Agricultural Economic Development: Examining Ag & Food Systems in New York State

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http://agribusiness.dyson.cornell.edu
Today’s Discussion

- Ag-based contributions and inter-industry linkages in NYS’s Ag and Food Systems
- Primary focus on farm and manufacturing sectors
- Regional contributions & variation
- Primary issues looking forward
Regional Delineation

Western NY (WNY)

North Country – Mohawk Valley (NC-MV)

Central NY – S. Tier (CNY-ST)

Capital District – Mid-Hudson (CD-MH)

NYC – Long Island (NYC-LI)
Ag-Based Contributions to NYS Economy, $ Million, Value Added, 2009

Definition A
$1,369

Definition B

Definition C

Definition D

Definition E

Definition F

Livestock/Crop Production
Food/Bev Ag/Chem Manufacturing
Food/Bev Retail Trade

Ag/Forestry/Vet Services
Ag/Food Wholesale Trade
Food Service/Drinking Places

Gross State Product = $1,090 billion.
Ag-Based = 4.5%

Source: MIG 2009
Ag-Based Contributions to NYS Economy, $ Million, Value Added, 2009

Livestock/Crop Production $1,369
Ag/Forestry/Vet Services $2,374

Gross State Product = $1,090 billion,
Ag-Based = 4.5%

Source: MIG 2009
Ag-Based Contributions to NYS Economy,
$ Million, Value Added, 2009

- Definition A: $1,369
- Definition B: $2,374
- Definition C: $8,347
- Definition D
- Definition E
- Definition F

Livestock/Crop Production
Food/Bev Ag/Chem Manufacturing
Food/Bev Retail Trade
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Source: MIG 2009
Ag-Based Contributions to NYS Economy, $ Million, Value Added, 2009

- Definition A: $1,369
- Definition B: $2,374
- Definition C: $8,347
- Definition D: $18,286

Million Dollars

Source: MIG 2009
Ag-Based Contributions to NYS Economy, $ Million, Value Added, 2009

- **Definition A**: $1,369
- **Definition B**: $2,374
- **Definition C**: $8,347
- **Definition D**: $18,286
- **Definition E**: $28,163

Gross State Product = $1,090 billion. Ag-Based = 4.5%

Source: MIG 2009
## Economic Impact Estimates, New York State, 2009

<table>
<thead>
<tr>
<th>Impact Type</th>
<th>Employment (Number)</th>
<th>Labor Income ($ Million)</th>
<th>Value Added ($ Million)</th>
<th>Output ($ Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Effect</td>
<td>44,154</td>
<td>$1,194</td>
<td>$1,315</td>
<td>$3,747</td>
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<tr>
<td>Indirect Effect</td>
<td>12,308</td>
<td>$524</td>
<td>$952</td>
<td>$1,747</td>
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<tr>
<td>Induced Effect</td>
<td>10,729</td>
<td>$565</td>
<td>$1,010</td>
<td>$1,603</td>
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<tr>
<td>Total Effect</td>
<td>67,191</td>
<td>$2,283</td>
<td>$3,277</td>
<td>$7,097</td>
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Source: MIG 2009
### Food and Beverage Product Manufacturing*

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<tr>
<td>Direct Effect</td>
<td>53,037</td>
<td>$2,825</td>
<td>$5,546</td>
<td>$26,223</td>
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<tr>
<td>Indirect Effect</td>
<td>67,017</td>
<td>$4,230</td>
<td>$6,766</td>
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<tr>
<td>Induced Effect</td>
<td>43,624</td>
<td>$2,304</td>
<td>$4,120</td>
<td>$6,539</td>
</tr>
<tr>
<td>Total Effect</td>
<td>163,678</td>
<td>$9,359</td>
<td>$16,432</td>
<td>$45,999</td>
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</table>

*Production and manufacturing effects are NOT additive. Backward linkages in food and beverage manufacturing INCLUDE farm production, as well as other industries.

Source: MIG 2009
## Regional Multipliers, New York State, 2009

### Output Multipliers

<table>
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<td>2.01</td>
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<tr>
<td>Ag Support Services</td>
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<td>1.82</td>
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Source: MIG, 2009

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<td>1.67</td>
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<td>1.42</td>
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<td>Crop Production</td>
<td>1.54</td>
<td>1.60</td>
<td>1.73</td>
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<td>1.41</td>
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<td>1.59</td>
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<tr>
<td>Animal Production</td>
<td>1.36</td>
<td>1.48</td>
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<td>1.40</td>
<td>1.30</td>
<td>1.09</td>
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<td>3.21</td>
<td>3.30</td>
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Source: MIG, 2009
A Snapshot of NYS Agriculture Production, 2009

Output
Total = $3,902 Mill.

