Food System Solutions to Address Food Security and Local Economic Development: the Case of Food Hubs in Northeastern US

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Conventional Food System: Social Costs

Food Gap

- e.g. Disease disparity
- e.g. Food deserts

Environment Degradation

- e.g. GHG emissions
- Soil and water pollution
Alternative Food System: Limitations

Idyllic vision of the past

Productive Potential
Only a few empirical studies investigated the Food Hubs’ contribution to the intertwined key issues of food security and local economic development.
Case Selection

Food Hubs localization. Regional Breakdown

<table>
<thead>
<tr>
<th>Region</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td>41</td>
<td>24%</td>
</tr>
<tr>
<td>North Central</td>
<td>40</td>
<td>24%</td>
</tr>
<tr>
<td>Southeast</td>
<td>26</td>
<td>16%</td>
</tr>
<tr>
<td>Mid-Atlantic</td>
<td>24</td>
<td>14%</td>
</tr>
<tr>
<td>Far West</td>
<td>22</td>
<td>13%</td>
</tr>
<tr>
<td>Rocky Mountain</td>
<td>10</td>
<td>6%</td>
</tr>
<tr>
<td>Southwest</td>
<td>5</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: Barham et al. (2012)

Total direct-to-consumer sales, by county, 2012

USDA and other federal investments in local food

Trends in U.S. Local and Regional Food System (Low et al 2015)

No. of funded projects per county, since 2009

Surveyed Food Hub location

(1) Red Tomato
(2) Common Wealth Kitchen
(3) Western Massachusetts Food Processing Center
(4) Berkshire Organics
(5) Mad River Food Hub
(6) Field Goods
(7) Happy Valley Meat Company

Black dots indicate the other food hubs contacted to join the survey.

Surveyed Food Hubs by Legal Structure and National average

<table>
<thead>
<tr>
<th>FH Legal Status</th>
<th>Percentage (obs. 151)</th>
<th>Case Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Profit</td>
<td>38%</td>
<td>(no. 4) Berkshire Organics, Field Goods, Happy Valley Meat Company, Mad River FH</td>
</tr>
<tr>
<td>Non Profit</td>
<td>36%</td>
<td>(no. 3) Commonwealth kitchen, Red Tomato, Western MA Food Processing Center</td>
</tr>
<tr>
<td>Cooperative</td>
<td>19%</td>
<td>-</td>
</tr>
<tr>
<td>Publicly owned</td>
<td>3%</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: 2015 FHs National Survey (Hardy et al 2016)

Surveyed Food Hubs by Business Model and National average

<table>
<thead>
<tr>
<th>Market Model</th>
<th>Percentage (obs. 151)</th>
<th>Case Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm to business or institution (F2B)</td>
<td>28%</td>
<td>(no. 5) Happy Valley Meat Company, Mad River FH, Commonwealth kitchen, Red Tomato, Western MA Food Processing Center</td>
</tr>
<tr>
<td>Farm to consumer (F2C)</td>
<td>20%</td>
<td>Berkshire Organics</td>
</tr>
<tr>
<td>Hybrid (both F2B and F2C)</td>
<td>52%</td>
<td>Field Goods</td>
</tr>
</tbody>
</table>

Source: 2015 FHs National Survey (Hardy et al 2016)
Survey

http://foodsystemworks.org
Conceptual Framework / Research Questions

1. How are FHs working to increase Food Security?
   - Availability
   - Access
   - Utilization
   - Stability

2. How are FHs contributing to Local Economic Development?
   - Ownership
   - Place
   - Multipliers
   - Collaboration
   - Inclusion
   - Workforce
   - System
## Impact on Community Wealth

### Ownership
Are FHs locally owned and controlled initiatives?

- 3 out of 7 organizations function as non-for-profit corporations with a broad-based structure. One of them is directly managed by a Community Economic Development Corporation.
- The remaining 4 out of 7 FHs are for-profit businesses with voluntarily stated social missions.

### Place
Do FHs develop under-utilized assets to benefit local residents and businesses?

- Human. Producer-oriented FHs provide tech. assistance, workshop, job training to farmers and aspiring entrepreneurs.
- Financial. FHs provide financial assistance to start-up and, in some cases, directly fund them.
- Physical. All surveyed FHs are developing new or under-utilized infrastructures to make them available to producers and to connect them to consumers.
- Natural. FHs don’t seem aware of the environmental impact of the broad range of their economic activities such as processing, packaging, transportation.
- Social. Non-for-profit FHs have shown examples of innovative solutions in providing existing services by leveraging on social networks.

