The Economic Impact of Agribusiness in South Carolina



Prepared For: South Carolina Department of Agriculture

Prepared by:

Joseph C. Von Nessen, Ph.D.

Research Economist Darla Moore School of Business University of South Carolina

November 2022





Darla Moore School of Business

EXECUTIVE SUMMARY

South Carolina's agribusiness cluster is one of the state's largest industry groups. As of 2020, the total annual economic impact of agribusiness on the Palmetto State is \$51.8 billion. This figure reflects the dollar value representing all final goods and services produced statewide that can be attributed (directly or indirectly) to the agribusiness cluster. This impact corresponds to 259,215 jobs and over \$12.3 billion in labor income that would not exist otherwise.

Agribusiness in South Carolina encompasses both the agricultural and forestry sectors, which represent about 55 percent and 45 percent of agribusiness, respectively. The largest industry sectors within the agricultural component of agribusiness are those related to poultry and poultry-related products. Within the forestry sector, paper and paper product manufacturing represent the largest industry sectors.

South Carolina agribusiness has experienced significant growth throughout the previous decade. **The agribusiness** cluster increased by approximately 40 percent between 2010 and 2020 – from roughly \$37 billion to \$52 billion. The agricultural component grew at 39 percent over this time period, while the forestry component grew at 41 percent.

The agribusiness cluster has a significant opportunity for growth in the coming decade. South Carolina currently imports \$11.7 billion in agribusiness products from outside of the state for final consumption. This represents an unmet local demand that, if captured by local agribusiness firms, would further increase the total current impact of South Carolina agribusiness by nearly 23 percent.



The SCDA is actively working on various initiatives for capturing this unmet demand, including proactive efforts towards expanding meat/beef production and processing. If South Carolina were to capture just 25 percent of the current unmet demand of this industry, this would increase the total economic impact of the South Carolina agribusiness cluster by as much as \$511 million annually. These results imply that for every \$1 in new demand generated from additional production activity in meat/beef production and processing, a total of \$1.53 would be generated in new economic activity for the state's economy.

Section - Introduction

Agribusiness has been at the forefront of South Carolina's economic development for hundreds of years, dating to well before the colonial period of America's history. Today, with nearly 25,000 farms, the Palmetto State is fortunate to have a strong, growing agribusiness cluster based on the abundance of arable land and driven by sophisticated, highly productive, and diversified private enterprise. Agribusiness-related companies and suppliers are currently distributed across every county in the state, including family-owned and operated farms, large scale private farms, livestock producers, major food processors and manufacturers, and wood products producers - among others. South Carolina's agribusiness cluster has also seen significant expansion in recent years. As will be shown in this report, the total economic footprint of agribusiness has increased by over 40 percent since 2010, or from approximately \$37 billion to \$52 billion in total economic activity.

Part of this increase has been the result of the South Carolina Department of Agriculture's (SCDA) ongoing efforts to increase production levels of local agribusiness products to satisfy unmet demand among South Carolinians. In 2020, for example, South Carolinians purchased approximately \$36.9 billion in agribusiness-related products. However, just 32 percent of these products were grown or manufactured in South Carolina by South Carolinabased firms. As such, despite the significant growth the agribusiness cluster has experienced over the previous decade, there is a significant opportunity for the SCDA to continue to help local businesses capture even more of the existing demand stemming from the 68 percent of agribusiness products that South Carolinians are still purchasing from out-of-state suppliers.

The purpose of this research effort is twofold: (1) to provide a comprehensive assessment of the economic impact of the agribusiness cluster in South Carolina in order to better understand its size and scope and its importance towards contributing to the state's longrun economic growth; and (2) to specifically examine the degree to which the current demand in South Carolina for individual products in the agribusiness sector is currently being met by out-of-state suppliers. The information obtained from this latter analysis can then be used by the SCDA to establish appropriate long-run strategies that focus on increasing local production of the agricultural goods that will maximize potential gains in economic activity for South Carolina.

This study begins by establishing the formal definition of agribusiness in South Carolina to be used in this report; Section III then moves to a discussion of the current economic impact of agribusiness on South Carolina. Next, Section IV quantifies both the unmet local demand of selected product categories within the agribusiness cluster and highlights the economic benefits of expanding production in these categories; finally, Section V provides a brief conclusion.



