 | 1.63 | 5 |
| Lime & gypsum products | 1.44 | 111 | 1.72 | 133 | 2.28 | 373 | 3.33 | 545 | 1.79 | 26 | 2.33 | 34 | 1.66 | 42 | 2.19 | 55 |
| Total -- | | 122 | | 145 | | 391 | | 573 | | 27 | | 36 | | 46 | | 60 |
| <u>Agricultural Machinery</u> | | | | | | | | | | | | | | | | |
| Farm machinery & equipment | 1.31 | 48 | 1.48 | 54 | 2.08 | 139 | 2.81 | 188 | 2.08 | 7 | 2.70 | 10 | 1.71 | 14 | 2.16 | 18 |
| Lawn & garden equipment | 1.22 | 47 | 1.51 | 58 | 1.67 | 128 | 2.86 | 219 | 1.24 | 14 | 1.59 | 18 | 1.29 | 19 | 1.76 | 26 |
| Total -- | | 95 | | 112 | | 267 | | 407 | | 22 | | 28 | | 33 | | 44 |
| <i>Agricultural Inputs Total --</i> | | 217 | | 257 | | 658 | | 981 | | 49 | | 64 | | 79 | | 104 |
| <i>Primary Agriculture</i> | | | | | | | | | | | | | | | | |
| Oilseed farming | 1.28 | 103 | 1.36 | 109 | 1.07 | 4,651 | 1.08 | 4,700 | 15.64 | 7 | 20.33 | 10 | 1.39 | 49 | 1.50 | 53 |
| Grain farming | 1.39 | 158 | 1.50 | 172 | 1.07 | 9,378 | 1.08 | 9,486 | 6.18 | 16 | 8.03 | 21 | 1.76 | 63 | 1.99 | 71 |
| Vegetable & melon farming | 1.29 | 33 | 1.44 | 37 | 1.46 | 387 | 1.58 | 418 | 2.56 | 5 | 3.34 | 6 | 1.32 | 18 | 1.49 | 20 |
| Fruit farming | 1.28 | 6 | 1.41 | 6 | 1.53 | 73 | 1.63 | 77 | 6.08 | 1 | 7.93 | 1 | 1.30 | 3 | 1.45 | 3 |
| Tree nut farming | 1.26 | 0 ^b | 1.48 | 0 ^b | 1.18 | 12 | 1.25 | 12 | 1.79 | 0 ^b | 2.33 | 0 ^b | 1.26 | 0 ^b | 1.50 | 0 ^b |
| Greenhouse, nursery, & floriculture production | 1.15 | 283 | 1.27 | 315 | 1.16 | 3,904 | 1.24 | 4,157 | 1.49 | 37 | 1.96 | 48 | 1.13 | 184 | 1.25 | 204 |
| Tobacco farming | 1.45 | 110 | 1.59 | 122 | 1.24 | 2,480 | 1.29 | 2,571 | 6.00 | 14 | 7.80 | 18 | 2.37 | 36 | 2.83 | 43 |
| Cotton farming | 1.33 | 16 | 1.54 | 18 | 1.15 | 450 | 1.20 | 470 | 1.82 | 3 | 2.37 | 4 | 1.59 | 6 | 1.99 | 8 |
| Sugarcane & sugar beet farming | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| All other crop farming | 1.41 | 247 | 1.55 | 272 | 1.57 | 2,815 | 1.68 | 3,012 | 6.01 | 30 | 7.82 | 39 | 1.91 | 89 | 2.24 | 104 |
| Cattle ranching & farming | 1.93 | 588 | 2.05 | 625 | 1.75 | 8,531 | 1.81 | 8,832 | 4.70 | 45 | 6.12 | 58 | 2.83 | 145 | 3.28 | 168 |
| Dairy cattle & milk production | 1.40 | 107 | 1.48 | 114 | 1.31 | 1,357 | 1.35 | 1,407 | 19.08 | 7 | 24.87 | 10 | 1.48 | 41 | 1.62 | 45 |
| Poultry & egg production | 1.32 | 405 | 1.44 | 439 | 1.69 | 2,025 | 1.92 | 2,303 | 2.87 | 41 | 3.74 | 54 | 1.66 | 102 | 2.01 | 123 |
| Animal production, except cattle/poultry/eggs | 1.30 | 64 | 1.41 | 69 | 1.07 | 3,738 | 1.08 | 3,784 | 2.08 | 7 | 2.71 | 9 | 1.28 | 31 | 1.42 | 35 |
| Commercial fishing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Commercial hunting & trapping | 1.49 | 33 | 1.65 | 37 | 1.35 | 374 | 1.45 | 403 | 22.29 | 4 | 28.95 | 6 | 3.12 | 9 | 3.90 | 11 |

Table E.5. Total Impacts from Agriculture and Forestry^a, Nashville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|--------------|----------|--------------|------------|---------------|----------|---------------|--------------|--------------|----------|------------|--------|--------------|----------|------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| Support activities for agriculture & forestry | 1.10 | 66 | 1.83 | 110 | 1.02 | 2,913 | 1.15 | 3,270 | 1.04 | 55 | 1.34 | 71 | 1.08 | 45 | 1.73 | 73 |
| Primary Agriculture Total -- | | 2,219 | | 2,444 | | 43,086 | | 44,902 | | 271 | | 353 | | 822 | | 961 |
| Secondary Agriculture | | | | | | | | | | | | | | | | |
| <u>Foods</u> | | | | | | | | | | | | | | | | |
| Dog & cat food | 1.25 | 1,052 | 1.41 | 1,184 | 3.16 | 1,831 | 4.99 | 2,893 | 1.90 | 154 | 2.50 | 203 | 1.38 | 386 | 1.67 | 467 |
| Other animal foods | 1.30 | 99 | 1.46 | 111 | 2.84 | 187 | 4.27 | 281 | 2.11 | 14 | 2.77 | 18 | 1.89 | 23 | 2.48 | 30 |
| Total -- | | 1,151 | | 1,295 | | 2,018 | | 3,175 | | 168 | | 221 | | 409 | | 498 |
| <u>Grain & Oilseed Milling</u> | | | | | | | | | | | | | | | | |
| Flour milling & malt | 1.46 | 131 | 1.66 | 148 | 4.04 | 315 | 5.84 | 455 | 3.31 | 21 | 4.31 | 27 | 3.01 | 34 | 3.95 | 45 |
| Wet corn milling | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Soybean & other oilseed processing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Fats & oils refining & blending | 1.21 | 328 | 1.28 | 345 | 5.68 | 379 | 7.70 | 514 | 6.64 | 20 | 8.63 | 27 | 2.06 | 51 | 2.48 | 62 |
| Breakfast cereal | 1.31 | 31 | 1.47 | 35 | 2.54 | 70 | 3.63 | 101 | 2.32 | 5 | 3.02 | 6 | 1.43 | 12 | 1.70 | 15 |
| Total -- | | 490 | | 528 | | 765 | | 1,069 | | 46 | | 60 | | 98 | | 121 |
| <u>Sugar & Confectionary Products</u> | | | | | | | | | | | | | | | | |
| Sugar cane mills & refining | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Beet sugar | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Chocolate & confectionery from cacao beans | 1.33 | 43 | 1.46 | 48 | 2.38 | 106 | 3.14 | 140 | 3.31 | 5 | 4.32 | 7 | 3.24 | 8 | 4.34 | 10 |
| Confectionery from purchased chocolate | 1.33 | 254 | 1.54 | 294 | 1.65 | 843 | 2.27 | 1,160 | 1.73 | 48 | 2.25 | 63 | 1.54 | 86 | 1.98 | 110 |
| Nonchocolate confectionery | 1.34 | 4 | 1.55 | 5 | 1.76 | 15 | 2.38 | 20 | 1.96 | 1 | 2.56 | 1 | 1.81 | 1 | 2.37 | 2 |
| Total -- | | 302 | | 346 | | 963 | | 1,320 | | 54 | | 70 | | 94 | | 122 |
| <u>Fruit & Vegetable Preserving & Specialty Foods</u> | | | | | | | | | | | | | | | | |
| Frozen foods | 1.41 | 258 | 1.67 | 305 | 1.79 | 953 | 2.50 | 1,333 | 1.76 | 58 | 2.29 | 75 | 1.79 | 81 | 2.44 | 110 |
| Fruit & vegetable canning, pickling, & drying | 1.30 | 362 | 1.54 | 428 | 1.98 | 970 | 3.05 | 1,493 | 1.55 | 79 | 2.02 | 103 | 1.51 | 123 | 2.00 | 163 |
| Total -- | | 620 | | 733 | | 1,923 | | 2,826 | | 137 | | 178 | | 204 | | 273 |

