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The 25% Shift

The Economic Benefits of Food Localization for Washtenaw County and Ypsilanti & The Capital Required to Realize Them

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Executive Summary

A growing body of evidence suggests that "local food" stimulates the local economy, improves environmental stewardship, boosts healthy diets and public health, and catalyzes a stronger civic life. Given these myriad benefits, a growing number of regions and communities are trying to accelerate this trend and fully realize the potential benefits.

This paper evaluates the economic benefits that Washtenaw County and the Ypsilanti area (zip codes 48197 and 48198, within the County) could enjoy through a 25% shift toward local food. A "25% shift" means that for each industrial sector linked with food, a quarter of all non-local consumption shifts to local foodstuffs and local food services.

Using IMPLAN, this paper details the principal characteristics of the food economy in the two study areas. For each of the 52 food sectors in the model, we show the levels of demand, export, production, and leakage. We then calculate the economic benefits of a 25% shift.

The model shows that in 2011 there were 19,549 food jobs in Washtenaw County, of which 4,180 were in the Ypsilanti area. A 25% shift could create for Washtenaw County 2,193 more jobs – 1,469 directly in new food businesses, 419 through new local supply-chain spending (indirect effects), and 305 through new spending by local employees in these direct and supply-chain jobs (induced effects). For the Ypsilanti area, a 25% shift would create 628 jobs – 445 directly, 103 indirectly, and 80 induced. These are potential jobs, without consideration of potential constraints.

To put these potential new jobs in perspective, this would put one-in-five unemployed Washtenaw County residents back to work, and 36% of unemployed Ypsilanti residents. Additionally, the 25% shift would generate $75 million in new annual wages for Washtenaw County and $12.6 million in new tax revenues. Ypsilanti would see $23 million in new wages and $3.9 million in new tax revenues.

Not all the possible jobs from a 25% shift are plausible. Expansion of farming in Washtenaw County, for example, faces severe constraints in available land, and suggests the value of a regional approach to local food. The expansion of local food businesses also would require $147 million of new investment in Washtenaw County ($59 million in Ypsilanti). As large as this number is, however, it represents under 2% of short term savings county residents have in banks and credit unions, and under 1% of what they have in long-term stocks, bonds, mutual funds, and pension funds.

To further explore the capital gaps facing local food businesses, we conducted in-depth interviews with seven individuals who have been active, personally and professionally,

in expanding Washtenaw County's local food system. Among the key points we distilled from these interviewees:

- Farmers and food businesses face a huge challenge obtaining capital, in the right amounts, in the right forms, and at the right time.

- Few believe that local banks and credit unions are very responsive to the needs of local farmers and entrepreneurs. One exception is the Farmers Fund, a targeted CD program of University Bank.

- Nor is there much finance for local food from "deep pockets."

- Interviewees unanimously expressed interest in the County developing cutting-edge efforts to mobilize unaccredited investors to invest in local food businesses.

The paper concludes with ten recommendations for County action:

- Inventory existing and potential farmland and farmers.

- Create a land trust to facilitate farm purchases for new farmers.

- Study opportunities for small-scale, local meat processing.

- Form a consortium of local food manufacturers to lead the incubation of more high-wage food-manufacturing jobs.

- Overhaul public procurement policies to increase purchasing of local food.

- Add a section to the County web site to post information about local food investment opportunities and local, low-cost, self-directed IRA providers.

- Move County banking to local banks and credit unions.

- Explore the use of tax-exempt municipal bonds to support local food business expansion.

- Open a "community portal, so that the best local food businesses can more easily find local unaccredited investor capital.

- Create a Washtenaw Grown brand to facilitate more local food purchasing by consumers and businesses.

Introduction

Around the world food-localization initiatives are gaining momentum, seeking three interrelated goals: shortening the distance that food travels between the farm and the table; capturing more of the value-adding activity associated with the growing, sorting, processing, packaging, distribution, selling, and serving of food; and maximizing the local ownership of all the enterprises involved in these value chains. If achieved, these goals would produce four distinct benefits:

- ***Stronger Community Economies*** – Local food is a critical economic driver for local economies. Every loaf of bread unnecessarily imported means the "leakage" of bread dollars outside the local economy and the loss of local bread businesses that could contribute to community prosperity. Moreover, local ownership of a bread factory matters, because locally owned businesses spend more of their money regionally than do comparable non-local businesses. Unlike outsider-owned businesses, local businesses tend to have local CEOs, advertise in local media, hire local accountants and attorneys, and reinvest profits in their community. Numerous studies have documented that a dollar spent on a local business typically yields two to four times the "economic multiplier" – the underlying source of income, wealth and jobs – as an equivalent non-local business.[1] Additionally, there is a growing body of evidence that local businesses are particularly good at attracting tourists and future entrepreneurs, promoting creative economies, and stimulating charitable contributions.[2]
- ***Ecological Sustainability*** – Local food promotes not only general economic development but also *sustainable* economic development. Farmers, whether rural or urban, are among the most important stewards of the land. Because agriculture accounts for approximately 30% of the earth's land surface, environmentally sensitive production of foodstuffs is critical to maintaining healthy habitats, air, water, soil, and ecosystems needed to support healthy people.[3] Business models that meet local food needs sustainably can, if shared and multiplied globally, teach communities in

[1] The best studies in this area have been done by two economists at Civic Economics based in Austin. See, for example: "Economic Impact Analysis: A Case Study," monograph (Civic Economics, Austin, Texas, December 2002); and "The Andersonville Study of Retail Economics," monograph (Civic Economics, Austin, Texas, October 2004). Both can be downloaded for free at www.civiceconomics.com . These studies also show significant variations among firm, sectors, and locales, so they should be generalized and applied to local food businesses with caution.

[2] Michael H. Shuman, *The Small Mart Revolution: How Local Businesses Are Beating the Global Competition* (San Francisco: Berrett-Koehler, 2006), pp. 39-62.

[3] World Resources Institute, *World Resource 2000-2001 People and Ecosystems: The Fraying Web of Life* (Washington: Elsevier Science, 2000), p. 56.

other parts of the world to feed themselves more sustainably.[4] Moreover, since locally owned businesses, including local food businesses, tend to spend their money locally, their "inputs" tend to travel less, use less energy, and thereby emit fewer pollutants and less climate-disrupting carbon.[5]

- ***Better Nutrition and Health*** – Another dimension of economic development is the well being of human capital, and here local food has much to contribute. Because many foods lose nutrients over time, local food means quicker delivery of foodstuffs of generally greater nutritional value.[6] Moreover, knowing a farmer or meat producer tends to enhance a consumer's trust in the healthfulness of his or her products. Local foods also typically are grown with fewer pesticides and fertilizers, and involve less processing, which means fewer chemicals and additives. Replacing processed food (especially refined sugars and carbohydrates) with fresh food, as author Michael Pollan argues, is a powerful way to improve consumer health and reduce the incidence of obesity and diabetes.[7] Every headline about a breakdown in the mainstream food system – outbreaks of e-coli in hamburger meat and peanut butter from distant suppliers, for example – is a reminder about the health value of purchasing food from producers that consumers know and trust. Food localization, when brought

[4] The growing, harvesting, raising, or capturing of specific foodstuffs are all dependent on many natural endowments – water, climate, ecology, genetics – that are not universally available. But technology is steadily leveling the playing field to the point where there are compelling examples of communities feeding themselves in every extreme—cold or hot, wet or dry, high or low, urban or rural. The development and spread of better and cheaper greenhouses, hydroponics, rooftop and suburban lawn gardening, and urban farms will hasten this equalization. A further point is that even if a community is capable of producing no raw foodstuff, it still in theory can find, from other communities, excellent models for small-scale food processing, distribution, retail, and restaurants. And from a value-added standpoint, these may be by far more important than raw food production.

[5] The carbon footprints of various foodstuffs depend, of course, on more than just the miles traveled. Transportation from farm to market usually accounts for only about 10 percent of carbon releases. Equally and sometimes more important considerations are the production methods chosen, the type of packaging used, the degree of processing required, the energy efficiency of the marketplace, and the transportation mode chosen by a shopper to get to market. But because local foods usually are associated with low-tech production, minimal packaging and processing, nearby markets mindful of energy efficiency, and shoppers who walk, bike, or drive high-efficiency vehicles, the conclusion that local food brings down carbon footprints is not unreasonable.

Moreover, studies purporting to demonstrate the irrelevance of "food miles" are deeply flawed. For example, a recent New Zealand study that claimed to prove that U.K. residents eating local lamb wound up generating four-times the carbon they would had they instead imported New Zealand lamb never analyzed a sustainable local lamb-production model. Nor did the study's underwriting -- by the New Zealand Lamb Export Association -- inspire confidence in its objectivity. See Michael H. Shuman, "On the Lamb," 10 August 2007, www.ethicurian.com .

[6] "The nutrients in most fruits and vegetables start to diminish as soon as they're picked, so for optimal nutrition, eat all produce within 1 week of buying," says Preston Andrews, PhD, a plant researcher and associate professor of horticulture at Washington State University. Sarah Burns, "Nutritional Value of Fruits, Veggies Is Dwindling," www.nbcnews.com, 9 July 2010.

