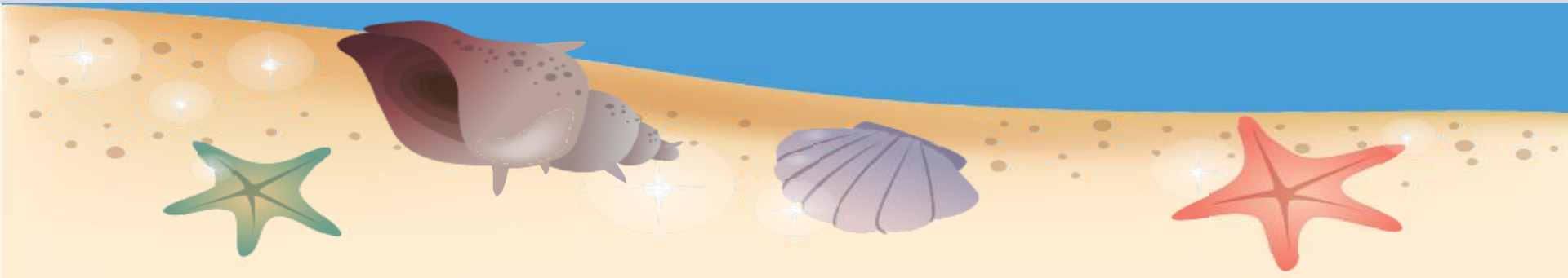


# **Economic Impacts of U.S. Agricultural Trade on the South**

**ORGANIZED SYMPOSIUM**

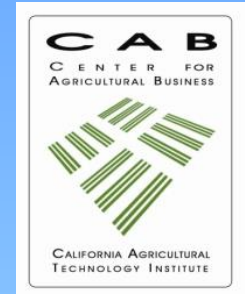
**Southern Agricultural Economics Association  
43rd Annual Meetings Program  
February 5-8, 2011  
Corpus Christi, Texas**



# *Impacts of Agricultural Exports on the South*

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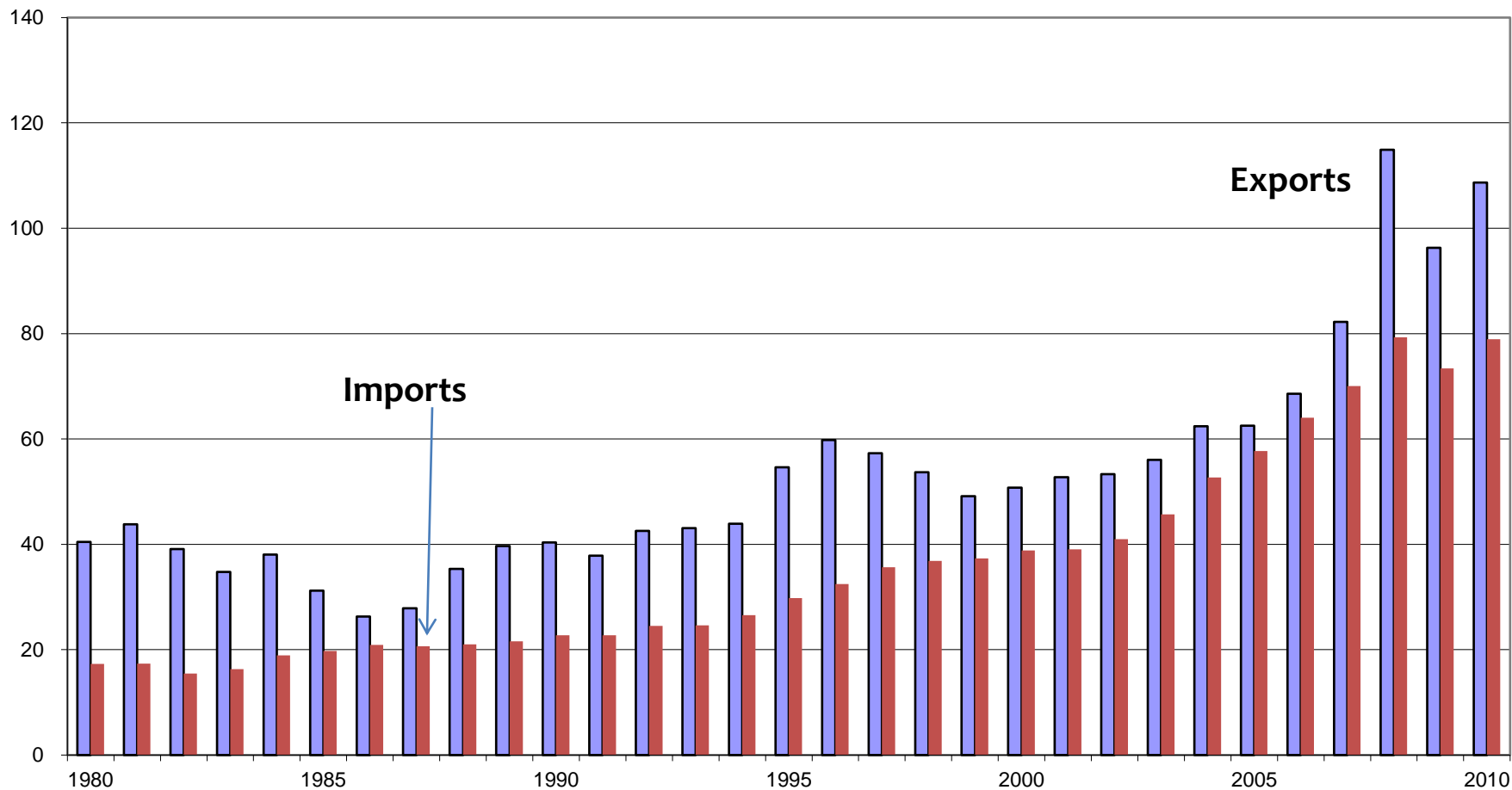
**Texas A&M University**