Table E.5. Total Impacts from Agriculture and Forestry^a, Nashville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------------|----------|----------|-------|------------|----------|----------|--------|--------------|----------|----------|-------|--------------|----------|----------|-------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <u>Dairy Products</u> | | | | | | | | | | | | | | | | |
| Fluid milk & butter | 1.40 | 976 | 1.54 | 1,071 | 3.05 | 2,056 | 4.17 | 2,818 | 2.94 | 116 | 3.81 | 150 | 2.26 | 208 | 2.90 | 267 |
| Cheese | 1.29 | 78 | 1.41 | 85 | 2.32 | 172 | 3.10 | 229 | 2.75 | 9 | 3.58 | 11 | 2.93 | 12 | 3.97 | 17 |
| Dry, condensed, & evaporated dairy products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Ice cream & frozen desserts | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 1,054 | | 1,157 | | 2,228 | | 3,046 | | 124 | | 162 | | 221 | | 284 |
| <u>Animal Slaughtering & Processing</u> | | | | | | | | | | | | | | | | |
| Animal (except poultry) slaughtering, rendering, & processing | 1.22 | 536 | 1.37 | 602 | 1.41 | 2,126 | 1.76 | 2,650 | 1.69 | 80 | 2.19 | 103 | 2.53 | 77 | 3.86 | 118 |
| Poultry processing | 1.49 | 2,312 | 1.70 | 2,629 | 2.04 | 8,512 | 2.65 | 11,054 | 2.64 | 386 | 3.43 | 502 | 2.48 | 569 | 3.34 | 765 |
| Total -- | | 2,848 | | 3,231 | | 10,638 | | 13,704 | | 466 | | 605 | | 646 | | 882 |
| <u>Seafood Product Preparation & Packaging</u> | | | | | | | | | | | | | | | | |
| | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| <u>Bakeries & Tortillas</u> | | | | | | | | | | | | | | | | |
| Bread & bakery products | 1.42 | 319 | 1.76 | 396 | 1.52 | 2,010 | 1.98 | 2,622 | 1.64 | 93 | 2.13 | 121 | 1.73 | 125 | 2.38 | 172 |
| Cookie, cracker, & pastas | 1.38 | 921 | 1.59 | 1,060 | 1.95 | 2,960 | 2.69 | 4,076 | 2.08 | 169 | 2.70 | 220 | 1.82 | 292 | 2.36 | 378 |
| Tortillas | 1.42 | 49 | 1.70 | 59 | 1.57 | 263 | 2.04 | 342 | 1.77 | 12 | 2.30 | 16 | 1.79 | 18 | 2.41 | 24 |
| Total -- | | 1,289 | | 1,515 | | 5,233 | | 7,040 | | 274 | | 356 | | 435 | | 574 |
| <u>Other Foods</u> | | | | | | | | | | | | | | | | |
| Snack foods | 1.29 | 848 | 1.45 | 949 | 2.31 | 2,066 | 3.22 | 2,877 | 2.32 | 123 | 3.02 | 159 | 1.62 | 264 | 2.00 | 327 |
| Coffee & tea | 1.25 | 26 | 1.39 | 28 | 2.27 | 61 | 3.08 | 83 | 2.52 | 3 | 3.28 | 4 | 2.00 | 6 | 2.57 | 7 |
| Flavoring syrup & concentrates | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Seasoning & dressing | 1.37 | 304 | 1.54 | 343 | 2.16 | 909 | 2.91 | 1,221 | 2.45 | 47 | 3.19 | 61 | 2.62 | 67 | 3.56 | 91 |
| All other foods | 1.31 | 9 | 1.57 | 11 | 1.70 | 35 | 2.42 | 50 | 1.53 | 2 | 1.99 | 3 | 1.58 | 3 | 2.12 | 4 |
| Total -- | | 1,187 | | 1,332 | | 3,072 | | 4,231 | | 175 | | 228 | | 340 | | 429 |
| <u>Beverages</u> | | | | | | | | | | | | | | | | |
| Soft drink & ice | 1.29 | 475 | 1.44 | 534 | 2.17 | 1,123 | 3.07 | 1,592 | 1.95 | 71 | 2.54 | 92 | 2.12 | 97 | 2.91 | 133 |
| Breweries | 1.29 | 24 | 1.41 | 26 | 2.47 | 52 | 3.33 | 71 | 3.62 | 3 | 4.73 | 4 | 1.73 | 7 | 2.11 | 8 |