[7] Michael Pollan, *In Defense of Food: An Eater's Manifesto* (New York: Penguin, 2008).

down to the neighborhood level, spreads awareness of "food deserts" where certain populations – usually poorer and non-white – lack access to fresh, healthy foodstuffs. A stronger local food system identifies and fill gaps to ensure greater access, and hence greater nutritional benefits, for all residents. [8]

- ***More Civic Engagement*** – As author Bill McKibben argues, a farmers market is fundamentally different from a typical supermarket (let alone a Wal-Mart Supercenter).[9] A supermarket is about finding and purchasing foods as quickly and efficiently as possible. A farmers market is about consumers chatting among, learning from, and developing relationships with local food producers, and about neighbors interacting with one another. Independent neighborhood grocery stores have many of the same features. An entire sociology literature underscores that communities characterized by local business result in greater civic welfare, less social strife, and greater equality.[10]

The only plausible argument not to promote local food is a concern that local food sometimes costs more than mainstream food. But two points are worth making here. An important reason local food prices are relatively high today is that demand exceeds supply. This reflects a short-term gap in distribution and aggregation infrastructure that winds up reducing efficiencies in the local food system. As local food businesses grow and spread, particularly infrastructure businesses like food hubs (which connect local farmers with local purchasers),[11] prices will begin to adjust downward.

Second, economic success does not just occur with provision of the lowest price goods and services. No one, for example, would criticize Starbucks as a failed model because its lattes are the most expensive in town. Consumers of all incomes are not only looking for the lowest priced food but also the *best value* for a given price. And in many ways, consumers – even low-income consumers – are finding that local food, even if it's

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[8] According to Policy Link, every additional supermarket in a census tract increases produce consumption for residents: 32 percent for African Americans, and 11 percent for whites. A survey in New Orleans revealed that each additional meter of shelf space devoted to fresh vegetables in neighborhood stores increases residents' consumption by an additional 0.35 servings per day. " See http://www.policylink.org/atf/cf/%7B97C6D565-BB43-406D-A6D5-ECA3BBF35AF0%7D/FINALGroceryGap.pdf

[9] Bill McKibben, *Deep Ecology: The Wealth of Communities and the Durable Future* (New York: St. Martin's Giffen, 2008).

[10] See, e.g.: C. Wright Mills and Melville Ulmer, "Small Business and Civic Welfare," in *Report of the Smaller War Plants Corporation to the Special Committee to Study Problems of American Small Business*, Document 135. U.S. Senate, 79th Congress, 2nd session, February 13. (Washington, DC: U.S. Government Printing Office, 1946); and Thomas A. Lyson, "Big Business and Community Welfare: Revisiting A Classic Study," monograph (Cornell University Department of Rural Sociology, Ithaca, NY, 2001), p. 3.

[11] The USDA defines a food hub as a "centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution, and/or marketing of locally/regionally produced food products." See http://blogs.usda.gov/2010/12/14/getting-to-scale-with-regional-food-hubs/#sthash.V3AbTuUh.dpuf

nominally pricier, delivers better value.[12] A recent study by the USDA found that local food often provides the cheapest nutrients available, and local food markets like New Seasons have thrived in low-income communities because they provide better bargains than the processed foods available from corner stores and bodegas.[13]

Even on a price basis, moreover, the economics of local food is steadily improving. At least five trends are likely to help local food improve its competitiveness over the next decade:

- ***Distributional Inefficiency*** – While the production costs of food can be brought down by moving factories to low-wage regions with few regulations, global distribution of food is becoming increasingly inefficient. Economist Stewart Smith of the University of Maine, for example, estimates that a dollar spent on a typical foodstuff item in the year 1900 wound up giving 40 cents to the farmer, with the other 60 cents split between inputs and distribution.[14] Today, about seven cents of every retail food dollar goes to the farmer, rancher, or grower, and 73 cents goes toward distribution. The distributional inefficiency is especially great for perishable foodstuffs, where swift delivery is imperative. Whenever the distribution cost greatly exceeds the production cost, there are opportunities for cost-effective localization. Not just in the United States, but worldwide, local distribution offers opportunities for reducing the need for, and expense of, every component of distribution, including transportation, refrigeration, packaging, advertising, insurance, and middle people. The Oklahoma Food Coop, for example, is a no-frills internet-based food distribution company that has reduced distribution costs to 18 cents on the dollar.

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[12] A recent study found that 500 South Carolina consumers were willing to pay 27% more for locally grown produce and 23% more for local animal products. Carlos E. Carpio and Olga Isengildina-Massa, "Intermediate Economic Evaluation of the South Carolina Agricultural Marketing and Branding Campaign," working paper, March 2008. Another study of residents in Maine, New Hampshire, and Vermont found that 17 to 40% of consumers in each state were willing to pay two dollars more to buy a locally produced five-dollar food item. Kelly L. Giraud, Craig A. Bond, and Jennifer J. Keeling, "Consumer Preferences for Locally Made Specialty Products Across Northern New England" (Department of Resource Economics and Development, Durham, NH), p. 20. See also: "Decomposing Local: A Conjoint Analysis of Locally Produced Foods," Kim Darby, Marvin Batte, Stan Ernst and Brian Roe. American Journal of Agricultural Economics, 2008, vol. 90, issue 2, pp. 476-486; Gretchen Nurse, Yuko Onozaka, and Dawn Thilmany McFadden, "Understanding the Connections Between Consumer Motivations and Buying Behavior: The Case of the Local Food System Movement," Selected Paper, Southern Agricultural Economics Association 2010 Annual Meeting. http://ageconsearch.umn.edu/handle/56494 (Access date: November 5, 2010); and J.K. Bond, D. Thilmany, et al, "Direct Marketing of Fresh Produce: Understanding Consumer Purchasing Decisions," Choices: The Magazine of Food, Farm, and Resource Issues, American Agricultural Economics Association, Vol. 21 (2006), pp. 229-235.

[13] Andrea Carlson and Elizabeth Frazao, USDA, "Are Healthy Foods Really More Expensive? It Depends on How You Measure the Price," Economic Information Bulletin No. (EIB-96) 50 pp, May 2012.

[14] Stewart Smith, e-mail to Michael Shuman, 2 December 2005, updating Stewart Smith, "Sustainable Agriculture and Public Policy," *Maine Policy Review*, April 1993, pp. 68–78.

- ***Rising Energy Prices*** – Long-distance food distribution will become more costly still when, as most analysts expect, global oil prices rise.[15] Adding to these market forces are political pressures to enact carbon taxes to slow global climate disruption. Because foodstuffs have a relatively low value per unit weight (except for a few products like expensive wines and spices), they are disproportionately vulnerable to rising energy prices and energy taxes.
- ***Homeland Security*** – Global concerns about terrorism have focused the attention of security officials on scenarios that national food supplies could be contaminated or destroyed.[16] They are recognizing that the shorter supply lines and community self-reliance that come with local food can reduce these security risks. This is translating into a recalibration of government policies to impose higher insurance premiums on global food producers and to offer more assistance to local food businesses. Professor David Orr of Oberlin College is consulting with the Joint Chiefs of Staff at the White House on the connection between distributed and self-reliant local food on the one hand and energy systems and national security on the other.
- ***Telecommunications*** – The spread of the internet, affordable and portable computers, and mobile phones provide local food entrepreneurs with information about market opportunities that once was available only to larger companies. Even the smallest food and farm entrepreneurs are experimenting with no or low-cost social media tools to successfully reach their customers.
- ***Competitive Models*** – A fifth factor increasing the competitiveness of local food is that local food businesses themselves are learning from their global brethren how to compete more effectively. In fact, in *every* food category of the North American Industrial Classification System (NAICS), there are more examples of successful small business than examples of successful large business. Even in relatively centralized sectors, like poultry production, there are compelling examples of small-scale success throughout the United States that can provide guidance to local food entrepreneurs. As pointed out in a recent study on *Community Food Enterprise*, locally owned businesses are deploying more than a dozen strategies – such as low-cost technology, the internet, vertical integration, consumer ownership – to compete effectively against large-scale players.[17] Moreover, geographically dispersed networks of local food businesses are

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15 See, e.g., Christopher Steiner, *$20 Per Gallon: How the Inevitable Rise in the Price of Gasoline Will Change Our Lives for the Better* (New York: Grand Central Publishing, 2009).

16 Brian Halweil, "Home Grown: The Case for Local Food in a Global Market" (Washington, DC: Worldwatch Institute, 2003) (Worldwatch Paper #163).

17 See Michael Shuman et al., *Community Food Enterprises* (Wallace Center, December 2009).

forming – creating joint procurement cooperatives, for example -- that are improving their economies of scale. Many local food advocacy groups and intermediaries are deploying peer learning strategies and network "communities of practice" to more effectively diffuse innovation for model replication. The Wallace Center for Sustainable Agriculture, for example, now has regular webinars to education hundreds of local-food professionals across the country.

Given these myriad benefits of local food, a growing number of regions and communities are evaluating carefully how they can accelerate this trend and fully realize the potential benefits. This paper evaluates the potential for Washtenaw County and the Ypsilanti area. Specifically, it aims to answer three questions:

- What are the contours of the study areas' existing food economy?
- What would be the economic impacts of a serious shift toward food localization?
- How much additional capital would be required for this shift?

To answer these questions, this paper examines a 25% "local shift" in Washtenaw County and Ypsilanti. What we mean by a "25% shift" is that the localization gap in each food-business sector—that is, the gap between the level of business that exists today (using 2011 data) and the level needed to achieve self-reliance in that sector—is closed a fifth of the way. We believe that this goal is big enough to inspire regional mobilization of the business, policymaking, and grassroots communities, but not so big as to be impractical.

To further illuminate the challenges in getting capital into the hands of local farmers and food providers, we performed in-depth interviews of seven leading participants in the County's local food system. These interviews, along with the other findings in the paper, lead us to make ten final recommendations for County action.