**<http://cnas.tamu.edu>**

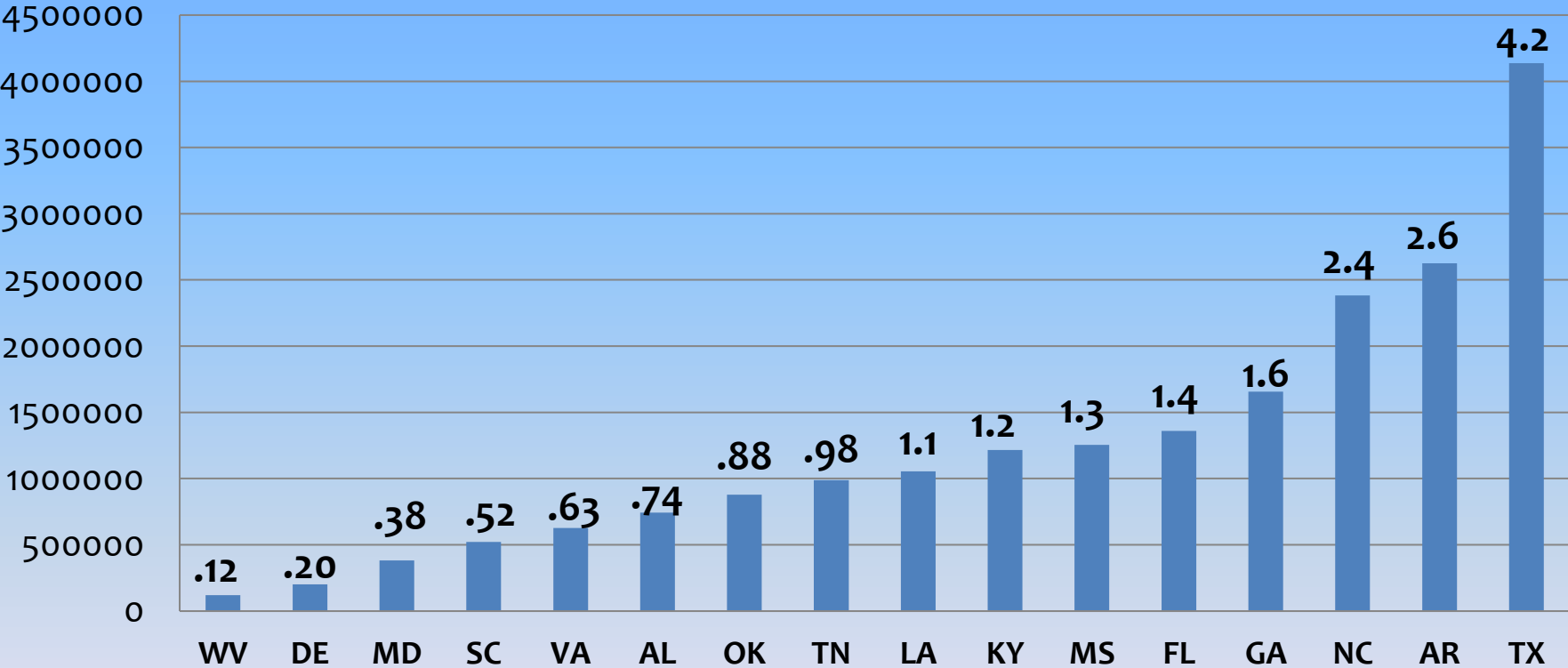
# Annual Fiscal Year (October-September) U.S. Agricultural Trade, 1935-2010

