The Economic Importance and Value of Agriculture

A Spotlight on Madison County, Georgia

Prepared for:
Madison County Cooperative Extension
November, 2006

by:
John C. McKissick
The Center for Agribusiness and Economic Development
College of Agricultural and Environmental Sciences
The University of Georgia
Georgia Statistics Web Site
- Interactive Database (county data, maps, etc.)
- Print County Profiles

www.caed.uga.edu
Census estimates indicate that the US increased its population from 2000-2005 by 5.3% from 281 to 296 million. Georgia had the 4th highest percentage growth rate of all states with 10.8%.

Loss Gain < US Gain < GA but > US Gain = or > GA

GA = 10.8%
US = 5.3%
Avg US State = 5.0%

Primary data source: U.S. Census Bureau

Graphic by Center for Agribusiness & Economic Development, UGA
Population Change: 2000-2005

Loss
-0 – 5.3%
0.5 – 10.8%
10.8 – 21.6%
21.6 – 42.7%

Avg. GA County = 7.2%
GA = 10.8%
US = 5.3%

Primary data source: U.S. Census Bureau
Percent of Land in Cropland & Forestland: 2002

- 23 – 40%
- 40 – 55%
- 55 – 70%
- 70 – 85%
- 85% or more

GA Total = 78.5%
GA Avg. Co. = 77.3%
Metro Avg. Co. = 70.7%
Nonmetro Avg. Co. = 82.6%

Madison Co. 78.5%

Primary data sources:
U.S. Census of Agriculture, 2002
Forest Statistics for Georgia, 1997
Components of 2005 Property Tax Gross Digest
Madison County

- Residential: 49.3%
- Mobile Home: 1.8%
- Timber: 0.05%
- Motor Vehicle: 9.3%
- Public Utility: 6.0%
- Industrial: 0.8%
- Commercial: 6.9%
- Ag-Preferential-Environmental: 25.9%
- Heavy Equip.: 0.00%

Primary data source: GA Dept. of Revenue

40% Assessment Value of Property
Gross Digest = $678,880,000
STATE Homestead & Property Exemptions = $73,630,000
Net M&O Digest = $605,250,000
Value of Exempt Property = $37,532,000
* Timber taxed at 100% based on previous year sales
<table>
<thead>
<tr>
<th>County</th>
<th>% Residential</th>
<th>% Agricultural</th>
<th>% Commercial</th>
<th>% Industrial</th>
<th>% Motor Vehicle</th>
<th>% Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>MADISON</td>
<td>49.3</td>
<td>25.9</td>
<td>6.9</td>
<td>.8</td>
<td>9.3</td>
<td>7.9</td>
</tr>
<tr>
<td>CLARKE</td>
<td>54.5</td>
<td>.7</td>
<td>29.4</td>
<td>7.5</td>
<td>5.5</td>
<td>2.5</td>
</tr>
<tr>
<td>OGLETHORPE</td>
<td>40.5</td>
<td>39.0</td>
<td>4.5</td>
<td>.7</td>
<td>9.4</td>
<td>5.8</td>
</tr>
<tr>
<td>ELBERT</td>
<td>36.7</td>
<td>25.6</td>
<td>15.2</td>
<td>7.5</td>
<td>8.9</td>
<td>6.1</td>
</tr>
<tr>
<td>HART</td>
<td>54.3</td>
<td>19.8</td>
<td>6.1</td>
<td>11.1</td>
<td>5.5</td>
<td>3.1</td>
</tr>
<tr>
<td>FRANKLIN</td>
<td>32.7</td>
<td>35.1</td>
<td>14.7</td>
<td>5.5</td>
<td>7.3</td>
<td>4.7</td>
</tr>
<tr>
<td>BANKS</td>
<td>35.8</td>
<td>37.1</td>
<td>14.1</td>
<td>2.0</td>
<td>6.8</td>
<td>4.2</td>
</tr>
<tr>
<td>JACKSON</td>
<td>44.9</td>
<td>15.8</td>
<td>9.3</td>
<td>18.8</td>
<td>7.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Avg. GA Co.</td>
<td>40.8</td>
<td>20.8</td>
<td>13.2</td>
<td>7.8</td>
<td>9.0</td>
<td>8.4</td>
</tr>
</tbody>
</table>