Section II – Defining the Agribusiness Cluster in South Caroling



Industry Description	Direct Economic Output
Poultry processing	\$2,577,430,378
Landscape and horticultural services	\$1,461,666,503
Poultry and egg production	\$1,307,618,858
Commercial and industrial machinery and equipment repair	\$961,985,895
Bottled and canned soft drinks & water	\$881,029,147
Lawn and garden equipment manufacturing	\$806,811,026
Bread and bakery product, except frozen, manufacturing	\$782,483,808
Meat processed from carcasses	\$767,671,290
Animal, except poultry, slaughtering	\$700,027,966
Frozen specialties manufacturing	\$648,529,192
All Other Agriculture Sectors	\$6,495,687,579
Total Agriculture Component	\$17,390,941,640

The agribusiness cluster represents a diverse group of businesses in South Carolina. These primarily revolve around the traditional agriculture and forestry sectors, all associated food and wood processing, and other related sectors such as industrial equipment, maintenance, and various support services. For the purposes of this report, the agribusiness cluster will be specifically grouped into two components: agriculture and forestry. The agriculture component represents 58 individual industry sectors in South Carolina, while the forestry component represents 42 individual industry sectors. The definitions and total size of each component, that is - the included industry sectors - are based on the IMPLAN modeling tool and are broadly consistent with previous research documenting South Carolina's agribusiness cluster, including the findings from Carpio, et. al (2008), the University of South Carolina (2010), and London & Associates (2015). The forestry component is primarily based on recently released research from the South Carolina Forestry Commission.¹

Tables 1 and 2 highlight the top 10 individual sectors included as part of each component, while Appendix I and Appendix II provide listings of all individual sectors for each component. All estimates reflect measures of economic output from 2020, which are the most recently available as of this writing. Economic output is defined as the total dollar value of all final goods and services produced in South Carolina that can be directly attributed to both labor and non-labor expenditures on the part of agribusiness firms at their many industrial locations, farms, and plant facilities located across the state.

Source: The Economic Impact of South Carolina's Forestry Industry; South Carolina Forestry Commission; October 2022





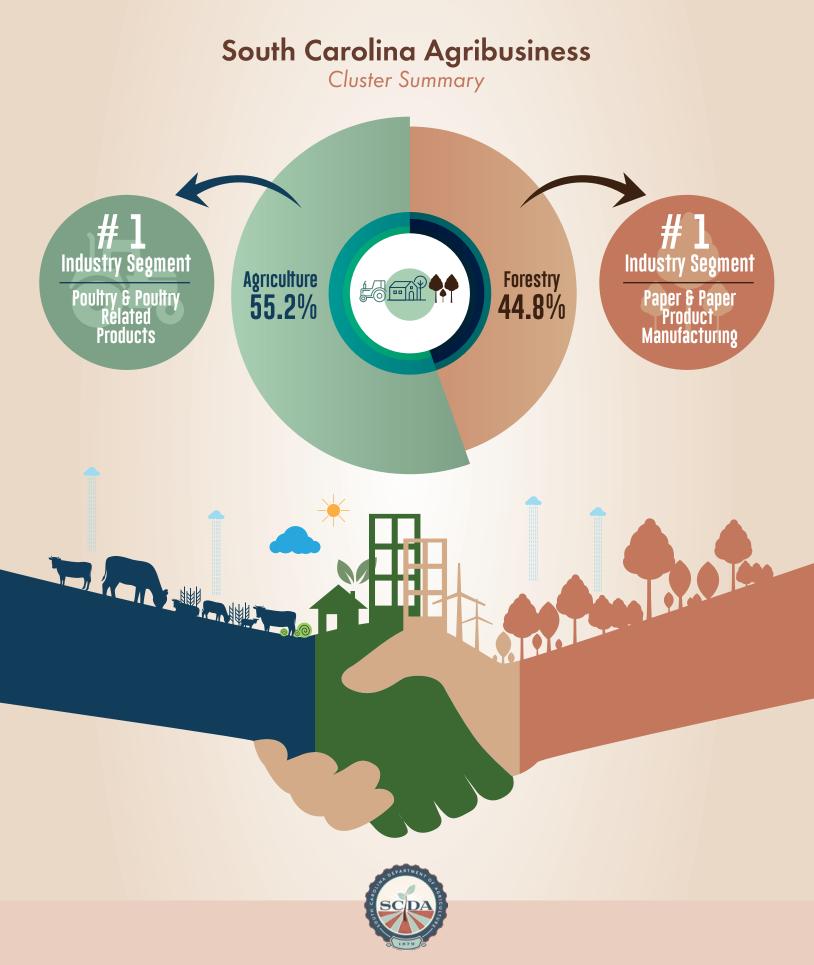
Table 2 – South Carolina's Agribusiness Sector: Forestry Component Breakdown Top 10 Industry Sectors

