SCALABILITY AND SUSTAINABILITY: CAN WE RESOLVE THE PARADOX OF EXPANDING THE LOCAL FOOD SYSTEM?

Presentation for Engaging Institutions in Developing Regional Food Systems: Setting the Table for Collaboration

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Purpose and Outline

- **Purpose:**
  - Overview of the IIRA.
  - Report on two CSA surveys.
  - Discuss these challenges:
    - Can we increase the productivity of local food systems while retaining the benefits of local food systems?
    - How can we contribute to the development of local and regional food systems?

- **Outline.**
  1. IIRA as an “Engaging” Institution.
  2. Industrial vs. “civic” agriculture.
    - 2002.
    - 2009.
  4. Discussion of results.
    - Paradox and conundrum.
      - **Scalability** of civic agriculture.
      - **Sustainability** of civic agriculture.
    - Can CSAs / civic agriculture be as productive as industrial agriculture?
  5. Conclusions.
I. IIRA as “Engaging” Institution

(1) Strategic Visioning
- Where are we now?
- Where do we want to be?
- How do we get there?

Goal:
Prioritize CED objectives through a grassroots consensus-based process.

(2) Technical Assistance
- Business Plans
- Business Retention & Expansion
- Data Collection / Analysis
- Economic Impact Analysis
- Feasibility Studies
- Fiscal Impact Analysis
- GIS Mapping
- Labor Market Analysis
- Marketing Surveys
- Renewable Energy
- Retail Trade Analysis
- Sustainable Development

(3) Implementation
- Peace Corps Fellows
- IIRA Follow-up
- Midwest CDI
- AmeriCorps VISTA
- Volunteer Training
- Statewide Conference
- Regional Workshops
- Online materials

Goal:
Improve the quality of life for the residents of rural Illinois and beyond.
I. IIRA as “Engaging Institution”

- Relevance of IIRA outreach units to local food systems
  - MAPPING – Strategic visioning for “food centered” community development.
  - Health and Housing – Educational modules for IHA.
  - VASDC – Cooperatives, agri-tourism, value-added agriculture.
  - SBDC – Business Planning.
  - DATA Center – Consumer surveys, economic impact analyses, feasibility studies, mapping and land use planning.
  - PTAC – Procurement to sell local foods to institutional buyers at the local, state, and federal level.
  - Peace Corps Fellows Program – Research and outreach to promote CSAs and local food systems.
II. Industrial versus Civic Agriculture

- Political economy of agriculture – Mechanization / technology / globalization leads to less expensive food but raises concerns:
  1. Farm consolidation & impact on community vitality—Goldschmidt Hypothesis.
  2. Environment—chemicals, soil loss, ↓ biodiversity on farms.
  3. Food safety—chemicals, GMOs, Mad Cow, food poisoning.
  4. Food quality.

- Farmers and communities marginalized in the Agro-Industrial Food Complex due to consolidation along the value chain.

- Federal Farm Policy – Subsidy policy exacerbates the problem.
  - Which sectors are subsidized and to what extent?
  - How does this affect our food basket costs?
II. Industrial versus Civic Agriculture

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- Civic Agriculture akin to “Slow Food Movement” (2004) which says focus on agricultural productivity and:
  - “…the ‘Fast Life’ has changed our way of being and threatens our environment and our landscapes.” Instead, we need to focus on “places of gastronomic pleasure…crop diversity, sustainable agriculture [and] rural development.”
  - Lyson (2000) connects the local food movement to ideas of social capital and civic engagement – leading him to describe it as “civic agriculture.”

- CSAs are a form of civic agriculture.
  - Subscription-based buyers cooperative.

- But questions arise...
III. Survey of CSAs

- **Primary Challenge to CSAs.**
  - Hypotheses focus on:
    - Finding new customers / subscribers.
    - Retaining current subscribers.
    - Explore marketing and member retention strategies.
    - Begin to identify *scalability* and *productivity* issues.
    - Are we really talking about replacing the industrial paradigm?

- **Conducted 2 National Surveys.**
    - Survey mailing, postcard reminder and 2\textsuperscript{nd} survey mailing.
    - Mailing List—Multiple Sources.
      - Robyn Van En Directory, Web Search, local knowledge.
  - 2002: Mailed 746 and received 373 (50\% response).
  - 2009: Mailed 633 and received 190 (30\% response).
III. Surveys of CSAs

Community Supported Agriculture (CSA) Farm Distribution in the U.S. 2002

Data Source: http://www.csacenter.org/movement.html
Table 2. Summary of CSAs and CSA Operators

