WASHTENAW FOOD POLICY COUNCIL: Growing The Local Food System

authored by
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Introduction
Demand for “local foods” is a growing trend across the United States (U.S.). Since the early twentieth century, U.S. farms have undergone increasing industrialization, consolidation, and specialization. In the wake of these trends, diverse stakeholders aim to strengthen local food systems by creating smaller operations, increasing food diversity, and improving social connections to producers. Proponents believe a strong local food system can increase food security, improve the nutritional quality of crops, mitigate the environmental impacts of globalized food production, and expand local economic development. Existing farmers are increasingly embracing direct-to-consumer mechanisms to remove middlemen and increase profit margins (Diamond & Soto, 2009; Martinez et al., 2010).

These trends are evident in many large and small communities across the country, no less so in a 722 square mile county in Southeastern Michigan best known nationally as the home to the University of Michigan - Ann Arbor. It is in Washtenaw County that the following research was conducted to generate substantive recommendations to support the growth of small to medium size farms in the county. Though there is no doubt that many of our findings are applicable at a larger scale, this effort remains at heart a place-based study.

The remainder of the report focuses first on understanding larger trends in local food, and why it is relevant for those interested in public health, environmental and economic issues. Next, the report shifts sight to research methods and partners. Third, the report contextualizes the current state of food production and farmers in Washtenaw County. Finally, key findings are presented and followed by specific actionable recommendations stemming from those findings.

Why Local?
Consumers and communities are increasingly interested in the diverse benefits of localized food systems. The desire to build “sustainable food systems” reflects an array of motivations and potential benefits for public health, the environment, rural communities and local economies.

Implications of Local Food in Public Health
While many environmental and lifestyle factors can contribute to positive health indicators, studies are making empirical links between local foods and health outcomes. Two separate studies by Ahern et al. (2011) and Salois (2011) investigated the relationship between the availability of local food across all U.S. counties and the health outcomes of obesity, diabetes and mortality rates. Salois estimated that for each $100 dollar increase in per capita direct-to-consumer sales (measured by the U.S. Department of Agriculture (USDA) Census of Agriculture), both the county-level obesity rate and diabetes rate can be expected to drop by about one percentage point. Similar results were found by Ahern et al. Though the effect is small (per capita sales are currently about $7.00), the research demonstrates that the degree to which local foods are available appears to have a positive effect on health outcomes.

Perhaps some of the biggest public health gains result from bringing consumers closer to their food supply chain. Survey research in Flint, Michigan found that adults with a household member who participated in a community garden consumed fruits and vegetables 1.4 times more per day than those who did not have a participating family member (Alaimo et. al 2008).

Local food can also promote a safer food supply. Each year, one in six Americans get sick from contaminated foods or beverages (CDC 2015). Food can become contaminated when pathogenic bacteria or viruses are transferred at any level of the food supply
chain (harvest, processing, packaging, transport, etc.). When more steps exist between a food’s source and point of purchase, the risk of contamination can increase. While small, local operations are not immune to errors in food safety, their scale can help limit the potential consequences of an outbreak. Additionally, if contamination were to occur at the local level, tracing the source of outbreaks of foodborne illnesses can be easier and less time-consuming than attempting to trace the source within a vast, multi-tiered food supply chain.

Finally, community-level food planning that institutionalizes the link between local food and health outcomes is proving to be a powerful tool for advancing public health. The United States Center for Disease Control, among other organizations, uses the supply of local foods and the existence of food policy councils as indicators of healthier food environments (CDC, 2011). In Australia, a case-report by Pollard et. al (2008) described how the work of a multi-sector steering committee (similar to a food policy council) led to significant progress in implementing food and nutrition interventions designed to improve fruit and vegetable consumption over a 1-year period.

Implications of Local Food in the Environment

Many researchers agree that ‘food miles’ – the distance food travels ‘farm to table’ – is an insufficient measure of food system sustainability. As James McWilliams argues in *Just Food*, the problem is much more holistic than how far your food travels, so the solutions must be much more complex (McWilliams 2009). Researchers Kevin Morgan and Roberta Sonnino reached the same conclusion stating, “Localization is often assumed to be synonymous with sustainability because it is associated with lower food miles, and the latter tends to be equated with a lower carbon footprint. Despite its popular appeal, this chain of reasoning is deeply flawed because it confuses the carbon footprint of a product, which is fashioned by many activities from farm to fork, with its journey as measured in food miles, which is just one dimension of a multi-dimensional process.” (Morgan 2010)

Many researchers seem reluctant to explore some of the more positive potentials of food system localization, and only mention them peripherally, if at all, in their work. Some, such as Clare Hinrichs, argue that food localization is merely a reactionary movement: “Increasingly, localization has become a catchword, often invoked as a counterpoint to globalization” (Hinrichs 2003). Despite a local emphasis, it is hard to believe any local food supporter could deny the realities of a global food market. Therefore, strategies for food localization must be paired with improvements to the global food system supply chains to meet local safety, equity and environmental standards.

A realistic, and promising, approach to achieving food system sustainability is offered by Morgan and Sonnino: “Culturally diverse cities that wish to develop ‘sustainable food strategies’ need to strike a balance between the localization of their food chains, where the aim should be to calibrate the local production and consumption of seasonal foods, and globalization, where the aim should be to promote the use of fairly traded produce from developing countries” (Morgan 2010). Morgan and Sonnino’s ‘twin spatial strategy’ integrates an emphasis on localism while simultaneously increasing sustainability standards across global food chains, providing a realistic balance between the systems.