Table E.5. Total Impacts from Agriculture and Forestry^a, Nashville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|----------------|----------|----------------|------------|----------|----------|----------|--------------|----------------|----------|----------------|--------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) |
| Wineries | 1.29 | 48 | 1.46 | 54 | 1.59 | 183 | 2.02 | 232 | 2.25 | 7 | 2.95 | 9 | 2.20 | 11 | 2.95 | 15 |
| Distilleries | 1.23 | 904 | 1.34 | 985 | 2.71 | 1,335 | 4.02 | 1,977 | 2.15 | 95 | 2.82 | 124 | 1.22 | 551 | 1.33 | 600 |
| Total -- | | 1,452 | | 1,599 | | 2,693 | | 3,872 | | 176 | | 229 | | 666 | | 757 |
| <u>Tobacco Products</u> | 1.17 | 1,552 | 1.24 | 1,644 | 2.66 | 1,472 | 3.98 | 2,207 | 2.14 | 110 | 2.78 | 144 | 1.14 | 999 | 1.21 | 1,055 |
| <u>Textile Mills</u> | | | | | | | | | | | | | | | | |
| Fiber, yarn, & thread mills | 1.11 | 80 | 1.26 | 91 | 1.21 | 290 | 1.57 | 376 | 1.28 | 13 | 1.67 | 17 | 1.31 | 18 | 1.79 | 24 |
| Broadwoven fabric mills | 1.19 | 2 | 1.45 | 2 | 1.34 | 7 | 1.89 | 10 | 1.29 | 0 ^b | 1.67 | 1 | 1.31 | 1 | 1.81 | 1 |
| Narrow fabric mills & schiffli machine embroidery | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Nonwoven fabric mills | 1.16 | 304 | 1.33 | 350 | 1.48 | 765 | 2.19 | 1,134 | 1.33 | 56 | 1.73 | 72 | 1.30 | 91 | 1.70 | 119 |
| Knit fabric mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Textile & fabric finishing mills | 1.36 | 27 | 1.60 | 32 | 1.45 | 142 | 1.83 | 180 | 1.74 | 6 | 2.26 | 7 | 1.87 | 8 | 2.56 | 11 |
| Fabric coating mills | 1.27 | 3 | 1.47 | 4 | 1.58 | 12 | 2.16 | 16 | 1.59 | 1 | 2.06 | 1 | 1.71 | 1 | 2.35 | 1 |
| Total -- | | 416 | | 478 | | 1,217 | | 1,716 | | 76 | | 98 | | 118 | | 157 |
| <u>Textile Product Mills</u> | | | | | | | | | | | | | | | | |
| Carpet & rug mills | 1.13 | 76 | 1.27 | 86 | 1.22 | 271 | 1.56 | 349 | 1.29 | 12 | 1.67 | 15 | 1.28 | 17 | 1.72 | 23 |
| Curtain & linen mills | 1.22 | 12 | 1.41 | 13 | 1.21 | 81 | 1.43 | 95 | 1.53 | 2 | 2.00 | 3 | 1.52 | 3 | 2.01 | 4 |
| Textile bag & canvas mills | 1.25 | 17 | 1.53 | 21 | 1.22 | 134 | 1.51 | 166 | 1.38 | 5 | 1.79 | 6 | 1.48 | 6 | 2.05 | 9 |
| All other textile product mills | 1.20 | 138 | 1.46 | 168 | 1.24 | 825 | 1.60 | 1,064 | 1.29 | 36 | 1.67 | 47 | 1.34 | 49 | 1.85 | 67 |
| Total -- | | 243 | | 288 | | 1,311 | | 1,673 | | 55 | | 71 | | 76 | | 104 |
| <u>Apparel</u> | | | | | | | | | | | | | | | | |
| Apparel knitting mills | 1.33 | 0 ^b | 1.63 | 0 ^b | 1.35 | 3 | 1.70 | 4 | 1.52 | 0 ^b | 1.98 | 0 ^b | 1.61 | 0 ^b | 2.22 | 0 ^b |
| Cut & sew apparel contractors | 1.41 | 46 | 1.87 | 61 | 1.19 | 616 | 1.42 | 737 | 1.39 | 18 | 1.81 | 24 | 1.50 | 24 | 2.09 | 33 |
| Mens & boys cut & sew apparel | 1.32 | 177 | 1.69 | 227 | 1.42 | 1,262 | 1.86 | 1,662 | 1.42 | 61 | 1.85 | 79 | 1.47 | 82 | 2.02 | 113 |
| Womens & girls cut & sew apparel | 1.54 | 27 | 1.81 | 32 | 1.95 | 172 | 2.38 | 209 | 3.38 | 6 | 4.40 | 7 | 3.61 | 8 | 4.87 | 11 |
| Other cut & sew apparel | 1.44 | 20 | 1.80 | 25 | 1.34 | 183 | 1.63 | 224 | 1.65 | 6 | 2.14 | 8 | 1.90 | 8 | 2.64 | 11 |
| Apparel accessories & other apparel | 1.39 | 5 | 1.76 | 6 | 1.32 | 41 | 1.67 | 51 | 1.49 | 2 | 1.93 | 2 | 1.74 | 2 | 2.48 | 3 |
| Total -- | | 274 | | 351 | | 2,276 | | 2,886 | | 92 | | 120 | | 124 | | 171 |

Table E.5. Total Impacts from Agriculture and Forestry^a, Nashville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|---------------|----------|---------------|------------|---------------|----------|---------------|--------------|--------------|----------|--------------|--------------|--------------|----------|--------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <u>Leather & Allied Products</u> | | | | | | | | | | | | | | | | |
| Leather & hide tanning & finishing | 1.47 | 39 | 1.66 | 44 | 2.33 | 149 | 2.96 | 190 | 2.99 | 6 | 3.89 | 8 | 3.08 | 9 | 4.18 | 12 |
| Footwear | 1.30 | 51 | 1.60 | 63 | 1.28 | 377 | 1.60 | 472 | 1.43 | 14 | 1.86 | 19 | 1.55 | 19 | 2.16 | 26 |
| Other leather & allied products | 1.29 | 8 | 1.68 | 11 | 1.29 | 59 | 1.73 | 80 | 1.30 | 3 | 1.69 | 4 | 1.39 | 4 | 1.95 | 6 |
| Total -- | | 98 | | 118 | | 586 | | 742 | | 24 | | 31 | | 31 | | 43 |
| Secondary Agriculture Total -- | | 12,976 | | 14,615 | | 36,392 | | 49,507 | | 1,976 | | 2,572 | | 4,461 | | 5,471 |
| Agriculture Total -- | | 15,412 | | 17,316 | | 80,136 | | 95,390 | | 2,296 | | 2,989 | | 5,362 | | 6,535 |
| Forestry Inputs | | | | | | | | | | | | | | | | |
| Forestry, forest products, & timber tract production | 1.63 | 10 | 1.96 | 12 | 4.89 | 143 | 5.43 | 159 | 8.46 | 2 | 10.94 | 3 | 5.33 | 3 | 7.68 | 4 |
| Commercial logging | 1.30 | 82 | 1.68 | 106 | 1.24 | 1,321 | 1.42 | 1,515 | 1.28 | 30 | 1.65 | 39 | 1.46 | 29 | 2.22 | 43 |
| Forestry Inputs Total -- | | 92 | | 118 | | 1,464 | | 1,674 | | 32 | | 42 | | 31 | | 47 |
| Primary Forestry | | | | | | | | | | | | | | | | |
| Sawmills & wood preservation | 1.39 | 516 | 1.60 | 596 | 1.59 | 2,513 | 1.99 | 3,153 | 1.91 | 96 | 2.48 | 125 | 2.09 | 122 | 2.94 | 171 |
| Pulp mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Paper mills | 1.34 | 275 | 1.52 | 312 | 2.65 | 686 | 3.81 | 984 | 2.15 | 44 | 2.80 | 58 | 1.54 | 95 | 1.91 | 118 |
| Paperboard Mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Primary Forestry Total -- | | 791 | | 908 | | 3,199 | | 4,138 | | 141 | | 183 | | 217 | | 289 |
| Secondary Forestry | | | | | | | | | | | | | | | | |
| <u>Veneer, Plywood, & Engineered Wood Products</u> | | | | | | | | | | | | | | | | |
| Veneer & plywood | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Engineered wood member & truss | 1.30 | 50 | 1.52 | 59 | 1.39 | 297 | 1.72 | 367 | 1.77 | 10 | 2.30 | 14 | 1.65 | 17 | 2.16 | 22 |
| Reconstituted wood products | 1.28 | 28 | 1.45 | 31 | 1.30 | 177 | 1.51 | 206 | 1.91 | 4 | 2.48 | 6 | 2.03 | 6 | 2.81 | 8 |
| Total -- | | 78 | | 90 | | 474 | | 573 | | 15 | | 19 | | 23 | | 30 |
| <u>Wood Windows & Doors & Millwork</u> | 1.33 | 176 | 1.61 | 213 | 1.33 | 1,181 | 1.67 | 1,479 | 1.59 | 45 | 2.06 | 58 | 1.79 | 56 | 2.53 | 78 |