Primary data source: GA Dept. of Revenue
Revenue : Expenditure Ratios
$ of Revenue for Each $ of Expenditure

Farm/Forest
- Cherokee: $1.92
- Jones: $1.01
- Carroll: $1.18
- Oconee: $1.17
- US Avg: $2.86

Commercial
- Cherokee: $3.19
- Jones: $1.93
- Carroll: $1.25
- Oconee: $1.17
- US Avg: $3.45

Residential
- Cherokee: $1.92
- Jones: $0.87
- Carroll: $0.83
- Oconee: $0.90
- US Avg: $0.87

Georgia's 2005 Farm Gate Value was $10.6 billion. Adding the value of landscape services increased the total agricultural production value to $12.3 billion.

Total food and fiber production and directly related businesses account for a $52.7 billion *output impact* on Georgia's $614 billion economy.
Production Agriculture: 2005

Georgia Total Agricultural Production Value $12.3 Billion

- Landscape services: 14.0%
- Poultry & Eggs: 36.7%
- Other Income: 5.4%
- Fruits & Nuts: 2.2%
- Forestry & Products: 5.7%
- Ornamental Horticulture: 7.3%
- Vegetables: 5.2%
- Livestock & Aquaculture: 10.6%
- Row & Forage Crops: 13.0%

2005 Farm Gate Value by County in Millions of Dollars

0 - $20
$20 - $45
$45 - $80
$80 - $200
$200 - $317
What We Know about Madison County

- 2005 Farm Gate Value in Madison Co. was $241.5 million. Adding $1.6 million of landscape services increased the total agricultural production value to $243.1 million.

- The highest value commodity group was poultry representing 90.6% of the total agricultural production value.
Madison County
2005 Agricultural Production Value

2005 Agricultural Production

- Poultry-Eggs: 90.6%
- Livestock-Aquaculture: 5.9%
- Row-Forage crops: 1.4%
- Forestry: 0.2%
- Veges-Fruits-Nuts: 0.2%
- Other: 0.2%
- Landscape services: 0.7%

2005 Top Farm Gate Commodities

- Broilers: 84.0%
- Dairy: 1.2%
- Hay: 0.6%
- Greenhouse: 0.4%
- Timber: 0.1%
- All Other: 1.1%
- Breeder Pullet Unit: 1.7%
- Horses: 1.8%
- Beef: 3.3%
- Layers: 5.5%
- Field Nursery: 0.4%
- All Other: 1.1%

Total AG Value = $243.1 million
Trends in Madison County: Number of Farms & Average Farm Size

Number of Farms, Madison County

Average Farm Size

Source: 1945-2002 (quinquennial) Censuses of Agriculture
Trends in Madison County:
Land in Farms & Farms by Size

Land in Farms
Madison County

Percent of Farms by Size, 2002

Source: 1945-2002 (quinquennial) Censuses of Agriculture
Trends in Madison County
Number of Farms by Commodity

Source: 1987-2002 (quinquennial) Censuses of Agriculture
How Do We Compare?

