

How Can We Connect Local Food Businesses with Local Agriculture?

By Jessica Levy

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Introduction

There are many small farms in the Lehigh Valley using sustainable growing methods, but much of the food offered in local restaurants, grocery stores, and cafeterias comes from industrial farms thousands of miles away using unsustainable practices. The Lehigh Valley needs a way to connect local farmers with the businesses that serve food in the community.

Food hubs can serve as that coordination method by aggregating products from farms and selling them locally at a larger volume than individual farms can manage. The idea of a Lehigh Valley food hub emerged several times over the past fifteen years because food hubs can increase access to local food production and bolster the local economy, and there are individuals in the Valley already doing limited aggregation. Despite the potential benefits of a food hub, some farmers and stakeholders question how to best implement a successful food hub; we need a study to assess how to best increase access to fresh, local foods. The Lehigh Valley Planning Commission, Lehigh Valley Economic Development Corporation, Lehigh County, and Northampton County are best-qualified to implement such a study.

Lehigh Valley Needs Assessment

There are about 50 farms in the Lehigh Valley producing fruits, vegetables, eggs, meats, and cheeses, and many operate year-round. Many of these farms use sustainable growing methods, such as organic or agro-ecological, making their products healthier because they contain more nutrients and do not use synthetic pesticides or fertilizers. Conventionally-grown crops contain traces of pesticides that remain in and on produce after washing and peeling. Thus, consumers are exposed to pesticides that cause numerous health problems including disruption of hormone functioning, increased risk of cardiovascular disease, and disturbances in the nervous system that impact brain function.¹ Endocrine disruption also has intergenerational effects, so people may face impacts because of their parent's exposure.

Organic growing methods are better for the environment and for our health than conventional agriculture. Growing foods without synthetic fertilizers or pesticides ensures these chemicals don't enter the air or water.² Organic growing methods preserve soil, and local foods travel a shorter distance to your plate. Organic agriculture reduces greenhouse gas emissions from agriculture and sequesters more carbon from the atmosphere than conventional farming.³

Although there are many farms in the Lehigh Valley, their products are not accessible to all. Many grow for community supported agriculture (CSA), which requires customers to make an upfront investment of \$350 to \$750 depending upon the size of the share, how frequently it is picked up, and what is included. Many families cannot afford this upfront cost, but even if they can, they have to pick up their share and transport the goods on their own. Farmers also sell products through farmers markets or farm stands, but these may not be along public

transportation routes, making access more difficult. Attending a farmer's market is an additional stop, especially when the grocery or corner store one already shops at sells food.

Most of the food-serving businesses in the Lehigh Valley, including schools, restaurants, grocery stores, hospitals, colleges, and universities depend on food grown thousands of miles away using less-sustainable methods. Individual local farms lack the volume and consistency needed to supply these larger markets — and if an establishment wants to provide local food, they have to invest time in purchasing from multiple farms.

Though most of the Valley is in Lehigh and Northampton counties, the Lehigh Valley is a geographically expansive area containing multiple cities and four counties across two states, and there are great disparities in who has access to quality foods. In 2013, eight neighborhoods in the Valley struggled with food access, meaning stores in the area did not supply food to meet resident's caloric needs.⁴ However, health involves more than calories, and people need a variety of nutrients to lead healthy lives. Unfortunately, food quality and availability vary depending upon where one shops for food. For example, bodegas may not carry fresh produce, and the produce sold at local grocery stores is usually grown far away with unsustainable methods and may be of poor quality. As a result, people are more likely to develop diet-related diseases like diabetes, cardiovascular disease, and certain cancers.⁵

Some community members aren't used to purchasing fresh produce or preparing local foods. Studies show that cooking classes correlate with increased consumption of fresh produce and classes allow people to try foods to see if they like them.⁶

The Lehigh Valley also needs sustainable jobs that bolster the local economy. Many jobs currently introduced to the Lehigh Valley are at warehouses for corporate entities based outside of the Valley.⁷ The income going to these companies does little to benefit the Lehigh Valley beyond paying employees, whereas local businesses tend to keep about three times as much money in the local economy. Warehouses are also harmful to the environment and human health because of the pollution from warehouse machinery and transportation via trucks that run on fossil fuels and produce air pollution harmful to human health.⁸

Fresh Food Connections

The issues discussed above are well known, and stakeholders including farmers, community organizers, and fresh food advocates have discussed how a food hub might address these problems: by collecting and selling products from multiple farms, allowing local food businesses to source from these farms while interacting with a single seller and providing locally-grown foods at places where people already shop and eat. Many food hubs also have commercial kitchens for value-added processing such as cutting and canning, which allows fresh food to be preserved or turned into new, nutritious products.