Table E.5. Total Impacts from Agriculture and Forestry^a, Nashville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|----------|--------------|-------|------------|----------|----------|-------|--------------|----------|--------------|-------|--------|----------|--------------|-------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | |
| <u>Wood Containers & Pallets</u> | 1.28 | 81 | 1.58 | 100 | 1.22 | 694 | 1.49 | 844 | 1.43 | 23 | 1.86 | 29 | 1.55 | 28 | 2.18 | 40 |
| <u>Manufactured Homes (Mobile Homes)</u> | | | | | | | | | | | | | | | | |
| Manufactured homes (mobile homes) | 1.33 | 34 | 1.71 | 43 | 1.34 | 227 | 1.79 | 304 | 1.33 | 12 | 1.72 | 15 | 1.51 | 12 | 2.25 | 18 |
| Prefabricated wood buildings | 1.34 | 40 | 1.65 | 49 | 1.32 | 313 | 1.64 | 389 | 1.50 | 11 | 1.95 | 15 | 1.70 | 14 | 2.43 | 19 |
| Total -- | | 74 | | 93 | | 541 | | 693 | | 23 | | 30 | | 26 | | 37 |
| <u>All Other Miscellaneous Wood Products</u> | 1.40 | 69 | 1.74 | 85 | 1.49 | 446 | 1.93 | 578 | 1.68 | 20 | 2.18 | 26 | 1.76 | 27 | 2.42 | 37 |
| <u>Paperboard Containers</u> | 1.26 | 970 | 1.49 | 1,149 | 1.69 | 3,372 | 2.41 | 4,812 | 1.54 | 217 | 2.01 | 282 | 1.68 | 284 | 2.33 | 394 |
| <u>Paper Bags & Coated & Treated Paper</u> | | | | | | | | | | | | | | | | |
| Coated & laminated paper, packaging paper & plastics film | 1.21 | 152 | 1.46 | 183 | 1.51 | 481 | 2.32 | 736 | 1.32 | 39 | 1.72 | 50 | 1.36 | 53 | 1.86 | 72 |
| All other paper bag & coated & treated paper | 1.23 | 46 | 1.45 | 54 | 1.45 | 186 | 1.96 | 251 | 1.49 | 10 | 1.94 | 13 | 1.62 | 12 | 2.26 | 17 |
| Total -- | | 198 | | 237 | | 667 | | 987 | | 48 | | 63 | | 65 | | 90 |
| <u>Stationery Products</u> | 1.31 | 188 | 1.55 | 222 | 1.61 | 779 | 2.18 | 1,056 | 1.64 | 41 | 2.14 | 54 | 1.78 | 57 | 2.43 | 78 |
| <u>Other Converted Paper Products</u> | | | | | | | | | | | | | | | | |
| Sanitary paper products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| All other converted paper products | 1.32 | 92 | 1.58 | 110 | 1.63 | 388 | 2.22 | 530 | 1.77 | 21 | 2.31 | 28 | 1.84 | 29 | 2.52 | 40 |
| Total -- | | 92 | | 110 | | 388 | | 530 | | 21 | | 28 | | 29 | | 40 |
| <u>Wood Kitchen Cabinets & Countertops</u> | 1.43 | 128 | 1.87 | 168 | 1.41 | 1,014 | 1.85 | 1,333 | 1.41 | 49 | 1.83 | 63 | 1.77 | 50 | 2.62 | 75 |
| <u>Household & Institutional Furniture</u> | | | | | | | | | | | | | | | | |
| Upholstered household furniture | 1.23 | 13 | 1.48 | 16 | 1.25 | 82 | 1.60 | 104 | 1.35 | 3 | 1.76 | 4 | 1.33 | 5 | 1.76 | 7 |
| Nonupholstered wood household furniture | 1.28 | 26 | 1.64 | 33 | 1.25 | 201 | 1.61 | 259 | 1.29 | 9 | 1.68 | 11 | 1.32 | 13 | 1.78 | 17 |
| Institutional furniture | 1.33 | 11 | 1.53 | 13 | 1.67 | 48 | 2.14 | 62 | 1.83 | 2 | 2.37 | 3 | 1.48 | 5 | 1.80 | 6 |
| Total -- | | 50 | | 62 | | 331 | | 425 | | 14 | | 18 | | 23 | | 30 |

