



Analyzing the Economic Impacts of the Coronavirus

March 26, 2020

IMPLAN



Jenny Thorvaldson

Chief Economist
IMPLAN



Jimmy Squibb

Technical Product Manager &
Economic Consultant
IMPLAN



Joe Demski

Marketing Content Writer
IMPLAN

Webinar Agenda



1. Economic Impact Modeling Overview
2. Economic Analyses Relevant to Modeling Coronavirus Impacts
3. Potential Effects of an Economic Stimulus
4. A Brief Discussion About the Environmental Impacts
5. Final Thoughts
6. Q&A

Economic Impact Modeling Overview

Input-Output (I-O) Model

- No model can predict everything
- I-O models estimate wider-reaching economic impacts
- I-O models trace relationships across regions and industries
- Used to evaluate other affected industries, the effect of stimulus programs or business restrictions, etc.

Considerations of I-O Models

- Advantages
 - Data is organized by region and industry
 - Need for user data is low
 - Assumptions are transparent
- Disadvantages
 - Assumes constant behavioral pattern
 - Assumes unlimited supply of goods
 - Production functions are fixed

I-O Models are reasonable to analyze short-term impacts like the effects of the Coronavirus.

Advantages of IMPLAN U.S. Data

- 546 industries exclusive to IMPLAN
- County-to-county trade and commuting data
- Consumer spending by detailed commodity by household income level
- 5 U.S. territory models
- Customizable geographies

Setting Up a Coronavirus Impact Analysis

What Information Do You Need?

- Affected industry
- Expected loss in revenue or employment
- Region

IMPLAN will fill in remaining variables for the industry and region.

