Maine’s Role in Creating a Sustainable Regional Food System: Opportunities and Challenges

Tim Griffin
Agriculture Food and Environment Program
Topics for Discussion

• Pushing vs. Pulling
• Overlapping scales in the food system
• Food self-reliance for New England, briefly
• Opportunities and Challenges
Pushing vs. Pulling

- Accounts for resource base
- Current and future production
- “Grow it and they will eat it”

- Role of consumer demand
- Willingness to pay
- Disparities in food access
Pushing *and* Pulling are Important
Applies to many scales
Food Systems Scales and New England
Food Systems Scales

• “The Local”
  – Tremendous interest
  – New England leads in direct to consumer
  – Rapid growth, from a small starting point
  – Conflated with scale, method of production, and nutrition
Food Systems Scales

• “The Industrial”
  – An assumption about scale (large)
  – Producing both feedstocks and foods
  – Provides a large portion of US food supply
  – *Also* conflated with many other characteristics
Food Systems Scales

• “The Global”
  – The Corporate Food System
  – Viewed mostly from farm gate outward
  – Players might be large, small, local, etc.
Food Systems Scales

• “The Regional”
  – Scale is variable (depends on who you ask)
  – More dependent on supply chains that Local
  – Potentially shorter supply chains than Industrial
Scales *Overlap*, and they should *Communicate* and *Compliment*!

ie. they are not separate and distinct!
Supply Chains in Food Systems Research

Processing/Distribution

- Northeast region
- Market basket of products
- Price & access
- Supply chain characteristics
- Production capacity
- Scenario evaluations

Access in Communities

Farm-level Production

USDA-NIFA-Grant
2011-68004-30057
Regional Self Reliance for New England region = 
Production / Consumption
<table>
<thead>
<tr>
<th>Category</th>
<th>Regional Self-Reliance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Pulses</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Vegetables</td>
<td>37</td>
</tr>
<tr>
<td>Fruit</td>
<td>10</td>
</tr>
</tbody>
</table>

Reliance = (regional production / regional consumption) * 100
<table>
<thead>
<tr>
<th>Vegetable Group</th>
<th>Regional Self-Reliance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark Green</td>
<td>1</td>
</tr>
<tr>
<td>Starchy</td>
<td>80</td>
</tr>
<tr>
<td>Red and Orange</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
</tr>
<tr>
<td>Fruit Group</td>
<td>Regional Self-Reliance (%)</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>“Commonly Eaten”</td>
<td>5</td>
</tr>
<tr>
<td>Berries</td>
<td>136</td>
</tr>
<tr>
<td>Melons</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>
New England Regional Livestock Production

On a fluid milk equivalent basis, 50% self-reliant.

<table>
<thead>
<tr>
<th>Livestock</th>
<th>Millions of Pounds Produced (live weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Lamb</td>
<td>8%</td>
</tr>
<tr>
<td>Turkey</td>
<td>1%</td>
</tr>
<tr>
<td>Pork</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Beef</td>
<td>23.9</td>
</tr>
</tbody>
</table>
Opportunities and Challenges

Limits of direct-to-consumer, Building demand, Seasonality, Competitiveness, Aggregation, Strategic planning
Limits of Direct-to-Consumer

National Count of Farmers
Market Directory Listings

Source: USDA-AMS-Marketing Services Division
Limits of Direct-to-Consumer

• Seasonal availability (for produce anyway)
• Limited hours for markets
• Stratified consumer base
• *Perception* of higher prices
Building Demand

• A series of small wedges?
  – School districts working with multiple farms
  – Universities
  – Hospitals/health care facilities
  – Veggie prescriptions
Building Demand

• Regional supply chains that move food to population centers
• At the retail level
  – Assumed price premiums impact food access
  – Broad-based access to food from Maine and region
Seasonality

• Fresh food not available year-round from Maine
• Options for out-of-season availability depend on food businesses
  – Refrigeration and freezing
  – Processing
  – Manufacturing
  – Distribution to wholesale and retail
Competitiveness

• Higher input costs in the region
• Structures/arrangement to reduce costs in each sector or supply chain node?
• Smaller scale increases cost per unit
• Can we mimic economies of scale?
Aggregation

• Food hubs are *one* example
  – For-profit or non-profit
  – Single or multiple products
  – Farmer or community focus

• Conventional businesses also function to aggregate, at different places along the supply chain
Strategic Planning

- Within a state or region...
  - Which businesses are critical to expanding food economy?
  - What is the optimal location (geographically) for these businesses?
  - What are the investment opportunities for these ventures?
  - Coordination across state boundaries?
Thank You