Table E.5. Total Impacts from Agriculture and Forestry^a, Nashville, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|---------------|----------|---------------|------------|---------------|----------|----------------|--------------|----------------|----------|----------------|--------------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <u>Office Furniture</u> | | | | | | | | | | | | | | | | |
| Wood television, radio, & sewing machine cabinet | 1.27 | 18 | 1.55 | 22 | 1.40 | 111 | 1.80 | 143 | 1.44 | 5 | 1.87 | 6 | 1.32 | 9 | 1.68 | 12 |
| Custom architectural woodwork & millwork | 1.24 | 28 | 1.74 | 39 | 1.26 | 190 | 1.85 | 279 | 1.16 | 14 | 1.50 | 18 | 1.25 | 15 | 1.83 | 22 |
| Showcase, partition, shelving, & locker | 1.28 | 207 | 1.61 | 260 | 1.40 | 1,012 | 1.99 | 1,441 | 1.28 | 65 | 1.66 | 85 | 1.32 | 93 | 1.78 | 126 |
| Total -- | | 253 | | 321 | | 1,313 | | 1,862 | | 84 | | 109 | | 117 | | 159 |
| <u>Other Furniture Related Products</u> | | | | | | | | | | | | | | | | |
| Mattresses | 1.30 | 219 | 1.55 | 261 | 1.60 | 870 | 2.23 | 1,211 | 1.57 | 52 | 2.03 | 68 | 1.44 | 91 | 1.85 | 118 |
| Blind & shades | 1.34 | 1 | 1.67 | 1 | 1.28 | 7 | 1.62 | 9 | 1.38 | 0 ^b | 1.79 | 0 ^b | 1.67 | 0 ^b | 2.44 | 0 ^b |
| Total -- | | 220 | | 262 | | 877 | | 1,220 | | 53 | | 68 | | 92 | | 118 |
| Secondary Forestry Total -- | | 2,575 | | 3,112 | | 12,077 | | 16,393 | | 653 | | 847 | | 877 | | 1,207 |
| Forestry Total -- | | 3,458 | | 4,137 | | 16,740 | | 22,205 | | 826 | | 1,072 | | 1,125 | | 1,544 |
| Agriculture & Forestry Total -- | | 18,869 | | 21,454 | | 96,876 | | 117,595 | | 3,122 | | 4,061 | | 6,487 | | 8,079 |
| Construction -- | | 10,215 | | 13,882 | | 90,913 | | 120,384 | | 4,528 | | 5,856 | | 5,444 | | 7,700 |
| Finance, Insurance, & Real Estate -- | | 42,709 | | 50,320 | | 191,288 | | 245,502 | | 8,035 | | 10,479 | | 26,108 | | 30,790 |
| Government -- | | 16,574 | | 26,143 | | 217,838 | | 294,809 | | 11,515 | | 14,984 | | 12,988 | | 18,623 |
| Manufacturing -- | | 55,332 | | 63,168 | | 158,318 | | 221,333 | | 9,117 | | 11,951 | | 13,829 | | 18,650 |
| Mining -- | | 1,567 | | 1,838 | | 6,388 | | 8,567 | | 324 | | 422 | | 712 | | 878 |
| Miscellaneous -- | | 2,995 | | 4,107 | | 39,831 | | 48,776 | | 1,339 | | 1,742 | | 1,606 | | 2,290 |
| Retail Trade -- | | 13,862 | | 18,967 | | 177,111 | | 218,154 | | 6,215 | | 8,065 | | 9,643 | | 12,783 |
| Services -- | | 81,650 | | 113,286 | | 735,890 | | 990,192 | | 38,714 | | 50,179 | | 51,808 | | 71,272 |
| Transportation, Information, & Utilities -- | | 10,181 | | 13,314 | | 59,727 | | 84,912 | | 3,803 | | 4,938 | | 5,332 | | 7,261 |
| Wholesale Trade -- | | 10,518 | | 14,157 | | 66,240 | | 95,503 | | 4,377 | | 5,696 | | 7,366 | | 9,605 |

^aTotals may not add due to rounding.

^bValues of zero are nonzero values less than 1.

Table E.6. Total Impacts from Agriculture and Forestry^a, Tri-Cities, 2011

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|----------------|----------|----------------|------------|------------|----------|--------------|--------------|----------------|----------|----------------|--------------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <i>Agricultural Inputs</i> | | | | | | | | | | | | | | | | |
| <u>Agricultural Chemicals</u> | | | | | | | | | | | | | | | | |
| Fertilizers | 1.39 | 7 | 1.47 | 7 | 3.51 | 15 | 4.44 | 19 | 3.74 | 1 | 4.51 | 1 | 3.28 | 1 | 4.07 | 1 |
| Pesticide & other agricultural chemicals | 1.16 | 67 | 1.24 | 72 | 2.68 | 91 | 3.85 | 131 | 1.73 | 7 | 2.09 | 8 | 1.22 | 24 | 1.36 | 26 |
| Lime & gypsum products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 74 | | 79 | | 106 | | 150 | | 7 | | 9 | | 25 | | 27 |
| <u>Agricultural Machinery</u> | | | | | | | | | | | | | | | | |
| Farm machinery & equipment | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Lawn & garden equipment | 1.16 | 214 | 1.27 | 235 | 1.46 | 662 | 1.89 | 858 | 1.36 | 33 | 1.65 | 39 | 1.33 | 58 | 1.63 | 70 |
| Total -- | | 214 | | 235 | | 662 | | 858 | | 33 | | 39 | | 58 | | 70 |
| <i>Agricultural Inputs Total --</i> | | 288 | | 314 | | 768 | | 1,008 | | 40 | | 48 | | 82 | | 98 |
| <i>Primary Agriculture</i> | | | | | | | | | | | | | | | | |
| Oilseed farming | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Grain farming | 1.27 | 5 | 1.34 | 5 | 1.02 | 727 | 1.03 | 730 | 3.62 | 0 ^b | 4.37 | 1 | 1.50 | 2 | 1.63 | 2 |
| Vegetable & melon farming | 1.21 | 10 | 1.33 | 11 | 1.25 | 166 | 1.32 | 176 | 1.68 | 2 | 2.02 | 2 | 1.21 | 5 | 1.35 | 6 |
| Fruit farming | 1.22 | 1 | 1.32 | 2 | 1.28 | 28 | 1.33 | 29 | 2.24 | 0 ^b | 2.70 | 0 ^b | 1.22 | 1 | 1.33 | 1 |
| Tree nut farming | 1.20 | 0 ^b | 1.41 | 0 ^b | 1.10 | 3 | 1.14 | 3 | 1.33 | 0 ^b | 1.61 | 0 ^b | 1.19 | 0 ^b | 1.40 | 0 ^b |
| Greenhouse, nursery, & floriculture production | 1.08 | 9 | 1.34 | 12 | 1.03 | 380 | 1.09 | 401 | 1.08 | 3 | 1.30 | 4 | 1.07 | 6 | 1.30 | 7 |
| Tobacco farming | 1.31 | 12 | 1.40 | 13 | 1.08 | 699 | 1.09 | 706 | 3.76 | 1 | 4.54 | 1 | 1.90 | 4 | 2.15 | 4 |
| Cotton farming | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Sugarcane & sugar beet farming | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| All other crop farming | 1.30 | 49 | 1.38 | 52 | 1.30 | 777 | 1.35 | 808 | 3.36 | 5 | 4.06 | 6 | 1.62 | 16 | 1.81 | 18 |
| Cattle ranching & farming | 1.88 | 123 | 1.96 | 128 | 1.67 | 2,625 | 1.71 | 2,677 | 3.23 | 9 | 3.90 | 10 | 2.53 | 28 | 2.83 | 31 |
| Dairy cattle & milk production | 1.38 | 39 | 1.43 | 40 | 1.21 | 693 | 1.24 | 707 | 7.15 | 2 | 8.65 | 3 | 1.38 | 14 | 1.47 | 15 |
| Poultry & egg production | 1.35 | 42 | 1.43 | 45 | 1.34 | 262 | 1.47 | 286 | 2.40 | 4 | 2.91 | 5 | 1.57 | 10 | 1.82 | 11 |
| Animal production, except cattle/poultry/eggs | 1.26 | 8 | 1.36 | 8 | 1.05 | 758 | 1.06 | 763 | 1.55 | 1 | 1.86 | 1 | 1.21 | 4 | 1.33 | 4 |
| Commercial fishing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Commercial hunting & trapping | 1.40 | 4 | 1.49 | 4 | 1.29 | 53 | 1.35 | 55 | 17.03 | 0 ^b | 20.58 | 0 ^b | 7.35 | 1 | 9.00 | 1 |