OverviewStudy Area DataSocial AccountsIndustry AccountsMultipliers

Regions Industry Detail

51m ago

FILTERSRegion: is 39106Run

Industry Detail

| Industry Code | Description | Total Employment | Total Output | Employee Compensation | Proprietor Income | Other Property Income | Tax on Production and Imports |
|---------------|--|------------------|----------------------|-----------------------|--------------------|-----------------------|-------------------------------|
| 496 | 496 Performing arts companies | 932.66 | \$106,235,800.41 | \$20,625,243.86 | \$30,506,633.71 | \$11,041,351.63 | \$1,546,540.84 |
| 497 | 497 Commercial Sports Except Racing | 2,853.78 | \$590,366,108.50 | \$414,069,602.77 | \$45,526,175.97 | \$1,699,627.62 | \$6,442,925.52 |
| 498 | 498 Racing and Track Operation | 58.72 | \$6,404,837.06 | \$1,807,062.16 | \$22,157.12 | \$1,804,109.42 | \$121,209.96 |
| 499 | 499 Independent artists, writers, and performers | 3,654.68 | \$253,662,098.44 | \$5,213,644.67 | \$221,900,268.81 | \$2,866,156.40 | \$3,050,618.39 |
| 500 | 500 Promoters of performing arts and sports and agents for public figures | 1,241.66 | \$293,945,996.97 | \$69,339,490.91 | \$26,692,566.90 | \$81,079,751.27 | \$3,959,184.12 |
| 501 | 501 Museums, historical sites, zoos, and parks | 343.50 | \$57,747,620.92 | \$16,713,283.74 | \$25,960,956.61 | \$2,112,782.82 | \$304,831.39 |
| 502 | 502 Amusement parks and arcades | 739.57 | \$86,466,669.84 | \$21,734,805.54 | \$101,168.26 | \$43,293,783.95 | \$5,788,631.26 |
| 503 | 503 Gambling industries (except casino hotels) | 1,659.19 | \$303,176,948.61 | \$80,949,681.03 | \$32,484,115.07 | \$87,921,169.83 | \$12,063,055.76 |
| 504 | 504 Other amusement and recreation industries | 2,951.40 | \$163,318,834.49 | \$84,277,232.83 | \$2,200,300.59 | \$1,701,490.32 | \$7,324,101.64 |
| 505 | 505 Fitness and recreational sports centers | 6,824.14 | \$263,996,261.78 | \$90,695,399.98 | \$2,967,303.54 | \$39,805,172.53 | \$14,278,902.27 |
| 506 | 506 Bowling centers | 280.14 | \$17,648,056.39 | \$6,261,531.78 | \$1,480,843.76 | \$1,800,346.52 | \$921,132.84 |
| 507 | 507 Hotels and motels, including casino hotels | 6,738.64 | \$745,618,150.57 | \$207,391,182.43 | \$98,419,872.60 | \$116,196,927.69 | \$50,495,104.48 |
| 508 | 508 Other accommodations | 1,290.90 | \$114,893,256.70 | \$47,588,050.81 | \$26,460,552.06 | \$10,272,781.17 | \$3,620,769.89 |
| 509 | 509 Full-service restaurants | 26,684.39 | \$1,773,109,086.62 | \$633,802,730.82 | \$117,137,028.71 | \$226,348,524.31 | \$63,563,442.02 |
| 510 | 510 Limited-service restaurants | 22,755.95 | \$1,753,835,022.70 | \$455,464,093.19 | \$142,725,587.39 | \$184,423,487.56 | \$69,708,372.63 |
| 511 | 511 All other food and drinking places | 17,301.93 | \$1,368,776,946.73 | \$558,030,410.94 | \$293,482,569.66 | \$124,252,178.13 | \$37,517,219.05 |
| 512 | 512 Automotive repair and maintenance, except car washes | 7,677.26 | \$779,350,734.28 | \$332,554,785.27 | \$144,855,963.43 | \$8,290,702.70 | \$55,075,322.95 |
| 513 | 513 Car washes | 5,040.26 | \$609,074,236.69 | \$211,318,008.76 | \$91,783,750.20 | \$59,347,329.63 | \$50,817,971.56 |
| 514 | 514 Electronic and precision equipment repair and maintenance | 2,356.48 | \$482,295,022.70 | \$235,960,417.82 | \$18,657,680.97 | \$69,831,624.87 | \$1,340,259.88 |
| 515 | 515 Commercial and industrial machinery and equipment repair and maintenance | 2,276.91 | \$350,425,314.40 | \$177,712,938.47 | \$21,647,487.02 | \$19,563,916.10 | \$19,525,610.94 |
| 516 | 516 Personal and household goods repair and maintenance | 3,045.99 | \$136,912,335.29 | \$42,614,852.34 | \$88,267,159.92 | \$46,150,849.02 | \$9,288,171.79 |
| 517 | 517 Personal care services | 10,889.75 | \$291,831,616.35 | \$122,891,989.78 | \$172,823,862.36 | \$90,767,717.82 | \$8,579,063.87 |
| 518 | 518 Death care services | 262.77 | \$21,440,176.67 | \$10,092,334.70 | \$458,793.31 | \$1,943,014.74 | \$737,120.85 |
| 519 | 519 Dry-cleaning and laundry services | 1,571.76 | \$96,587,763.13 | \$61,073,705.44 | \$2,174,026.28 | \$1,338,048.59 | \$3,363,033.93 |
| Total | | 918,790.65 | \$188,544,294,859.43 | \$61,570,104,114.72 | \$8,583,579,631.43 | \$41,730,332,327.94 | \$5,839,356,518.11 |

Selected Regions

RESTOF_MECKLENBURGCOUNTY

51m ago

Employment5,975,650
Output\$1,032,219,256,321.53
Total Value Added\$567,039,019,694.36
Data Year2018

MECKLENBURG COUNTY, NORTH CAROLINA

51m ago

Employment918,791
Output\$188,544,294,859.43
Total Value Added\$117,723,372,592.21
Data Year2018

SOUTH CAROLINA

51m ago

Employment2,814,815
Output\$473,873,124,537.10
Total Value Added\$234,378,650,512.11
Data Year2018

IMPLAN - Impacts

app.implan.com/impacts

IMPLAN

IMPACTS

REGIONSIMPACTSRESULTS

Matthew Smith

Events

Select Event(s) then drag and drop to Groups

☐ Select All Events

Title

Type

Specification

Value

Event 1

Select a type

Select specification

Enter a value

SAVE

Select a type

Industry Output

Industry Employment

Industry Employee Compensation

Industry Proprietor Income

Commodity Output

Groups

☐ MRIO

Enter Title

Dollar Year

Data Year

2020

2018

+ Add New Group

546 Unaggregated (2018)

RUN

Modeling the Net Effects of the Coronavirus

Selecting a Region

IMPLAN Webinar_March26

2018

Search

County View

546 Unaggregated (2018)

Selected Regions

RESTOF_MECKLENBURGCOUNTY

| | |
|-------------------|------------------------|
| Employment | 5,975,650 |
| Output | \$1,032,219,256,321.53 |
| Total Value Added | \$567,039,019,694.36 |
| Data Year | 2018 |