Implications of Local Food in Economic Development

It is important to recognize the broad nature of local food demand. Proponents’ motivations are diverse. Some purchase local food to increase food system transparency. These consumers place value on maintaining personal relationships with producers and their local environment. Others desire native, seasonally-appropriate foods and/or value the quality and diversity of products available from local producers. For others, buying local foods conserves fuel and energy and promotes
Food system localization can boost local economies. In fact, supporting local economies is a primary reason consumers purchase local foods (Thilmany, Bond, & Bond, 2008; Kearney, 2013). Growing and selling foods locally captures revenue and increases jobs in the local region. A 2006 study from Michigan State University and the Michigan Land Institute projected that upwards of 1,800 new jobs could be added to Michigan’s local food system if greater emphasis is placed on policy and practice around local fresh produce sales.

Another feature of food system localization is its potential to enhance the urban-rural interface by building community connections and preserving green space and agricultural livelihoods. In fact, maintaining a relationship with one’s land and environment is another key reason people value local food (Thilmany, Bond, & Bond, 2008). Investing in local producers helps to keep agricultural operations alive, thus maintaining local green space. Increasing support for local farmers means farming can be an economically viable business, and thus a viable option for intergenerational continuity that is crucial to maintaining rural livelihoods. In the process of increasing food localization, we can directly contribute to our local economic and social prosperity. By building relationships with our growers, we can expand our sense of community beyond our urban borders, and extend into the rural places that help sustain us all.

**Advancing Local Food**

While the current metrics for food localization are insufficient for assessing overall impact toward sustainable food systems, there is also promising evidence that food localization can play an integral role in achieving more sustainable communities. Local food advocates must address the needs of a ‘twin spatial strategy’ to ensure their indicators, plans and policies actualize the tangible benefits of food localization, while simultaneously addressing global food supply chain sustainability. With this approach, it may very well be possible to reap increased economic, social and environmental benefits, locally and beyond.

**Our Client**

The Washtenaw Food Policy Council formed in May of 2012. Community leaders, who took part in the Food System Economic Partnership’s Policy Committee, realized the need and actualized the formation of the WFPC, with support from the Washtenaw County Public Health Department. The Council’s guiding mission is to “increase and preserve access to safe, local and healthy food for all residents of Washtenaw County.” In July 2014, the WFPC approved its first policy agenda, setting advocacy priorities around meaningful and actionable
components of the Washtenaw County food system where positive change could be leveraged. In November 2014, the Washtenaw County Board of Commissioners endorsed the WFPC’s policy agenda, giving it county-wide influence and support. Since then, the WFPC has leveraged many significant community partnerships to make meaningful strides in advancing the sustainability and strength of our local food systems. This research undertaking is just one of many that illustrates the diversity of issues and interests the WFPC seeks to address. For more information, please visit https://washtenawfoodpolicycouncil.wordpress.com/ or contact any of the authors to find out more about their work.

Methodology
Growing the local food system in any region is a complex challenge with a wide range of interdependent variables. We performed both quantitative and qualitative research to identify the key variables that would most effectively and impactfully grow the Washtenaw County local food system. First, we performed a local and national literature review to understand the current state of local food. Second, we evaluated the economic performance of Washtenaw County farms over the past 10 years using U.S. Census of Agriculture data. Third, we interviewed 16 farmers and produce buyers in Washtenaw County to understand the production side of the local food system. Finally, we hosted a town hall meeting, which was attended by 19 Washtenaw County farmers and local food system advocates. In the meeting, we facilitated a session where we brainstormed ideas to grow the food system, voted for concepts to advance, and developed solutions with recommendations.

Literature Review
We began our literature review at the national level. We reviewed articles and books discussing the social, environmental, and economic impact of local foods to better understand how these systems interact with one another. At a regional and local level, we reviewed existing system assessments and analyses provided by the Washtenaw Food Policy Council. In particular, we reviewed the Local Food System Economic Analysis conducted by the Washtenaw County Office of Community and Economic Development (OCED) and Michael Shuman, economist and food system expert, in 2013 that assesses the economic impact of a 25% shift towards local food (Shuman 2013). We also reviewed the policy agenda for the Washtenaw Food Policy Council, as well as state-level initiatives led by the Michigan State University (MSU) Extension Program and the Michigan Land Institute.

Current State Assessment
The Census of Agriculture is the most comprehensive source for farm related data in the United States, administered every five years by the United States Department of Agriculture (USDA). The Census gathers data on farm income and expenditures, land use and land ownership, operator demographics, production practices and commodities from all U.S. farms and ranchers. The subset of data used here was obtained from the publicly available Quick Stats 2.0 database on the National Agriculture Statistical Service website and reflects the 1997 to 2012 Census years. Geographically, the subset included Washtenaw County, the state of Michigan, and the USDA-defined “commuting zone”, which includes Jackson, Lenawee, and Hillsdale counties.

Three questions were proposed for this background analysis. First, what does an “average” farm look like in Washtenaw County, and how does this differ from other counties in Michigan? Second, how are these farms performing financially compared to their peers? Third, how do they take their product to market, and to what extent does this validate the claim that “Washtenaw County is unique”?
Interviews with Farmers and Produce Buyers

We performed semi-structured interviews with farmers and produce buyers in Washtenaw County to better understand the hurdles to increasing the amount of local food supplied in Washtenaw. Our interview instrument focused on how each farmer grew his or her business and what hurdles they may have faced along the way. With the produce buyers, we sought to understand how they currently work with local farmers to source their produce.

We identified our initial group of individuals both through the Washtenaw Food Policy Council and our networks. Additionally, we visited the Ann Arbor Farmers Market to interview farmers at the stalls. Overtime, we used a “snowball approach” – asking respondents to recommend individuals who may have a same or different view from themselves – to identify additional interviewees.