The Lehigh Valley already has a few individual aggregators addressing some of the needs listed above. The Kellyn Foundation connects low-income community members with nutritious

food from local farms by selling in low-income neighborhoods or turning foods into Lifestyle Medicine Meals. Kellyn's Mobile Market accepts EBT and has the double-up program so SNAP recipients get twice the fresh produce for the same amount of money. Additionally, Kellyn works with public schools across the Lehigh Valley to educate children on healthy eating habits and how to grow their own vegetables. Working with public schools helps children of diverse backgrounds learn more about how eating habits impact life beyond taste buds.

Other aggregators focus on connecting the broader Lehigh Valley community with fresh foods. Crooked Row Farm and Market in Orefield sells local foods from multiple farms at their on-site farm stand. Radish Republic is a grocery store in Allentown that sources about a quarter of their products locally. Hunter Hill Farm is a lead organizer for a new Winter CSA featuring products from several farms across the Valley.

Although dedicated individuals are working towards aggregation, the community's needs require more coordination and attention than these individuals can give. We need a larger infrastructure to connect local products with local businesses and ensure that people can access fresh food throughout the Lehigh Valley

By increasing access to local, sustainably-grown foods, a food hub would provide new locally-based jobs and increase spending in the Lehigh Valley. As more funds are spent in the community, business owners expand operations and hire more help. Additionally, the hub can create jobs in sorting and processing products and cutting and canning them in the commercial kitchen. A Lehigh Valley food hub would align with many goals of the Lehigh Valley Planning Commission, Lehigh Valley Economic Development Corporation, Lehigh County, and Northampton County.

A food hub would support farmers by reducing the time they spend traveling to farmers markets or selling at multiple markets per week. By tracking customers and their preferences, a hub allows farmers to anticipate demand for various products. Food hubs allow farmers to break into larger markets, which makes room for more farmers in the Lehigh Valley, and aids in farmland preservation because there are more people willing to take over land and conserve it.

Although a Lehigh Valley food hub would increase local food in the community, there are still various unknowns. How can a food hub ensure equitable distribution of healthy foods across different income groups, geographic areas, and business associations? Are farmers interested in adjusting their growing methods and business model to provide products through a food hub? Can local farmers meet the demands of all businesses interested in purchasing through the food hub, and what should be done if they can't? A study should address these questions and determine if a food hub is the best way to increase food access in the Lehigh Valley

The Lehigh Valley Planning Commission, Lehigh Valley Economic Development Corporation, Lehigh County, and Northampton County should partner to implement a study that determines how the Lehigh Valley can develop a food hub that serves both consumers and suppliers. Additionally, the study should determine the logistical structure of the food hub to ensure its success in our community.

Below are recommendations from stakeholders that should be considered in the study.

Small, decentralized hubs

Though some communities have successful large food hubs, stakeholders in the Lehigh Valley have developed a few, small hubs scattered throughout the area. These small, decentralized hubs have greater flexibility in their operations, allowing them to adapt to unexpected changes more easily. Decentralized hubs better suit the sprawling community of the Lehigh Valley as there is much area to cover and many contributors and consumers; however, multiple hubs would benefit from a coordination system to ensure access to a variety of quality products and services across the different hubs.

Micro-hubs could be part of existing operations that have space such as the Seed Farm, with their extensive refrigerated and dry goods storage.

Maintaining identity of individual farms

Many local farmers depend on their farm identity to attract new customers and maintain relationships with existing customers. Customers trust certain farms because of the quality of the products from past experiences, or because they know the farmer and want to support sustainable growing methods. Some farmers have raised concerns about maintaining their farm identity if they sell through a food hub.

Advertising which farm products originate from allows customers to purchase from farmers they trust to have high quality products.

Lehigh Valley branding

A Lehigh Valley brand would let customers see which products are from the community and could encourage them to purchase these foods; it could be applied to foods produced at farms throughout the greater Lehigh Valley, including farms immediately outside the Valley itself.

Example: Catskills Food Hub¹²

One successful food hub that addresses needs similar to those seen in the Lehigh Valley is the Catskills Food Hub in Sullivan County, New York. It has a website where one can search by food type, producers, or food attributes, and each item on the website identifies which specific farm the product comes from and how much of the item is left. Additionally, there is a page with information on each farm so customers can know more about the growing methods and ideals of the farmers they purchase from.

