ERS Report Summary

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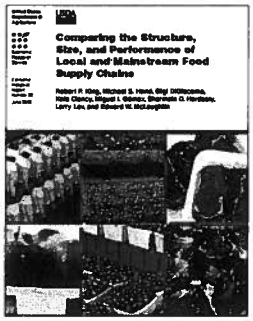

This is a summary of an ERS report.

Find the full report at www.ers.usda.gov/publications/err99

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

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Demand for locally produced food has increased sharply in recent years. Consumers may seek out local foods to satisfy demand for product quality, to support local farmers and the local economy, or to express a preference for certain agricultural production and distribution practices. Interest in supporting local food systems is also rising among Federal, State, and local policymakers. Local foods are increasingly incorporated in programs designed to reduce food insecurity, support small farmers and rural economies, encourage more healthful eating habits, and foster closer connections between farmers and consumers.

What Is the Issue?

Despite increasing interest in locally grown and processed food, little is known about the supply chains that move local foods from farms to consumers. The objective of this report is to improve understanding of how local food products are being introduced or reintroduced into the broader food system and potential barriers to expansion of markets for local foods. Understanding the operation and performance of local food supply chains is an initial step toward gauging how the food system might incorporate more local foods in the future to meet growing demand.

What Did the Study Find?

Two general research questions in this report addressed factors that influence the structure and size of local food supply chains, and how local food supply chains compare with mainstream supply chains on performance indicators.

Supply Chain Structure and Size

Products from local farms are marketed through both mainstream and local supply chains, and products from mainstream and local supply chains may be present in the same retail outlet. However, 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. Despite generally higher per unit costs than in mainstream chains, farms and businesses in local supply chains can still be successful if they offer unique product characteristics or services, diversify their operations, and have access to processing and distribution services.

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Local food supply chains, particularly direct market (producer to consumer) chains, are more likely than mainstream chains to provide consumers with detailed information about where and by whom products were produced, but such information generally is not enough to persuade consumers to pay a higher price for local products. Local supply-and-demand relationships and product differentiation based on attributes other than local origin, such as organic or grass-fed production, appear to be the primary influences on prices in local supply chains.

A common feature among farms that participate in local food supply chains is a diverse portfolio of products and market outlets. Small farms may diversify product offerings to defray large fixed costs across multiple sources of revenue, or they may use multiple types of local market outlets. Some large farms in local supply chains diversify by using mainstream outlets as a residual market for excess supply.

The local supply chains studied have adequate access to processing and distribution services. Stable relationships with processors and internal investments in processing, packing, and distribution capabilities reduce potential constraints, although per unit costs for these services are higher in local supply chains than in mainstream chains. The local supply chains studied do not currently rely on infrastructure developed for a national industry or other local supply chains. Building ties to such supply chains may increase product volumes and reduce per unit costs as demand for local food products grows.

Supply Chain Performance

Producers receive a greater share of retail prices in local food supply chains than they do in mainstream chains, and producer net revenue per unit in local chains ranges from about equal to more than seven times the price received in mainstream chains. In all direct market chains examined, producers assume responsibility for additional supply chain functions, such as processing, distribution, and marketing, to capture revenue that would otherwise accrue to a third 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, costs incurred to bring their product to market total between 13 and 62 percent of the retail price.

Nearly all wage and proprietor income in the local supply chains is retained locally, but local areas also retain a large share of wage and proprietor income from the mainstream supply chains. Mainstream supply chains rely on national and international networks to deliver products to consumers, but many supply chain functions in mainstream supply chains, such as retail distribution services, are performed locally and contribute to local economic activity. Seasonality also plays a role in the share of revenue retained locally; some mainstream supply chains obtain products from local growers during certain times of the year and from national and international growers in the off-seasons.

Transportation fuel use is more closely related to supply chain structure and size than to the distance food products travel. Products in local supply chains travel fewer miles from farms to consumers, but fuel use per unit of product in local chains can be 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.

How Was the Study Conducted?

A coordinated series of 15 case studies was conducted in five metropolitan areas. Three supply chain types (mainstream, direct market, and intermediated) were studied for each of five product-place combinations: apples in Syracuse, NY; blueberries in Portland, OR; spring mix leafy greens in Sacramento, CA; beef in Minneapolis/St. Paul, MN; and milk in Washington, DC. Primary data were collected through interviews and site visits with principals of farm enterprises, supermarkets, cooperative grocery stores, retail distribution centers, and food processors. These interviews provided descriptions of each supply chain and detailed business information to make comparisons across supply chains. These data were supplemented with publicly available data from company websites, the Census of Agriculture published reports and articles, and observations of product prices and availability in each location.