I. The Washtenaw County & Ypsilanti Food Systems

A comprehensive picture of the economy of Washtenaw County and Ypsilanti is possible using IMPLAN, the Minnesota Input-Output Model deployed extensively by economic development agencies nationwide.[18] The most recent overview data available from IMPLAN, for 2011, are presented in Chart 1 below:

Chart 1
Overview Data on the Study Areas' Economies[19]

Demographic Facts	Washtenaw County	Ypsilanti	% Relationship
Gross Regional Product	$17,354,396,957	$3,407,108,003	20%
Total Personal Income	$14,210,210,000	$4,261,466,000	30%
Median Household Income (2007-2011)	$59,737	$33,699	56%
Total Employment	231,802	47,848	21%
Population	347,962	104,350	30%
Number Households	146,204	43,845	30%
Land Area (Sq. Miles)_	710	92	13%
Value Added (Supply)	**Washtenaw County**	**Ypsilanti**	**% Relationship**
Employee Compensation	$11,083,004,758	$2,286,960,736	21%
Proprietor Income	$831,867,603	$131,701,149	16%
Other Property Type Income	$4,514,534,566	$797,102,836	18%
Indirect Business Tax	$924,990,031	$191,343,283	21%
	$17,354,396,958	$3,407,108,004	20%
Final Demand	**Washtenaw County**	**Ypsilanti**	**% Relationship**
Households	$12,478,189,871	$3,742,055,350	30%
Local Government	$5,916,936,916	$1,055,299,086	18%
Federal Governemnt	$497,232,042	$80,783,115	16%
Capital	$1,543,230,034	$270,466,212	18%
Exports	$11,493,358,067	$2,059,538,729	18%
Imports	($12,707,734,032)	($3,283,406,277)	26%
Institutional Sales	($1,866,816,028)	($517,628,246)	28%
	$17,354,396,870	$3,407,107,969	20%

The Gross Regional Product for Washtenaw County – the regional equivalent of the Gross Domestic Product (GDP) – is about $17 billion per year. Of that, $11 billion goes to employees in wages, $832 million to business proprietors as income, and $4.5 billion to property holders as rent, interest, or profit.[20] Another $924 million is paid by

[18] Because IMPLAN provides data on the basis of zip codes, not townships, we had to approximate Ypsilanti by looking at two zip codes, 48198 and 48197. Technically, then, what we call the Ypsilanti area includes the City of Ypsilanti, Ypsilanti Township, and at least part of Superior Township. For simplicity, we will call the area "Ypsilanti" in the remainder of this paper.

[19] Because IMPLAN only provides median household income at the county level, we use U.S. census data for that line. See http://quickfacts.census.gov

[20] Property here includes real, tangible, and financial property.

businesses operating in the county in taxes. On the demand side, 146,204 households spend $12.5 billion per year, state and local governments purchase $6 billion worth of goods and services, and the federal government purchases another $0.5 billion. Note that IMPLAN considers exports, both to other U.S. consumers and to foreign consumers, as part of the total local demand picture. Another significant difference between the two areas is that median household income in Ypsilanti is 56% of that of Washtenaw County.

To calculate data for the Ypsilanti area, we ran IMPLAN for two zip codes: 48197 and 48198. Accounting for 30% of the households in Washtenaw County, Ypsilanti has only 21% of the jobs and generates only 20% of the Gross Regional Product, which suggests the degree to which Ypsilanti is an economically depressed area. The performance of food businesses in Ypsilanti is actually lower still, in that they generate even less proprietor and property income (16-18%) and make fewer contract sales to government bodies (16-18%).

IMPLAN is helpful in drawing an accurate, comprehensive picture of the demand and supply sides of specific sectors of the economy. The model carves up the universe of business into 432 categories, some of which combine the 1,100 categories of the North American Industrial Classification System (NAICS). We focus here only on 52 IMPLAN categories that relate to food either exclusively or *primarily*.[21] These categories include primary production, processing, retail sales, and food services like restaurants. (IMPLAN does not include specific categories for food distribution or wholesaling.) Food, depending on which yardstick one uses, accounts for 4% to 10% of the local economy.

On the demand side, IMPLAN includes not only consumer demand but also demand by businesses, public agencies, and nonlocal purchasers. Chart 2 presents the food demand picture portrayed by IMPLAN, which is drawn from several dozen federal, state, and local data sources. The chart compares the food demand to total demand for all goods and services in the study areas. In both Washtenaw County and Ypsilanti, household food demand is 8% of all household demand – that is, it represents about 8% of consumer spending. In Washtenaw County, total food demand by all entities, including government entities and non-local purchasers (via exports), is 5%. Because Ypsilanti sells fewer foodstuffs to government entities and non-local purchasers, the total demand there is 4%.

[21] Some judgment calls here are tricky. We do not include Tobacco and Cotton, but we do include Greenhouses, Forestry, and Hunting.

Chart 2
Total Food Demand in Study Areas

	Washtenaw County		
	Food Demand	**Total Demand**	**Relationship**
Households	$678,974,038	$8,129,147,910	8%
Federal Government	$354,317	$403,873,719	0%
State & Local Government	$30,955,293	$4,838,865,340	1%
Capital	$537,227	$842,381,915	0%
Inventory	$57,606	$207,565	28%
Domestic Exports	$483,376,567	$9,628,170,698	5%
Foreign Exports	$53,274,904	$1,865,187,369	3%
	$1,247,529,950	$25,707,834,515	5%
	Ypsilanti		
	Food Demand	**Total Demand**	**Relationship**
Households	$168,763,259	$2,027,376,397	8%
Federal Government	$42,251	$62,814,450	0%
State & Local Government	$4,205,661	$824,857,594	1%
Capital	$90,221	$118,981,143	0%
Inventory	$1,866	$77,342	2%
Domestic Exports	$32,090,763	$1,777,933,274	2%
Foreign Exports	$2,497,676	$281,605,456	1%
	$207,691,697	$5,093,645,655	4%

Chart 3 shows the local demand for food in Washtenaw County – that is, by households and government entities but not by outside purchasers. [22] The first column presents existing local demand for locally produced food, which is $711 million. The second column presents the additional demand needed to achieve self-reliance. That is, how much *additional* local spending is possible on local foodstuffs if households and government entities completely localize? The answer is almost $1.2 billion. The third column presents the sum of these columns – that is, the amount of local production, existing plus potential, needed to meet local demand. It shows that the total local demand in Washtenaw County for food is $1.9 billion.

Chart 4 presents the local demand for food in Ypsilanti. About $173 million is currently spent on locally produced food. Full localization would increase this number by $326 million to $500 million.

[22] The column titled "Current Spending on Local Production" comes from IMPLAN's assessment of "Institutional Demand." For each section, exports are subtracted. What's left is the spending by households, government entities, and businesses on capital and inventory. The column titled "Additional Production for Self-Reliance" comes from IMPLAN's regional purchasing coefficient (RPC) (defined below), which is the amount of local demand met by local production. The formula 1-RPC yields the additional production needed to meet local demand – or the missing level of production needed for self-reliance.

Chart 3
Total Local Food Demand for Washtenaw County (2011)[23]

Sector	Current Spending On Local Production	Additional Production for Self-Reliance	Total Demand For Local Production
Oilseed farming	$290,507	$4,856,300	$5,146,807
Grain farming	$586,641	$92,689,535	$93,276,175
Vegetable and melon farming	$261,043	$22,308,892	$22,569,935
Fruit farming	$115,616	$15,573,047	$15,688,663
Tree nut farming	$0	$3,390,070	$3,390,070
Greenhouse, nursery, and floriculture production	$304,070	$17,607,623	$17,911,693
Tobacco farming	$0	$0	$0
Cotton farming	$0	$459,904	$459,904
Sugarcane and sugar beet farming	$0	$496,549	$496,549
All other crop farming	$23,692	$7,811,370	$7,835,062
Cattle ranching and farming	$6,391	$3,124,114	$3,130,505
Dairy cattle and milk production	$140,828	$21,954,317	$22,095,145
Poultry and egg production	$51,576	$6,560,146	$6,611,721
Animal production, except cattle and poultry and eggs	$485,332	$10,655,570	$11,140,901
Forestry, forest products, and timber tract production	$0	$2,314,057	$2,314,057
Commercial logging	$2	$479,030	$479,032
Commercial Fishing	$0	$8,980,139	$8,980,139
Commercial hunting and trapping	$84,637	$3,857,755	$3,942,392
Support activities for agriculture and forestry	$447,220	$3,106,546	$3,553,766
Dog and cat food manufacturing	$0	$30,777,721	$30,777,721
Other animal food manufacturing	$0	$12,023,059	$12,023,059
Flour milling and malt manufacturing	$1,803,231	$12,252,683	$14,055,914
Wet corn milling	$0	$9,183,774	$9,183,774
Soybean and other oilseed processing	$0	$3,807,428	$3,807,428
Fats and oils refining and blending	$0	$14,488,221	$14,488,221
Breakfast cereal manufacturing	$0	$13,391,415	$13,391,415
Sugar cane mills and refining	$0	$3,725,240	$3,725,240
Beet sugar manufacturing	$0	$4,124,111	$4,124,111
Chocolate and confectionery manufacturing from cacao b	$11,631	$2,896,838	$2,908,469
Confectionery manufacturing from purchased chocolate	$11,751	$15,407,965	$15,419,716
Nonchocolate confectionery manufacturing	$0	$11,065,984	$11,065,984
Frozen food manufacturing	$0	$32,311,516	$32,311,516
Fruit and vegetable canning, pickling, and drying	$0	$52,542,369	$52,542,369
Fluid milk and butter manufacturing	$5,063,957	$60,484,310	$65,548,267
Cheese manufacturing	$35,095	$30,999,830	$31,034,924
Dry, condensed, and evaporated dairy product manufactu	$0	$12,725,359	$12,725,359
Ice cream and frozen dessert manufacturing	$61,166	$12,119,572	$12,180,738
Animal (except poultry) slaughtering, rendering, and proc	$0	$81,873,975	$81,873,975
Poultry processing	$0	$81,890,207	$81,890,207
Seafood product preparation and packaging	$0	$20,092,743	$20,092,743
Bread and bakery product manufacturing	$1,964,392	$44,761,386	$46,725,778
Cookie, cracker, and pasta manufacturing	$455,679	$28,302,342	$28,758,021
Tortilla manufacturing	$34,890	$3,792,869	$3,827,759
Snack food manufacturing	$0	$42,081,559	$42,081,559
Coffee and tea manufacturing	$0	$14,729,572	$14,729,572
Flavoring syrup and concentrate manufacturing	$0	$5,174,790	$5,174,790
Seasoning and dressing manufacturing	$19,882	$19,729,786	$19,749,668
All other food manufacturing	$33,792	$25,428,134	$25,461,926
Soft drink and ice manufacturing	$0	$86,033,919	$86,033,919
Breweries	$0	$41,707,329	$41,707,329
Wineries	$672,778	$23,004,658	$23,677,436
Distilleries	$0	$19,779,312	$19,779,312
Retail Stores - Food and beverage	$178,048,909	$0	$178,048,909
Food Service & Drinking	$519,863,772	$67,814,053	$587,677,825
	$710,878,480	$1,166,748,990	$1,877,627,470