Available products are posted to the website on Thursday and shopping is open until Monday. Orders are picked up Thursday or Friday from one of four locations, or buyers within fifteen miles of the food hub with an order over \$125 can sign up for delivery. Any food that is not picked up by the customer is donated to a local food pantry.

An interesting aspect of the Catskills Food Hub is that wholesale purchasers must apply before they can purchase through the hub. This vetting process ensures large institutions cannot buy all of the products. Moreover, the application allows the hub to gauge what products local businesses are interested in, and the hub can report to local farms so farmers interested in expanding can know they have a market for specific products.

Expanding access to local foods

A food hub makes it easier for community members to consume local foods without having to specifically seek them out; however, policies need to ensure low-income residents and general community members can access local foods. Low-income residents do not often eat out at restaurants and cafés. If the food hub's main clients are institutions such as universities or hospitals, only specific community members that work at or frequent those establishments would benefit.

People of all economic backgrounds eat at school cafeterias throughout the Valley, and promoting fresh, local foods in school cafeterias will increase the health of the community by helping children establish healthy eating habits they can carry with them into adulthood and pass onto their future families.

Education

A food hub can partner with organizations such as the Penn State Cooperative Extension Service or the Seed Farm to provide training to help farmers continue to grow for their CSA or farmers market as well as for aggregation, and the hub can continue developing ways to maximize farmer benefits under this model.

A food hub can also provide customer education on the local food system and the benefits of eating seasonal foods. It could provide recipes and cooking classes that encourage customers to change their menus to follow the seasons and locally-available foods.

Farmer guarantees

Farmers may be averse to participating in a food hub if they are concerned about being unable to complete a sale due to a poor harvest or the food hub meeting their demand from other farmers. It may be beneficial to use a structure where the food hub agrees to buy a minimum amount of product at a set price if the farmer has it available. This takes pressure off the farmer in the event of crop failure and protects the farmer as they will not have to scramble to find a buyer if the hub purchases more of the same product from a different farm.

Study Recommendations

Overall, the study should determine:

- Is a food hub the best way to connect local food businesses with locally grown food?
- Would a single food hub, or a network of smaller food hubs be more effective?
- If a decentralized approach, how would the small, decentralized hubs interact?
- How will products be organized to ensure consistency of products and quality across multiple hubs?
- Can farmer identity be maintained throughout the entire food hub process?

- How much would it cost to consistently update a website with how much of what product from each farm is available?
- Would a Lehigh Valley brand increase interest in buying locally sourced foods?
- Can the supply of local food meet the demands of institutions and other markets?
- How could a food hub best encourage grocery and corner stores that cater to low-income community members to purchase from a food hub?
- What resources are available to help farmers learn about wholesale operations?
- How should prices be set across different products and farms?
- How open are customers to changing their menus to follow the seasonally available foods, and how could a food hub encourage them?
- Do farmer guarantees increase farmer willingness to work with a food hub?
- How much will it cost to have a fully operational food hub or system of micro-hubs?

Stakeholders

Below are the names of stakeholder groups that contributed to this preliminary analysis. In addition to expanding upon the ideas presented above, these stakeholders can aid in the development of a viable food hub system for the Lehigh Valley.

[Afros in Nature](#) encourages Black, Indigenous, and people of color (BIPOC) to participate in outdoor activities such as gardening. They plan to open a homestead and café in Allentown that will serve local food and potentially aggregate from various growers.

The [Bethlehem Food Co-op](#) plans to settle on a lease agreement in early 2021 so they can move forward with opening plans. The Co-op plans to sell local food to both individuals and businesses and could be a potential micro-hub partner.

[Buy Fresh Buy Local](#) promotes fresh food access and has connections with numerous farmers in the area that may be interested in working with a food hub.

[Community Action Committee Lehigh Valley](#) (CACLV) works with residents on various issues to help people receive needed support. CACLV helps entrepreneurs start and maintain their businesses, which applies to new farmers, restaurateurs, grocery store owners and more.

[Community Action Development Corporation of Bethlehem](#) (CADCB), a subsidiary of CACLV, implements many of CACLV's programs on a local level. CADCB encourages community and backyard gardening through their South Bethlehem tool library and seed library initiative. They also manage a few gardens throughout the southside and helped to install the garden at Lynnfield Community Center.

[Crooked Row Farm and Market](#) sells local products from their on-site farm and other farms throughout the Valley. The storage capacity of Crooked Row allows it to serve as a current micro-hub by storing and supplying products for other entrepreneurs in the Valley.

The [Kellyn Foundation](#) draws in farmers that may not ordinarily participate in aggregation but do so because they agree with Kellyn's mission to improve food access in low-income neighborhoods.