Farmer Town Hall

We concluded our project by hosting a town hall, to which we invited Washtenaw County farmers and local food advocates. Based on our literature review and interview findings, we identified four areas that seemed to be persistent hurdles to growth in the local food system: (1) Access to Capital, (2) Business Planning, (3) Wholesaling and (4) Consumer Education. We organized the attendees into small groups to brainstorm solutions to each of these challenges. After 40 minutes of brainstorming, participants voted for which ideas offered (1) a quick fix to the problem, (2) a long-term solution to grow the system, and (3) the most out of the box solution. Finally, we spent the remaining 45 minutes developing solutions and recommendations for the ideas that seemed to have the most traction based on the voting process. In this paper, we have synthesized the concepts developed in the farmer town hall into our final recommendations.

Limitations

Our project was limited to evaluating local food produced and consumed in Washtenaw County. We did not research local food produced in surrounding counties. Additionally, we were challenged by the timing of this project. Given that we aimed to conduct our interviews between June and September – peak growing season – we had very low response rates to our interview requests.

Current State Assessment

Before enumerating key findings, it is necessary to assess the current state of farms and farmers in Washtenaw County. Specifically, this means understanding and contextualizing key financial indicators, average farm characteristics and food sales practices employed in the county. Common refrains in preliminary research discussions focused on Washtenaw County as “different” or “unusual” when compared to other counties, or the state as a whole. This
background analysis helps to understand the validity and extent of these claims.

**Farm and Farmer Characteristics**

Farm size and operator characteristics help describe the contours of an “average” farm in the county. In 2012, the most recent year for Census of Agriculture data, Washtenaw County was home to 1,236 operating farms. 79% of these farms were defined as small (<$500k in annual sales). The median farm size in the county was 40 acres, and 55% of all farms were less than 50 acres total. Across the state, 44% of all farms are less than 50 acres. In this respect, Washtenaw County is unique among its surrounding counties, which more closely mimic the state level distribution (Exhibit 1).

Washtenaw County farmers are similar to farmers in nearby counties and Michigan overall in terms of their average age, average years of farming experience, and proportion that consider farming to be their primary occupation (~58 years old, 24.4 years of experience, and 48.8 percent, respectively). In one regard, Washtenaw County differs: by gender. Washtenaw County has about 36% more female-run farms, this represents 19.4% of farmers, compared to 14.2% in the state as a whole.

**Key Financial Indicators**

With some context for the differences in farm size and operator characteristics, the next question becomes: how do these farms perform financially compared to the neighboring counties and the state? Though the census tracks many indicators, this analysis focused on two: net cash income and average losses, which most directly reveal the overall health and viability of these businesses.

Net cash income is calculated by summing agricultural sales, other farm-related income, and government payments, and then...
Washtenaw County farms averaged $8,715 net income per farm in 2012 (Exhibit 2). This was lower, by a large amount, than in the surrounding commuting zone and the state overall. On the revenue side, average sales per farm in Washtenaw County were $71,004, compared to $166,265 in Michigan. This is not a surprising finding, given the proliferation of smaller operations in the county compared with other, more industrially-oriented, farming counties in the state. On the cost side, expenses in Washtenaw County were driven largely by increased costs (between 2007 and 2012) of chemicals and rent.

Unfortunately, because farming practices (industrial, organic, row-cropping, crop rotation, etc.) determine the underlying expense structure of a farm, it is nearly impossible to directly compare any one county’s expenses at a nominal dollar amount to other counties. However, the farm size and average net income data suggests that many Washtenaw County farms are operating at a level where economies of scale have not yet begun to reduce expenses relative to revenues, and both size and efficiency limit net income.

It is also important to understand what proportion of farms are losing money to assess the breadth of farms affected. In Washtenaw County, 63.7% of farms lost money in 2012, compared to 74% just five years earlier. Though this indicates some improvement, it is still higher than both the commuting zone and the state of Michigan (54% and 53.8%, respectively). Further, it appears that those farms who were losing, “doubled down” on their losses. The average loss per farm increased by 111.3% in the period between 2007 and 2012 (Exhibit 3.1 and 3.2). If these farms continue to lose money, it is reasonable to expect many of
these farms will terminate their businesses by the 2017 census.

In sum, a higher percentage of Washtenaw County farms are experiencing annual losses and, on average, farms are generating less income than surrounding farm operations. These two points are important to note and are addressed more fully in our key findings.

Sales Practices
Though the Census of Agriculture is limited in helping understand specific trends underlying net income and losses, there are two sales practices data points that are particularly relevant to the local food supply: direct-to-consumer and community supported sales. Direct-to-consumer (DTC) sales are products sold directly to individuals for human consumption; the census tracks the percent of operations engaged in the practice and the value of sales resulting from this practice. Community-supported agriculture (CSA) is a model in which consumers pay farmers up front for a season’s worth of vegetables distributed over a period of time.

Looking at DTC and CSAs, Washtenaw County farmers clearly embrace local food sales practices when compared to peer sets. 14.8% of county farmers engaged in direct-to-consumer sales, and these sales comprised nearly 2% of all food sales in the county. Across Michigan, 12% of farmers engaged in this practice, though this accounted for only 0.7% of all food sales in the state. Similarly, Washtenaw County farmers provide a CSA offering at over twice the rate of the state at large (1.6% vs 0.8%). In terms of nominal dollars, Washtenaw County farmers increased overall DTC sales nearly 80% between 1997 and 2012, from just under $1M to $1.8M (See Exhibit 4). In comparison with all counties in Michigan, Washtenaw County had the 7th highest nominal DTC sales, and the 4th highest percentage of sales sold DTC. In 2012, Washtenaw County farms sold $1.8M in local produce through DTC, whereas surrounding counties sold slightly less than $1M (Exhibit 4).