[23] IMPLAN's 500 categories are imperfect representations of the local food system. Some categories we include, such as ornamental plants, constitute agriculture but not food. Other categories, such as social service food providers such as food banks, are not included at all.

Chart 4
Total Local Food Demand for Ypsilanti (2011)

Sector	Current Spending On Local Production	Additional Production for Self-Reliance	Total Demand For Local Production
Oilseed farming	$19,577	$2,375,693	$2,395,270
Grain farming	$40,612	$3,159,945	$3,200,557
Vegetable and melon farming	$211,601	$6,341,916	$6,553,517
Fruit farming	$61,489	$5,061,656	$5,123,145
Tree nut farming	$0	$907,674	$907,674
Greenhouse, nursery, and floriculture production	$368,115	$4,193,217	$4,561,331
Tobacco farming	$0	$0	$0
Cotton farming	$0	$66,657	$66,657
Sugarcane and sugar beet farming	$0	$420,621	$420,621
All other crop farming	$3,139	$1,473,879	$1,477,018
Cattle ranching and farming	$1,446	$361,587	$363,033
Dairy cattle and milk production	$11,489	$523,438	$534,927
Poultry and egg production	$135,324	$1,550,928	$1,686,252
Animal production, except cattle and poultry and eggs	$336,831	$2,200,267	$2,537,098
Forestry, forest products, and timber tract production	$0	$179,655	$179,655
Commercial logging	$3	$33,083	$33,086
Commercial Fishing	$0	$2,357,223	$2,357,223
Commercial hunting and trapping	$26,799	$1,072,156	$1,098,954
Support activities for agriculture and forestry	$0	$1,308,464	$1,308,464
Dog and cat food manufacturing	$0	$9,046,614	$9,046,614
Other animal food manufacturing	$0	$2,110,306	$2,110,306
Flour milling and malt manufacturing	$0	$1,983,618	$1,983,618
Wet corn milling	$0	$1,225,684	$1,225,684
Soybean and other oilseed processing	$0	$1,486,815	$1,486,815
Fats and oils refining and blending	$0	$3,985,901	$3,985,901
Breakfast cereal manufacturing	$0	$3,934,659	$3,934,659
Sugar cane mills and refining	$0	$931,633	$931,633
Beet sugar manufacturing	$0	$1,008,445	$1,008,445
Chocolate and confectionery manufacturing from cacao b	$3,314	$585,374	$588,688
Confectionery manufacturing from purchased chocolate	$0	$4,584,500	$4,584,500
Nonchocolate confectionery manufacturing	$0	$3,108,387	$3,108,387
Frozen food manufacturing	$0	$9,257,937	$9,257,937
Fruit and vegetable canning, pickling, and drying	$0	$14,059,562	$14,059,562
Fluid milk and butter manufacturing	$0	$15,107,770	$15,107,770
Cheese manufacturing	$0	$7,700,142	$7,700,142
Dry, condensed, and evaporated dairy product manufactu	$0	$2,412,310	$2,412,310
Ice cream and frozen dessert manufacturing	$62,921	$2,973,250	$3,036,172
Animal (except poultry) slaughtering, rendering, and proc	$0	$21,839,801	$21,839,801
Poultry processing	$0	$23,609,131	$23,609,131
Seafood product preparation and packaging	$0	$4,791,069	$4,791,069
Bread and bakery product manufacturing	$0	$12,514,943	$12,514,943
Cookie, cracker, and pasta manufacturing	$0	$7,387,481	$7,387,481
Tortilla manufacturing	$26,409	$1,101,782	$1,128,191
Snack food manufacturing	$0	$12,218,776	$12,218,776
Coffee and tea manufacturing	$0	$3,399,072	$3,399,072
Flavoring syrup and concentrate manufacturing	$0	$179,992	$179,992
Seasoning and dressing manufacturing	$0	$4,785,701	$4,785,701
All other food manufacturing	$104,311	$6,546,487	$6,650,798
Soft drink and ice manufacturing	$0	$25,139,619	$25,139,619
Breweries	$0	$12,230,258	$12,230,258
Wineries	$26,944	$6,958,331	$6,985,275
Distilleries	$0	$5,661,569	$5,661,569
Retail Stores - Food and beverage	$50,190,156	$3,475,339	$53,665,495
Food Service & Drinking	$121,472,778	$55,531,144	$177,003,922
	$173,103,258	$326,461,462	$499,564,720

One conclusion from Charts 3 and 4 worth highlighting is that almost all (about 98%) the "local demand" for food currently being met locally falls into the categories of retail and grocery stores, and restaurants and bars. This partially reflects a relatively healthy range of grocery stores and restaurants in the County (except in food deserts). But it also reflects the relative absence of other kinds of food businesses involved in production and processing, and that those few food businesses that do exist are largely exporting their products to nonlocal markets. In other words, outside of food retail and food service, Washtenaw County has enormous economic leakage.

Chart 5 summarizes the top exports by Washtenaw County food businesses. The biggest export item (by value) is flour milling and malt manufacturing, with a total export value of $205 million. The next biggest is retail stores at $58 million, which may include people living in neighboring counties driving into Washtenaw and going grocery shopping. Also high on the list are: fluid milk and butter manufacturing ($55 million); bread and bakery products ($49 million); grain farming ($34 million); cookie, cracker, and pasta manufacturing ($25 million); oilseed farming ($24 million); greenhouse, nursery, and floriculture production ($14 million); and poultry and egg production ($10 million).

Chart 5
Washtenaw County Food Exports (2011)

Description	Domestic Exports	Foreign Exports	Total Exports
Flour milling and malt manufacturing	$182,585,528	$22,006,401	$204,591,929
Retail Stores - Food and beverage	$58,255,615	$0	$58,255,615
Fluid milk and butter manufacturing	$53,504,108	$1,246,303	$54,750,411
Bread and bakery product manufacturing	$47,724,067	$1,527,413	$49,251,481
Grain farming	$21,771,199	$12,071,743	$33,842,941
Cookie, cracker, and pasta manufacturing	$23,983,653	$745,709	$24,729,361
Oilseed farming	$13,545,197	$10,144,851	$23,690,049
Greenhouse, nursery, and floriculture production	$13,845,653	$396,616	$14,242,269
Dairy cattle and milk production	$12,110,409	$3,144	$12,113,552
Poultry and egg production	$9,423,551	$119,023	$9,542,573
Wineries	$8,182,478	$714,312	$8,896,790
Food Service & Drinking	$6,492,207	$991,349	$7,483,556
Vegetable and melon farming	$5,189,359	$822,231	$6,011,589
Fruit farming	$4,530,107	$958,860	$5,488,967
Cattle ranching and farming	$5,029,221	$1,966	$5,031,187
All other crop farming	$4,395,417	$294,911	$4,690,328
Animal production, except cattle and poultry and eggs	$4,129,874	$156,774	$4,286,648
Cheese manufacturing	$1,492,148	$53,343	$1,545,491
All other food manufacturing	$1,268,549	$230,168	$1,498,717
Commercial logging	$1,020,436	$360,472	$1,380,907
Seasoning and dressing manufacturing	$1,151,454	$63,622	$1,215,076
Support activities for agriculture and forestry	$890,257	$154,675	$1,044,933
Ice cream and frozen dessert manufacturing	$925,709	$13,758	$939,467
Chocolate and confectionery manufacturing from cacao beans	$634,113	$175,704	$809,817
Confectionery manufacturing from purchased chocolate	$564,192	$19,376	$583,568
Commercial hunting and trapping	$499,335	$0	$499,335
Tortilla manufacturing	$232,732	$2,181	$234,914
	$483,376,567	$53,274,904	$536,651,471

Ypsilanti's food exports, in Chart 6, are largely a subset of Washtenaw's. But the single largest export is $22 million for its retail stores, which again may include grocery shopping by other residents in Washtenaw County who live outside Ypsilanti's zip codes, or by residents outside Washtenaw County. Advisers to this study, however, point out that Ypsilanti does not have a single major grocery store, so these exports (and the 1,372 jobs in this sector) represent the sales to outsiders by smaller food and beverage outlets. Other exports valued at above $1 million are: wineries ($3.2 million); grain farming ($3.1 million); oilseed farming ($1.9 million); and dairy cattle and milk production ($1.1 million).