The [Lehigh Valley Food Policy Council](#) works with various food and health related organizations throughout the Valley to promote food access. Many of their initiatives focus on providing community members with nutritious food. The food policy council could also promote organic community and backyard gardens to aid in the achievement of their goals.

[New Bethany Ministries](#) works with low-income residents to provide food and shelter. Their expertise can help shape the food hub's policies to support low-income community members.

The [Penn State Cooperative Extension Service](#) educates farmers on various farming practices and marketing strategies. The Lehigh County and Northampton County representatives could provide education on wholesale growing to farmers interested in working with the food hub.

[Radish Republic](#) is a locally owned and operated grocery store that sources about a quarter of their products locally and another quarter of their products regionally.

[Second Harvest Food Bank](#) is a CACLV program that provides food to low-income families. Second Harvest can illuminate policies the food hub can institute to help low-income residents. Additionally, Second Harvest has numerous refrigerated vans that can be used for transportation of products to and from the hubs

[The Seed Farm](#), now part of Second Harvest Food Bank, provides new farmers with training to start their own farming business with support from Seed Farm staff. The Seed Farm can train new farmers in wholesale methods and aid new farmers in growing for the food hub if they are interested. Moreover, the Seed Farm has storage space to be a micro-hub partner.

Costs

Startup costs depend upon how the food hub will operate. Thus, this study is needed to fully understand how to develop a successful food hub in the Lehigh Valley and how much it will cost. The USDA Agricultural Marketing Service has a local food promotion program that provides funds to develop initiatives that encourage local agricultural production and sales.⁹ There is an entire document dedicated to federal funding for local food initiatives from the US Congress.¹⁰

Once there is a set plan for how a food hub will operate, some of the costs can be covered by various grants. Information on food hub operating costs will require further research.

Conclusion

Although introducing a food hub would provide many benefits to farmers and residents of the Lehigh Valley, there are still modeling and logistical issues that must be addressed before such an endeavor can be made. Since the outcomes of a food hub directly align with the goals of the Lehigh Valley Planning Commission, it is in the Commission's best interest to undertake a

study to determine how a food hub should be modeled to be successful in the Lehigh Valley. Already, dedicated community members have made great strides in introducing aggregation to the Lehigh Valley, and with the help of the Lehigh Valley Planning Commission, Lehigh Valley Economic Development Corporation, Lehigh County, and Northampton County these efforts can be expanded to increase access to local, fresh foods.

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² Mie, A., Andersen, H. R., Gunnarsson, S., Kahl, J., Kesse-Guyot, E., Rembialkowska, E., Quaglio, G., & Grandjean, P. (2017). Human health implications of organic food and organic agriculture: a comprehensive review. *Environmental health: a global access science source*, 16(1), 111. <https://doi.org/10.1186/s12940-017-0315-4>

³ Moyer, J., Smith, A., Rui, Y., & Hayden, J. (2020, September). *Regenerative Agriculture and the Soil Carbon Solution* [PDF]. Kutztown: Rodale Institute.

⁴ Buy Fresh Buy Local (2013, November 7). Assessment Report: Lehigh Valley Local Food Economy. Lehigh Valley; Buy Fresh Buy Local Greater Lehigh Valley.

⁵ Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. (2019). *The Lancet*, 393(10184), 1958–1972.

⁶ Hasan, B., Thompson, W. G., Almasri, J., et al. (2019). The effect of culinary interventions (cooking classes) on dietary intake and behavioral change: A systematic review and evidence map. *BMC Nutrition*, 5(29). doi:10.1186/s40795-019-0293-8

⁷ Sroka-Holzmann, P. (2020, August 26). *This Lehigh County warehouse is hiring more than 200 workers*. lehighvalleylive. <https://www.lehighvalleylive.com/news/2020/08/this-lehigh-county-warehouse-is-hiring-more-than-200-workers.html>.

⁸ Rüdiger, D., Schön, A., & Dobers, K. (2016). Managing greenhouse gas emissions from warehousing and transshipment with environmental performance indicators. *Transportation Research Procedia*, 14, 886–895.

⁹ Agricultural Marketing Service (2020). *Local Food Promotion Program*. Local Food Promotion Program. <https://www.ams.usda.gov/services/grants/lfpp>.

¹⁰ Gillibrand, K. (2014). *A Guide to Funding Opportunities and Incentives for Food Hubs and Food Systems*. Washington, DC; United States Senate.

¹² Catskills Food Hub. (2020). Catskills Food Hub. Retrieved December 18, 2020, from <https://www.catskillsfoodhub.org/>