Industry Description	Direct Economic Output
Paperboard mills	\$2,283,349,326
Paperboard container manufacturing	\$1,929,405,185
Sanitary paper product manufacturing	\$1,754,321,699
Forestry-Based Recreation	\$1,036,766,841
Other basic organic chemical manufacturing	\$997,990,197
Paper mills	\$822,868,432
Paper bag and coated and treated paper manufacturing	\$728,133,707
Sawmills	\$541,489,704
All other converted paper product manufacturing	\$436,466,493
Reconstituted wood product manufacturing	\$420,523,276
All Other Forestry Sectors	\$3,818,575,074
Total Forestry Component	\$14,769,889,934

Note that the largest industry sectors within the agricultural component of South Carolina's agribusiness cluster are those related to poultry and poultry related products, which total approximately \$3.9 billion in direct economic activity annually. By contrast, within the forestry component of South Carolina's agribusiness cluster, the largest industrial sectors are those tied directly to paper and paper product manufacturing. These sectors comprise over \$7.7 billion in direct economic activity each year.

In sum, the total direct economic impact of the agribusiness cluster in South Carolina – including all elements of both agriculture and forestry – is \$32.2 billion annually. This includes \$17.4 billion and \$14.8 billion from the agriculture and forestry components, respectively.





PAGE 7

Section III – The Economic Impact of Agribusiness on South Carolina

METHODOLOGY

As outlined above, the agribusiness cluster is one of the primary components of South Carolina's economy, generating billions of dollars in economic activity and directly employing thousands of workers across the state every year. Yet these activities do not provide a complete picture of the impact of agribusiness on the Palmetto State. The expenditures that occur as part of all ongoing operations of businesses within the cluster represent direct economic activity within the local regions in which they are made. However, these expenditures also lead to additional job creation and economic activity by way of the economic multiplier effect (or economic ripple effect).

Economic multiplier effects can be divided into direct, indirect, and induced impacts. The direct impact reflects all in-state purchases made by agribusiness firms themselves, including – for example – those made by all South Carolina farms, mills, and food processors & manufacturers. These expenditures incorporate employee wages and benefits, equipment, building maintenance, and other overhead or administrative costs. This spending activity increases demand and leads to the creation of new jobs and more income for employees and suppliers of these agribusiness firms.

The indirect impact reflects all additional economic activity that results from inter-industry linkages between local firms in South Carolina. For example, when a South Carolina paperboard mill purchases raw materials from in-state vendors such as power/ energy or packaging materials, these in-state vendors experience an increase in demand. To satisfy this demand, they must purchase additional inputs from their own suppliers. These suppliers must then purchase additional supplies as well, and so on. These indirect effects ripple through the economy and affect many sectors throughout South Carolina.





The induced impact reflects additional economic activity that results from increases in the spending of household income. For example, when the aforementioned paperboard mill purchases materials from one of its suppliers and the overall demand for this supplier firm rises, some of the staff working for this supplier will see a rise in their income levels. Part of this income will then be spent locally on, for example, food, entertainment, or housing. These industries will then also see an increase in demand for their goods and services, which will lead to higher incomes for some of their employees, part of which will also be spent locally.

These successive rounds of indirect and induced spending do not go on forever, which is why we can calculate a value for each of them. In each round, money is "leaked out" for a variety of reasons. For example, firms may purchase some of their supplies from vendors located outside of South Carolina. In addition, employees will save part of their income or spend part of it with firms located outside of the state. In order to determine the total economic impact that will result from an initial direct impact, economic multipliers are used. An economic multiplier can be used to determine the total impact (direct, indirect, and induced) that results from an initial change in economic activity (the direct impact). Multipliers are different in each sector of the economy and are largely determined by the size of the local supplier network as well as the particular region being examined. In addition, economic multipliers are available to calculate not just the total impact, but also the total employment and income levels associated with the total impact.

To estimate the impact of the agribusiness cluster on the state of South Carolina, the Division of Research used a detailed structural model of the South Carolina economy containing specific information on economic linkages across the state's 534 industrial sectors. This study also utilized the input-output modeling software IMPLAN in calculating estimates.