Chart 6
Ypsilanti Food Exports (2011)

Description	Domestic Exports	Foreign Exports	Total Exports
Retail Stores - Food and beverage	$21,929,497	$0	$21,929,497
Wineries	$2,961,339	$238,104	$3,199,443
Grain farming	$2,139,629	$959,996	$3,099,625
Oilseed farming	$1,161,876	$757,548	$1,919,424
Dairy cattle and milk production	$1,109,240	$0	$1,109,240
Greenhouse, nursery, and floriculture production	$675,046	$31,641	$706,687
Poultry and egg production	$613,923	$9,495	$623,419
Cattle ranching and farming	$385,760	$0	$385,760
Fruit farming	$300,110	$76,269	$376,379
All other crop farming	$352,109	$23,969	$376,078
Vegetable and melon farming	$219,776	$65,595	$285,371
Food Service & Drinking	$9,818	$207,796	$217,614
Commercial logging	$110,851	$46,892	$157,743
Chocolate and confectionery manufacturing from cacao beans	$63,372	$21,141	$84,513
Commercial hunting and trapping	$48,516	$0	$48,516
All other food manufacturing	$1,299	$46,981	$48,280
Animal production, except cattle and poultry and eggs	$5,812	$7,353	$13,165
Ice cream and frozen dessert manufacturing	$1,233	$3,769	$5,003
Tortilla manufacturing	$1,556	$1,127	$2,683
	$32,090,763	$2,497,676	$34,588,438

On the supply side, IMPLAN incorporates various federal databases on farmers, self-employed residents, and public employees. As shown in Chart 7, the "food economy" in Washtenaw County currently employs 19,549. Nearly two-thirds of the employees work in food service, primarily restaurants. About 23% work in groceries and food retail, 3% in food manufacturing, and 9% in farming and primary food production.

Ypsilanti has 4,180 people working in the food economy. Again, two thirds are in food service. Another third are in retail. Relatively small numbers are employed in farming (128 people) and manufacturing (11 people).

Chart 7
Employment in Study Area Food Businesses (2010)

	Washtenaw County		Ypsilanti	
	Jobs	% Breakdown	Jobs	% Breakdown
Primary Production	1,702	9%	128	3%
Manufacturing	667	3%	11	0%
Retail	4,594	23%	1,372	33%
Food Service	12,586	64%	2,670	64%
	19,549	100%	4,180	100%

Charts 8 and 9 (on the following pages) provide more specific breakdowns of employment and wages in each food sector for the two study areas. The fourth column in each Chart presents the estimated average wage in each sector.

Chart 10 breaks down the $394 million paid out in wages for Washtenaw food businesses and $87 million paid for Ypsilanti food businesses. Food service, responsible for 64% of the jobs, pays only 56-58% of the wages, reflecting the relatively low pay in the sector. The same is true for farming and primary production, which are responsible for 3-9% of the jobs but only 1-2% of the wages. Manufacturing, comprising 3% of the jobs in Washtenaw County, pays 8% of the wages, reflecting the higher pay in that sector.

Chart 10
Wages in Study Area Food Businesses (2011)

	Washtenaw County		Ypsilanti	
	Wages	% Breakdown	Wages	% Breakdown
Primary Production	$8,117,396	2%	$569,945	1%
Manufacturing	$30,158,155	8%	$281,280	0%
Retail	$126,342,598	32%	$37,727,303	43%
Food Service	$229,812,531	58%	$48,748,112	56%
	$394,430,679	100%	$87,326,639	100%

Chart 8
Food Business Employment and Wages in Washtenaw County (2011)

Sector	Employment	Total Employee Compensation	Average Wage
Oilseed farming	316	$153,434	$485
Grain farming	816	$995,061	$1,220
Vegetable and melon farming	24	$504,015	$20,967
Fruit farming	20	$382,504	$18,734
Tree nut farming	0	$0	
Greenhouse, nursery, and floriculture production	94	$2,989,577	$31,867
Tobacco farming	0	$0	
Cotton farming	0	$0	
Sugarcane and sugar beet farming	0	$0	
All other crop farming	16	$269,620	$16,568
Cattle ranching and farming	33	$234,799	$7,152
Dairy cattle and milk production	91	$456,391	$4,989
Poultry and egg production	11	$558,764	$50,231
Animal production, except cattle and poultry and eggs	126	$497,718	$3,946
Forestry, forest products, and timber tract production	0	$0	
Commercial logging	25	$63,285	$2,523
Commercial Fishing	0	$0	
Commercial hunting and trapping	7	$0	$0
Support activities for agriculture and forestry	121	$1,012,226	$8,361
Dog and cat food manufacturing	0	$0	
Other animal food manufacturing	0	$0	
Flour milling and malt manufacturing	186	$11,240,582	$60,286
Wet corn milling	0	$0	
Soybean and other oilseed processing	0	$0	
Fats and oils refining and blending	0	$0	
Breakfast cereal manufacturing	0	$0	
Sugar cane mills and refining	0	$0	
Beet sugar manufacturing	0	$0	
Chocolate and confectionery manufacturing from cacao beans	1	$43,747	$38,768
Confectionery manufacturing from purchased chocolate	2	$63,978	$35,630
Nonchocolate confectionery manufacturing	0	$0	
Frozen food manufacturing	0	$0	
Fruit and vegetable canning, pickling, and drying	0	$0	
Fluid milk and butter manufacturing	59	$3,562,957	$60,647
Cheese manufacturing	2	$89,330	$46,071
Dry, condensed, and evaporated dairy product manufacturing	0	$0	
Ice cream and frozen dessert manufacturing	3	$117,331	$41,000
Animal (except poultry) slaughtering, rendering, and processing	0	$0	
Poultry processing	0	$0	
Seafood product preparation and packaging	0	$0	
Bread and bakery product manufacturing	316	$12,497,419	$39,517
Cookie, cracker, and pasta manufacturing	59	$1,450,601	$24,510
Tortilla manufacturing	2	$8,303	$5,069
Snack food manufacturing	0	$0	
Coffee and tea manufacturing	0	$0	
Flavoring syrup and concentrate manufacturing	0	$0	
Seasoning and dressing manufacturing	2	$161,556	$73,772
All other food manufacturing	5	$197,780	$39,525
Soft drink and ice manufacturing	0	$0	
Breweries	0	$0	
Wineries	30	$724,571	$24,340
Distilleries	0	$0	
Retail Stores - Food and beverage	4,594	$126,342,598	$27,503
Food services and drinking places	12,586	$229,812,531	$18,259
TOTAL	19,549	$394,430,679	$20,177

Chart 9
Food Business Employment and Wages in Ypsilanti (2011)

Sector	Employment	Total Employee Compensation	Average Wage
Oilseed farming	25	$12,241	$485
Grain farming	65	$79,383	$1,220
Vegetable and melon farming	2	$40,209	$20,967
Fruit farming	2	$30,515	$18,734
Tree nut farming	0	$0	
Greenhouse, nursery, and floriculture production	7	$238,501	$31,867
Tobacco farming	0	$0	
Cotton farming	0	$0	
Sugarcane and sugar beet farming	0	$0	
All other crop farming	1	$21,510	$16,568
Cattle ranching and farming	3	$18,732	$7,152
Dairy cattle and milk production	7	$36,410	$4,989
Poultry and egg production	1	$44,577	$50,231
Animal production, except cattle and poultry and eggs	10	$39,707	$3,946
Forestry, forest products, and timber tract production	0	$0	
Commercial logging	3	$8,162	$2,523
Commercial Fishing	0	$0	
Commercial hunting and trapping	1	$0	$0
Support activities for agriculture and forestry	0	$0	
Dog and cat food manufacturing	0	$0	
Other animal food manufacturing	0	$0	
Flour milling and malt manufacturing	0	$0	
Wet corn milling	0	$0	
Soybean and other oilseed processing	0	$0	
Fats and oils refining and blending	0	$0	
Breakfast cereal manufacturing	0	$0	
Sugar cane mills and refining	0	$0	
Beet sugar manufacturing	0	$0	
Chocolate and confectionery manufacturing from cacao beans	0	$4,737	$38,768
Confectionery manufacturing from purchased chocolate	0	$0	
Nonchocolate confectionery manufacturing	0	$0	
Frozen food manufacturing	0	$0	
Fruit and vegetable canning, pickling, and drying	0	$0	
Fluid milk and butter manufacturing	0	$0	
Cheese manufacturing	0	$0	
Dry, condensed, and evaporated dairy product manufacturing	0	$0	
Ice cream and frozen dessert manufacturing	0	$12,705	$41,000
Animal (except poultry) slaughtering, rendering, and processing	0	$0	
Poultry processing	0	$0	
Seafood product preparation and packaging	0	$0	
Bread and bakery product manufacturing	0	$0	
Cookie, cracker, and pasta manufacturing	0	$0	
Tortilla manufacturing	0	$899	$5,069
Snack food manufacturing	0	$0	
Coffee and tea manufacturing	0	$0	
Flavoring syrup and concentrate manufacturing	0	$0	
Seasoning and dressing manufacturing	0	$0	
All other food manufacturing	1	$21,416	$39,525
Soft drink and ice manufacturing	0	$0	
Breweries	0	$0	
Wineries	10	$241,524	$24,340
Distilleries	0	$0	
Retail Stores - Food and beverage	1,372	$37,727,303	$27,503
Food services and drinking places	2,670	$48,748,112	$18,259
TOTAL	4,180	$87,326,639	$20,890

Chart 11 breaks out the $628 million in economic value added by Washtenaw County food businesses and $129 million by Ypsilanti food businesses. "Value added" is essentially a local equivalent of the Gross Domestic Product (GDP). Because of wage differences, a business with high wages like manufacturing adds relatively high "value" to the local economy, and a business with low wages like retail adds relatively low "value." Food service generates the greatest percentage of value, because it is such a big part of the Washtenaw food economy.

