



15 Case Studies on Local Food Supply Chains¹

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Researchers at Cornell were fortunate to participate in a series of case studies sponsored by the US Department of Agriculture – Economic Research Service (USDA – ERS) and just released this summer. The case studies looked at a total of 15 different food businesses in 5 different states with the purpose of examining the way in which local food products are being introduced or reintroduced into the broader food system along with the potential barriers to expanding markets for local foods. The cases included the following products and locations, with 3 different businesses examined under each:

- Apples in Syracuse, NY
- Blueberries in Portland-Vancouver-Beaverton, OR-WA
- Spring mix in Sacramento, CA
- Beef in Minneapolis-St. Paul-Bloomington, MN-WI
- Fluid milk in Washington, DC

Despite increasing consumer interest in locally grown and processed food, not very much is known about how supply chains that move local foods from farms to consumers compares with the “mainstream” supply chains that move products through supermarkets. With funding from USDA's Economic Research Service, a team of researchers from Oregon State, University of California – Davis, University of Minnesota, USDA – ERS, and Cornell University conducted a coordinated series of case studies on supply chains for local food products. For each of the product-place combinations listed above, case studies were conducted on:

¹ **Case study researchers:**

University of Minnesota: Robert P. King, Gigi DiGiacomo

Oregon State University: Larry Lev

USDA – ERS: Michael S. Hand, Kate Clancy

University of California – Davis: Shermain D. Hardesty

Cornell University: Miguel I. Gómez, Edward W. McLaughlin, Kristen Park

- The predominant grocery supply chain for a product category (mainstream supply chain)
- A supply chain for a local product that is marketed directly by producers to consumers (direct market supply chain)
- A supply chain for a local product that reaches consumers through one or more intermediaries (intermediated supply chain)

What did the study find? (*report summary*):

Case studies of mainstream supply chains and two types of local food supply chains reveal the great variety of ways that food products can move from farms to consumers. Products from local farms may appear in mainstream and local supply chains, and products from more than one supply chain may be present in the same outlets. Businesses in all types of supply chains face challenges to reduce production, handling, and transportation costs. Higher per unit costs in local supply chains (relative to the mainstream chain) do not preclude success.

Farms that participate in local food supply chains tend to have a diverse portfolio of products and market outlets. In some cases, diversification may help spread out large fixed costs across a number of different revenue streams. Other farms may be large enterprises that participate in mainstream supply chains and use local supply chains as a residual market. In total, local supply chains handle a relatively small portion of total product demand, and in some cases local products fill a unique market niche as a differentiated product.

Local food supply chains, particularly direct market chains, are more likely to provide consumers with detailed information about where and by whom products were produced. However, this information alone is unlikely to be sufficient to sustain price premiums for local products. Price premiums are observed when products exhibit additional differentiating characteristics. Prices in local supply chains are also determined differently. They tend to be decoupled from national commodity market prices, particularly in direct market supply chains. Instead, prices are influenced by local supply and demand relationships and by product differentiation based on attributes other than local.

Producers receive a greater share of retail prices in local food supply chains, which is often a motivating factor for choosing to sell through them. In all the direct market cases producers assume responsibility for additional supply chain functions, such as processing, distribution and marketing, to capture revenue that would otherwise accrue to an outside party. These supply chain functions can be costly and often involve the operator's own unpaid labor. Although farms in direct market supply chains retain nearly 100 percent of the retail price, additional costs incurred to bring their product to market can reduce their net returns by between 20 and 60 percent.

Transportation fuel use is more closely related to supply chain structure than the distance food products travel, and product aggregation to reduce per-unit costs is an important determinant of transportation fuel efficiency. Local supply chains require fewer food miles to move products from farms to consumers, but fuel use per unit of product in local chains is often greater than in the corresponding mainstream chains. In these cases, greater fuel efficiency per

unit of product is achieved with larger loads and logistical efficiencies that outweigh longer distances.

Findings from these case studies are presented in *Comparing the Structure, Size, and Performance of Local and Mainstream Food Supply Chains*, USDA, Economic Research Service, ERR99, which is available online at <http://www.ers.usda.gov/Publications/ERR99/>. While the case descriptions were condensed in the ERS report due to length, expanded descriptions of all the case studies are available from the University of Minnesota on its website http://foodindustrycenter.umn.edu/local_food_case_studies.html :

- Apple Case Studies in the Syracuse, New York MSA
(<http://foodindustrycenter.umn.edu/vd/LFSCAppleCaseStudies.pdf>)
- Blueberry Case Studies in the Portland-Vancouver MSA
(<http://foodindustrycenter.umn.edu/vd/LFSCBlueberryCaseStudies.pdf>)
- Spring Mix Case Studies in the Sacramento Area
(<http://foodindustrycenter.umn.edu/vd/LFSCSpringMixCaseStudies.pdf>)
- Beef Case Studies in the Minneapolis-St. Paul-Bloomington MSA
(<http://foodindustrycenter.umn.edu/vd/LFSCBeefCaseStudies.pdf>)
- Fluid Milk Case Studies in the Washington, D.C. Area
(<http://foodindustrycenter.umn.edu/vd/LFSCMilkCaseStudies.pdf>)

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