

“Opportunity Cost Approach, Local Foods, and Other “Stray” Thoughts”

David W. Hughes

Professor,

Department of Agribusiness and Applied Economics (?),

Clemson Institute for Economic and Community
Development,

Clemson University

Regional Modeling Workshop

AAEA Meetings,

August 11-16, 2012

Seattle , Washington

Presentation Outline

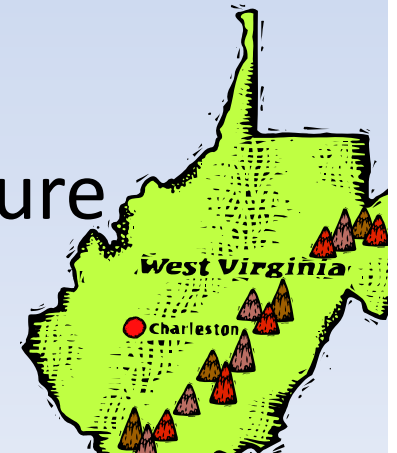
- Opportunity Cost Approach in I-O model with an Emphasis on Local Foods
- Some Additional Thoughts on Local Foods
- Need for Feasibility Studies
- Need for Distributional Analysis

Opportunity Cost Approach with an Emphasis on Local Foods

- Extreme amount of interest
- Advocates tend to overestimate economic impact primarily by assuming that local agricultural products sold locally have no opportunity cost
- Inspired by work of Tom Johnson, others, arrived at concept of opportunity cost of spending on local foods (opportunity cost of land, water)
- Goes back to consumer sovereignty
- Assumed \$ to farmers' markets would have been spent at grocery store

Opportunity Cost Application: West Virginia Farmers' Markets

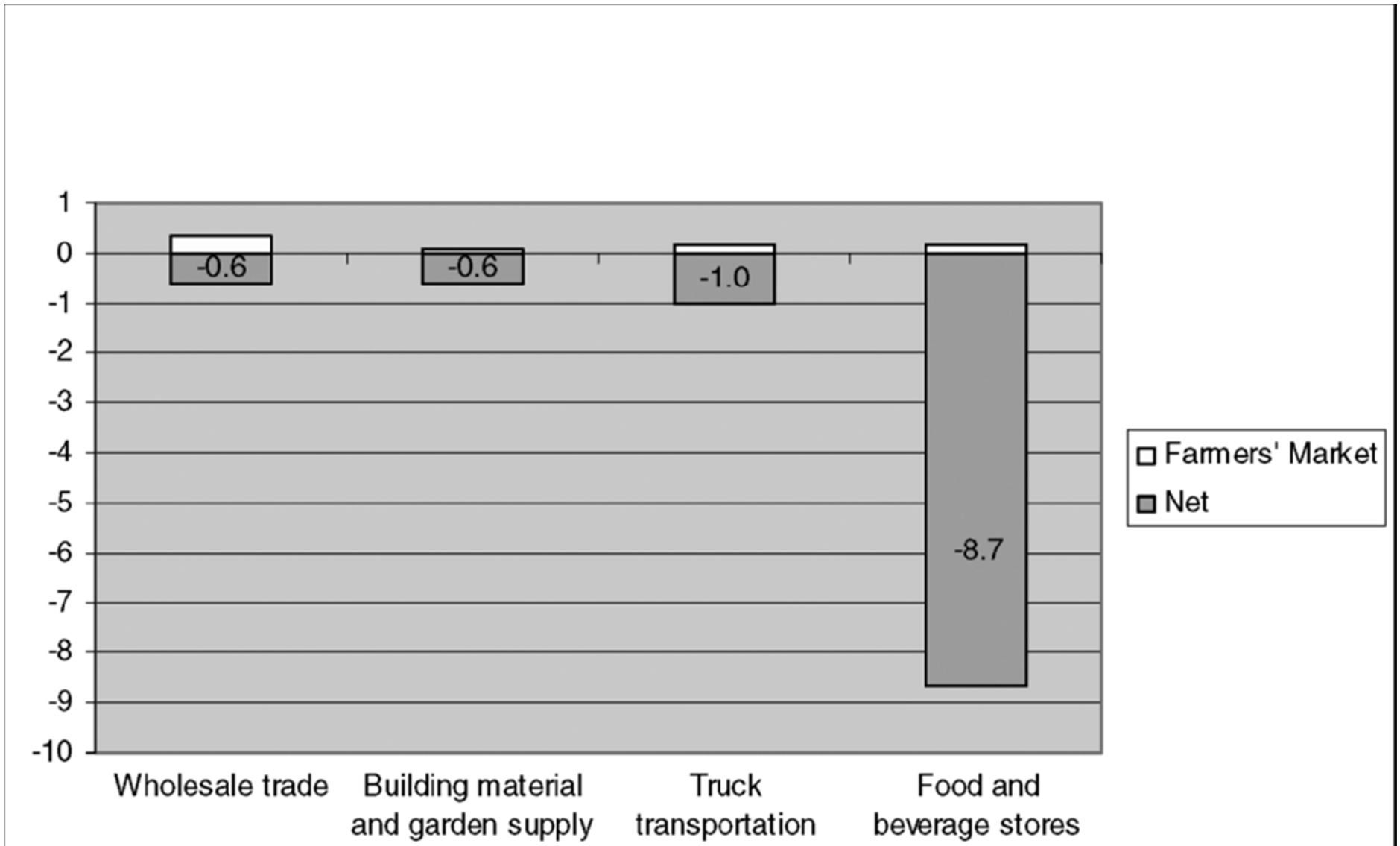
- Assume spending would have occurred at in-state grocery store
- Margin impact to grocery store via IMPLAN regional purchase coefficient (RPC)
- wholesale, transportation margin sectors, and appropriate local agricultural sector purchases via RPCs
- Relatively little impact on local agriculture