Billion dollars



Sources: Economic Research Service, USDA, and Census Bureau, U.S. Dept. of Commerce.

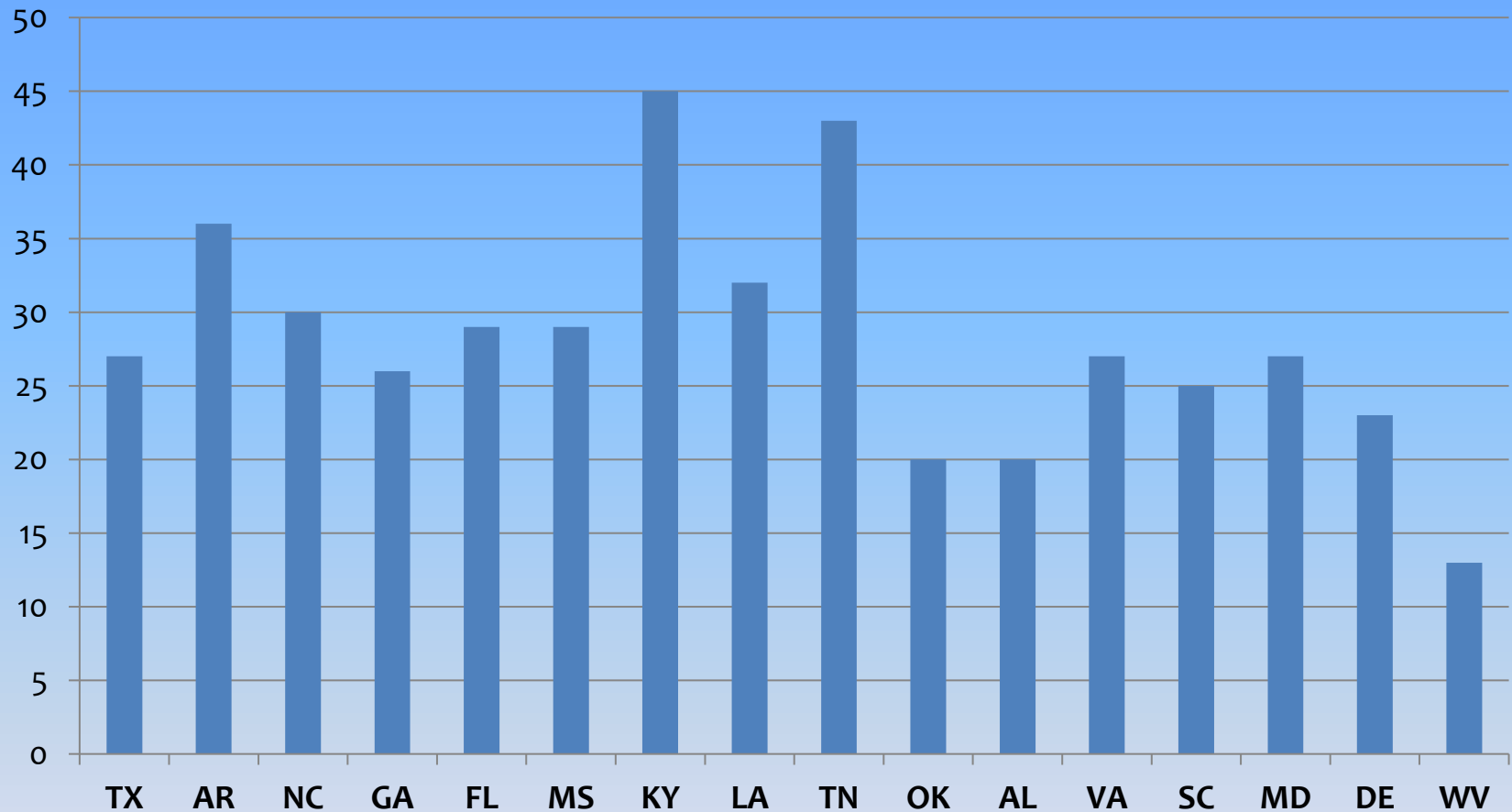
# Total Agricultural Exports Southern States, 2009 (\$Billion US)



