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Comparing the Structure, Size, and Performance of Local and Mainstream Food Supply Chains

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Review by Phil Mount

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Following on the attention generated by a popular local food movement, the necessity—or at least the potential—of growth in local and regional food systems has been widely identified as an important area of focus for food systems analysis and policy.[1]

The claims about the strengths and benefits of more localized diets and production systems—particularly those made in the promotion of the "locavore" movement—have increasingly come under attack in the mainstream and academic press (Budiansky, 2010; Desrochers & Shimizu, 2008). Much of this debate is grounded in speculative rhetoric and assumptions, as the research needed to support such claims and counterclaims does not yet exist. In North America in particular the debate has suffered from an absence of detailed, comparative research measuring inputs, performance, and outcomes for producers and consumers, in both mainstream and local food systems.

As such, the latest report from the Economic Research Service of the USDA, entitled "Comparing the Structure, Size, and Performance of Local and Mainstream Food Supply Chains," is timely indeed. The authors state their role clearly: "Understanding the operation and performance of local food supply chains is an initial step toward gauging how the food system might incorporate

[1] See Baker, Campsie, & Rabinowicz, 2010; Harvie & Steffey, 2010; Kirschenmann, Stevenson, Buttel, Lyson, & Duffy, 2008; as well as the special issue of the *Cambridge Journal of Regions, Economy and Society* (Issue 3, 2010) focusing on "food system (re)-regionalization."

The full report is available for free download at http://www.ers.usda.gov/publications/err99

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more local foods in the future to meet growing demand" (p. iv).

The report is based on 15 food supply chain case studies in five U.S. metro areas. In each area, an example from a "direct marketing," "intermediated" and "mainstream" food supply chain was studied in order to capture scale effects produced by the length or volume of product flowing through each chain. The mainstream cases involved produce sold through national or regional supermarket chains, while all other cases studied local produce that was marketed either directly by the producer to the consumer, or through one or more intermediaries.

The intent of the coordinated case-study approach was to address two general research questions (p. 1):

1. What factors influence the structure and size of local food supply chains?

2. How do local food supply chains compare with mainstream supply chains for key dimensions of economic, environmental, and social performance?

The result is an analysis of case studies rich in detail and revealing a complexity of food supply chain relationships, at all three levels of scale, that will be a valuable resource for producers looking to explore and understand alternative production, distribution, or marketing arrangements. This report is intended—and is most effective—as an exploratory vehicle "to uncover new observations …but also to generate new hypotheses and questions for future study" (p. 2).

Limited resources led to a small sample size, which in turn meant that the selection of the 15 case study subjects played a significant role in the types of answers, and thus also comparisons, that the research questions would generate. As the study's authors anticipated (p. 4), selecting a diversity of case study examples—to capture the greatest possible breadth of production and marketing forms—produced a set of results with limited scope for comparative analysis.

This influence was most noticeable in the selection of specialty grocers or "upscale supermarkets" (e.g., Twin Cities/beef, p. 26; Sacramento/spring mix, p. 36) as "mainstream" case studies. Comparative analysis would have been better served by the selection of 5 mainstream case studies that most typified the delivery of each product in a given region, since the mainstream cases were meant "to serve as a baseline for comparison" (p. 53). One cannot help but think that the use of the specialty grocers as mainstream case studies would skew the comparisons of several key food supply chain factors being measured, including food miles or fuel efficiency, price to producers, and supply chain relationships. That is, while the specialty grocers' case studies show the variety of options available, their inclusion almost certainly distorts the comparative analysis.

Due to limited resources, these food supply chain case studies have also treated a significant link in the chains—the consumer—as a set of assumptions. The authors acknowledge that the lack of attention to the consumer component of these food chains limits their ability to make broader claims (p. 6). However, included in the report are research questions (p. 8) and key findings (pp. 2, 51, 63) related to consumer intent and valuation that could only be verified with consumer research. Clearly, this is one component that could considerably increase the value of further food supply chain research.

To its credit, this report opens the discussion on the possibilities of growth within the local food sector, and takes some tentative first steps toward a comparative analysis of food supply chain performance across scale. The strength of this report, however, is the evidence of unexpected or innovative food supply chain practices, including four important, interrelated findings:

1. Producers, processors, distributors, and retailers often interact in complex and

hybrid relationships, resulting in the cross-pollination of food supply chains (p. 68);

2. For producers at many scales of operation, viability demands diversification of both products and market outlets (p. 62);

3. Producers often use the profile and relationships generated through direct marketing to foster expansion into secondary markets or intermediated food chains with the potential for greater scale (p. 68); and

4. Where regional processing and delivery infrastructure allow, relatively minor increases in scale (such as producers acting together) produce efficiencies that rival or surpass mainstream chains (pp. 62, 67–68).

These findings suggest that an interesting complement to further research would involve similar case studies of "food hubs." Theoretically, these chains aggregate local produce, creating efficiencies of scale and reducing transaction costs while retaining many of the benefits of direct marketing identified in this report, including transparency, connection, and increased net revenue. Analyses of these hybrid direct/intermediated chains would add to the diverse and complex picture of opportunities and innovation that has been presented in this foundational USDA report. 

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