Georgia, Madison and Surrounding Counties
Farm Gate Value

Sources: 2002 Census of Agriculture and 2005 Farm Gate Value Report
What We Did

- The Center for Agribusiness and Economic Development performed an analysis of the county’s economy, focusing on the role of food and fiber.
What We Asked
County Economy Modeled

- How much of the county’s total current economic output comes from food and fiber production and directly related processing? (A Snapshot of the Economy)

- What is the total (direct and indirect) Impact of food and fiber production and directly related industries?
## Madison County Economy

### Agriculture OUTPUT

<table>
<thead>
<tr>
<th>Industry</th>
<th>Output in $ Millions</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>243.127</td>
<td>33.7</td>
</tr>
<tr>
<td>Mining</td>
<td>7.774</td>
<td>1.1</td>
</tr>
<tr>
<td>Construction</td>
<td>90.451</td>
<td>12.6</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>94.606</td>
<td>13.1</td>
</tr>
<tr>
<td>Trans-Utilities-Info</td>
<td>29.425</td>
<td>4.1</td>
</tr>
<tr>
<td>Trade</td>
<td>35.993</td>
<td>5.0</td>
</tr>
<tr>
<td>Finance-Ins-RE</td>
<td>17.951</td>
<td>2.5</td>
</tr>
<tr>
<td>Services</td>
<td>75.989</td>
<td>10.5</td>
</tr>
<tr>
<td>Government</td>
<td>125.162</td>
<td>17.4</td>
</tr>
</tbody>
</table>

**Total County Economic Output = $720.5 million**
## Madison County Economy
### Agriculture + Directly Related Businesses *OUTPUT*

<table>
<thead>
<tr>
<th>Industry</th>
<th>Output in $ Millions</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture + Direct</td>
<td>249.182</td>
<td>34.6</td>
</tr>
<tr>
<td>Mining</td>
<td>7.774</td>
<td>1.1</td>
</tr>
<tr>
<td>Construction</td>
<td>90.451</td>
<td>12.6</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>88.552</td>
<td>12.3</td>
</tr>
<tr>
<td>Trans-Utilities-Info</td>
<td>29.425</td>
<td>4.1</td>
</tr>
<tr>
<td>Trade</td>
<td>35.993</td>
<td>5.0</td>
</tr>
<tr>
<td>Finance-Ins-RE</td>
<td>17.951</td>
<td>2.5</td>
</tr>
<tr>
<td>Services</td>
<td>75.989</td>
<td>10.5</td>
</tr>
<tr>
<td>Government</td>
<td>125.162</td>
<td>17.4</td>
</tr>
</tbody>
</table>

**Total County Economic Output = $720.5 million**
An Economic Snapshot of Madison County

- How much of Madison County’s total economic output comes from food and fiber production?

- AG value alone of $243.1 million consisting of Farm Gate Value and landscape services comprises 33.7% of the county’s economy.

- AG plus directly related businesses (ex. logging, etc.) comprise 34.6% of the county’s economy.
Food and Fiber Production, Processing and Direct Manufacturing as % of Total Output

Madison Co. 34.6%
What is the Impact?

- What is the total (direct and indirect) impact of food and fiber production and directly related industries?

- This scenario illustrates how other industries are affected by the presence of food and fiber in the county. The indirect impacts measure output created due to food and fiber production and processing in the county.
What Impact Means: A Brief Explanation

- The *impact* numbers capture the ripple effects that food and fiber create in the county’s economy. Many other sectors rely in part on the existence of food and fiber for sales.
# Madison County Agriculture IMPACT

<table>
<thead>
<tr>
<th>Industry</th>
<th>Direct $ Millions</th>
<th>Indirect $ Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>243.127</td>
<td>0</td>
</tr>
<tr>
<td>Mining</td>
<td>0</td>
<td>0.003</td>
</tr>
<tr>
<td>Construction</td>
<td>0</td>
<td>0.498</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>0</td>
<td>1.053</td>
</tr>
<tr>
<td>Trans-Utilities-Info</td>
<td>0</td>
<td>5.272</td>
</tr>
<tr>
<td>Trade</td>
<td>0</td>
<td>3.804</td>
</tr>
<tr>
<td>Finance-Ins-RE</td>
<td>0</td>
<td>1.853</td>
</tr>
<tr>
<td>Services</td>
<td>0</td>
<td>7.698</td>
</tr>
<tr>
<td>Government</td>
<td>0</td>
<td>6.804</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>243.127</strong></td>
<td><strong>26.985</strong></td>
</tr>
</tbody>
</table>