From this angle, Washtenaw is clearly unique compared to the surrounding counties. With a much higher amount and percentage of sales going directly to consumers, it is clear that the average farmer in the county was engaged in different sales tactics than farmers in surrounding counties. How this difference in sales practices affected financial indicators, and overall health of the farming community in the county was considered greatly throughout the interview process and is also addressed in the key findings.

By understanding better these three primary questions: what does an “average” farmer look like, how is their business performing, and how are they selling helps to contextualize much of
the county specific findings put forth in the remainder of this analysis.

**Key Findings**

Interview and focus group research revealed a variety of challenges, opportunities, and barriers to growth for small to medium sized farmers in Washtenaw County. The majority of challenges can be grouped into five thematic areas: access to resources, challenges in business planning, barriers in regulation, creating wholesale relationships, and increasing consumer education and awareness around local food.

Though each theme will be discussed separately below, it is necessary to first lay out a few findings that supercede individual thematic areas. Chief among these is that each of our findings and areas for action are highly interrelated and interact in a myriad of linear and nonlinear ways. For instance, access to capital, land, and knowledge conspire to create challenges for farmers’ success (i.e., limited capital can limit land acquisition). However, access to a strong peer network can present opportunities for land purchase even within those other limited means. What is presented next is an attempt to create discrete areas for conversation within a truly complicated web of relationships.

A second overall finding is that small to medium size farmers face many similar problems to other small businesses in the community. Though both groups often suffer from lack of training in business planning, marketing, and limited resources, farmers take on unique ecological and market timing risks. These include risks from weather and reliable market demand in the future (since crops must be planted well in advance of sale). In the following key findings, italicized statements represent typical sentiments heard during the research process.

**Access to Resources**

“I’m worried about young farmers, and how they might be able to start out now. When we bought land, it was much, much cheaper. I’m not sure how I would even get into it these days.”

As with any entrepreneurial business, farmers consistently find particular resources limited. Chief among these are limits on access to capital, land, and knowledge. These three areas remain very interrelated, and seem to go hand in hand: capital can help alleviate issues of land, knowledge can help savvy farmers find means of financing operations and growth, and land helps to further strengthen a business to create more capital.

**Access to Capital:** Research found that opinions about access to capital were mixed and varieties of formal and informal routes are frequently leveraged. More established farmers tended to report capital was not a problem, while newer farmers were more likely to cite it as a problem, particularly as it relates to land and equipment access. In general, farmers rely on a variety of sources: family, friends, other jobs, federal loans, grants, banks, other private loans, credit cards, and home mortgages. During start-up, family money, off-farm income, credit cards and other informal loans seem to be crucial. Many farmers in the sample were not looking for or interested in additional capital because they were either “debt averse” or because they wanted to pay down their current debt before looking for more capital to expand their business.

“We are very debt-averse. Some young farmers are comfortable with debt, but for us, we have a sense of conservatism and don’t want to ‘bet the farm.’”

**Access to Land:** Access to land was broadly cited as a key challenge in Washtenaw County. This stems from real-estate development which has driven land prices higher in the last two decades both in Washtenaw County and in the commuting district. Many experienced farmers were able to purchase their land fully many years ago, while new farmers struggle to strike a balance between proximate distance to strong local
food demand (chiefly in Ann Arbor), and land prices.

That access to land was consistently ranked as a key challenge is notable, given the lack of interest around capital availability or desire to take on more debt. Bridging the gap between a risk averse pool of operators and the reality of more expensive real estate in the county is a clear area of both challenge and opportunity addressed in recommendations.

“More demand than land.”

Access to Knowledge: Across our sample, access to knowledge of various types was consistently brought up as a challenge. For first generation farmers, access to knowledge about how to farm as well as how to run a farm were consistently cited as challenges. Some of these gaps are filled by educational institutions (such as MSU Extension services), while some specific communities thrive on word-of-mouth transfer (such as the Amish). Largely, though, for both inexperienced and experienced farmers, social transfer of knowledge through potlucks, meetings, and interactions at the market represent the best sources of information on crop viability, market conditions, and opportunities to share equipment.

Despite understanding the value of social information, many respondents still felt it was not consistently maintained, nor was there a central group that helped to facilitate this type of communication.

“Our farm is a hodge podge of things we’ve learned from others. The challenge is that no five-acre farm is the same. The soil is different, the climate is different, etc.”

“The local food system is siloed. People don’t know one another and they don’t speak the same language.”

Business Planning
Across the interview sample, farmers repeatedly expressed concerns around a number of issues regarding business planning. In terms of formal training, our sample was extremely mixed. Nearly 25% reported some formal training in an agriculture related program. The remainder would be categorized as “on the job” learners. For some, business planning came naturally or easily, while other reported it was a challenge. Many felt that current institutional offerings were not scaled appropriately for small farmers, or not equipped to understand the entrepreneurial challenges faced by farmers. Overall challenges in business planning tended towards two categories: market planning and pricing.

“Farmers need a business plan to get money. Farming is entrepreneurship, but many farmers don’t have entrepreneurial training and aren’t connected to the entrepreneurial community.”

Market Planning: The primary tension in market planning laid between the traditional DTC business channels, farmer’s markets and CSAs, and attempts to move to wholesale or direct-to-retail marketing. All producers interviewed participated in at least one of the DTC channels, though many noted issues with both of them. For farmer’s markets, the primary concern is the large amount of time required, and thus the high labor costs associated with sales. For a small sample of growers, market’s represented the anchor for sales, with the ability to fetch higher prices. For some, though, the time costs outweighed the sales benefits. CSAs were also a widely used model that helped farmers budget for future crops and put capital in hand earlier. It was also stated that the types of crop planning required for CSAs and markets (high variety), tend to be incongruent with what is necessary for higher volume sales to restaurants and grocery stores (consistency and volume). Balancing and optimizing crops across sales channels remains a difficult problem.