PRIMARY RESULTS

As previously noted, the total direct economic impact of the agribusiness cluster in South Carolina is \$32.2 billion annually. This includes \$17.4 billion in agriculture and \$14.8 billion in forestry. These estimates represent the total dollar value representing all final goods and services produced in South Carolina that can be directly attributed to both labor and non-labor expenditures on the part of agribusiness firms at their many industrial locations, farms, and plant facilities. Because it includes all spending by consumers and businesses on both goods and services, it is an all-inclusive measure of direct economic activity. Approximately 145,386 jobs and \$6.6 billion in labor income are both associated with this \$32.2 billion direct economic activity. Table 3 highlights these estimates as well as the jobs and income figures in both the agriculture and forestry components of South Carolina agribusiness.²

Table 3 – Direct Economic Impact of Agribusiness on South Carolina

Impact Category	Agriculture	Forestry	Totals	
Employment	97,131	48,255	145,386	
Labor Income	\$3,700,944,427	\$2,922,888,463	\$6,623,832,890	
Economic Output	\$17,390,941,640	\$14,769,889,934	\$32,160,831,574	

²Note that all labor income estimates reflect total employee compensation, including wages, salaries, and benefits.





These direct economic impacts also lead to indirect and induced impacts through increases in demand for goods and services in other related industries and through increases in household spending activity – all of which are estimated using economic multipliers. Each impact is reported in **Table 4**, along with the accompanying totals. These totals represent the overall impact of the agribusiness cluster on South Carolina.

	Impact Category	Employment	Labor Income	Economic Output
	Direct Effect	145,386	\$6,623,832,890	\$32,160,831,574
	Indirect Effect	69,549	\$3,669,212,028	\$12,826,673,062
}	Induced Effect	44,280	\$2,050,268,370	\$6,848,343,528
	Total Impact	259,215	\$12,343,313,288	\$51,835,848,164

Table 4 – Total Economic Impact of Agribusiness on South Carolina





The \$32.2 billion in direct economic activity (or economic output) from the agribusiness cluster (including all labor and non-labor expenditures) leads to indirect effects totaling approximately \$12.8 billion in economic output and 69,549 jobs. These estimates reflect the increased demand for goods and services of local suppliers resulting from in-state expenditures on the part of agribusiness firms. The direct economic activity also leads to induced effects totaling another \$6.8 billion in economic output and 44,280 jobs. This is a reflection of economic activity in South Carolina generated across all industries that is the result of increased household spending. The combination of the direct, indirect, and induced effects leads to a total economic impact of approximately \$51.8 billion, which is associated with 259,215 jobs across South Carolina. This makes agribusiness one of the largest industry groups in South Carolina. **Tables 5 and 6** summarize all impact estimates associated with each component.

	Employment	Labor Income	Economic Output
Direct Effect	97,131	\$3,700,944,427	\$17,390,941,640
Indirect Effect	38,131	\$1,910,227,266	\$7,299,920,108
Induced Effect	23,819	\$1,153,234,215	\$3,920,249,988
Total Impact	159,082	\$6,764,405,907	\$28,611,111,735

Table 5 – Economic Impact of Agribusiness on South Carolina: Agriculture Component





Table 6 – Economic Impact of Agribusiness on South Carolina: Forestry Component

	Employment	Labor Income	Economic Output
Direct Effect	48,255	\$2,922,888,463	\$14,769,889,934
Indirect Effect	31,418	\$1,758,984,763	\$5,526,752,954
Induced Effect	20,460	\$897,034,155	\$2,928,093,541
Total Impact	100,133	\$5,578,907,381	\$23,224,736,429

Each year, as Table 5 denotes, the agriculture component of South Carolina's agribusiness cluster generates a total statewide economic impact of approximately \$28.6 billion. This is associated with roughly 159,082 jobs and over \$6.7 billion in labor income. The approximately \$17.4 billion in direct economic output leads to an additional \$11.2 billion through the economic multiplier effect. Table 5 also highlights the multiplier effects associated with all labor income and employment impacts. The \$11.2 billion in additional economic output associated with all indirect and induced effects is estimated to generate 61,950 additional jobs in South Carolina to fill the increased demand for industry related local suppliers and for increased household spending, which also supports an additional \$3.1 billion in labor income.