### Multipliers
Do FHs implement buy-local strategies to keep money circulating locally?

- Two out of 7 surveyed FHs are already involved in farm-to-institution programs, other two are planning to enter this market. Nonetheless, just in one of those cases the institutional demand currently represents the main marketing channel.
- The principal demand comes from large retails such as Whole Foods and Trader Joe, and from individual consumers both online and in FH’s own retail.
Conclusions

Local Economic Development

Ownership
FHs are and support locally own businesses

Place
FHs have an asset-based approach that cultivate community capitals.

Multipliers
FHs mainly selling to large supermarkets loose the opportunity to make more money circulating locally.

Collaboration
FHs are active in designing and implementing local food plan and strategies (e.g. farm-to-school).

Inclusion
Shared used kitchen are largely used as economic development strategies in inner city neighborhoods as well as in depressed rural town.

Workforce
FHs can team up with CBOs to link training to employment

System
Some FHs promote a system change in the local food sector

Food Security

Availability
FHs provide growers and producers market access and business development opportunities to make them grow

Access
FHs activities have a minimal contribution to increase access for underserved populations

Utilization
FHs can help small producers meeting food safety requirements

Stability
FHs tend to be financially viable businesses.
Thanks

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Global agreements and power

July 24, 2018
French farmers blocked the Tour de France to protest against the reduction of EU regional agricultural subsidies

July 25, 2018
EU President Juncker started a deal with Trump in order to increase soybeans import from USA.
Appendix: A three-tiered food system in North America

Top Tier: Alternative Food System
- High cost, sometimes exclusionary
- Promotes most sustainable agricultural practices

Middle Tier: Conventional Food System
- Artificially low cost, most inclusive food system for most North Americans
- Built on unsustainable agricultural, processing, and transportation practices

Bottom Tier: Emergency Food System
- Free food, for most vulnerable and food-insecure individuals
- Prevents some waste from conventional food system by recovery & redistribution

Source: (Hodgins and Fraser 2017)
Conceptual Framework
1. Broad understanding of **Food Security**

1. Physical **AVAILABILITY** of food
2. Economic, social, and physical **ACCESS** to food
3. Food **UTILIZATION**
4. **STABILITY** of above three dimensions over time
Conceptual Framework

2. Community Wealth Building

1. Promotes local, broad-based **OWNERSHIP** as the foundation of a thriving local economy.

2. Develops under-utilized local assets of the **PLACE**, for benefit of local residents.

3. Encourages institutional buy-local strategies to keep money circulating locally, building upon **MULTIPLIERS**.

4. Promotes **COLLABORATION** among many players.

5. Aims to increase **INCLUSION** by helping all families enjoy economic security.

6. Links **WORKFORCE** training to employment and focuses on jobs for those with barriers to employment.

7. Develops institutions and supportive ecosystems to create a new **SYSTEM** of economic activity.
Conceptual Framework

2. Community Wealth Building

As cities struggle with rising inequality, widespread economic hardship, and racial disparities, something surprising and hopeful is also stirring. In a growing number of America's cities, a more inclusive, community-based approach to economic development is being taken up by a new breed of economic development professionals and mayors. This approach to economic development could be on the cusp of going to scale. It's time it had a name. We call it community wealth building.
Conceptual Framework / Research Questions

1. How are FHs working to increase Food Security?

(Availability) Are FHs increasing the amount of food produced in the region?
(Access) Are FHs improving food access for underserved social group?
(Utilization) Are FHs improving the utilization of available food?
(Stability) Do FHs provide stability overtime of the food services they provide?

2. How are FHs contributing to Local Economic Development?

(Ownership) Are FHs locally owned and controlled initiatives?
(Place) Do FHs develop under-utilized assets for benefit of local residents and businesses?
(Multipliers) Do FHs implement buy-local strategies to keep money circulating locally?
(Collaboration) Do FHs actively partner with other organization which are involved in collaborative activities aiming to bring community development outcome?
(Inclusion) Do FHs provide services to open up economic opportunities for marginalized social group?
(Workforce) Do FHs link training to employment and do they focus on jobs for those with barriers to employment?
(System) Do FHs contribute to create a better climate for growth relatively to the local food economy?
Research in brief

Topic
The broad research topic addressed by this study is the socio-economic and environmental performances of local food system initiatives, as they are opposed to the conventional and global-oriented ones. Within this area, the specific line of research that the study pushes forward is the one analyzing the benefits and limitations of food hubs in pursuing societal goals.