<table>
<thead>
<tr>
<th>CSA Attributes</th>
<th>Response 2002 / 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Age of a CSA Operator / Farmer</td>
<td>44.6 / 46.1</td>
</tr>
<tr>
<td>Gender of CSA operators 2002 (%)*</td>
<td>48 male / 52 female</td>
</tr>
<tr>
<td>Gender of CSA operators 2009 (%)*</td>
<td>49 male / 51 female</td>
</tr>
<tr>
<td>Educational Attainment (% with undergrad / graduate degree)</td>
<td>79.6 / 79.8</td>
</tr>
<tr>
<td>Were you raised on a farm (%)?</td>
<td>22.1 / 25.8</td>
</tr>
<tr>
<td>Avg. acreage of CSA in first Year</td>
<td>3.6</td>
</tr>
<tr>
<td>Avg. acreage of CSA in current year</td>
<td>8.6</td>
</tr>
<tr>
<td>Avg. # of subscribers in first season (Mean / Median)</td>
<td>26.9 / 20.0</td>
</tr>
<tr>
<td>Avg. # of subscribers in current season (Mean / Median)</td>
<td>91.7 / 50.0</td>
</tr>
<tr>
<td>Avg. price of subscription in first season ($)</td>
<td>318.75</td>
</tr>
<tr>
<td>Avg. price of subscription in current season ($)</td>
<td>399.72</td>
</tr>
<tr>
<td>Percent of total family income from CSA</td>
<td>25.1%</td>
</tr>
</tbody>
</table>

* Only 11.2% of traditional farms are operated by women (USDA Census of Agriculture 2002).
<table>
<thead>
<tr>
<th>Motivating Factor</th>
<th>Mean 2002</th>
<th>Mean 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing wholesome food to community</td>
<td>4.79**</td>
<td>4.70**</td>
</tr>
<tr>
<td>Promoting Sustainable agriculture</td>
<td>4.65**</td>
<td>4.45**</td>
</tr>
<tr>
<td>Land stewardship / Environmental concerns</td>
<td>4.53**</td>
<td>4.32**</td>
</tr>
<tr>
<td>Life style</td>
<td>4.32**</td>
<td>4.25**</td>
</tr>
<tr>
<td>Generating a sense of community</td>
<td>4.25**</td>
<td>4.34**</td>
</tr>
<tr>
<td>Profit</td>
<td>3.40**</td>
<td>3.47**</td>
</tr>
<tr>
<td>Keeping farmland within the family (e.g. The Real Dirt on Farmer John—Film of a CSA in northern IL)</td>
<td>3.11**</td>
<td>2.95**</td>
</tr>
</tbody>
</table>

Respondents rated the factors on a scale of 1 to 5, where 1 = not important and 5 = very important. A chi-square test was used to determine if the mean responses were significantly non-random.

** Results are significantly non-random at p < .01.
Table 4. Ranking Obstacles to CSA Success

<table>
<thead>
<tr>
<th>Obstacle</th>
<th>Mean 2002</th>
<th>Mean 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retaining subscribers</td>
<td>3.32**</td>
<td>2.65**</td>
</tr>
<tr>
<td>Low profits</td>
<td>3.31**</td>
<td>2.77</td>
</tr>
<tr>
<td>Marketing</td>
<td>3.02*</td>
<td>2.31**</td>
</tr>
<tr>
<td>Variety of products offered</td>
<td>2.94</td>
<td>2.69*</td>
</tr>
<tr>
<td>Transportation issues (e.g. delivery)</td>
<td>2.91</td>
<td>2.69**</td>
</tr>
<tr>
<td>Competition with retail outlets (e.g. grocery stores)</td>
<td>2.43**</td>
<td>2.11**</td>
</tr>
<tr>
<td>Persuading subscribers to work on farm</td>
<td>2.12**</td>
<td>1.89**</td>
</tr>
<tr>
<td>Competition with other CSAs</td>
<td>1.85**</td>
<td>2.08**</td>
</tr>
</tbody>
</table>

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* Results are significantly non-random at p < .05.
### Table 5. Reasons People do not Renew CSA Subscriptions

<table>
<thead>
<tr>
<th>Reason for Not Renewing Subscription</th>
<th>Mean 2002</th>
<th>Mean 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subscriber does not have enough time to prepare foods</td>
<td>3.52**</td>
<td>3.15**</td>
</tr>
<tr>
<td>Subscriber moved away</td>
<td>3.37**</td>
<td>3.59**</td>
</tr>
<tr>
<td>Inconvenience</td>
<td>3.14**</td>
<td>2.68</td>
</tr>
<tr>
<td>Subscriber thought there was too much food</td>
<td>3.08</td>
<td>3.22</td>
</tr>
<tr>
<td>Too far for pick up or delivery</td>
<td>2.63**</td>
<td>2.48*</td>
</tr>
<tr>
<td>Unfamiliar varieties of food</td>
<td>2.62**</td>
<td>2.56**</td>
</tr>
<tr>
<td>Don't know</td>
<td>2.62*</td>
<td>2.67</td>
</tr>
<tr>
<td>Not enough product choice</td>
<td>1.92**</td>
<td>1.76**</td>
</tr>
<tr>
<td>Does not feel price is a good value</td>
<td>1.83**</td>
<td>1.76**</td>
</tr>
<tr>
<td>Subscriber thought there was not enough food</td>
<td>1.65**</td>
<td>1.62**</td>
</tr>
</tbody>
</table>