Pricing: Pricing was broadly cited as a key challenge. For growers, it is difficult to determine a fair price for both producers and
consumers, and it’s challenging to value any local food premium and communicate that value. Farmers often undercut themselves and other growers in attempts to secure sales at the wholesale and retail level. Potential solutions were to create network pricing or a pricing guide to inform consumers, buyers, and growers.

“Pricing is difficult. It’s hard to know what you should charge – you need to account for the time producing the crop and the margin—and I want to put positive pressure on local food prices.”

Wholesale Marketing
Seventy percent of respondent farmers were already in the wholesale market or trying to break into it. The wholesale market provides lower margins, but less risk. Farmers identified some promising models; they also explained their several challenges. These challenges included: establishing and maintaining buyer relationships, production planning and educating buyers about seasonality, meeting expectations for quality, maintaining control over pricing, and effectively marketing in stores. Additionally, Good Agricultural Practices (GAP) certification, “ready to eat” processing certification, and other regulations in this market were noted as costly and often at odds with the farmers’ visions and values. Thus, while retail helps to diversify their incomes, it is likely to remain a portion of, rather than the entire, marketing strategy.

Wholesale Relationships: Those growers interviewed currently working in grocery relationships consistently noted the “key person risk” associated with these relationships. Often, the local buyer positions change frequently and representatives may or may not be interested in working one-on-one with growers. Particular models, such as the Argus Farm Stop in Ann Arbor, rated highly in ability to have a consistent relationship. Conversely, among those wholesale buyers interviewed, general education about what local farmers grow and can guarantee in quantity throughout a season were cited as key issues

“Drop the attitude on both sides. Just because you grow it and it’s local doesn’t mean I have to buy it. Just because I buy it doesn’t mean I owe you my heart and soul. We both need to treat each other with respect.”

“Grocery stores are a very challenging channel because it’s a very transient community of buyers, so it is difficult to develop and maintain relationships.”

“Retail is a challenge, but we realize that to shift the food system paradigm, food has to be in grocery stores. It’s where the majority of people buy their groceries.”

Buyer Requirements: Across the sample, there was widespread confusion concerning individual wholesale buyers requirements for certification, insurance, order size, and pricing. Barriers to entry were often perceived by farmers, yet not upheld by wholesalers. Chief among these was the common concern around GAP certification, which was required by approximately 50% of wholesale purchasers consulted. The primary concern among buyers was dependability and consistent availability of reasonably priced produce. For local farmers, this usually requires educating buyers on Michigan crop availability versus national purchasing availability. This topic is further addressed in the recommendations.

Regulations: Regulations, seemingly developed for large scale agriculture, are costly and time consuming barriers to wholesale and institutional markets for small businesses. Specifically, GAP certification, Ready-to-Eat food processor certification, and the implications of the Food Safety Modernization Act are a consistent challenge. Many farmers cited this issue with fatigue and
seemed unsure of how to even begin overcoming these barriers. Education around these issues with a particular focus on how they impact small-scale farmers was commonly cited as a desired resource, as well as help in organizing a “group GAP” model in the county.

“Regulators are used to dealing with big businesses that have teams of lawyers on staff and therefore, don’t have the capacity to support smaller farmers who call with questions to about the law.”

Effective Marketing: Farmers also experienced difficulty in properly marketing products that were stocked in retail and grocery stores. Often, without hands-on and time consuming outreach in stores, local products were displayed poorly or out of high traffic areas. They are often unable to compete with larger operations who are able to hire local sales representatives to ensure quality placement and marketing within the store.

Consumer Education
While most findings and barriers cited related to supply-side issues for farmers, consumer education stood out as a major demand-side opportunity. Many farmers cited the need to educate consumers about the benefits of local and organic foods. They consistently noted that they were all tapping the same small percentage of the market and that there is huge potential in reaching traditional food consumers. Education was a difficult term to pin down, but included education around different crops and foods available in Michigan, how to utilize them, when they are available, and why one might pay a premium for these types of foods. While this area is pervasive and clearly important, we necessarily chose to limit our scope to focus on supply side findings, as noted above.

“On the consumer side, how do you convince people to adapt their tastes to indigenous, native, climate neutral food culture? How do you design meals with local, organic ingredients that have the right flavor, texture, nutrition and storage criteria?”

“Consumers want cheap food. People more likely will not pay premium prices on food.”

Recommendations
Boosting and sustaining local food systems requires approaches that address the social, environmental, and economic concerns specific to the community to which it belongs. Ultimately, the strategies needed to grow and strengthen Washtenaw County’s local food system should be cultivated from within and supported by active community partners. Therefore, the three recommendations presented below are grounded within the major underlying themes observed in both farmer interviews and community town hall feedback sessions. Each recommendation addresses a specific challenge to growth faced by Washtenaw County farmers and includes feasibility scenarios for varying degrees of resource availability.

Washtenaw County farmers struggle to access information, whether related to on-farm crop-management practices, business modelling, financial planning, wholesale relationships, equipment repair, etc. To this extent, the opportunities to improve access to necessary information can be organized into three branches:

- Farmer-to-Farmer knowledge sharing tools and programs
- Access to financial and legal expertise to optimize business operations
- Pathways for efficient and effective wholesale market penetration

Our recommendations address key challenges faced within each branch and will serve to promote further collaboration between farmers, businesses, and policymakers within Washtenaw County.
Recommendation #1: Invest in Farmer-to-Farmer (F2F) Networks

Farmers expressed the real benefits and further need for strong collegial relationships between farmers within the county. Currently, the best sources of information on ecological and market conditions are cultivated through informal, in-person networks. However, in the past, much of this informal information transfer has happened at the family level, from one generation to the next. With the growth of first generation farmers, these informal networks involve a great deal of time and effort in establishing, maintaining, and nurturing a useful and trustworthy network.