Problem
Even if from a policy stand point food hubs are seen as a panacea to increase food security and generate economic development, little empirical research exists on whether and how they are capable to achieve these goals. Moreover, it is necessarily to empirically verify how food hubs are performing their social-oriented activities by confronting them against a solid conceptual framework framing food security and local economic development.

Purpose
The purpose of this study is to explore the contribution to food security and local economic development of food hub initiatives located in the Northeastern region of the United States.

Methods
Qualitative case study analysis developed through a semi-structured survey. The survey reflects the conceptual framework adopted that is based on the 4 dimensions of food security and the 7 drivers of community wealth building.
Food Hub def.

"Food Hub is a centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products" (Barham et al 2012)

Food Hubs are, or intend to be, financially viable food system initiatives which...

(1) facilitate the connection between small growers and producers to local consumers, and

(2) demonstrate a significant commitment to place throughout services to increase food security and to build community wealth.

Source: Great Lakes Food Hub Network
Retrieved from: https://community-wealth.org
Food System

“A Food System gathers all the elements (environment, people, inputs, processes, infrastructures, institutions, etc.) and activities that relate to the production, processing, distribution, preparation and consumption of food, and the outputs of these activities, including socio-economic and environmental outcomes.” (HLPE 2014)

How are these elements distributed geographically?

GLOBAL vs LOCAL

Which is the theoretical paradigm underlying these activities?

CONVENTIONAL vs ALTERNATIVE

Which are the desirable outcomes?

FOOD SECURITY and ECONOMIC DEVELOPMENT
## Results (1/3)

### Impact on Food Security

**Availability**
Are FHs increasing the amount of food produced in the region?

- FHs supply from local and regional farmers (approximately within 200 miles).
- Growers run already established farms and are selling their produce throughout various marketing channels.
- Access to market, value-add processing, and technical assistance to meet certification standards allow farmers to increase their profit margin.
- Sharing facilities, business, financial and technical assistance to meet food safety requirements help start-up food processors.

**Access**
Are FHs improving food access for underserved social groups?

- None of them is actively involved in any programs to increase access in food deserts.
- Their priority is to keep their sales revenue high enough to stay in business and to subsidize other services that are not generating income.
- The activities perceived by FHs as important to increase food access are providing SNAP redemptions/advocacy and joining farm-to-school programs.

**Utilization**
Are FHs improving the utilization of available food?

- Producer-oriented FHs assist them in meeting food safety requirements.
- For-profit consumer-oriented FHs provide educational activities such as cooking demonstrations, farm tours, and events sponsorship.

**Stability**
Do FHs provide stability over time of the food services they provide?

- All FHs have been witnessing constant growth in their financial performances since their first establishment. Non-Profits are all close to a 50/50 split between market revenue and external funding.
- FHs consider a higher financial support from the governmental agencies very important to increase the social benefits of their operations.
- They address the issue of food seasonality by processing food and supplying from growers in a larger geographical area.
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## Results (3/3)

### Impact on Community Wealth

#### Collaboration

*Do they actively partner with other organizations which are involved in collaborative activities aiming to bring community development outcome?*

- Non-Profit FHs are actively involved collaboratively with other organizations in order to develop several community development initiatives.

#### Inclusion

*Do FHs provide services to open up economic opportunities for marginalized social group?*

- Among the two non-profit business incubators, one supports entrepreneurship in minority social groups, and the other offers access to capital to aspiring entrepreneurs who cannot access private bank loans.

#### Workforce

*Do FHs link training to employment and focusing on jobs for those with barriers to employment?*

- The two non-profit business incubators actively collaborate with CBOs in order to implement these workforce development initiatives.

#### System

*Do FHs contribute to create a better climate for growth relatively to the local food economy?*

- Non-Profit FHs advocates to better leverage on the purchasing power of anchor institutions
- FHs pointed out two barriers in the legal/regulatory environment:
  1. Subsidies imbalance between the conventional food system and the alternative one, benefitting the first.
  2. Food safety regulations are too complex for small food start-ups.
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