JAFSCD Value Chain Coordination BRIEF

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KEY POINT

Effectively identifying and measuring the impacts of short value chains on local communities provides critical evidence that can generate the interest and funding needed to develop them. Developments over the last decade have increased the resources and tools available to stakeholders seeking to understand how their initiatives are supporting the development of resilient regional food systems.

KEYWORDS
alternative food networks, citizen science, metrics, short value chains

TERMINOLOGY

Short value chain (SVC): A food supply chain with few intermediaries between producers and consumers, typically emphasizing geographic proximity, relationship-based transactions, and often local economic and social goals alongside economic efficiency.

IMPLAN: Economic modeling software that uses input-output (I-O) analysis to model how changes in local and regional spending affect economic flows, jobs, and income in a community.

Multiplier effect: A measure of how local spending stimulates local economic growth. For each dollar spent, a percentage of that money is then spent locally, a process which continues until the initial investment is exhausted.

Citizen science: The practice of collaboration between members of the public and researchers to advance scientific knowledge, engaging the public in research design and data collection.

GEOGRAPHIC FOCUS
North America

Considerations for Measuring the Impact of Short Value Chains

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While the economic impact of conventional supply chains is well known and modeled, short value chains (SVCs) are often neglected for their smaller scale. SVCs often prioritize local economic development, access to fresh produce, and fairness in the food system over maximizing economic efficiency. Identifying, assessing, and communicating SVC impact requires attention to local actors and appropriate data collection and analysis methods. Over the last decade, several tools and resources, including those listed below, have been developed that enable coordinators and other stakeholders to assess the impacts of their local food activities and to advocate for resources to support the continued development of SVCs.

I. Measuring Economic Impacts

A key consideration for economic impact analyses is the scale and scope of the value chain being assessed. One common focus is the regional economic impact of local food activities. These analyses are typically done in IMPLAN and involve measuring the multiplier effect of regional spending, resulting changes in regional employment, and other economic tradeoffs across industries in shifting from conventional supply chains to more localized supply chains, though accuracy depends on underlying data quality and model assumptions. For this reason, practitioners are typically encouraged to partner with experts trained in IMPLAN modeling to ensure that the data collection and resulting models are tailored to the geographical context being assessed (Conner et al., 2017).

However, regional economic impact analyses may not always be feasible or appropriate. Meter (2015) outlines several such instances, such as when assessing small-scale SVCs. In these cases, practitioners may choose to focus on alternative measures of economic impact, such as the legal structure of participating producer businesses or farmland ownership rates. For example, a food hub may track the number of participating farmers who own their own land, including transitions from rented to owned farmland, and how those measures change over time.

continued

See the JAFSCD VCC Editorial Circle website

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II. Measuring Non-Economic Impacts

Short value chains have also been associated with several beneficial non-economic impacts. One prominent example is increased availability and consumption of fresh produce in institutions (e.g., schools and hospitals) and communities (e.g., via farmers markets), particularly where reliance on food assistance benefits or limited access to fresh produce is common.

Other metrics associated with SVCs, including the number of products certified by a third-party sustainability criteria, volume of food loss/waste, and household willingness to try fresh produce, can be useful performance indicators or intermediate outcomes signaling progress toward larger goals.

III. Data Collection in SVC Evaluation

A common challenge in measuring SVC impact is collecting the necessary data. Designing, developing, and administering data collection instruments can burden key stakeholders (such as farmers market managers), and low response rates compound the challenge. To aid practitioners, many evaluation toolkits include guides listing common metrics and data collection protocols.

A first consideration is whether primary data collection is necessary for an evaluation. While secondary datasets have notable limitations, such as limited accuracy when applied to a local context, they also require few resources to gather and can be strengthened when paired with minimal primary data collection. Prominent sources of secondary datasets include the USDA Economic Research Service and the USDA Agricultural Marketing Service.

For primary data collection, recent scholarship has adopted citizen science principles to provide stakeholders with straightforward guidance on developing evaluation strategies (Ledesma et al., 2021). A common, low-burden approach leverages existing vendor applications and reporting forms to capture data related to seller demographics and sales data to describe participation and viability.

Participant surveys require more design effort but can capture consumer attributes like access or spending. These surveys can range from simple dot poster surveys to more intensive written or digital surveys, the latter often featuring intentional sampling strategies designed to facilitate advanced statistical analysis.

WANT TO LEARN MORE?

The following resources support coordinators and other stakeholders in designing and executing evaluation efforts:

- The Local Food Economics Toolkit is a comprehensive resource for designing and executing evaluation efforts centered on economic impacts
- For case studies utilizing the Local Food Economics Toolkit, see Economics of Local Food Systems: Utilization of USDA AMS Toolkit Principles
- For sector-specific metrics, see the National Metrics Collaborative (farm-to-institution) and the Michigan Farmers Market Association Metrics and Data Collection Toolkit and Farmers Market Coalition Metrics (farmers markets)
- More on Citizen Science and Data Collection Toolkits: Farm2Facts

This brief is part of a series to document VCC strategies to inform policymakers, practitioners, and supply chain partners.

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