MECKLENBURG COUNTY, NC

| | |
|-------------------|----------------------|
| Employment | 918,791 |
| Output | \$188,544,294,859.43 |
| Total Value Added | \$117,723,372,592.21 |
| Data Year | 2018 |

SOUTH CAROLINA

| | |
|-------------------|----------------------|
| Employment | 2,814,815 |
| Output | \$473,873,324,537.10 |
| Total Value Added | \$234,378,650,512.11 |
| Data Year | 2018 |

CREATE IMPACT

Restaurant Industry Shutdown

Assumptions:

- 100% shutdown of full-service restaurants,
- 50% reduction in limited service,
- 85% reduction in of all other food & drinking (includes bars & catering)



Events

Select Event(s) then drag and drop to Groups

☐ Select All Events

| Title | Type | Specification | Value | | |
|-----------------|---------------------------|----------------------------|-------|------|--|
| FullServiceRe: | Industry Contribution , ▾ | 509 - Full-service resta ▾ | -100% | \$ % | |
| LimitedService: | Industry Contribution , ▾ | 510 - Limited-service re ▾ | -50% | \$ % | |
| OtherFoodBev | Industry Contribution , ▾ | 511 - All other food and ▾ | -85% | \$ % | |

Groups

☒ MRIO

RestOfNC_Mecklenbur 1



Dollar Year

Data Year

2018 ▾

2018 ▾

RestOfNC_MecklenburgCounty ▾

Mecklenburg County, N 1



Results from Restaurant Closings

| Employment | Mecklenburg County, NC | North Carolina | South Carolina |
|------------|------------------------|----------------|----------------|
| Direct | (52,769) | (340,531) | 0 |
| Indirect | (30,539) | (90,311) | (3,483) |
| Induced | (7,256) | (54,393) | (1,832) |
| Total | (90,564) | (485,236) | (5,316) |

Consumer Spending Shift

Assumptions:

- Restaurant Industry Shutdown:
 - 100% shutdown of full-service restaurants,
 - 50% reduction in limited service,
 - 85% reduction in of all other food & drinking (includes bars & catering)
- Consumer Spending Shift
 - Households spend 50% more on soaps & sanitizers