Table E.6. Total Impacts from Agriculture and Forestry^a, Tri-Cities, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|--------------|----------|------------|------------|--------------|----------|--------------|--------------|--------------|----------|-----------|--------|--------------|----------|------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | | | | | | | | | | | | | | | |
| | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| Support activities for agriculture & forestry | 1.16 | 7 | 1.74 | 10 | 1.02 | 314 | 1.13 | 346 | 1.03 | 5 | 1.25 | 6 | 1.09 | 4 | 1.60 | 6 |
| Primary Agriculture Total -- | | 310 | | 332 | | 7,486 | | 7,687 | | 33 | | 40 | | 94 | | 107 |
| Secondary Agriculture | | | | | | | | | | | | | | | | |
| <u>Foods</u> | | | | | | | | | | | | | | | | |
| Dog & cat food | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Other animal foods | 1.26 | 32 | 1.37 | 35 | 2.47 | 53 | 3.68 | 80 | 1.66 | 4 | 2.02 | 5 | 1.59 | 7 | 1.98 | 9 |
| Total -- | | 32 | | 35 | | 53 | | 80 | | 4 | | 5 | | 7 | | 9 |
| <u>Grain & Oilseed Milling</u> | | | | | | | | | | | | | | | | |
| Flour milling & malt | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Wet corn milling | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Soybean & other oilseed processing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Fats & oils refining & blending | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Breakfast cereal | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |
| <u>Sugar & Confectionary Products</u> | | | | | | | | | | | | | | | | |
| Sugar cane mills & refining | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Beet sugar | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Chocolate & confectionery from cacao beans | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Confectionery from purchased chocolate | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Nonchocolate confectionery | 1.21 | 3 | 1.32 | 4 | 1.52 | 12 | 1.88 | 15 | 1.65 | 0 | 2.00 | 1 | 1.51 | 1 | 1.83 | 1 |
| Total -- | | 3 | | 4 | | 12 | | 15 | | 0 | | 1 | | 1 | | 1 |
| <u>Fruit & Vegetable Preserving & Specialty Foods</u> | | | | | | | | | | | | | | | | |
| Frozen foods | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Fruit & vegetable canning, pickling, & drying | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |

Table E.6. Total Impacts from Agriculture and Forestry^a, Tri-Cities, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------------|----------|----------|-------|------------|----------|----------|-------|--------------|----------------|----------|----------------|--------------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <u>Dairy Products</u> | | | | | | | | | | | | | | | | |
| Fluid milk & butter | 1.24 | 35 | 1.32 | 38 | 2.44 | 67 | 3.15 | 87 | 2.12 | 3 | 2.56 | 4 | 1.73 | 6 | 2.08 | 8 |
| Cheese | 1.23 | 60 | 1.29 | 63 | 2.02 | 122 | 2.49 | 150 | 2.44 | 5 | 2.95 | 6 | 2.50 | 7 | 3.15 | 9 |
| Dry, condensed, & evaporated dairy products | 1.29 | 207 | 1.39 | 224 | 2.14 | 430 | 2.90 | 583 | 1.73 | 26 | 2.08 | 31 | 1.75 | 39 | 2.19 | 49 |
| Ice cream & frozen desserts | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 302 | | 324 | | 618 | | 820 | | 34 | | 41 | | 53 | | 66 |
| <u>Animal Slaughtering & Processing</u> | | | | | | | | | | | | | | | | |
| Animal (except poultry) slaughtering, rendering, & processing | 1.12 | 20 | 1.20 | 21 | 1.27 | 79 | 1.48 | 92 | 1.47 | 2 | 1.78 | 3 | 2.38 | 2 | 3.46 | 3 |
| Poultry processing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 20 | | 21 | | 79 | | 92 | | 2 | | 3 | | 2 | | 3 |
| <u>Seafood Product Preparation & Packaging</u> | | | | | | | | | | | | | | | | |
| | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| <u>Bakeries & Tortillas</u> | | | | | | | | | | | | | | | | |
| Bread & bakery products | 1.25 | 12 | 1.45 | 14 | 1.37 | 83 | 1.65 | 100 | 1.43 | 3 | 1.72 | 3 | 1.49 | 4 | 1.90 | 5 |
| Cookie, cracker, & pastas | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Tortillas | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 12 | | 14 | | 83 | | 100 | | 3 | | 3 | | 4 | | 5 |
| <u>Other Foods</u> | | | | | | | | | | | | | | | | |
| Snack foods | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Coffee & tea | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Flavoring syrup & concentrates | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Seasoning & dressing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| All other foods | 1.19 | 11 | 1.35 | 13 | 1.49 | 41 | 1.97 | 54 | 1.33 | 2 | 1.61 | 3 | 1.36 | 3 | 1.70 | 4 |
| Total -- | | 11 | | 13 | | 41 | | 54 | | 2 | | 3 | | 3 | | 4 |
| <u>Beverages</u> | | | | | | | | | | | | | | | | |
| Soft drink & ice | 1.18 | 294 | 1.27 | 317 | 1.82 | 646 | 2.39 | 851 | 1.58 | 34 | 1.91 | 41 | 1.68 | 47 | 2.15 | 60 |
| Breweries | 1.16 | 2 | 1.20 | 2 | 1.96 | 4 | 2.31 | 5 | 5.48 | 0 ^b | 6.69 | 0 ^b | 1.43 | 0 ^b | 1.58 | 0 ^b |