Total Impact of Production AG = $270.1 million—37.5% of total economy
## Madison County
Production Agriculture + Directly Related Businesses \textit{IMPACT}

<table>
<thead>
<tr>
<th>Industry</th>
<th>Direct $ Millions</th>
<th>Indirect $ Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture + Direct</td>
<td>249.182</td>
<td>0</td>
</tr>
<tr>
<td>Mining</td>
<td>0</td>
<td>0.003</td>
</tr>
<tr>
<td>Construction</td>
<td>0</td>
<td>0.506</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>0</td>
<td>1.086</td>
</tr>
<tr>
<td>Trans-Utilities-Info</td>
<td>0</td>
<td>5.342</td>
</tr>
<tr>
<td>Trade</td>
<td>0</td>
<td>3.907</td>
</tr>
<tr>
<td>Finance-Ins-RE</td>
<td>0</td>
<td>1.936</td>
</tr>
<tr>
<td>Services</td>
<td>0</td>
<td>7.918</td>
</tr>
<tr>
<td>Government</td>
<td>0</td>
<td>7.000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>249.182</strong></td>
<td><strong>27.699</strong></td>
</tr>
</tbody>
</table>

Total Impact of AG+Directly Related = $276.9 million—38.4% of total economy
## Madison County
### Production Agriculture + Directly Related Industries
#### Employment IMPACT

<table>
<thead>
<tr>
<th>Industry</th>
<th>Direct</th>
<th>Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture + Direct</td>
<td>917</td>
<td>0</td>
</tr>
<tr>
<td>Mining</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Construction</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Trans-Utilities-Info</td>
<td>0</td>
<td>44</td>
</tr>
<tr>
<td>Trade</td>
<td>0</td>
<td>49</td>
</tr>
<tr>
<td>Finance-Ins-RE</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Services</td>
<td>0</td>
<td>155</td>
</tr>
<tr>
<td>Government</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

**Total Impact of AG + Directly Related Employment = 1,195 Jobs**
What These Numbers Mean: A Brief Explanation

- **Direct** impact is $249.2 million. This includes food and fiber production, processing and directly related manufacturing.

- **Indirect** impact from the Trade sector is $3.9 million. This captures the effects of farmers (direct source) buying supplies (seed, fertilizer, work boots) from local stores. These stores must increase their output to meet farmer demand.
As local stores increase their output, they may demand more stock from local wholesalers (also in the Trade sector). Local wholesalers demand more from local manufacturers, thus increasing activity in the Manufacturing sector.

Local stores also hire employees to assist farmers. They take home wages and buy groceries at the local store which increases demand there.
The total impact of food and fiber production, processing and direct manufacturing is $276.9 million.

The total output is $720.5 million.

Thus, food and fiber (directly and indirectly) account for 38.4% of the total output.
Food and Fiber Production, Processing and Direct Manufacturing Impact as % of Total Output

Madison Co. 38.4%
Population Change: 2000-2005

Northeast
Avg. Co. 9.4%
Total 10.4%

Northwest
Avg. Co. 12.9%
Total 13.4%

Southeast
Avg. Co. 4.9%
Total 4.5%

Southwest
Avg. Co. 1.7%
Total 3.9%

GA Avg. Co. 7.2%
GA Total 10.8%

US 5.3%

Graphic by Center for Agribusiness & Economic Development, UGA

Primary data source: U.S. Census Bureau
% of Land in Cropland, Pastureland & Forestland

GA Avg. Co. = 80.8%
GA Total = 81.7%

Primary data sources:
U.S. Census of Agriculture, 2002
Forest Statistics for Georgia, 1997

Graphic by Center for Agribusiness & Economic Development, UGA