Regions Household Local Commodity Demand

1m ago

FILTERS Region: is 39106

Run

Household Local Commodity Demand

| Household Code > | | 10001 | 10002 | 10003 | 10004 | 10005 | 10006 | 10007 | 10008 | 10009 | Total |
|------------------|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|--------------------|---------------------|
| Description > | | Households LT15k | Households 15-30k | Households 30-40k | Households 40-50k | Households 50-70k | Households 70-100k | Households 100-150k | Households 150-200k | Households GT200k | |
| Commodity Code ^ | Description | | | | | | | | | | |
| 172 | 3172 Pharmaceuticals | \$100,069.88 | \$234,735.46 | \$209,614.30 | \$171,211.84 | \$296,924.88 | \$304,749.06 | \$331,797.87 | \$178,890.35 | \$235,143.43 | \$2,063,137.07 |
| 173 | 3173 In-vitro diagnostic substances | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 174 | 3174 Biological products (except diagnostic) | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 175 | 3175 Paints and coatings | \$5,700.67 | \$20,996.28 | \$12,162.89 | \$41,649.10 | \$47,785.42 | \$88,823.99 | \$82,428.52 | \$20,014.91 | \$25,174.00 | \$344,735.78 |
| 176 | 3176 Adhesives | \$17,278.02 | \$39,606.04 | \$28,144.42 | \$26,003.73 | \$75,495.83 | \$62,611.15 | \$91,536.98 | \$33,762.71 | \$108,359.67 | \$482,798.55 |
| 177 | 3177 Soaps and other detergents | \$44,462.00 | \$81,632.57 | \$69,472.36 | \$69,229.64 | \$108,362.46 | \$147,797.83 | \$151,791.40 | \$81,901.82 | \$116,903.34 | \$871,553.43 |
| 178 | 3178 Polish and other sanitation goods | \$132,221.52 | \$242,759.68 | \$206,597.54 | \$205,875.76 | \$322,249.32 | \$439,522.61 | \$451,398.76 | \$243,560.49 | \$347,648.40 | \$2,591,834.08 |
| 179 | 3179 Surface active agents | \$2,893.25 | \$5,312.04 | \$4,520.74 | \$4,504.95 | \$7,051.42 | \$9,617.58 | \$9,877.45 | \$5,329.56 | \$7,607.20 | \$56,714.17 |
| 180 | 3180 Toilet preparations | \$89,220.44 | \$172,852.84 | \$98,302.77 | \$160,927.94 | \$232,783.30 | \$308,841.74 | \$398,625.93 | \$203,349.37 | \$338,857.71 | \$2,003,762.03 |
| 181 | 3181 Printing inks | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 182 | 3182 Explosives | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 183 | 3183 Compounded resins | \$4,224.83 | \$7,275.10 | \$7,471.99 | \$6,529.71 | \$18,308.61 | \$21,478.06 | \$25,336.64 | \$11,187.59 | \$33,963.76 | \$135,776.28 |
| 184 | 3184 Photographic films and chemicals | \$2,341.66 | \$4,032.30 | \$4,141.43 | \$3,619.16 | \$10,147.74 | \$11,904.44 | \$14,043.10 | \$6,200.84 | \$18,824.77 | \$75,255.44 |
| 185 | 3185 Other miscellaneous chemical products | \$3,812.28 | \$6,564.70 | \$6,742.36 | \$5,892.09 | \$16,520.82 | \$19,380.78 | \$22,862.57 | \$10,095.15 | \$30,647.27 | \$122,518.03 |
| 186 | 3186 Plastics packaging materials and unlaminated films and sheets | \$36,545.75 | \$71,452.86 | \$59,848.94 | \$50,631.96 | \$93,440.70 | \$121,081.47 | \$122,313.60 | \$60,795.33 | \$97,046.84 | \$713,157.45 |
| 187 | 3187 Unlaminated plastics profile shapes | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 188 | 3188 Plastics pipes and pipe fittings | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 189 | 3189 Laminated plastics plates, sheets (except packaging), and shapes | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 190 | 3190 Polystyrene foam products | \$11,383.76 | \$18,717.22 | \$12,076.97 | \$12,071.46 | \$28,470.15 | \$36,808.02 | \$42,134.49 | \$27,489.42 | \$27,923.91 | \$217,075.40 |
| 191 | 3191 Urethane and other foam products (except polystyrene) | \$6,877.04 | \$10,813.37 | \$8,266.74 | \$8,917.24 | \$23,661.78 | \$23,845.52 | \$25,596.15 | \$16,682.78 | \$28,608.61 | \$153,269.22 |
| 192 | 3192 Plastics bottles | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Total | | \$1,227,650,268.06 | \$2,374,911,973.91 | \$2,145,327,618.52 | \$2,279,945,193.46 | \$4,165,393,940.06 | \$5,451,141,115.12 | \$6,296,795,847.33 | \$3,345,888,282.23 | \$7,140,892,959.52 | \$34,427,947,198.20 |

Selected Regions

RESTOF_MECKLENBURGCOUNTY

| | |
|-------------------|------------------------|
| Employment | 5,975,650 |
| Output | \$1,032,219,256,321.53 |
| Total Value Added | \$567,039,019,694.36 |
| Data Year | 2018 |

MECKLENBURG COUNTY, NORTH CAROLINA

| | |
|-------------------|----------------------|
| Employment | 918,791 |
| Output | \$188,544,294,859.43 |
| Total Value Added | \$117,723,372,592.21 |
| Data Year | 2018 |

SOUTH CAROLINA

| | |
|-------------------|----------------------|
| Employment | 2,814,815 |
| Output | \$473,873,124,537.10 |
| Total Value Added | \$234,378,650,512.11 |
| Data Year | 2018 |