In a similar fashion, **Table 6** breaks down the direct, indirect, and induced effects of the forestry component of South Carolina's agribusiness cluster. The total statewide impact of this forestry component is \$23.2 billion annually. Approximately \$14.8 billion in direct economic output generates an additional \$8.4 billion in economic output via the economic multiplier effect. This \$8.4 billion, in turn, supports approximately 51,878 additional jobs and \$2.6 billion in labor income. In sum, the \$23.2 billion impact generated by the forestry component supports 100,133 South Carolina jobs and nearly \$5.6 billion in annual labor income.



PAGE 13

AGRIBUSINESS CLUSTER GROWTH IN SOUTH CAROLINA

In addition to its sizable total impact, the agribusiness cluster has experienced significant growth in recent years as well. As **Figure 1** denotes, the total size of the South Carolina agribusiness cluster increased by approximately 40 percent between 2010 and 2020 – from \$37 billion to \$52 billion. The agriculture component grew at approximately 39 percent over this time period, while the forestry component grew at 41 percent.



Figure 1 – Economic Impact of Agribusiness in South Carolina: 2010-2020



Section IV – The Unmet Demand for Local Agriculture in South Carolina

THE ECONOMIC BENEFITS OF CAPTURING UNMET DEMAND

As previously noted, in 2020, South Carolinians purchased approximately \$36.9 billion in agribusiness-related products. However, just 32 percent of these products were grown or manufactured in South Carolina by South Carolina businesses. This, in turn, also means that 68 percent of these products were purchased from out-of-state suppliers.

Because the majority of agribusiness products purchased by South Carolinians are not produced locally, there is a significant potential demand for additional local production that is not currently being satisfied. Or put another way, there is currently an unmet local demand in agribusiness products that new or existing in-state suppliers could potentially capture. To the extent that local suppliers would be able to capture a portion of this unmet demand, it would represent a net gain for the South Carolina economy and an increase in the total economic impact of South Carolina agribusiness. This study now turns towards specifically quantifying this unmet demand by product category, highlighting areas where the SCDA may have opportunities to facilitate additional production, and then estimating the potential economic benefits to South Carolina from this increased production.



There is a significant potential demand for additional local agribusiness production that is not currently being satisfied.

->Just 32%

of all agribusiness products purchased by South Carolinians are currently produced in South Carolina, meaning that 68% are purchased from out-of-state suppliers.



PAGE 15

METHODOLOGY

One of the most effective ways for the SCDA to increase the economic impact of the agribusiness cluster in the coming decade is to identify agribusiness product categories that meet two criteria: (1) categories that have a large unmet demand in South Carolina and (2) categories that already have a well-established presence in South Carolina. The importance of the first criteria is obvious: without an existing unmet demand there is limited potential to increase total economic activity through additional local purchasing. However, large unmet demand for a product category without an existing in-state presence could also be problematic. For example, consider product categories, such as cheese, for which there is very little production in South Carolina and yet high unmet demand. The startup costs associated with establishing such a new industry could be large relative to product categories in which there is both high unmet demand and an existing industry infrastructure that can be expanded.

In order to identify the categories that meet both criteria, the total supply, total demand, and Regional Purchase Coefficient (RPC) values of each product category must first be identified. Next, the total unmet demand can be calculated by taking the difference between the total demand and the total supply. Finally, the RPC values can be used to determine the extent to which each product category has an established industry presence within the state. An RPC is specifically defined as the percentage of the total in-state demand that is satisfied by in-state suppliers. Thus, any product category with an extraordinarily low RPC is likely to be a category in which there is no significant industry production in South Carolina. For example, the RPC for the cheese industry is 0.4 percent, meaning that 99.6 percent of all cheese purchased by South Carolinians is produced outside of the state and then imported for consumption.

There are 100 commodity categories that encompass the South Carolina agribusiness cluster - 58 in agriculture and 42 in forestry. **Table 7** reveals the top 15 as ranked by the highest dollar volume of unmet demand. As of 2020, South Carolina consumers were purchasing a total of \$23.8 billion in agribusiness product categories for which total demand exceeded total supply, while South Carolina businesses produced \$12.1 billion in these same categories. The difference between these two - \$11.7 billion – represents the potential unmet demand that firms within the state's agribusiness cluster could potentially capture.



This study estimates that South Carolina currently imports \$11.7 billion in agribusiness products from outside of the state for final consumption. This represents an unmet local demand that, if captured by local agribusiness firms, would increase the total current impact of South Carolina agribusiness by nearly 23 percent.