Many young farmers seek advice, knowledge, and aid from those more experienced in the community. Though many may be willing to offer advice, there is currently no cost and time effective method for doing so. One solution is to institute a formal farmer-to-farmer network. At its core, a farmer network is an organized way for farmers to exchange information, socialize, learn, and connect with peers on a regular ongoing basis. What is most important about a farmer network and sets it apart from, for example, traditional Extension-based classes, is that the farmers decide what they want to learn and create together. Through the network, farmers can also organize subgroups based on their interests, such as organic farming, women farmers, or specific commodities.

Put into action, this tool could be as simple as a publicly moderated webpage focused on sustainable agriculture in the community, and serve as a message board for requests on advice, and shared resources from those who know, to those who need to know. With additional resources, the complexity and usefulness of the tool would increase. Potential network activities may include:

- Shared equipment - Members have access to agricultural equipment, including food processing tools, egg incubators, honey extractors, and a resource library. The shared equipment pool helps farmers to avoid unnecessary capital expenditures that could make a project unprofitable.
- Training - Hands-on workshops for members that focus on sustainable agriculture practices
- Grain Bins - Allowing farmers to purchase animal feed in bulk through a cooperative grain bin, saving on expensive feed prices and increasing profit margins.
- Marketing - Members can share marketing opportunities at local farmers’ markets and through a cooperative farm stand.

One example of a successful farmer-to-farmer network can be observed in Vermont. The non-profit North Country Farming Network, established in 2005, represents a group of farmers in six counties of northern Vermont whose mission is to promote small-scale, sustainable agriculture (Rural Education Action Project, 2015). The group emphasizes increasing regional food security and supporting farmers who have little access to capital, land, and livestock. The network is managed by two volunteer representatives and a part-time coordinator but is largely autonomous and self-directed. Start-up funding for the network was generated through grants from the University of Vermont’s Women’s Agriculture Network, Rural Vermont, and the Northern Vermont Resource Conservation & Development Council. Support for the coordinator position is also through grant funds.

Implementation Scenarios:

**Basic:** A simple farmer-to-farmer network can be established through a publically moderated electronic listserv. This can be generated and maintained at little-to-no cost and can promote communication across a large group with ease. Additionally, the listserv can be linked to social networking sites or a Wiki page with information and resources on equipment, storage, and smaller F2F meet-and-greet dinners.

**Mid-Range:** Supported by moderate investments, the farmer-to-farmer network
can take on a more developed website to access knowledge-sharing tools and communications. Funding can be generated through grants and/or through membership dues. Larger workshops may also be organized to focus on various skills and on-farm management practices.

**Optimum:** A fully funded model will cover key roles and provide the right resource for specifically designated farming requests. With consistent funding, a F2F website can be regularly maintained and updated with information on farmer profiles, upcoming workshops and events, and a database of available equipment and resources for lending out. This model also may allow more permanent roles for network coordinators to facilitate seasonal F2F conferences and regular social events.

**Recommendation #2: Build a Farmer Brain Trust**

In addition to farmer-to-farmer knowledge exchange, Washtenaw County farmers require domain specific expertise for more technical and unique aspects of their businesses. Accounting, marketing, business planning, grant writing, processing, meeting certification standards, drafting legal documents, building cooperatives, equipment maintenance, administrative, sufficient mentorship – these are just some of the gaps in knowledge farmers in Washtenaw County face today. Each farm is in need of its own particular consultations to meet their own needs, yet farms do not know where to go or cannot afford this critical support across so many categories. Moreover, existing business incubation services are not tailored to farm businesses, which limits the efficacy of current offerings.

Farmers need a dependable source for accessing this expertise. We propose establishing a ‘farmer brain trust’ – a collection of experts across a multitude of sectors and spheres of knowledge who are acquainted with, if not specialists in, issues farmers face in their businesses. This collection of experts could range from certified CPAs to state agriculture Extension agents, from business strategists to reliable mechanics (Exhibit 5). These experts would all be aware of the challenges these farmers face, and tailor their services to meet their needs. Even more, these experts would make concerted efforts to stay current on the issues, assuring the services they provide are relevant.

There are a number of ways to establish a farmer brain trust. The experts could be selected by willingness to perform services pro bono publico. Alternatively, farmers could pay a nominal annual fee for access to the trust, while experts offer their services at a bargain sale compared to their professional endeavors. Beyond establishing the trust, it could be advantageous to request each expert to attend annual, or even seasonal, workshops to familiarize them with the most pressing topics of their clients. This ‘accreditation’ process builds legitimacy and holistic understanding across the experts, and increases their capacities to contribute positively to local farmers.

**Implementation Scenarios:**

**Basic:** At a minimum, a Farmer Brain Trust can take on the form of an online directory of locally-referred and farmer-recommended experts. The directory may be linked to a public or governmental website through agents like the Washtenaw Food Policy Council, Washtenaw Food Hub, or Extension services.
**Mid-Range:** With light to moderate funding, efforts can be directed toward vetting desired experts and providing training needed to cater skills to farmers within Washtenaw County. Funding can be generated through small buy-in fees from farmers and funds may be used by part-time coordinators to help identify specific needs for farmers and matching them with the right expert with the Brain Trust. Services provided by Brain Trust experts would be mainly pro bono.