Source: USDA, FAS, State Fact Sheets

# Total Agricultural Exports Southern States, 2009

## % of Cash Receipts



Source: USDA, FAS, State Fact Sheets

# Estimated Economic Impacts

- **Using 2008 Data for the Input-Output Model IMPLAN, Constructed a Model for the Southern U.S.**
- **Input the Reported Southern U.S. Exports into the IMPLAN**
- **Results includes the value of Output, Value Added, and Employment Required to Support the Exports**
  - **Direct Impacts Related to Exported Commodities**
  - **Indirect/Induced Impacts Related to Supporting**

# Types of Economic Impacts

- **Employment**: Total number of paid employees, including part time workers where part time workers are counted as full time equivalents
- **Output**: The value of production or industry sales

# **Types of Economic Impacts**

## **Value Added**

- **In the context of IMPLAN, value added is very similar to gross domestic product (GDP).**
- **It includes four components: wages, business income, other income, and indirect business taxes. Therefore, it accounts for the value of work, land, and capital.**
- **For example, businesses purchase raw or intermediate products and repackage or transform them into new products to be sold to consumers.**
- **The difference between the cost of the intermediate goods and the final product is the amount by which businesses have added value in production, and, hence, to the economy.**



# Types of Economic Impacts

## Value Added

1. **Wages**. The sum of workers' wages and salaries as well as benefits, including health and life insurance, gratuities, bonuses and retirement payments.
2. **Business income**. Income received by local businesses and the self-employed; it is also called proprietor's income. Depending upon local economic conditions, between five and 15 percent of the earnings by individuals comes from self-employment.
3. **Other income**. These are payments to individuals in the form of rents received on properties, royalties from contracts, dividends paid by corporations, and profits earned by corporations.
4. **Indirect business taxes**. Federal, State and local excise, property, and sales taxes as well as taxes on other business-related activities or equipment, such as taxes related to motor vehicles.

# Economic Impacts Agricultural Exports United States, 2009

	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<b>Output (\$Billions)</b>	<b>\$96.5</b>	<b>\$120.4</b>	<b>\$63.6</b>	<b>\$280.5</b>
<b>Value Added (\$Billions)</b>	<b>\$28.9</b>	<b>\$49.6</b>	<b>\$33.8</b>	<b>\$112.3</b>
<b>Employment (Jobs)</b>	<b>473,259</b>	<b>664,981</b>	<b>417,578</b>	<b>1,555,818</b>

# Economic Impacts Agricultural Exports

## Selected Southern States

### Texas , 2009

	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<b>Output (\$1,000)</b>	<b>\$4,136,619</b>	<b>\$2,622,799</b>	<b>\$1,044,105</b>	<b>\$7,803,522</b>
<b>Value Added (\$1,000)</b>	<b>\$1,214,125</b>	<b>\$1,093,747</b>	<b>\$598,844</b>	<b>\$2,906,716</b>
<b>Employment (Jobs)</b>	<b>30,607</b>	<b>19,118</b>	<b>7,719</b>	<b>57,444</b>

