

## **Is the Local Food Table Getting Crowded? Exploring the Effect of Food Hub Proliferation on Viability**

Dawn Thilmany, Rebecca Cleary, Stephan J. Goetz, and Houtian Ge

REDI Report – August 2019

<https://redi.colostate.edu/>

- The entry of additional food hubs in a county may cannibalize sales of incumbent enterprises.
- Food hubs require more potential buyers in a market than traditional merchant wholesalers.
- Counties with a high level of social capital and that have small local food businesses may be able to lower the population threshold necessary for a food hub to be viable.

In response to the growing interest and demand for local foods, government support for food hubs has helped assure that local food systems are viable and benefit the broader agribusiness community. However, such support should consider local market conditions, or risk over-proliferation that could jeopardize the success of existing food hubs.

Food hubs are food supply chain businesses that offer aggregation, distribution, and marketing services to small and mid-size farms and source-identified food products to consumers. Most food hubs have a mission-driven objective that they must balance with more traditional economic drivers of profitability whereas traditional wholesalers focus on maximizing profitability. According to a [National Food Hub Survey](#) conducted by Michigan State University and the Wallace Center at Winrock International, the vast majority of food hubs have a key mission to source their products from small and mid-size farms, and to assure a fair price to producers. They have enjoyed both public and private support because they fill an important role in strengthening local and regional food system linkages, but many communities lack the population and buying power necessary to sustain a food hub. Those that do are limited in the number of hubs they can support, suggesting that policymakers must think carefully about whether and where to provide the encouragement, funding and technical assistance to support new entrants.

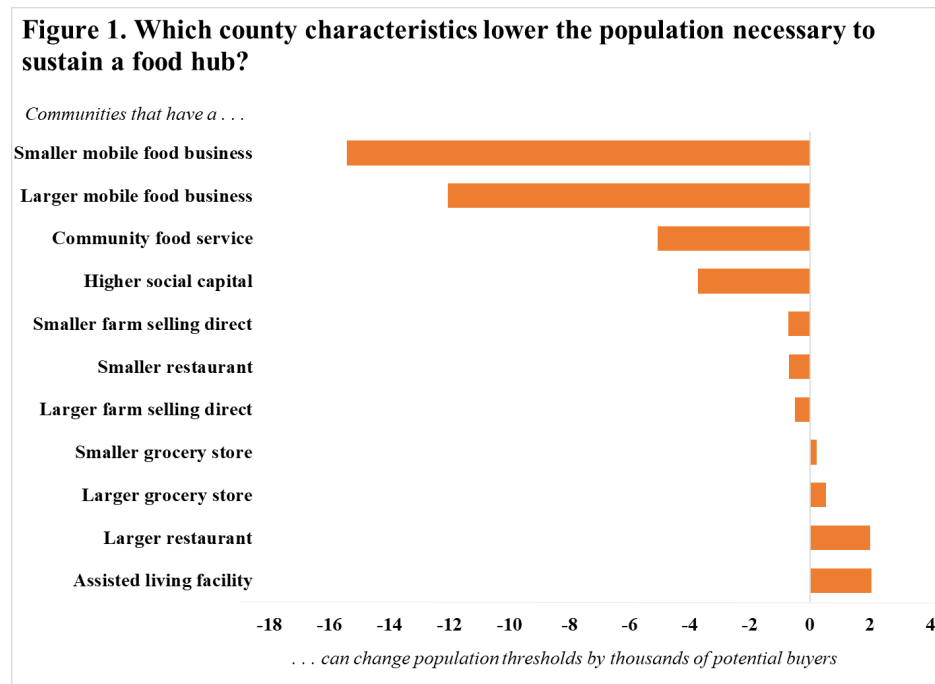
We adapt an “entry threshold” model to determine the most profitable enterprise location, based on the size of the potential market (population as a proxy for food buying dollars), operating costs, and estimated profit margins. Based on these estimates, we calculate the county population needed to generate enough sales for one, two, and three food hubs to break even. In order to contextualize how food-hub competition compares to that of the broader food wholesale industry, we make the same calculations for traditional fruit-and-vegetable wholesalers, which differ from food hubs in meaningful ways.

A county seeking to establish its first food hub needs roughly 182,000 residents for that food hub to break even, while only about 105,000 residents are needed for a traditional wholesaler (see Table 1). The difference is more glaring when the possibility of adding more food hubs is considered. Roughly 500,000 residents would be required to sustain a second food hub and three times more to sustain a third, whereas only about 190,000 residents would be needed to sustain a second wholesaler and about 342,000 to sustain a third wholesaler. The population entry thresholds demonstrate the potential for market cannibalization: each successive food hub entering the local market likely takes sales away from the existing food hub. New entrants grow the market demand, but not enough to justify the sales they would need to be viable.

**Table 1. Population need to support 1, 2, and 3 establishments**

	<b>Merchant Wholesalers</b>	<b>Food Hub Composite</b>	<b>Percentage of additional potential buyers needed to support a FH</b>
To support 1 establishment	105,383	182,662	173%
To support 2 establishments	188,400	502,884	267%
To support 3 establishments	342,445	1,669,275	487%

We also examine a number of county characteristics to determine which ones are associated with food hub profitability, including allied economic activity, the presence of other food businesses, and a commonly used measure of social capital, as seen in Figure 1.



Social capital refers to a community’s social networks and bonds that engender feelings of trust, belonging, and reciprocity among residents.

We find that higher levels of social capital in a county increases food hub profitability, thus lowering the county population threshold required for food hubs to break even; however, we do not find a similar effect for traditional wholesalers.

We also find that hubs benefit from the presence of other local-foods businesses. Counties with small farms that sell directly to consumers, mobile farmers markets, and small full-service restaurants were found to require a smaller population to sustain a food hub than counties lacking these businesses.

The authors acknowledge Enhancing Food Security in the Northeast through Regional Food Systems (EFSNE), which supported this study. This work also was supported by the USDA Multistate Research Appropriations under Project #NE1749.