**Optimum:** Building upon the Mid-Range model, a fully funded Brain Trust implementation program would potentially consist of a full-time coordinator or team to contact and vet Brain Trust experts within the county. The coordinating staff would also help to schedule seasonal workshops and engagement events between experts and farmers. Funding may be generated through regular dues from participating farmers and/or grants.

**Recommendation #3: Develop a Local Foods Liaison Position**
Many Washtenaw County farmers are already in the wholesale market or beginning the process of breaking into it. Farmers perceive selling to wholesalers as an opportunity to increase sales volume, and thereby lower operational risk, at the expense of lower profit margins. Farmers face several challenges, as elucidated in the key findings section. All in all, while retail helps to diversify incomes, farmers struggle to engage and penetrate the

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**Exhibit 5: Index of Experts for Farmer Brain Trust**

<table>
<thead>
<tr>
<th>Elements</th>
<th>Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Planning/Accounting</td>
<td>Certified Public Accountants (CPAs)</td>
</tr>
<tr>
<td>Technical Writing</td>
<td>Any entity from a public university that offers such advice, or from Extension services if offered.</td>
</tr>
<tr>
<td>Grant Searching/Applications</td>
<td>Services offered from Extension, or from consultants.</td>
</tr>
<tr>
<td>Database Management</td>
<td>Private firms or University graduate students and technicians</td>
</tr>
<tr>
<td>Marketing</td>
<td>Extension services, or private firms. Potentially from partnership with student groups at universities.</td>
</tr>
<tr>
<td>Business Planning</td>
<td>Either from Extension or from private consulting firms or entities within public institutions such as universities.</td>
</tr>
<tr>
<td>Farming Operations</td>
<td>Extension programs, or formal mentorship programs.</td>
</tr>
<tr>
<td>Farming Mechanics</td>
<td>Those offering quality, reliable and affordable service.</td>
</tr>
<tr>
<td>Cooperative Development</td>
<td>Business owners specializing in cooperative models.</td>
</tr>
<tr>
<td>Succession Planning</td>
<td>Lawyers who can play a multitude of roles, including financial advisor, estate planner, social worker and mediator.</td>
</tr>
<tr>
<td>Estate Planning</td>
<td>Estate planners familiar with farming family needs.</td>
</tr>
<tr>
<td>Real Estate</td>
<td>Realtors working in rural areas, realtors interested maintaining or developing rural character.</td>
</tr>
<tr>
<td>Legal Counsel</td>
<td>Legal firms, lawyers working in rural affairs or rural economic development, student legal counsel groups.</td>
</tr>
<tr>
<td>Market Research</td>
<td>Universities, consulting firms.</td>
</tr>
<tr>
<td>Aggregation</td>
<td>Food Hubs, distributors.</td>
</tr>
<tr>
<td>Conservation Planning</td>
<td>Land conservancies, Natural Resource Conservation District (NRCS).</td>
</tr>
</tbody>
</table>
wholesale market because of the resources and time-burden of growing a new sales channel.

We recommend developing a position for a Local Foods Liaison (LFL) to overcome these barriers. The LFL would be to act as a broker for Washtenaw County produce and food products with area grocery stores, restaurants, and other wholesale buyers. Represented by a not-for-profit agent, the LFL’s objective would be to serve both farmers and buyers with the goal of sparking and catalyzing working relationships between both parties and increasing the purchases of locally grown and produced foods within the county. A designated LFL can be advantageous for farmers who do not have the time and resources to research, network with, and approach wholesalers. For both farmers and buyers, this allows for the creation of a streamlined, predictable system for linking local food supply and demand.

The LFL helps coordinate information between farmers and buyers. For example, the LFL would establish and manage a county food database of local crop inventories, farmer profiles and requirements issued by various wholesalers. Ideally, a LFL will interact closely with farmers to discover and pinpoint necessary benchmarks to meet buyer requests for orders. As the relationships between the liaison and farmers develop and strengthen, the LFL will be able to better convey local food supply and variety to wholesalers, improving overall awareness and sensitivity to crops grown within Washtenaw. Other potential tasks may include educating and informing buyers of production volumes or unique Washtenaw crop varieties available. For farmers, the LFL can provide education tools and share strategies for achieving regulatory standards, such as GAP certification. Services may also extend to interactions with consumers and in-store food tastings to increase awareness, nutritional education, and cultivate interests resulting in an increase in local food demand.

Implementation Scenarios:

**Basic:** A low cost LFL approach can be in the form an online directory of Washtenaw County farmers accompanied by categories of available products (e.g. grains, fruits, vegetables, dairy, etc.). This may be linked with a directory of known wholesale buyers with listed requirements for selling product at their stores. These directories may be user-updated or managed by volunteers.

**Mid-Range:** With moderate funding, a paid position can be created for a part-time coordinator to maintain and manage local food directories. Additionally, the coordinator will help to facilitate communications between farmers and buyers to achieve desired business relationships.

**Optimum:** A comprehensive LFL model. Resources can be used to fund both part-time and full-time positions. Funneling the demand by both farmers and buyers, a team of liaisons to help move the local inventory into markets and help with in-store marketing/sampling of products. Potential projects may also include publishing monthly farmer-buyer newsletters, hosting networking workshops, and organizing on-farm educational tours.

**Conclusions**

A food system, like any other complex system for moving goods, information, or ideas, can be improved through careful application of pressure by diverse tools to various points in the system. The recommendations presented here aim to provide pressure for certain challenges noted by producers, wholesalers, and other members of the Washtenaw County food community. It is our hope that these can be applied by various individuals and groups within Washtenaw County at a level deemed tenable and appropriate, and then measured for real impact in the community.