Table E.6. Total Impacts from Agriculture and Forestry^a, Tri-Cities, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------|----------------|----------|----------------|------------|----------------|----------|----------------|--------------|----------------|----------|----------------|--------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | | | | | | | | | | | | | | | |
| | | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | |
| Wineries | 1.19 | 3 | 1.24 | 3 | 1.40 | 10 | 1.54 | 12 | 8.99 | 0 ^b | 11.09 | 0 ^b | 2.75 | 0 ^b | 3.30 | 0 ^b |
| Distilleries | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 299 | | 321 | | 660 | | 867 | | 34 | | 41 | | 48 | | 61 |
| <u>Tobacco Products</u> | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| <u>Textile Mills</u> | | | | | | | | | | | | | | | | |
| Fiber, yarn, & thread mills | 1.17 | 106 | 1.32 | 119 | 1.21 | 345 | 1.65 | 470 | 1.21 | 21 | 1.46 | 25 | 1.24 | 27 | 1.61 | 35 |
| Broadwoven fabric mills | 1.13 | 0 ^b | 1.41 | 0 ^b | 1.26 | 0 ^b | 2.11 | 0 ^b | 1.10 | 0 ^b | 1.33 | 0 ^b | 1.12 | 0 ^b | 1.48 | 0 ^b |
| Narrow fabric mills & schiffli machine embroidery | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Nonwoven fabric mills | 1.14 | 60 | 1.26 | 67 | 1.37 | 145 | 1.94 | 205 | 1.24 | 10 | 1.50 | 12 | 1.21 | 17 | 1.49 | 21 |
| Knit fabric mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Textile & fabric finishing mills | 1.19 | 33 | 1.34 | 37 | 1.31 | 182 | 1.56 | 218 | 1.42 | 6 | 1.71 | 7 | 1.50 | 8 | 1.93 | 11 |
| Fabric coating mills | 1.19 | 134 | 1.32 | 149 | 1.42 | 463 | 1.85 | 602 | 1.36 | 23 | 1.64 | 28 | 1.45 | 32 | 1.86 | 41 |
| Total -- | | 333 | | 373 | | 1,135 | | 1,496 | | 60 | | 73 | | 83 | | 107 |
| <u>Textile Product Mills</u> | | | | | | | | | | | | | | | | |
| Carpet & rug mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Curtain & linen mills | 1.16 | 0 ^b | 1.32 | 0 ^b | 1.16 | 2 | 1.38 | 2 | 1.24 | 0 ^b | 1.49 | 0 ^b | 1.27 | 0 ^b | 1.61 | 0 ^b |
| Textile bag & canvas mills | 1.21 | 8 | 1.45 | 10 | 1.19 | 57 | 1.49 | 71 | 1.18 | 2 | 1.43 | 3 | 1.26 | 3 | 1.65 | 4 |
| All other textile product mills | 1.21 | 12 | 1.34 | 13 | 1.20 | 77 | 1.39 | 89 | 1.41 | 2 | 1.70 | 2 | 1.42 | 3 | 1.77 | 4 |
| Total -- | | 20 | | 23 | | 136 | | 162 | | 4 | | 5 | | 6 | | 8 |
| <u>Apparel</u> | | | | | | | | | | | | | | | | |
| Apparel knitting mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Cut & sew apparel contractors | 1.22 | 2 | 1.55 | 2 | 1.12 | 23 | 1.32 | 27 | 1.17 | 1 | 1.41 | 1 | 1.24 | 1 | 1.62 | 1 |
| Mens & boys cut & sew apparel | 1.22 | 10 | 1.41 | 12 | 1.29 | 83 | 1.52 | 98 | 1.41 | 2 | 1.71 | 3 | 1.40 | 4 | 1.75 | 5 |
| Womens & girls cut & sew apparel | 1.34 | 1 | 1.48 | 1 | 1.70 | 5 | 1.93 | 6 | 2.78 | 0 ^b | 3.36 | 0 ^b | 2.85 | 0 ^b | 3.57 | 0 ^b |
| Other cut & sew apparel | 1.24 | 4 | 1.52 | 5 | 1.24 | 37 | 1.52 | 45 | 1.25 | 1 | 1.51 | 2 | 1.38 | 2 | 1.82 | 2 |
| Apparel accessories & other apparel | 1.25 | 1 | 1.48 | 2 | 1.23 | 13 | 1.47 | 15 | 1.30 | 0 ^b | 1.57 | 0 ^b | 1.48 | 0 ^b | 1.97 | 1 |
| Total -- | | 18 | | 21 | | 161 | | 191 | | 5 | | 6 | | 7 | | 9 |

Table E.6. Total Impacts from Agriculture and Forestry^a, Tri-Cities, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------------|----------------|----------|----------------|------------|---------------|----------|---------------|--------------|----------------|----------|----------------|--------------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <u>Leather & Allied Products</u> | | | | | | | | | | | | | | | | |
| Leather & hide tanning & finishing | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Footwear | 1.19 | 0 ^b | 1.41 | 0 ^b | 1.21 | 3 | 1.49 | 3 | 1.21 | 0 ^b | 1.46 | 0 ^b | 1.29 | 0 ^b | 1.69 | 0 ^b |
| Other leather & allied products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 0 ^b | | 0 ^b | | 3 | | 3 | | 0 ^b | | 0 ^b | | 0 ^b | | 0 ^b |
| Secondary Agriculture Total -- | | 1,051 | | 1,149 | | 2,981 | | 3,879 | | 149 | | 180 | | 214 | | 272 |
| Agriculture Total -- | | 1,650 | | 1,795 | | 11,235 | | 12,574 | | 222 | | 268 | | 391 | | 477 |
| <u>Forestry Inputs</u> | | | | | | | | | | | | | | | | |
| Forestry, forest products, & timber tract production | 1.32 | 1 | 1.49 | 1 | 4.26 | 6 | 4.74 | 7 | 2.62 | 0 ^b | 3.17 | 0 ^b | 1.45 | 0 ^b | 1.73 | 0 ^b |
| Commercial logging | 1.22 | 8 | 1.47 | 10 | 1.18 | 149 | 1.30 | 165 | 1.21 | 3 | 1.46 | 3 | 1.41 | 2 | 2.01 | 3 |
| Forestry Inputs Total -- | | 9 | | 11 | | 155 | | 172 | | 3 | | 3 | | 3 | | 4 |
| <u>Primary Forestry</u> | | | | | | | | | | | | | | | | |
| Sawmills & wood preservation | 1.26 | 48 | 1.39 | 53 | 1.42 | 231 | 1.72 | 280 | 1.52 | 8 | 1.84 | 10 | 1.67 | 10 | 2.18 | 13 |
| Pulp mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Paper mills | 1.21 | 344 | 1.36 | 385 | 2.24 | 752 | 3.37 | 1,131 | 1.41 | 62 | 1.70 | 75 | 1.27 | 124 | 1.52 | 148 |
| Paperboard Mills | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Primary Forestry Total -- | | 392 | | 439 | | 983 | | 1,411 | | 71 | | 85 | | 134 | | 162 |
| <u>Secondary Forestry</u> | | | | | | | | | | | | | | | | |
| <u>Veneer, Plywood, & Engineered Wood Products</u> | | | | | | | | | | | | | | | | |
| Veneer & plywood | 1.14 | 3 | 1.31 | 3 | 1.26 | 12 | 1.60 | 16 | 1.24 | 1 | 1.50 | 1 | 1.25 | 1 | 1.59 | 1 |
| Engineered wood member & truss | 1.19 | 26 | 1.37 | 30 | 1.29 | 144 | 1.63 | 181 | 1.29 | 6 | 1.55 | 7 | 1.31 | 9 | 1.64 | 12 |
| Reconstituted wood products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Total -- | | 28 | | 33 | | 156 | | 196 | | 7 | | 8 | | 10 | | 13 |
| <u>Wood Windows & Doors & Millwork</u> | 1.20 | 32 | 1.43 | 38 | 1.24 | 195 | 1.61 | 253 | 1.21 | 10 | 1.46 | 12 | 1.31 | 11 | 1.75 | 15 |