Chart 11
Value Added in Michigan Food Businesses (2010)

	Washtenaw County		Ypsilanti	
	Value Added	% Breakdown	Value Added	% Breakdown
Primary Production	$54,095,445	9%	$4,123,268	3%
Manufacturing	$54,150,512	9%	$561,167	0%
Retail	$171,478,328	27%	$51,205,332	39%
Food Service	$349,112,051	56%	$74,054,071	57%
	$628,836,337	100%	$129,943,838	100%

Chart 12 illuminates what we know about local demand versus local production in the study areas, according to IMPLAN. The columns labeled "% Leakage" show what percentage of local demand is lost to imports of outside food goods and services. The columns labeled "% Self-Reliance" are the inverse of the leakage estimates. For Washtenaw County, the only sectors showing greater than even 10% self-reliance are: support activities for agriculture and forestry (72%); flour milling and manufacturing (26%); retail stores (100%); and food service (91%). Grocery stores and restaurants, it should be said, are very self-reliant in most areas. All the rest of the categories have leakage over 90% and evince almost no self-reliance.

Ypsilanti has a few categories over 10% self-reliance: dairy cattle and milk production (43%); animal production except cattle and poultry (28%); commercial logging (41%); commercial hunting and trapping (14%); dry, condensed, and evaporated dairy product manufacturing (22%); coffee and tea manufacturing (18%); flavoring syrup and concentrate manufacturing (88%); seasoning and dressing manufacturing (11%); retail stores (94%); and bars and restaurants (91%). Again, however, all the other sectors evince almost no self-reliance.

Food localization can be understood as reducing the level of leakage in each food sector and increasing, commensurately, the level of self-reliance. Finding one number that accurately expresses the degree of food leakage turns out to be tricky and misleading. Many studies, for example, highlight how little primary production is consumed locally.

Chart 12
Food Business Leakages in the Study Areas (2011)

Sector	Washtenaw County		Ypsilanti	
	% Self-Reliant	% Leakage	% Self-Reliant	% Leakage
Oilseed farming	1%	99%	3%	97%
Grain farming	5%	95%	2%	98%
Vegetable and melon farming	1%	99%	3%	97%
Fruit farming	1%	99%	2%	98%
Tree nut farming	0%	100%	1%	99%
Greenhouse, nursery, and floriculture production	2%	98%	10%	90%
Tobacco farming	0%	100%	0%	100%
Cotton farming	0%	100%	0%	100%
Sugarcane and sugar beet farming	0%	100%	7%	93%
All other crop farming	3%	97%	2%	98%
Cattle ranching and farming	1%	99%	8%	92%
Dairy cattle and milk production	8%	92%	43%	57%
Poultry and egg production	1%	99%	9%	91%
Animal production, except cattle and poultry and eggs	7%	93%	28%	72%
Forestry, forest products, and timber tract production	4%	96%	0%	100%
Commercial logging	4%	96%	41%	59%
Commercial Fishing	0%	100%	0%	100%
Commercial hunting and trapping	7%	93%	14%	86%
Support activities for agriculture and forestry	72%	28%	1%	99%
Dog and cat food manufacturing	0%	100%	0%	100%
Other animal food manufacturing	5%	95%	0%	100%
Flour milling and malt manufacturing	26%	74%	0%	100%
Wet corn milling	0%	100%	0%	100%
Soybean and other oilseed processing	0%	100%	0%	100%
Fats and oils refining and blending	0%	100%	0%	100%
Breakfast cereal manufacturing	0%	100%	0%	100%
Sugar cane mills and refining	0%	100%	0%	100%
Beet sugar manufacturing	0%	100%	0%	100%
Chocolate and confectionery manufacturing from cacao beans	0%	100%	0%	100%
Confectionery manufacturing from purchased chocolate	0%	100%	0%	100%
Nonchocolate confectionery manufacturing	0%	100%	0%	100%
Frozen food manufacturing	0%	100%	0%	100%
Fruit and vegetable canning, pickling, and drying	0%	100%	0%	100%
Fluid milk and butter manufacturing	9%	91%	7%	93%
Cheese manufacturing	0%	100%	9%	91%
Dry, condensed, and evaporated dairy product manufacturing	2%	98%	22%	78%
Ice cream and frozen dessert manufacturing	2%	98%	5%	95%
Animal (except poultry) slaughtering, rendering, and processing	0%	100%	1%	99%
Poultry processing	0%	100%	2%	98%
Seafood product preparation and packaging	0%	100%	7%	93%
Bread and bakery product manufacturing	5%	95%	1%	99%
Cookie, cracker, and pasta manufacturing	3%	97%	7%	93%
Tortilla manufacturing	1%	99%	2%	98%
Snack food manufacturing	0%	100%	0%	100%
Coffee and tea manufacturing	0%	100%	18%	82%
Flavoring syrup and concentrate manufacturing	0%	100%	88%	12%
Seasoning and dressing manufacturing	0%	100%	11%	89%
All other food manufacturing	0%	100%	4%	96%
Soft drink and ice manufacturing	0%	100%	0%	100%
Breweries	0%	100%	0%	100%
Wineries	3%	97%	0%	100%
Distilleries	0%	100%	0%	100%
Retail Stores - Food and beverage	100%	0%	94%	6%
Food services and drinking places	91%	9%	72%	28%

But a much higher percentage of food manufacturing is typically consumed locally, and nearly all food service is consumed locally.[24] Inclusion of these data points yield a lower level of systemic leakage.

Perhaps the best number expressing the overall leakage of Washtenaw County's food system is the total value of local spending on local food today compared to what total spending would be with complete self-reliance. Returning to Chart 2, those values are $710 million and $1.8 billion, respectively. This suggests that the county food system today, by dollar value, is 38% self-reliant. Ypsilanti is 35% self-reliant.

[24] Again, an example of a food service consumed nonlocally might be residents outside Washtenaw County who drive into the County to eat out.

II. Economic Benefits from a 25% Shift

In the following pages, we sketch what the 25% localization in the two study areas would look like *in theory* and what the consequent economic benefits would be. We assume that food exports remain constant. We also assume no constraints on expansion, though we look at these constraints – on labor, land, capital, and small-scale competitiveness -- in the next section.[25] The only changes we model are in the behavior of local purchasers—that is, the food buying by local residents, businesses, and government institutions. Increasing local demand then expands the size and number of local food businesses in the region.

Our methodology again uses IMPLAN, which draws from state and national economic patterns to model where every dollar of spending goes, and how every dollar is in turn re-spent. IMPLAN can model how a change in demand can lead not only to direct new jobs, but also how the new spending by expanding businesses creates new jobs (*indirect* effects from businesses' supply chains) and how the new spending by new employees in all these businesses (both expanding food businesses and supply-chain businesses) create even more new jobs (*induced* effects). In "model speak," we "shock" the existing economic system of Michigan with new local production, and then look at the consequent impacts on jobs, wages, value added, and taxes.

A hypothetical example illustrates what a 25% shift looks like.[26] (The following numbers are made up.) Suppose breweries in Washtenaw County were producing $100 million worth of beer, $10 million of which was sold locally. Further suppose total demand in the county for beer was $200 million, which means that the county was importing $190 million worth of beer. If all local production went to local demand, total self-reliance would mean that local breweries could expand by $100 million in annual output. But since we assume that exports are constant – in this case $90 million – output could be expanded by $190 million. Getting 25% of the way to this would imply $47.5 million of new output.

The meaning of a 25% shift for retail food sales warrants brief clarification. The only retail "gap" modeled is the expansion of local stores to dissuade fewer residents from shopping outside Washtenaw County. *Implicit* in the model, though, is that the expanded production of local foodstuffs translates into their sales through local grocery stores. This expanded production doesn't increase sales at local groceries. Sales of local

[25] Potential constraints include climate, land, labor, capital, technology, and consumer behavior.

[26] Formally, the Regional Purchasing Coefficient (RPC) within IMPLAN estimates how much of Total Gross Demand is currently met by local industry. The demand figure includes both local and nonlocal consumption. Multiplying Total Gross Demand by 1-RPC shows how much additional industry is needed to meet local demand (without reducing production for export).

products simply substitute for current sales of nonlocal products. Helping grocery store owners shift from nonlocal suppliers to local suppliers is one of the practical challenges in making the 25% real.

Chart 13 below summarizes the results of the IMPLAN model after ramping up the demand for local production in each of the 52 food-related sectors in Washtenaw County.[27] A total of 2,193 jobs would be created – 1,469 directly in new or expanded food businesses, 419 through new supply-chain spending (indirect effects), and 305 through new spending by employees in these direct and supply-chain jobs (induced effects). To put this in perspective, these jobs would be able to put one-in-five unemployed residents of the state back to work.[28] Additionally, the 25% shift would generate $75 million new annual wages and $132 million in new annual value-added.