Gross and Net Impacts of West Virginia Farmers' Markets.

Measure of Economic Activity	Farmers' Market	Opportunity Cost	Net Difference	
			Level	% Decline
Industry output (millions \$)	2.391	1.316	1.075	55.0
Gross state product (millions \$)	1.480	0.827	0.653	55.9
Labor income (millions \$)	0.656	0.463	0.193	70.6
Employment (full-time equivalent)	69.200	26.400	42.800	38.2

Job Impacts in Selected Sectors That Lost Sales



An Interesting Point

- How can we tell that local foods are becoming significant share of local food market? Reaction of grocery stores, other sectors that might feel the competitive pinch:
2010, fake farmers' market at Seattle grocery stores



More Recent Work

- Study of buy SC agricultural products campaign (Hughes, Isengildina-Massa, Carpio), used household survey results to allocate opportunity cost farmers' market spending (60% would have been on groceries or restaurants).
- Constructed a SAM (see Hughes-Shields)
- Used ARMS data to build small, medium, and large farm I-O vectors (two sets, livestock and crops)
- Results similar to WV study

Additional Thoughts on Regional Models and Local Foods

- Need to test for differences in purchasing patterns between small farms and other size categories
 - Pattern of input use (e.g., spending on fertilizer per \$ dollar output)
 - Where purchases are made (do small farmer local sellers also tend to buy more locally?)
 - Results would indicate necessity for small farm, other farm size vectors in regional models
- SAM-type models would be useful in looking at impacts on income distribution

Moving Local Food Systems Research Forward

- Fully investigate purported benefits
 - Social capital
 - Health benefits
 - Carbon footprint, other environmental issues

Given Net Benefits: Need for Feasibility Work

- Food safety issues including the need for insurance tools
- Cracking other markets:
 - Organize local farmers to exploit opportunities for exploiting institutional markets (food to schools, other institutional buyers, local groceries stores)
 - Research on barriers to organizing locally
 - Conducting feasibility analysis for locally-based processing



Finally Thought on Local Foods

- Inspired by George Goldman for tourism: “what if everybody stayed home?”
- What if everybody went “local in a big way”?
 - Who would be winners and losers in terms of regions, sectors, and households

Regional Modeling Efforts in General

- Distribution of household income increasingly skewed
- Measuring Impact of policies and programs on various household income groups tantamount
- SAM-CGEs:
 - Leatherman, Marcouiller, Hughes-Shields
 - Rumor of EMSI developing SAM could greatly facilitate effort
 - BEA and/or ERS develop national SAM could be used in regional step down approaches

Question, Comments?
Thank You for Your Attention!

David W. Hughes, Ph.D.
Clemson Institution for Economic and Community
Development
803-699-3178
dhughe3@clemson.edu