# Economic Impacts Agricultural Exports

## Selected Southern States

### Florida , 2009

	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<b>Output (\$1,000)</b>	<b>\$1,359,390</b>	<b>\$693,455</b>	<b>\$460,795</b>	<b>\$2,513,640</b>
<b>Value Added (\$1,000)</b>	<b>\$514,771</b>	<b>\$340,711</b>	<b>\$269,330</b>	<b>\$1,124,812</b>
<b>Employment (Jobs)</b>	<b>8,101</b>	<b>7,329</b>	<b>3,719</b>	<b>19,149</b>

# Economic Impacts Agricultural Exports

## Selected Southern States

### North Carolina, 2009

	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<b>Output (\$1,000)</b>	<b>\$2,380,620</b>	<b>\$1,212,664</b>	<b>\$551,844</b>	<b>\$4,145,129</b>
<b>Value Added (\$1,000)</b>	<b>\$537,657</b>	<b>\$ 559,162</b>	<b>\$ 318,240</b>	<b>\$ 1,415,060</b>
<b>Employment (Jobs)</b>	<b>13,822</b>	<b>8,360</b>	<b>4,808</b>	<b>26,990</b>

# Economic Impacts Agricultural Exports

## Selected Southern U.S. States

### Output, Texas (\$1,000)

Description	Direct	Indirect	Induced	Total
Total	4,136,618.6	2,622,799.0	1,044,104.9	7,803,522.4
Cotton farming	1,307,173.1	44,863.7	110.3	1,352,147.2
Animal (except poultry) slaughtering, rendering, and processing	964,385.7	104,287.4	3,580.5	1,072,253.5
Grain farming	617,244.6	29,616.7	190.1	647,051.4
Other animal food manufacturing	597,675.5	101,140.8	847.2	699,663.5
Poultry processing	251,509.7	27,281.9	2,402.8	281,194.4
Fluid milk and butter manufacturing	60,992.7	6,145.5	2,314.9	69,453.1
All other crop farming	57,079.2	9,007.7	112.7	66,199.6
Tree nut farming	39,559.8	37.7	5.3	39,602.7
Fruit farming	37,121.5	132.7	59.0	37,313.2
Oilseed farming	30,388.1	464.4	3.0	30,855.6
Fruit and vegetable canning, pickling, and drying	28,144.5	665.2	909.0	29,718.7
Dry, condensed, and evaporated dairy product manufacturing	26,776.0	3,463.4	694.1	30,933.5
Sugar cane mills and refining	24,356.8	4,271.2	179.9	28,807.9
Frozen food manufacturing	21,657.1	923.3	1,046.6	23,627.0
Vegetable and melon farming	21,047.2	917.3	528.5	22,493.0
Cheese manufacturing	20,089.4	1,360.9	489.9	21,940.2
Cattle ranching and farming	11,232.1	396,257.5	1,326.2	408,815.8
Soybean and other oilseed processing	8,447.9	31,331.5	220.7	40,000.2
Wet corn milling	7,080.0	114.1	12.8	7,206.9
Flour milling and malt manufacturing	4,625.0	14,488.6	701.4	19,815.0
Animal production, except cattle and poultry and eggs	32.8	29,747.1	225.1	30,004.9
Greenhouse, nursery, and floriculture production	0.0	348.0	574.5	922.6

# Economic Impacts Agricultural Exports Selected Southern U.S. States : Employment , Texas (Jobs)

Description	Direct	Indirect	Induced	Total
Total	30,606.7	19,118.5	7,719.1	57,444.3
Cotton farming	12,252.4	420.5	1.0	12,673.9
Grain farming	12,038.1	577.6	3.7	12,619.4
Animal (except poultry) slaughtering, rendering, and processing	2,028.2	219.3	7.5	2,255.0
Poultry processing	1,077.2	116.8	10.3	1,204.3
Fruit farming	643.9	2.3	1.0	647.2
Other animal food manufacturing	606.3	102.6	0.9	709.8
Tree nut farming	470.9	0.4	0.1	471.5
Oilseed farming	459.7	7.0	0.0	466.8
All other crop farming	404.7	63.9	0.8	469.4
Vegetable and melon farming	169.4	7.4	4.3	181.0
Cattle ranching and farming	161.5	5,697.0	19.1	5,877.6
Fluid milk and butter manufacturing	83.8	8.4	3.2	95.4
Frozen food manufacturing	71.3	3.0	3.4	77.8
Fruit and vegetable canning, pickling, and drying	53.1	1.3	1.7	56.1
Sugar cane mills and refining	29.3	5.1	0.2	34.7
Dry, condensed, and evaporated dairy product manufacturing	23.6	3.1	0.6	27.3
Cheese manufacturing	22.0	1.5	0.5	24.1
Flour milling and malt manufacturing	3.9	12.2	0.6	16.7
Wet corn milling	3.9	0.1	0.0	3.9
Soybean and other oilseed processing	2.4	8.9	0.1	11.3
Animal production, except cattle and poultry and eggs	1.2	1,100.0	8.3	1,109.6
Greenhouse, nursery, and floriculture production	0.0	4.9	8.1	13.0