Table 7 – South Carolina Agribusiness Commodity Categories with Highest Levels of Unmet Demand: 2020

*Meat/Beef Production and Processing Categories

Industry Description	Total Supply	Total Demand	RPC	Unmet Demand
Meat (except poultry) produced in slaughtering plant*	\$620,464,355	\$1,246,408,340	7.9%	\$625,943,985
Grains	\$240,410,984	\$730,949,700	25.7%	\$490,538,716
Cigarettes, cigars, smoking and chewing tobacco, and reconstituted tobacco	\$131,056,178	\$601,382,528	20.0%	\$470,326,351
Cheese	\$28,576,163	\$489,053,223	0.4%	\$460,477,060
Wine and brandies	\$42,411,564	\$465,550,999	1.6%	\$423,139,434
Flavoring syrup and concentrate	\$29,010,658	\$443,279,270	0.2%	\$414,268,613
Beer, ale, malt liquor and nonalcoholic beer	\$286,974,842	\$694,631,789	9.7%	\$407,656,947
Meat processed from carcasses*	\$871,335,000	\$1,252,776,229	19.8%	\$381,441,229
Forest, timber, and forest nursery products	\$90,842,780	\$468,265,562	16.0%	\$377,422,782
Beef cattle*	\$141,700,817	\$473,743,684	24.6%	\$332,042,867
Farm machinery and equipment	\$157,329,088	\$456,927,432	18.8%	\$299,598,344
Soybean and other oilseed processing	\$62,765,755	\$341,205,594	0.7%	\$278,439,839
Other animal food	\$403,721,274	\$672,984,275	23.5%	\$269,263,001
Animal products, except cattle and poultry and eggs	\$64,469,745	\$319,706,400	16.9%	\$255,236,655
Bottled and canned soft drinks and water	\$866,941,893	\$1,099,635,271	34.7%	\$232,693,378

Totals Across All 94 Categories \$12,106,862,044 \$23,764,098,104 32.0% \$11,657,236,060





Across all of the product categories listed in **Table 7** with the highest levels of unmet demand, note that meat/beef production and processing is the largest general industry sector – spanning three product categories – with a total of approximately \$1.3 billion in unmet demand. Moreover, these three product categories have RPCs of 7.9 percent, 19.8 percent, and 24.6 percent and collectively produce more than \$1.6 billion each year, underscoring the sizable presence this industry sector currently maintains. This is also one reason why the SCDA is actively working on various initiatives with the explicit goal of expanding beef production in the coming years.

MEASURING THE ECONOMIC BENEFITS OF EXPANDED MEAT/BEEF PRODUCTION AND PROCESSING

If new or existing South Carolina agribusiness firms are able to capture any portion of this unmet demand for meat/beef production and processing, it could substantially increase the total economic impact of agribusiness in South Carolina. More specifically, **Tables 8-10** highlight the potential increase in the agribusiness cluster that South Carolina would experience if the SCDA were to help capture either 5, 15, or 25 percent of the unmet demand in this sector by the year 2030.





Table 8 – Annual Economic Impact of Meat/Beef Production and Processing

Capturing an Additional 5% of Unmet Demand

	Employment	Labor Income	Economic Output
Direct Effect	232	\$5,509,223	\$66,971,404
Indirect Effect	178	\$6,810,171	\$27,226,299
Induced Effect	52	\$2,522,247	\$8,010,823
Total Impact	462	\$14,841,641	\$102,208,525

Table 9 – Annual Economic Impact of Meat/Beef Production and Processing

Capturing an Additional 15% of Unmet Demand

	Employment	Labor Income	Economic Output
Direct Effect	696	\$16,527,670	\$200,914,212
Indirect Effect	535	\$20,430,512	\$81,678,896
Induced Effect	156	\$7,566,740	\$24,032,468
Total Impact	1,387	\$44,524,922	\$306,625,576

Table 10 - Annual Economic Impact of Meat/Beef Production and Processing

Capturing an Additional 25% of Unmet Demand

	Employment	Labor Income	Economic Output
Direct Effect	1,160	\$27,546,117	\$334,857,020
Indirect Effect	892	\$34,050,853	\$136,131,493
Induced Effect	261	\$12,611,234	\$40,054,114
Total Impact	2,312	\$74,208,203	\$511,042,627