Commodity Demand

(REGIONAL INPUTS)

| Commodity Code | Commodity Description | Industry | Households |
|----------------|-----------------------------------|-------------|-------------|
| 3177 | Soaps and other detergents | \$808,300 | \$871,553 |
| 3178 | Polish and other sanitation goods | \$6,150,350 | \$2,591,834 |

Employment Loss

Assumptions:

- Restaurant Industry Shutdown:
 - 100% shutdown of full-service restaurants,
 - 50% reduction in limited service,
 - 85% reduction in of all other food & drinking (includes bars & catering)
- Consumer Spending Shift
 - Households spend 50% more on soaps & sanitizers
- Employment Loss
 - Layoff of 100 jobs in retail clothing



Events

Select Event(s) then drag and drop to Groups

☐ Select All Events

| Title | Type | Specification | Value | | |
|-----------------|-----------------------|--------------------------|----------------|----|---|
| FullServiceRe: | Industry Contribution | 509 - Full-service resta | -100% | \$ | % |
| LimitedService: | Industry Contribution | 510 - Limited-service re | -50% | \$ | % |
| OtherFoodBev | Industry Contribution | 511 - All other food and | -85% | \$ | % |
| Commodity31' | Commodity Output | 3177 - Soaps and other | \$435,776.72 | | |
| Commodity31' | Commodity Output | 3178 - Polish and other | \$1,295,917.04 | | |
| RetailEmp | Industry Employment | 409 - Retail - Clothing | -100 | | |
| + Add New Event | | | | | |

546 Unaggregated (2018)

Groups

☒ MRIO

RestOfNC_Mecklenbur 1



Dollar Year

Data Year

2018

2018

RestOfNC_MecklenburgCounty

Mecklenburg County, N 1



Dollar Year

Data Year

2018

2018

Mecklenburg County, North Car

South Carolina group 1

RUN

Toilet Paper Buying Panic

- Increased need in short-term, may be offset by a reduction in the long-term
- Companies ramping up production could mean more jobs and input goods and services needed in short-term
- Relevance depends on your region and timeframe of concern

Government Stimulus

Assumptions:

- Restaurant Industry Shutdown:
 - 100% shutdown of full-service restaurants,
 - 50% reduction in limited service,
 - 85% reduction in of all other food & drinking (includes bars & catering)
- Consumer Spending Shift
 - Households spend 50% more on soaps & sanitizers
- Employment Loss
 - layoff of 100 jobs in retail clothing
- Government Stimulus:
 - Model with household spending events
 - Assume \$1,000 per household



| | | | | | |
|---------------------|----------------------------------|-------------------------------------|-----------------|-----------|---|
| FullServiceRestauri | Industry Contribution Analysis ▾ | 509 - Full-service restaurants ▾ | -100% | \$0 %0 | ⌵ |
| LimitedService | Industry Contribution Analysis ▾ | 510 - Limited-service restauran ▾ | -50% | \$0 %0 | ⌵ |
| OtherFoodBeverag | Industry Contribution Analysis ▾ | 511 - All other food and drinking ▾ | -85% | \$0 %0 | ⌵ |
| Commodity3177_Mi | Commodity Output ▾ | 3177 - Soaps and other deterge ▾ | \$435,776.72 | | ⌵ |
| Commodity3178_Mi | Commodity Output ▾ | 3178 - Polish and other sanitati ▾ | \$1,295,917.04 | | ⌵ |
| HH1_Meck | Household Income ▾ | 10001 - Households LT15k ▾ | \$40,629,640.00 | | ⌵ |
| HH2_Meck | Household Income ▾ | 10002 - Households 15-30k ▾ | \$57,785,950.00 | | ⌵ |
| HH3_Meck | Household Income ▾ | 10003 - Households 30-40k ▾ | \$40,834,600.00 | | ⌵ |
| HH4_Meck | Household Income ▾ | 10004 - Households 40-50k ▾ | \$37,663,830.00 | | ⌵ |
| HH5_Meck | Household Income ▾ | 10005 - Households 50-70k ▾ | \$63,398,430.00 | | ⌵ |
| HH6_Meck | Household Income ▾ | 10006 - Households 70-100k ▾ | \$65,996,450.00 | | ⌵ |
| HH7_Meck | Household Income ▾ | 10007 - Households 100-150k ▾ | \$61,525,520.00 | | ⌵ |