# Economic Impacts Agricultural Exports Selected Southern U.S. States : Value Added , Texas (\$1,000)

Description	Direct	Indirect	Induced	Total
Total	1,214,124.7	1,093,747.2	598,844.1	2,906,716.0
Cotton farming	614,524.1	21,091.2	51.9	635,667.1
Grain farming	292,772.8	14,047.9	90.2	306,910.9
Real estate establishments	0.0	158,454.7	52,625.3	211,080.0
Wholesale trade businesses	0.0	135,125.5	35,131.4	170,257.0
Animal (except poultry) slaughtering, rendering, and processing	102,963.8	11,134.4	382.3	114,480.4
Imputed rental activity for owner-occupied dwellings	0.0	0.0	85,608.3	85,608.3
Monetary authorities and depository credit intermediation activities	0.0	62,536.4	20,750.5	83,286.9
Electric power generation, transmission, and distribution	0.0	56,869.6	17,144.5	74,014.1
Cattle ranching and farming	1,928.6	68,038.7	227.7	70,195.0
Support activities for agriculture and forestry	0.0	64,533.2	119.5	64,652.7
Other animal food manufacturing	52,794.8	8,934.1	74.8	61,803.8
Poultry processing	48,915.0	5,305.9	467.3	54,688.2
Extraction of oil and natural gas	0.0	47,268.7	6,181.3	53,450.0
Transport by truck	0.0	44,556.8	4,978.7	49,535.5
Offices of physicians, dentists, and other health practitioners	0.0	0.2	34,784.9	34,785.1
Food services and drinking places	0.0	7,004.8	24,802.2	31,807.0
Management of companies and enterprises	0.0	24,301.2	2,991.2	27,292.4
Telecommunications	0.0	11,680.0	13,325.0	25,005.0
Tree nut farming	24,391.3	23.3	3.2	24,417.8
Pesticide and other agricultural chemical manufacturing	0.0	22,457.8	164.2	22,622.0
Nondepository credit intermediation and related activities	0.0	10,880.2	11,663.2	22,543.4
Insurance carriers	0.0	3,781.5	16,820.4	20,601.9
Legal services	0.0	9,948.5	9,077.1	19,025.6



# Economic Impacts Agricultural Exports

## Selected Southern U.S. States

### Output, Florida (\$1,000)

Description	Direct	Indirect	Induced	Total
Total	1,359,390	693,455	460,795	2,513,640
Fruit farming	458,633	9,257	396	468,286
Sugar cane mills and refining	239,578	56,448	104	296,130
Fruit and vegetable canning, pickling, and drying	199,013	6,469	699	206,181
Frozen food manufacturing	177,622	7,567	545	185,734
Vegetable and melon farming	75,195	17,646	709	93,551
All other crop farming	63,459	409	38	63,906
Other animal food manufacturing	41,542	6,230	231	48,004
Cotton farming	32,714	538	1	33,252
Poultry processing	23,569	1,162	155	24,885
Fluid milk and butter manufacturing	14,331	1,531	849	16,710
Animal (except poultry) slaughtering, rendering, and processing	6,956	2,592	512	10,060
Oilseed farming	6,317	84	0	6,401
Dry, condensed, and evaporated dairy product manufacturing	6,291	39	13	6,343
Cheese manufacturing	4,720	188	25	4,934
Grain farming	3,927	365	4	4,297
Wineries	2,242	44	120	2,407
Soybean and other oilseed processing	1,746	68	2	1,816
Tree nut farming	1,385	9	1	1,394
Wet corn milling	103	26	2	131
Flour milling and malt manufacturing	45	1,837	104	1,987
Animal production, except cattle and poultry and eggs	4	643	89	735
Greenhouse, nursery, and floriculture production	0	391	342	732