If South Carolina were to expand the production of meat/ beef production and processing and to capture 25 percent of the current unmet statewide demand, this would increase the total economic impact of the South Carolina agribusiness cluster by as much as \$511 million annually. This would also generate approximately 2,312 additional new jobs for South Carolinians. The approximately \$334.9 million in new direct economic output would lead to an additional \$176.1 million through the economic multiplier effect. Moreover, this \$176.1 million is estimated to generate 1,153 additional jobs in South Carolina to fill the increased demand for local suppliers and for increased household spending, which also supports an additional \$46.7 million in labor income. These results imply that for every \$1 in new demand generated from additional local meat/beef production and processing, a total of \$1.53 would be generated in new economic activity for the state's economy.



Section V – Conclusion

With nearly 25,000 farms statewide, South Carolina's agribusiness cluster represents one of the largest industry groups in the Palmetto State and is a primary driver of statewide economic growth. Agribusiness-related companies and suppliers are distributed across every county, including familyowned and operated farms, large scale private farms, livestock producers, major food processors and manufacturers, and wood products producers among others. This study specifically estimates that the agribusiness cluster in South Carolina currently generates a total of \$51.8 billion in annual economic activity, which supports approximately 259,215 jobs and nearly \$12.4 billion in labor income that would not exist otherwise. This impact represents an increase of 40 percent since 2010.

Despite this sizable economic impact, however, South Carolina's agribusiness cluster has a significant opportunity for growth in the coming decade. This study estimates that South Carolina currently imports \$11.7 billion in agribusiness products from outside of the state for final consumption. This represents an unmet local demand that, if captured by local agribusiness firms, would further increase the total current impact of South Carolina agribusiness by nearly 23 percent.

The SCDA is actively working on various initiatives for capturing this unmet demand, including proactive efforts towards expanding meat/beef production and processing. If South Carolina were to capture just 25 percent of the current unmet demand of this industry, this would increase the total economic impact of the South Carolina agribusiness cluster by as much as \$511 million annually. It would also generate approximately 2,312 additional new jobs for South Carolinians. These results thus imply that for every \$1 in new demand generated from additional meat/beef production and processing, a total of \$1.53 would be generated in new economic activity for the state's economy.

As one of South Carolina's largest industry clusters with a potential for significant future expansion, agribusiness will continue to be a major driver for the Palmetto State's economy throughout the 2020s.







Appendix I – South Carolina's Agribusiness Sector: Agriculture Component Breakdown

Industry Description	Direct Economic Output	Industry Description	Direct Economic Output
Poultry processing	\$2,577,430,378	Beef cattle ranching and farming, including feedlots	\$143,176,220
Landscape and horticultural services	\$1,461,666,503	Tobacco product manufacturing	\$131,083,940
Poultry and egg production	\$1,307,618,858	Oilseed farming	\$111,269,831
Commercial and industrial machinery and equipment repair	\$961,985,895	Roasted nuts and peanut butter manufacturing Breakfast cereal manufacturing	\$80,508,227 \$77,664,481
Bottled and canned soft drinks & water	\$881,029,147	Rendering and meat byproduct processing	\$74,413,871
Lawn and garden equipment manufacturing	\$806,811,026	Commercial hunting and trapping	\$72,026,477
Bread and bakery product, except frozen, manufacturing	\$782,483,808	Soybean and other oilseed processing	\$67,350,287
Meat processed from carcasses	\$767,671,290	Warehousing and Storage (Refrigerated Warehousing)	\$63,264,103
Animal, except poultry, slaughtering	\$700,027,966	Cookie and cracker manufacturing	\$61,241,277
Frozen specialties manufacturing	\$648,529,192	Animal production, except cattle and poultry and eggs	\$60,145,542
Dog and cat food manufacturing	\$591,380,885	Tobacco farming	\$48,991,155
All other food manufacturing	\$419,441,055	Dairy cattle and milk production	\$47,058,591
Other animal food manufacturing	\$398,880,840	Nonchocolate confectionery manufacturing	\$42,757,985
Fluid milk manufacturing	\$323,345,046	Farm machinery and equipment manufacturing	\$39,329,794
All other crop farming	\$306,623,986	Wineries	\$37,308,055
Canned fruits and vegetables manufacturing	\$299,760,968	Seafood product preparation and packaging	\$35,432,192
Breweries	\$286,069,256	Commercial fishing	\$26,672,474
Coffee and tea manufacturing	\$251,655,998	Fats and oils refining and blending	\$24,984,244
Frozen cakes and other pastries manufacturing Flour milling	\$245,676,036 \$242,351,858	Chocolate and confectionery manufacturing from cacao beans	\$19,676,643
Other snack food manufacturing	\$241,664,338	Frozen fruits, juices and vegetables manufacturing	\$17,607,290
Dry pasta, mixes, and dough manufacturing	\$241,624,471	Wet corn milling	\$17,168,069
Grain farming	\$219,621,236	Confectionery manufacturing from purchased chocolate	\$14,320,578
Cotton farming	\$193,567,401	Cheese manufacturing	\$12,902,998
Vegetable and melon farming	\$184,689,694	Leather and hide tanning and finishing	\$10,071,763
Mayonnaise, dressing, and sauce manufacturing	\$183,347,494	Manufactured ice	\$9,275,714
Spice and extract manufacturing	\$173,627,923	Ice cream and frozen dessert manufacturing	\$6,738,669
Fruit farming	\$171,376,276	Tree nut farming	\$6,085,177
Distilleries	\$157,971,610	Tortilla manufacturing	\$4,485,560