Chart 13
Impacts of a 25% Shift for Washtenaw County (2011)

ImpactType	Employment	Wages	Value Added	Output	Businesses Taxes
Direct Effect	1,469	$42,087,342	$74,726,218	$296,519,014	$7,681,842
Indirect Effect	419	$21,092,401	$35,862,861	$60,129,441	$2,838,711
Induced Effect	305	$12,074,546	$21,747,214	$35,258,802	$2,105,303
Total Effect	2,193	$75,254,289	$132,336,294	$391,907,256	$12,625,856

The 25% shift would generate an additional $13 million in annual state and local tax collection. That means that an annual government investment at somewhat below that level, if it achieves the 25% shift, could be fiscally justified.

Chart 14 shows results for Ypsilanti. A total of 628 jobs would be created – 445 directly in new food businesses, 103 through indirect effects, and 80 through induced effects. It would put 36% unemployed residents of Ypsilanti back to work.[29] Additionally, the 25% shift would generate $23 million new annual wages, $39 million in new annual value-added, and $4 million in new annual business taxes.

[27] One limitation of IMPLAN, noted later, is that by increasing local demand for a given commodity, the model shows the impact of a typical business producing that commodity – not necessarily a local owned business. Thus, the model tends to understate the likely impacts. The model also says nothing about whether existing businesses expand production or new businesses are created.

[28] According to the Michigan Department of Technology, Management, and Budget, as of February 2013, Washtenaw County had a labor force of 184,675 people, of which 9,779 were unemployed—that is, an unemployment rate of 5.3%, which is well below the national and state averages.

[29] As of February 2013, Ypsilanti township had a labor force of 29,315, of which 1,732 were unemployed – meaning an unemployment rate of 5.9%. Ibid.

Chart 14
Impacts of a 25% Shift for Ypsilanti (2011)

ImpactType	Employment	Wages	Value Added	Output	Businesses Taxes
Direct Effect	445	$14,539,795	$23,467,664	$82,324,477	$2,835,680
Indirect Effect	103	$5,413,555	$9,421,745	$17,379,884	$485,660
Induced Effect	80	$3,165,999	$5,790,491	$9,377,179	$561,385
Total Effect	628	$23,119,349	$38,679,899	$109,081,540	$3,882,725

Charts 15 and 16 present a detailed roster of the job impacts in all the food sectors, compared to the existing number of jobs. Various degrees of local impact are also shown, in case the reader prefers a more or less ambitious goal than 25%.

Chart 17 summarizes the jobs impacts by broad sectors: farming and animal growing (direct jobs); food manufacturing (direct jobs); food service (direct jobs); non-food (direct jobs); indirect (all sectors); and induced (all sectors). About a third of the new jobs for Washtenaw County come from farming and animal raising. Relatively few new jobs come from food service, because the county already has a full array of local grocery stores and restaurants. (That said, however, it's important to note that the model does not capture the uneven distribution of retail food sellers within the County – that is, the presence of "food deserts" – so it is important that the predicted growth in these businesses from a 25% shift come to these locations.) More than half come from manufacturing, induced, and indirect jobs. One important insight from this is that the common assumption that most of the jobs resulting from food localization pay below-average wages is misleading. About 20 percent of the new jobs are in high-wage manufacturing. Only a minority of the jobs, in farming and food service, pay below-average wages.

Chart 17
Summary Job Impacts of a 25% Shift for the Study Areas (2011)

	Washtenaw County		Ypsilanti	
	Jobs	**Percentage**	**Jobs**	**Percentage**
Farming & Animal Raising - Direct	715	33%	63	10%
Food Manufacturing - Direct	439	20%	120	19%
Food Service - Direct	312	14%	260	41%
Nonfood - Direct	3	0%	2	0%
Indirect - All Sectors	419	19%	103	16%
Induced - All Sectors	305	14%	80	13%
	2,193	100%	628	100%

Chart 15
Food Job Impacts of Various Shifts in Washtenaw County (2011)

Category	Current Jobs	New Jobs with 100% Shift*	New Jobs 25% Shift*	New Jobs with 10% Shift*	New Jobs with 5% Shift*
Oilseed farming	316	72	18	7	4
Grain farming	816	1,974	494	197	99
Vegetable and melon farming	24	86	21	9	4
Fruit farming	20	57	14	6	3
Tree nut farming	0	24	6	2	1
Greenhouse, nursery, and floriculture production	94	113	28	11	6
Tobacco farming	0	0	0	0	0
Cotton farming	0	0	0	0	0
Sugarcane and sugar beet farming	0	8	2	1	0
All other crop farming	16	30	7	3	1
Cattle ranching and farming	33	23	6	2	1
Dairy cattle and milk production	91	178	44	18	9
Poultry and egg production	11	8	2	1	0
Animal production, except cattle and poultry and eggs	126	230	57	23	11
Forestry, forest products, and timber tract production	0	2	0	0	0
Commercial logging	25	8	2	1	0
Commercial Fishing	0	132	33	13	7
Commercial hunting and trapping	7	15	4	1	1
Support activities for agriculture and forestry	121	163	41	16	8
Dog and cat food manufacturing	0	25	6	2	1
Other animal food manufacturing	0	6	2	1	0
Flour milling and malt manufacturing	186	31	8	3	2
Wet corn milling	0	4	1	0	0
Soybean and other oilseed processing	0	2	1	0	0
Fats and oils refining and blending	0	5	1	0	0
Breakfast cereal manufacturing	0	13	3	1	1
Sugar cane mills and refining	0	4	1	0	0
Beet sugar manufacturing	0	6	2	1	0
Chocolate and confectionery manufacturing from cacao beans	1	14	3	1	1
Confectionery manufacturing from purchased chocolate	2	28	7	3	1
Nonchocolate confectionery manufacturing	0	17	4	2	1
Frozen food manufacturing	0	93	23	9	5
Fruit and vegetable canning, pickling, and drying	0	41	10	4	2
Fluid milk and butter manufacturing	59	161	40	16	8
Cheese manufacturing	2	23	6	2	1
Dry, condensed, and evaporated dairy product manufacturing	0	4	1	0	0
Ice cream and frozen dessert manufacturing	3	17	4	2	1
Animal (except poultry) slaughtering, rendering, and processing	0	240	60	24	12
Poultry processing	0	221	55	22	11
Seafood product preparation and packaging	0	55	14	6	3
Bread and bakery product manufacturing	316	274	69	27	14
Cookie, cracker, and pasta manufacturing	59	110	27	11	5
Tortilla manufacturing	2	29	7	3	1
Snack food manufacturing	0	40	10	4	2
Coffee and tea manufacturing	0	20	5	2	1
Flavoring syrup and concentrate manufacturing	0	2	0	0	0
Seasoning and dressing manufacturing	2	35	9	4	2
All other food manufacturing	5	75	19	8	4
Soft drink and ice manufacturing	0	47	12	5	2
Breweries	0	35	9	4	2
Wineries	30	71	18	7	4
Distilleries	0	12	3	1	1
Retail Stores - Food and beverage	4,594	57	14	6	3
Food services and drinking places	12,586	1,474	368	147	74
Non-Food Direct	-	12	3	1	1
Non-Food Indirect	-	1,327	332	133	66
Non-Food Induced	-	1,017	254	102	51
Total	19,549	8,773	2,193	102	51

*Includes Indirect & Induced Jobs in Those Sectors

Chart 16
Food Job Impacts of Various Shifts in Ypsilanti (2011)

Category	Current Jobs	New Jobs with 100% Shift*	New Jobs 25% Shift*	New Jobs with 10% Shift*	New Jobs with 5% Shift*
Oilseed farming	25	29	7	3	1
Grain farming	65	69	17	7	3
Vegetable and melon farming	2	24	6	2	1
Fruit farming	2	19	5	2	1
Tree nut farming	0	6	2	1	0
Greenhouse, nursery, and floriculture production	7	27	7	3	1
Tobacco farming	0	0	0	0	0
Cotton farming	0	0	0	0	0
Sugarcane and sugar beet farming	0	8	2	1	0
All other crop farming	1	5	1	1	0
Cattle ranching and farming	3	8	2	1	0
Dairy cattle and milk production	7	31	8	3	2
Poultry and egg production	1	3	1	0	0
Animal production, except cattle and poultry and eggs	10	40	10	4	2
Forestry, forest products, and timber tract production	0	0	0	0	0
Commercial logging	3	1	0	0	0
Commercial Fishing	0	35	9	3	2
Commercial hunting and trapping	1	2	1	0	0
Support activities for agriculture and forestry	0	1	0	0	0
Dog and cat food manufacturing	0	7	2	1	0
Other animal food manufacturing	0	2	1	0	0
Flour milling and malt manufacturing	0	3	1	0	0
Wet corn milling	0	1	0	0	0
Soybean and other oilseed processing	0	1	0	0	0
Fats and oils refining and blending	0	2	0	0	0
Breakfast cereal manufacturing	0	8	2	1	0
Sugar cane mills and refining	0	1	0	0	0
Beet sugar manufacturing	0	2	0	0	0
Chocolate and confectionery manufacturing from cacao beans	0	1	0	0	0
Confectionery manufacturing from purchased chocolate	0	11	3	1	1
Nonchocolate confectionery manufacturing	0	8	2	1	0
Frozen food manufacturing	0	28	7	3	1
Fruit and vegetable canning, pickling, and drying	0	23	6	2	1
Fluid milk and butter manufacturing	0	14	4	1	1
Cheese manufacturing	0	10	3	1	1
Dry, condensed, and evaporated dairy product manufacturing	0	5	1	1	0
Ice cream and frozen dessert manufacturing	0	6	2	1	0
Animal (except poultry) slaughtering, rendering, and processing	0	70	17	7	3
Poultry processing	0	64	16	6	3
Seafood product preparation and packaging	0	13	3	1	1
Bread and bakery product manufacturing	0	66	16	7	3
Cookie, cracker, and pasta manufacturing	0	16	4	2	1
Tortilla manufacturing	0	7	2	1	0
Snack food manufacturing	0	16	4	2	1
Coffee and tea manufacturing	0	5	1	1	0
Flavoring syrup and concentrate manufacturing	0	3	1	0	0
Seasoning and dressing manufacturing	0	9	2	1	0
All other food manufacturing	1	12	3	1	1
Soft drink and ice manufacturing	0	33	8	3	2
Breweries	0	10	3	1	1
Wineries	10	21	5	2	1
Distilleries	0	3	1	0	0
Retail Stores - Food and beverage	1,372	37	9	4	2
Food services and drinking places	2,670	1,082	270	108	54
Non-Food Direct	-	6	2	1	0
Non-Food Indirect	-	332	83	33	17
Non-Food Induced	-	263	66	26	13
Total	4,180	2,512	628	26	13