Table E.6. Total Impacts from Agriculture and Forestry^a, Tri-Cities, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------------|----------------|----------|-------|------------|----------|----------|-------|--------------|----------------|----------|----------------|--------------|----------------|----------|----------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <u>Wood Containers & Pallets</u> | 1.18 | 26 | 1.41 | 31 | 1.17 | 219 | 1.42 | 264 | 1.21 | 8 | 1.46 | 9 | 1.29 | 9 | 1.70 | 12 |
| <u>Manufactured Homes (Mobile Homes)</u> | | | | | | | | | | | | | | | | |
| Manufactured homes (mobile homes) | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| Prefabricated wood buildings | 1.19 | 1 | 1.45 | 2 | 1.23 | 9 | 1.58 | 12 | 1.18 | 0 ^b | 1.42 | 1 | 1.28 | 0 ^b | 1.72 | 1 |
| Total -- | | 1 | | 2 | | 9 | | 12 | | 0 ^b | | 1 | | 0 ^b | | 1 |
| <u>All Other Miscellaneous Wood Products</u> | 1.26 | 0 ^b | 1.47 | 1 | 1.36 | 3 | 1.68 | 4 | 1.37 | 0 ^b | 1.66 | 0 ^b | 1.45 | 0 ^b | 1.86 | 0 ^b |
| <u>Paperboard Containers</u> | 1.19 | 104 | 1.30 | 114 | 1.52 | 372 | 1.89 | 464 | 1.56 | 15 | 1.88 | 18 | 1.66 | 22 | 2.10 | 28 |
| <u>Paper Bags & Coated & Treated Paper</u> | | | | | | | | | | | | | | | | |
| Coated & laminated paper, packaging paper & plastics film | 1.16 | 247 | 1.30 | 276 | 1.39 | 818 | 1.84 | 1,087 | 1.30 | 45 | 1.57 | 54 | 1.31 | 68 | 1.64 | 85 |
| All other paper bag & coated & treated paper | 1.14 | 5 | 1.32 | 6 | 1.33 | 19 | 1.88 | 26 | 1.19 | 1 | 1.43 | 2 | 1.26 | 2 | 1.67 | 2 |
| Total -- | | 252 | | 281 | | 837 | | 1,113 | | 46 | | 55 | | 70 | | 88 |
| <u>Stationery Products</u> | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| <u>Other Converted Paper Products</u> | | | | | | | | | | | | | | | | |
| Sanitary paper products | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| All other converted paper products | 1.22 | 27 | 1.35 | 30 | 1.44 | 116 | 1.76 | 142 | 1.66 | 4 | 2.01 | 5 | 1.68 | 6 | 2.10 | 8 |
| Total -- | | 27 | | 30 | | 116 | | 142 | | 4 | | 5 | | 6 | | 8 |
| <u>Wood Kitchen Cabinets & Countertops</u> | 1.29 | 7 | 1.58 | 8 | 1.30 | 56 | 1.64 | 71 | 1.23 | 2 | 1.49 | 3 | 1.47 | 2 | 2.05 | 3 |
| <u>Household & Institutional Furniture</u> | | | | | | | | | | | | | | | | |
| Upholstered household furniture | 1.13 | 32 | 1.36 | 39 | 1.18 | 184 | 1.57 | 245 | 1.13 | 10 | 1.36 | 12 | 1.15 | 15 | 1.46 | 18 |
| Nonupholstered wood household furniture | 1.12 | 12 | 1.51 | 17 | 1.18 | 68 | 1.87 | 108 | 1.07 | 7 | 1.29 | 8 | 1.09 | 8 | 1.45 | 10 |

Table E.6. Total Impacts from Agriculture and Forestry^a, Tri-Cities, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|--|--------|--------------|----------|--------------|------------|---------------|----------|---------------|--------------|----------------|----------|----------------|--------|------------|----------|------------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Institutional furniture | 1.20 | 9 | 1.32 | 10 | 1.47 | 39 | 1.77 | 47 | 1.52 | 1 | 1.83 | 2 | 1.29 | 4 | 1.48 | 4 |
| Total -- | | 54 | | 65 | | 290 | | 399 | | 18 | | 22 | | 26 | | 33 |
| <u>Office Furniture</u> | | | | | | | | | | | | | | | | |
| Wood television, radio, & sewing machine cabinet | 1.17 | 1 | 1.37 | 2 | 1.29 | 9 | 1.63 | 11 | 1.24 | 0 ^b | 1.49 | 0 ^b | 1.19 | 1 | 1.44 | 1 |
| Custom architectural woodwork & millwork | 1.19 | 5 | 1.49 | 6 | 1.19 | 43 | 1.51 | 55 | 1.15 | 2 | 1.38 | 2 | 1.25 | 2 | 1.69 | 3 |
| Showcase, partition, shelving, & locker | 1.15 | 5 | 1.42 | 6 | 1.27 | 23 | 1.85 | 34 | 1.12 | 2 | 1.35 | 2 | 1.16 | 2 | 1.49 | 3 |
| Total -- | | 12 | | 14 | | 75 | | 100 | | 4 | | 5 | | 5 | | 7 |
| <u>Other Furniture Related Products</u> | | | | | | | | | | | | | | | | |
| Mattresses | 1.18 | 15 | 1.31 | 17 | 1.40 | 62 | 1.74 | 78 | 1.44 | 3 | 1.73 | 3 | 1.29 | 6 | 1.52 | 6 |
| Blind & shades | 1.27 | 11 | 1.49 | 13 | 1.21 | 85 | 1.46 | 103 | 1.27 | 3 | 1.53 | 4 | 1.51 | 3 | 2.05 | 4 |
| Total -- | | 26 | | 30 | | 148 | | 181 | | 5 | | 7 | | 9 | | 11 |
| Secondary Forestry Total -- | | 568 | | 646 | | 2,477 | | 3,198 | | 120 | | 144 | | 171 | | 217 |
| Forestry Total -- | | 969 | | 1,095 | | 3,616 | | 4,781 | | 193 | | 233 | | 308 | | 383 |
| Agriculture & Forestry Total -- | | 2,619 | | 2,890 | | 14,851 | | 17,355 | | 415 | | 501 | | 699 | | 860 |
| Construction -- | | 1,883 | | 2,345 | | 19,671 | | 23,939 | | 707 | | 853 | | 885 | | 1,159 |
| Finance, Insurance, & Real Estate -- | | 5,434 | | 5,951 | | 19,894 | | 23,861 | | 645 | | 781 | | 3,360 | | 3,666 |
| Government -- | | 2,609 | | 3,752 | | 38,628 | | 49,198 | | 1,758 | | 2,120 | | 2,029 | | 2,678 |
| Manufacturing -- | | 14,606 | | 16,318 | | 40,130 | | 55,963 | | 2,588 | | 3,133 | | 3,964 | | 4,985 |
| Mining -- | | 278 | | 304 | | 1,530 | | 1,770 | | 39 | | 47 | | 80 | | 95 |
| Miscellaneous -- | | 401 | | 522 | | 6,624 | | 7,745 | | 186 | | 224 | | 210 | | 282 |
| Retail Trade -- | | 2,250 | | 2,847 | | 32,816 | | 38,333 | | 915 | | 1,104 | | 1,513 | | 1,867 |
| Services -- | | 10,454 | | 13,198 | | 112,426 | | 137,789 | | 4,189 | | 5,057 | | 5,941 | | 7,567 |

Table E.6. Total Impacts from Agriculture and Forestry^a, Tri-Cities, 2011 (Cont.)

| Sector | TIO | | | | Employment | | | | Labor Income | | | | TVA | | | |
|---|--------------|----------|----------|-------|------------|----------|----------|--------|--------------|----------|----------|-------|--------------|----------|----------|-------|
| | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total | Type I | Indirect | Type Sam | Total |
| | (million \$) | | | | (number) | | | | (million \$) | | | | (million \$) | | | |
| <i>Transportation, Information, & Utilities --</i> | | 1,336 | | 1,592 | | 8,280 | | 10,647 | | 381 | | 462 | | 585 | | 736 |
| <i>Wholesale Trade --</i> | | 1,259 | | 1,577 | | 8,342 | | 11,283 | | 483 | | 583 | | 864 | | 1,053 |

^aTotals may not add due to rounding.

^bValues of zero are nonzero values less than 1.