Measuring Economic and Social Impacts of Farmers’ Market

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CAUSES UDC
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Outline

• Economic impact
  - Food dollar
  - EIA method
  - Case Study: UDC Farmers’ Market 2015

• Social impact
  - Econometrics method
  - Data
  - Next step
Division of $1 Spending on Farmers Market Vs. Grocery Store (vs. Amazon?)

<table>
<thead>
<tr>
<th>Division</th>
<th>Farmers Market</th>
<th>Grocery Store</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>$0.6</td>
<td>$0.2</td>
</tr>
<tr>
<td>Wholesale</td>
<td></td>
<td>$0.1</td>
</tr>
<tr>
<td>Transport</td>
<td></td>
<td>$0.3</td>
</tr>
<tr>
<td>Agriculture</td>
<td></td>
<td>$0.4</td>
</tr>
</tbody>
</table>

Not Local:
- Farmers Market: $0.2
- Grocery Store: $0.3

Local:
- Farmers Market: $0.4
- Grocery Store: $0.1

All Local:
- Farmers Market: $0.6
Food dollar (USDA Economic Research Service)

- The *farm share*: the share received by farmers from the sales of raw food commodities.
- The *marketing share*: is the remainder accruing to food supply chain industries involved in all post-farm activities that culminate in final market food dollar sales.

• Question: how would farmers market change this division of food dollar?
Economic Impact Analysis (EIA)

• Total Value of Local Economic Impact
  = direct + indirect + induced (both direct and the ripple effects)

• Uses economic multipliers
A Simple Multiplier Illustration

Initial $1.00 of exports
40¢ respent locally
60¢ leakage
16¢ respent locally
24¢ leakage
6¢ respent locally
10¢ Leakage
3¢ respent locally
2¢ leakage
1¢ respent locally

Initial impact: $1.00
.40
.16
.06
.03
.01
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Full impact: $1.66
Case Study:
UDC Farmers Market Economic Impact Analysis

- Surveyed 120 customers asking about purchasing pattern, spending, main reason of coming to the market, and plans of spending in the nearby businesses;

- Used both DC state multiplier and metropolitan multipliers to calculate the economic contributions to both the state and the metropolitan economies.
<table>
<thead>
<tr>
<th>District of Columbia</th>
<th>Washington Metropolitan Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact on local GDP</td>
<td>Impact on local GDP</td>
</tr>
<tr>
<td>$432,717</td>
<td>$558,672</td>
</tr>
<tr>
<td>Personal income</td>
<td>$171,224</td>
</tr>
<tr>
<td>Jobs</td>
<td>Jobs</td>
</tr>
<tr>
<td>$44,220</td>
<td>6.0</td>
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<tr>
<td>1.5</td>
<td></td>
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</tbody>
</table>
Measuring Social Impacts

• Background:
  - Farmers market less than 2000 (1994) → 7800 (2012);
  - Farm-to-school programs: 3 (1996) → 3800 (2013);
  (Sources: USDA, Agricultural Marketing Service, Marketing Services Division; Feenstra and Ohmart, 2012; USDA, Food and Nutrition Service, 2013; and www.localharvest.org)

• Research question: What are the effects of farmers markets and the national and local social programs on food security, consumers’ healthy outcome, and social equality?
Data and Methods

- USDA NIFA grant “Farmers Market’s Impacts on Food Security, Regional Economy and Diet”
- Data of direct marketing (numbers of operation and sales): USDA
- Method: panel regression at MSA/state/individual level
- Next steps: proper instruments variables, policy indicators.
Thank you!

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Value added:

The difference between an industry’s total output and the cost of its intermediate inputs. Value added consists of compensation of employees (inclusive of benefits) and proprietor (i.e., payments received by self-employed individuals), other property type income (payments for rents, royalties and dividends), and business taxes on production and imports less subsidies.