Total Agriculture Component

\$17,390,941,640





Appendix II – South Carolina's Agribusiness Sector: Forestry Component Breakdown

Industry Description	Direct Economic Output	Industry Description	Direct Economic Output
Paperboard mills	\$2,283,349,326	Other millwork, including flooring	\$119,949,665
Paperboard container manufacturing	\$1,929,405,185	Wood windows and door manufacturing	\$99,099,372
Sanitary paper product manufacturing	\$1,754,321,699	Prefabricated wood building manufacturing	\$69,802,730
Forestry-Based Recreation	\$1,036,766,841	Support activities for agriculture and forestry	\$65,075,033
Other basic organic chemical manufacturing	\$997,990,197	Forestry, forest products, and timber tract production	\$55,659,517
Paper mills	\$822,868,432	Stationery product manufacturing	\$52,337,887
Paper bag and coated and treated	¢700 100 707	Employment and payroll of federal govt, non-military	\$40,449,249
paper manufacturing Sawmills	\$728,133,707 \$541,489,704	Employment and payroll of state govt, hospitals, and health services	\$36,621,448
All other converted paper product manufacturing	\$436,466,493	Broom, brush, and mop manufacturing	\$28,841,675
Reconstituted wood product manufacturing	\$420,523,276	All other crop farming	\$28,521,313
Wood preservation	\$405,633,622	Custom architectural woodwork and millwork	\$27,970,479
Pulp mills	\$352,573,615	Cut stock, resawing lumber, and planing	\$26,008,093
Commercial logging	\$300,694,452	Sawmill, woodworking, and paper machinery	\$25,916,010
Mattress manufacturing	\$300,495,699	Nonupholstered wood household furniture manufacturing	\$21,342,022
Vood kitchen cabinet and countertop manufacturing	\$295,082,342	Wood office furniture manufacturing	\$17,117,222
Electric power generation-Biomass	\$263,753,310	Blind and shade manufacturing	\$16,790,453
Engineered wood member and truss manufacturing Veneer and plywood manufacturing	\$262,813,772 \$249,127,286	Upholstered household furniture manufacturing	\$12,118,978
Wood container and pallet manufacturing	\$187,726,243	Institutional furniture manufacturing	\$11,546,128
Greenhouse, nursery, and floriculture production	\$179,843,928	Burial casket manufacturing	\$8,026,839
All other miscellaneous wood product manufacturing Showcase, partition, shelving,	\$129,753,978	Junior colleges, colleges, universities, and professional schools	\$1,509,622
and locker manufacturing			\$14,769,889,934



References

Carpio, Carlos E., David W. Hughes and Olga Isengildina, 2008. "Comprehensive Assessment of South Carolina Agribusiness Sector." Prepared for MarketSearch, Columbia, S.C.

"The Economic Impact of Agribusiness in South Carolina and the Certified South Carolina Grown Campaign," February 2020. University of South Carolina, Darla Moore School of Business. Prepared for the South Carolina Department of Agriculture.

"The Impact of the Agribusiness Sector on the South Carolina Economy," January 2015. London & Associates. Prepared for the Palmetto AgriBusiness Council, the South Carolina Department of Agriculture, the South Carolina Farm Bureau, and Clemson University Public Service Activities.





www.agriculture.sc.gov