- **Grain & Oilseed**: 1,684 (43%)
- **Vege & Melon**: 416 (11%)
- **Fruit & Tree Nut**: 449 (11%)
- **Greenhouse & Nursery**: 316 (8%)
- **Other Crop**: 376 (10%)
- **Cattle (non-dairy)**: 351 (9%)
- **Dairy & Milk**: 121 (3%)
- **Poultry & Egg**: 105 (3%)
- **Other Animal**: 84 (2%)

Source: MIG, Inc.
A National Perspective ...
Farm contributions to GDP by state, average annual growth 2004-2008 (chained dollars)

Source: U.S. Bureau of Economic Analysis, data released on 11/18/2010
Annualized percentage change in output, 2004-2009, selected farm sectors, New York State (nominal)

Grain & Oilseed: -5%
Vegetable & Melon: 0%
Fruit & Tree nut: 5%
Greenhouse & Nursery: 10%
Cattle & Dairy: 15%
Poultry & Other: 20%

All Sectors = -1.9%

Source: MIG, Inc.
Regional Agricultural Production by Sector, New York State, 2009 [Annual % Ch. 2004]

Output ($ Million)

- WNY: -0.6%
- CNY-ST: -0.9%
- NC-MV: -4.1%
- CD-MH: -4.3%
- NYC-LI: +2.0%

New York State Region

- Grain & Oilseed
- Vege & Melon
- Fruit & Tree nut
- Greenhouse & Nursery
- Other Crop
- Cattle (non-dairy)
- Dairy & Milk
- Poultry & Egg
- Other Animal
A Snapshot of NYS Food & Bev Manufacturing, 2009

Output
Total = $28,241 Mill.

- Animal Food: 6372 (23%)
- Milling Oilseeds Cereals: 1079 (4%)
- Sugar Confectionary: 618 (4%)
- Fruit and Vegetable: 3996 (14%)
- Dairy: 1743 (6%)
- Meat: 1724 (6%)
- Seafood: 2926 (10%)
- Bakery Tortilla: 3438 (12%)
- Other Food: 1760 (6%)
- Soft Drink Ice: 137 (1%)
- Brew Wine Distill: 3448 (12%)
A National Perspective…
Food manufacturing contributions to GDP by state, average annual growth 2004-2008 (chained dollars)
Percentage Change in Employment and Output, Food and Beverage Manufacturing, 2004 - 2009

NYS F&B Mfg  NYS Other Mfg  US F&B Mfg
Annualized percentage change in output, 2004-2009, F&B manufacturing sectors, New York State (nominal)

Source: MIG, Inc.
Regional Food & Beverage Manufacturing Output by Sector,
New York State, 2009, [Annual % Ch. 2004]
F&B Manufacturing Firm Survey

- Mailing list of 3,687 establishments (net)
- Mailed early 2009 with reminders
- Response rate 13%

Industry Sectors Represented:
Grain Milling, Sugary/Confectionary, Fruit & Vegetable, Dairy Products, Meats, Seafood, Bakeries, Beverages, Maple Products
Predicted growth rates by sector (2007-2009), all else held constant
F&B Manufacturing Focus Groups on Firm Growth and Competitiveness

- **Prioritized barriers:**
  - High state taxes and insurance costs
  - Increasing state licensing/inspection fees
  - Impending regulations on labor and wages
  - Availability and retention of (motivated) workforce.

- **Prioritized opportunities:**
  - Growing demand for local and environmentally-friendly foods
  - Supply chain innovations with distributors
  - Current product line growth
  - Sector partnering across products, retail events, & transport/delivery.
Summary Points

- **Farm Production**
  1. Price volatility – managing the margins, diversification (markets, crops)
  2. Expanding markets - cost competitiveness, product differentiation
  3. Growing local food demands; including processed food products
  4. Augmenting traditional food supply chains to address barriers
  5. Ongoing immigration issues and farm worker regulations

- **F&B Manufacturing**
  1. State government renewed focus on upstate & F&B manufacturing
  2. Sustainability issues up- and down-stream
  3. Small and large scale perspectives vary, high firm heterogeneity
  4. Changing processing demands – vegetables (reduced), dairy (growing)
  5. Increased input sourcing upstate for downstate manufacturing activity?

- **Ag & Food Systems Development Moving Forward…**
  1. Engage wider (mainstream) economic development community
  2. Consider existing and evolving inter-industry linkages
  3. Recognize and pay attention to the intangibles – attitudes, landscapes
Thank You!

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