Future research using this methodology would move from the supply side of local food systems to the demand side and seek to better understand how end consumers perceive
growing operations, local food access, and the various types of marketing practices available. The methodology was useful in moving rapidly through a number of ideas, while engaging subjects in active idea creation. This is something that proved very useful in providing key recommendations generated by participants in the system, and would likely provide interesting and novel results in the consumer sphere as well.

Our work in Washtenaw County was eye opening and inspiring. Despite the challenges facing producers in the county, many are resilient and focused on developing their businesses and a strong regional food system. The stakes for success are high and could lead to a community more focused on healthy, sustainable, and community based food.
Acknowledgements
Our research team would like to thank the Washtenaw Food Policy Council for their support as our client organization. The general council provided invaluable feedback and connections. Nicole Chardoul and Nicki Sandberg were particularly crucial as advisors. We would also like to thank Anne Wallin for excellent facilitation of our Dow Fellowship experience, and the Graham Sustainability Institute for administering the program. The Washtenaw Food hub was critical for supplying a location and help with advertising our Town Hall. Finally, we would like to thank all of our research participants for their time and willingness to share their businesses and ideas with us.

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Pollard CM, Lewis JM, Binns CW. (2008) Selecting interventions to promote fruit and vegetable consumption: from policy to action, a planning framework case study in Western Australia. Aust New Zealand Health Policy. 5(1):27


U.S. Food and Drug Administration. 2009. Peanut butter and other peanut containing products recall list.


## Appendix

### Table 1. Average Net Cash Income Per Farm Operation (Nominal Dollars)

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2002</th>
<th>Percent Change</th>
<th>Avg. Annual Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michigan</td>
<td>$42,738</td>
<td>$13,585</td>
<td>214.6%</td>
<td>21%</td>
</tr>
<tr>
<td>Commuting Zone</td>
<td>$18,727</td>
<td>$6,715</td>
<td>178.9%</td>
<td>18%</td>
</tr>
<tr>
<td>Washtenaw</td>
<td>$8,715</td>
<td>$4,093</td>
<td>112.9%</td>
<td>11%</td>
</tr>
<tr>
<td>Lenawee</td>
<td>$25,620</td>
<td>$9,493</td>
<td>169.9%</td>
<td>17%</td>
</tr>
<tr>
<td>Jackson</td>
<td>$13,605</td>
<td>$4,067</td>
<td>234.5%</td>
<td>23%</td>
</tr>
<tr>
<td>Hillsdale</td>
<td>$26,966</td>
<td>$9,206</td>
<td>192.9%</td>
<td>19%</td>
</tr>
</tbody>
</table>

### Table 2. Percent of Operations with Losses & Average Losses per Operation (Nominal Dollars)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Michigan</td>
<td>53.8%</td>
<td>57.3%</td>
<td>-3.5%</td>
<td>$18,196</td>
<td>$11,312</td>
<td>60.9%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Commuting Zone</td>
<td>54.0%</td>
<td>62.0%</td>
<td>-8.0%</td>
<td>$16,548</td>
<td>$10,858</td>
<td>52.4%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Washtenaw</td>
<td>55.7%</td>
<td>74.0%</td>
<td>-10.3%</td>
<td>$20,832</td>
<td>$9,858</td>
<td>111.3%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Lenawee</td>
<td>43.0%</td>
<td>56.2%</td>
<td>-13.2%</td>
<td>$18,895</td>
<td>$13,614</td>
<td>38.8%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Jackson</td>
<td>54.3%</td>
<td>64.7%</td>
<td>-0.4%</td>
<td>$13,899</td>
<td>$11,127</td>
<td>24.9%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Hillsdale</td>
<td>50.6%</td>
<td>54.8%</td>
<td>-4.2%</td>
<td>$12,566</td>
<td>$8,832</td>
<td>42.3%</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

### Table 3. Local Food Indicators from Census of Agriculture, 2012

<table>
<thead>
<tr>
<th></th>
<th>Total Farms</th>
<th>Direct-to-Consumer</th>
<th>Value Added</th>
<th>Direct-to-Retail</th>
<th>CSA</th>
<th>Total Sales</th>
<th>Direct-to-Consumer Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Michigan</td>
<td>52,194</td>
<td>12.0%</td>
<td>2,428</td>
<td>4.7%</td>
<td>1,657</td>
<td>3.1%</td>
<td>410</td>
</tr>
<tr>
<td>Commuting Zone</td>
<td>5,457</td>
<td>9.6%</td>
<td>195</td>
<td>3.6%</td>
<td>117</td>
<td>2.1%</td>
<td>39</td>
</tr>
<tr>
<td>Washtenaw</td>
<td>1,236</td>
<td>14.8%</td>
<td>52</td>
<td>5.0%</td>
<td>59</td>
<td>4.8%</td>
<td>21</td>
</tr>
<tr>
<td>Jackson</td>
<td>1,618</td>
<td>7.8%</td>
<td>41</td>
<td>2.5%</td>
<td>20</td>
<td>1.2%</td>
<td>9</td>
</tr>
<tr>
<td>Lenawee</td>
<td>1,073</td>
<td>10.2%</td>
<td>41</td>
<td>3.8%</td>
<td>18</td>
<td>1.7%</td>
<td>4</td>
</tr>
<tr>
<td>Hillsdale</td>
<td>1,530</td>
<td>6.9%</td>
<td>51</td>
<td>3.3%</td>
<td>20</td>
<td>1.3%</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: Value-added sales is tracked as the percentage of operations involved in processing and selling any products that have been processed or transformed and allow for farmers to capture a larger share of the consumer dollar. Examples include jams, sauces, and pickled goods. Direct-to-retail is tracked as the percentage of operations marketing directly to retailers that sell to consumers.