Respondents rated the factors on a scale of 1 to 5, where 1 = not important and 5 = very important. A chi-square test was used to determine if the mean responses were significantly non-random. ** Results are significantly non-random at p < .01. * Results are significantly non-random at p < .05.
Table 6. Marketing Strategies used by CSA Operators

<table>
<thead>
<tr>
<th>Marketing Strategy</th>
<th>% Using 2002</th>
<th>% Using 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word of Mouth</td>
<td>88.8</td>
<td>97.8</td>
</tr>
<tr>
<td>Internet Webpage</td>
<td>44.4</td>
<td>79.6</td>
</tr>
<tr>
<td>Farmers’ Market</td>
<td>38.2</td>
<td>35.8</td>
</tr>
<tr>
<td>Involved in Community Events (e.g. County fair)</td>
<td>35.6</td>
<td>40.9</td>
</tr>
<tr>
<td>Open House—Inviting Community to Visit</td>
<td>35.3</td>
<td>31.4</td>
</tr>
<tr>
<td>Newspaper Advertisements</td>
<td>27.5</td>
<td>21.9</td>
</tr>
<tr>
<td>Roadside Stands</td>
<td>9.1</td>
<td>5.8</td>
</tr>
<tr>
<td>Radio</td>
<td>7.2</td>
<td>8.8</td>
</tr>
</tbody>
</table>
IV. Discussion

- Results show commitment of CSA operators to local food.
- But see barriers to expanded production.

  Internal.
  - Subscriber turn over (a significant problem in 2002 and 2009).
  - Lack of business plans (only 50% of surveyed CSAs had them).
  - Inadequate marketing (See table 6).
  - Capacity / willingness of CSAs to move beyond niche operations.
    - See that profit ranks low as a motivator.
    - Lack of capital will limit ability to expand operations.

  External.
  - Regulations on small-scale processing.
  - Supply chain constraints.
  - Access to loans / grants to expand operations.
  - Geography – seasonality affects productivity – MN versus CA.
IV. Discussion

- Progress happening.
  - Research, outreach and policy changes to expand local food systems.

- Federal.
  - Farm Bill and USDA focus on local foods (New Farm Bill?).
    - “Know your farmer, know your food initiative.”

- State – Progress in Illinois.
  - IL Local Food Entrepreneur & Cottage Food Operation Act.
  - Local Food, Farms, and Jobs Act.
  - John Woods CC has an A.A. degree in sustainable agriculture.

- Local, grass roots and entrepreneurship.
  - Expansion of CSAs, local food incubators, CSA collaborations.
  - Food interest groups emerging – “Buy fresh, buy local.”
V. Conclusions – Questions Remain

- Is scalability possible? CSAs have a serious focus on the environment, food safety, and community, but a less serious focus on economics, profitability, and supply chain issues.

- Can CSAs and other forms of local food production offer us the sustainability benefits of “civic agriculture” while providing the food abundance of “industrial agriculture”?

- Angelic Organics in Illinois—1,000+ subscribers? Another potential model might be found in Denmark. Aarstiderne CSA delivers food each week to 45,000 subscribers in Denmark and another 5,000 subscribers in Sweden.

- Thomas Harttung, the CSA operator sources 70% of food from Denmark. 35% comes from Harttung’s farm. The Aarstiderne CSA was started in 1999. By 2009 it was generating about $45 million in annual revenues. To scale up production, Harttung said “…we had to give up some of the high-church ethics of a CSA and adopt a more ecumenical approach… to really change things, we cannot preach to a very small congregation. We must deliver a message about organic food to a broader audience.”
V. Conclusions – Questions Remain

- Immediate implication is that a rigid adherence to ecological values would have prevented him from achieving the economies of scale required to increase production.

- The broader implication is that he had to strike a balance between idealism and practicality. Some people might accuse Harttung of compromising his values. *Time Magazine*, on the other hand, identified Harttung as one its 2009 “heroes of the environment” (Abend 2009).

- Will CSA operators feel as though they are compromising their values to scale up production? Survey results show that CSA operators prioritize environmental and community ideals over the economic bottom line.

- Resolving this tension will require further work at the federal, state, and local level by farmers, consumers, elected officials, government agencies, food retailers, and other stakeholders. As Farmer John says in the movie *The Real Dirt on Farmer John*, “It ain’t easy being green” (Peterson and Siegel 2005).