Groups

MRIO ⓘ

RestOfNC_MecklenburgCounty 1

CA 12

Dollar Year

Data Year

2018 ▾

2018 ▾

RestOfNC_MecklenburgCounty ▾

Mecklenburg County, North Car 1

CA 15

Dollar Year

Data Year

2018 ▾

2018 ▾

Mecklenburg County, North Carolina ▾

South Carolina group 1

0

Dollar Year

Data Year

2018 ▾

2018 ▾

South Carolina ▾

+ Add New Group

Summary of Results

| Employment | Mecklenburg County, NC | North Carolina | South Carolina |
|------------|------------------------|----------------|----------------|
| Direct | (52,859) | (340,531) | 0 |
| Indirect | (28,132) | (87,419) | (3,136) |
| Induced | (4,932) | (28,301) | (1,688) |
| Total | (85,923) | (456,251) | (4,824) |

International Demand

International Demand

- Country-Level International Models
- Foreign Exports by Region

Regions Commodity Trade

just now



FILTERS Region: is 39106

Run

Commodity Trade

| Commodity Code ^ | Description | Foreign Exports | Domestic Exports | Total Exports | Intermediate Imports | Institutional Imports | Total Imports | Foreign Export Proportion |
|------------------|--|---------------------|---------------------|---------------------|----------------------|-----------------------|---------------------|---------------------------|
| 1 | 3001 Oilseeds | \$357,573.49 | \$545,545.36 | \$903,118.86 | \$124,080,543.21 | \$0.00 | \$124,080,543.21 | 39.59% |
| 2 | 3002 Grains | \$196,169.89 | \$83,554.91 | \$279,724.80 | \$92,702,109.04 | \$4,573,836.88 | \$97,275,945.92 | 70.13% |
| 3 | 3003 Vegetables and melons | \$30,491.08 | \$293,259.98 | \$323,751.06 | \$10,700,152.39 | \$79,778,307.64 | \$90,478,460.04 | 9.42% |
| 4 | 3004 Fruit | \$92,675.94 | \$529,383.91 | \$622,059.85 | \$17,359,799.53 | \$51,001,799.33 | \$68,361,598.86 | 14.90% |
| 5 | 3005 Tree nuts | \$2,911.80 | \$3,626.75 | \$6,538.54 | \$5,463,492.69 | \$21,863,926.98 | \$27,327,419.67 | 44.53% |
| 6 | 3006 Greenhouse, nursery, and floriculture products | \$545,659.57 | \$21,990,708.67 | \$22,536,368.24 | \$24,431,343.84 | \$35,428,733.22 | \$59,860,077.06 | 2.42% |
| 7 | 3007 Tobacco | \$5,848.17 | \$4,789.25 | \$10,637.43 | \$1,925.36 | \$2,306.75 | \$4,232.12 | 54.98% |
| 8 | 3008 Cotton | \$6,546.42 | \$4,860.95 | \$11,407.38 | \$5,182,784.07 | \$27,231.40 | \$5,210,015.46 | 57.39% |
| 9 | 3009 Sugarcane and sugar beets | \$15.86 | \$7,133.47 | \$7,149.33 | \$6,585.76 | \$7,890.32 | \$14,476.08 | 0.22% |
| 10 | 3010 All other crops | \$101,102.39 | \$95,272.74 | \$196,375.13 | \$46,291,455.04 | \$10,552,484.36 | \$56,843,939.40 | 51.48% |
| 11 | 3011 Beef cattle | \$2,541.25 | \$590,352.16 | \$592,893.40 | \$29,733,617.68 | \$129,668.49 | \$29,863,286.17 | 0.43% |
| 12 | 3012 Dairy cattle and milk products | \$0.00 | \$437,581.30 | \$437,581.30 | \$6,951,087.91 | \$160.90 | \$6,951,248.81 | 0.00% |
| 13 | 3013 Poultry and egg products | \$405.10 | \$43,195.22 | \$43,600.32 | \$53,568,954.46 | \$20,731,726.26 | \$74,300,680.72 | 0.93% |
| 14 | 3014 Animal products, except cattle and poultry and eggs | \$70,576.41 | \$3,776,313.75 | \$3,846,890.15 | \$21,083,951.07 | \$14,891,999.10 | \$35,975,950.16 | 1.83% |
| 15 | 3015 Forest, timber, and forest nursery products | \$238,237.12 | \$3,343,601.00 | \$3,581,838.12 | \$6,939,008.22 | \$715,441.79 | \$7,654,450.01 | 6.65% |
| 16 | 3016 Logs and roundwood | \$638,520.62 | \$4,156,438.45 | \$4,794,959.07 | \$4,773,298.67 | \$138,297.65 | \$4,911,596.31 | 13.32% |
| 17 | 3017 Fish | \$829,801.42 | \$995,557.40 | \$1,825,358.82 | \$30,003,975.58 | \$17,034,358.56 | \$47,038,334.15 | 45.46% |
| 18 | 3018 Wild game products, pelts, and furs | \$0.00 | \$17,774,929.83 | \$17,774,929.83 | \$160,618.77 | \$6,076,204.15 | \$6,236,822.92 | 0.00% |
| 19 | 3019 Support activities for agriculture and forestry | \$73,735.18 | \$25,753,505.58 | \$25,827,240.76 | \$84,178.60 | \$197,968.46 | \$282,147.06 | 0.29% |
| 20 | 3020 Natural gas and crude petroleum | \$6,657,463.03 | \$30,887,644.25 | \$37,545,107.28 | \$79,295,305.21 | \$0.00 | \$79,295,305.21 | 17.73% |
| 21 | 3021 Coal | \$0.00 | \$0.00 | \$0.00 | \$13,007,637.88 | \$2,217,595.32 | \$15,225,233.20 | 0.00% |
| 22 | 3022 Copper, nickel, lead, and zinc ore | \$0.00 | \$0.00 | \$0.00 | \$47,156,746.93 | \$0.00 | \$47,156,746.93 | 0.00% |
| 23 | 3023 Iron ore | \$0.00 | \$0.00 | \$0.00 | \$17,461,561.19 | \$1,224,072.04 | \$18,685,633.23 | 0.00% |
| 24 | 3024 Gold ore | \$0.00 | \$0.00 | \$0.00 | \$10,585,858.43 | \$6,472,404.68 | \$17,058,263.11 | 0.00% |
| Total | | \$10,951,953,181.92 | \$78,147,792,868.45 | \$89,099,746,050.37 | \$18,503,319,379.76 | \$20,856,092,014.30 | \$39,359,411,394.07 | 12.29% |