# Economic Impacts Agricultural Exports Selected Southern U.S. States: Employment , Florida (Jobs)

Description	Direct	Indirect	Induced	Total
Total	8,101.4	7,329.8	3,718.5	19,149.6
Fruit farming	5,637.2	113.8	4.9	5,755.8
Support activities for agriculture and forestry	0.0	2,879.1	6.8	2,885.9
Sugarcane and sugar beet farming	0.0	1,353.2	0.6	1,353.8
Frozen food manufacturing	523.4	22.3	1.6	547.3
Wholesale trade businesses	0.0	414.0	122.9	536.9
Vegetable and melon farming	429.2	100.7	4.0	533.9
Real estate establishments	0.0	234.5	243.9	478.4
Food services and drinking places	0.0	78.6	354.8	433.5
Sugar cane mills and refining	297.7	70.2	0.1	368.0
Fruit and vegetable canning, pickling, and drying	347.5	11.3	1.2	360.1
All other crop farming	318.9	2.1	0.2	321.1
Transport by truck	0.0	196.9	32.7	229.6
Cotton farming	217.5	3.6	0.0	221.1
Employment services	0.0	112.8	96.2	209.0
Offices of physicians, dentists, and other health practitioners	0.0	0.0	194.6	194.6
Management of companies and enterprises	0.0	164.3	21.8	186.2
Private hospitals	0.0	0.0	159.4	159.4
Services to buildings and dwellings	0.0	99.2	55.3	154.5
Monetary authorities and depository credit intermediation activities	0.0	96.6	56.4	153.0
Retail Stores - Food and beverage	0.0	4.2	124.6	128.8
Retail Stores - General merchandise	0.0	4.1	116.3	120.3
Nursing and residential care facilities	0.0	0.0	114.8	114.8
Poultry processing	103.6	5.1	0.7	109.4
Legal services	0.0	49.9	50.5	100.5

# Economic Impacts Agricultural Exports Selected Southern U.S. States : Value Added , Florida (\$1,000)

	Direct	Indirect	Induced	Total
Total	\$514,771	\$340,711	\$269,330	\$1,124,812
Fruit farming	\$287,656	\$5,806	\$249	\$293,710
Vegetable and melon farming	\$49,388	\$11,590	\$466	\$61,444
Fruit and vegetable canning, pickling, and drying	\$45,521	\$1,480	\$160	\$47,160
Frozen food manufacturing	\$41,705	\$1,777	\$128	\$43,610
Sugar cane mills and refining	\$33,841	\$7,973	\$15	\$41,829
All other crop farming	\$23,381	\$151	\$14	\$23,545
Cotton farming	\$15,277	\$251	\$0	\$15,528
Poultry processing	\$4,108	\$202	\$27	\$4,337
Oilseed farming	\$3,483	\$46	\$0	\$3,529
Other animal food manufacturing	\$3,406	\$511	\$19	\$3,936
Grain farming	\$2,050	\$191	\$2	\$2,243
Fluid milk and butter manufacturing	\$1,828	\$195	\$108	\$2,131
Tree nut farming	\$791	\$5	\$0	\$797
Animal (except poultry) slaughtering, rendering, and processing	\$695	\$259	\$51	\$1,005
Cheese manufacturing	\$569	\$23	\$3	\$595
Dry, condensed, and evaporated dairy product manufacturing	\$548	\$3	\$1	\$552
Wineries	\$436	\$9	\$23	\$468
Soybean and other oilseed processing	\$61	\$2	\$0	\$64
Flour milling and malt manufacturing	\$14	\$561	\$32	\$607
Wet corn milling	\$11	\$3	\$0	\$14
Animal production, except cattle and poultry and eggs	\$2	\$338	\$47	\$386
Real Estate	\$0	\$25,993	\$62,267	\$88,260

# Summary & Conclusions

- Agricultural Exports are an Important Source Of Income and Employment for the Southern Region
- IMPLAN Analysis is a Good Way to Illustrate That Importance and is Easily Understood
- In Communication with Stakeholders This Can Be a Valuable Tool