Selected Regions

RESTOFNC_MECKLENBURGCOUNT.



| | |
|-------------------|------------------------|
| Employment | 5,975,650 |
| Output | \$1,032,219,256,321.53 |
| Total Value Added | \$567,039,019,694.36 |
| Data Year | 2018 |

MECKLENBURG COUNTY, NORTH CAROLINA



| | |
|-------------------|----------------------|
| Employment | 918,791 |
| Output | \$188,544,294,859.43 |
| Total Value Added | \$117,723,372,592.21 |
| Data Year | 2018 |

SOUTH CAROLINA



| | |
|-------------------|----------------------|
| Employment | 2,814,815 |
| Output | \$473,873,124,537.10 |
| Total Value Added | \$234,378,650,512.11 |
| Data Year | 2018 |

Environmental Impacts

IMPLAN Environmental Data

- Consists of environmental factors like greenhouse gas emissions (GHG), emissions to water, etc.
- Bridged to IMPLAN sectors
 - i.e. Emissions per dollar of output
 - e.g. Manufacturing decreases by \$XX, GHG emissions decrease by YY
- Example: The data show that the "Light truck and utility vehicles manufacturing" sector emits 9.363 grams of CO₂ into the air for every \$1 of output

Final Thoughts

Q&A



Thank You for Joining Us!

Analyzing the Economic Impacts of the Coronavirus

A recording of this webinar and supplemental material will be sent to you shortly.

If you were not able to pose your question for any reason, or have others you'd like to submit, please email support@implan.com

IMPLAN