*Includes Indirect & Induced Jobs in Those Sectors

For Ypsilanti the story is slightly different. A much smaller percentage of new jobs are in farming, and much higher percentage are in food service. But, again, the majority of new jobs fall either in manufacturing or spread across all sectors through the indirect and induced effects.

Chart 18 (on the following page) look at the "Top 40" direct job opportunities, ranked by jobs, for the study areas. These rankings are important, because they indicate what the priorities for localization should be.

The top ten job opportunities for Washtenaw County, which account for almost 80% of the possible direct jobs with the 25% shift, suggest the following priorities:

- *Farming* – There is the potential for new jobs from growing grains (479 jobs) and nursery trees and plants (28 jobs). The latter could build on existing independently owned nurseries in the far eastern part of Washtenaw County.

- *Food Service* – Even though Washtenaw County is rich in food stores, the local demand is so large that many more jobs are possible in restaurants (312 jobs).

- *Value-Adding Manufacturing* – The directly grown items above could provide inputs for various well-paying manufacturing enterprises, the biggest of which is local bakeries (68 jobs).

- *Meat and Poultry* – If land and training are available, there is the potential for new jobs from: raising animals like pigs, sheep, and goats (51 jobs) and slaughtering these animals locally (60 jobs). Poultry processing could create another 50 jobs. Currently, local producers have to drive many hours to the nearest certified meat processor.

- *Dairy* – There are modest job opportunities for raising more dairy cattle (36 jobs), along with value-adding manufacturing of milk and butter (40 jobs).

- *Fish* – The County could create new jobs in fishing (33 jobs), though this would only be possible through inland aquaculture.

Chart 18
Top 40 Direct Job Opportunities from 25% Shift (2011)

Washtenaw County	Jobs		Ypsilati	Jobs
Grain farming	479		Food services and drinking places	256
Food services and drinking places	312		Animal (except poultry) slaughtering, rende	17
Bread and bakery product manufacturing	68		Grain farming	17
Animal (except poultry) slaughtering, renderin	60		Bread and bakery product manufacturing	16
Poultry processing	55		Poultry processing	16
Animal production, except cattle and poultry a	51		Commercial Fishing	9
Fluid milk and butter manufacturing	40		Soft drink and ice manufacturing	8
Dairy cattle and milk production	36		Oilseed farming	7
Commercial Fishing	33		Frozen food manufacturing	7
Greenhouse, nursery, and floriculture producti	28		Greenhouse, nursery, and floriculture produ	7
Cookie, cracker, and pasta manufacturing	27		Animal production, except cattle and poult	6
Frozen food manufacturing	23		Vegetable and melon farming	6
Vegetable and melon farming	21		Fruit and vegetable canning, pickling, and	6
All other food manufacturing	19		Wineries	5
Wineries	18		Fruit farming	5
Oilseed farming	16		Retail Stores - Food and beverage	4
Fruit farming	14		Snack food manufacturing	4
Seafood product preparation and packaging	14		Cookie, cracker, and pasta manufacturing	4
Soft drink and ice manufacturing	12		Fluid milk and butter manufacturing	3
Fruit and vegetable canning, pickling, and dry	10		Seafood product preparation and packagin	3
Snack food manufacturing	10		All other food manufacturing	3
Breweries	9		Confectionery manufacturing from purchas	3
Seasoning and dressing manufacturing	9		Breweries	3
Support activities for agriculture and forestry	8		Cheese manufacturing	2
Tortilla manufacturing	7		Seasoning and dressing manufacturing	2
All other crop farming	7		Breakfast cereal manufacturing	2
Confectionery manufacturing from purchased	7		Nonchocolate confectionery manufacturing	2
Flour milling and malt manufacturing	7		Dog and cat food manufacturing	2
Dog and cat food manufacturing	6		Tortilla manufacturing	2
Tree nut farming	6		Sugarcane and sugar beet farming	2
Cheese manufacturing	6		Tree nut farming	2
Cattle ranching and farming	5		Ice cream and frozen dessert manufacturin	2
Coffee and tea manufacturing	5		Coffee and tea manufacturing	1
Ice cream and frozen dessert manufacturing	4		Dry, condensed, and evaporated dairy prod	1
Nonchocolate confectionery manufacturing	4		All other crop farming	1
Commercial hunting and trapping	4		Dairy cattle and milk production	1
Chocolate and confectionery manufacturing fr	3		Distilleries	1
Breakfast cereal manufacturing	3		Flour milling and malt manufacturing	1
Distilleries	3		Other animal food manufacturing	1
Commercial logging	2		Cattle ranching and farming	1

The top ten job opportunities for Ypsilanti, which account for 81% of the possible direct jobs with the 25% shift, suggest the following priorities:

- *Food Service* – The single biggest potential source of jobs by far (256 jobs) is restaurants. When residents of Ypsilanti eat out, they often drive elsewhere.

- *Farming* – There are local markets for urban farming of grain (17 jobs), oilseeds (7 jobs), and nursery products (7 jobs).

- *Meat and Poultry* – As is true for Washtenaw County, new jobs for Ypsilanti can come from raising animals like pigs, sheep, and goats (9 jobs), slaughtering these animals locally (17 jobs), and processing poultry locally (16 jobs).

- *Value-Adding Manufacturing* – Top manufacturing opportunities are bakeries (16 jobs), soft drinks and ice (8 jobs), and frozen food (7 jobs).

- *Fish* – As in Washtenaw County, Ypsilanti can create new jobs in fishing (9 jobs) through inland aquaculture.

Chart 19 (on the following page) looks at the "Top 40" direct wage opportunities. The top opportunity for new wages in both Washtenaw County and Ypsilanti is new restaurants. Compared to the top-ten job opportunities, several new categories pop up in the top ten opportunities linked with wages, including fruit and vegetable farming.

Chart 19
Top 40 Opportunities from a 25% Shift for Michigan – By Direct Wages (2010)

Washtenaw County	Total Wages
Food services and drinking places	$6,309,559
Grain farming	$3,664,030
Greenhouse, nursery, and floriculture producti	$2,993,973
Animal (except poultry) slaughtering, renderin	$2,818,824
Bread and bakery product manufacturing	$2,810,684
Vegetable and melon farming	$2,609,926
Fluid milk and butter manufacturing	$2,534,312
Fruit farming	$2,055,805
Poultry processing	$1,946,016
Frozen food manufacturing	$1,138,834
Soft drink and ice manufacturing	$873,704
Breweries	$853,936
Commercial Fishing	$777,555
All other food manufacturing	$773,051
Cookie, cracker, and pasta manufacturing	$713,436
Seasoning and dressing manufacturing	$678,738
Seafood product preparation and packaging	$673,240
Fruit and vegetable canning, pickling, and dry	$605,309
Snack food manufacturing	$583,763
All other crop farming	$537,704
Wineries	$512,729
Dog and cat food manufacturing	$474,134
Flour milling and malt manufacturing	$432,512
Coffee and tea manufacturing	$331,104
Tree nut farming	$326,093
Distilleries	$312,514
Animal production, except cattle and poultry a	$298,680
Cheese manufacturing	$276,478
Breakfast cereal manufacturing	$267,902
Confectionery manufacturing from purchased	$265,784
Oilseed farming	$265,733
Nonchocolate confectionery manufacturing	$233,065
Support activities for agriculture and forestry	$218,230
Dairy cattle and milk production	$212,564
Poultry and egg production	$197,834
Ice cream and frozen dessert manufacturing	$192,393
Chocolate and confectionery manufacturing fr	$138,493
Beet sugar manufacturing	$102,831
Wet corn milling	$97,340
Sugar cane mills and refining	$95,016

Ypsilanti	Total Wages
Food services and drinking places	$5,181,501
Animal (except poultry) slaughtering, rende	$818,184
Vegetable and melon farming	$741,943
Greenhouse, nursery, and floriculture produ	$713,008
Bread and bakery product manufacturing	$679,708
Fruit farming	$667,874
Soft drink and ice manufacturing	$613,426
Poultry processing	$561,068
Frozen food manufacturing	$343,120
Fruit and vegetable canning, pickling, and	$335,829
Breweries	$250,408
Fluid milk and butter manufacturing	$238,948
Snack food manufacturing	$235,362
Cookie, cracker, and pasta manufacturing	$223,217
Commercial Fishing	$204,103
Breakfast cereal manufacturing	$166,566
Seasoning and dressing manufacturing	$162,804
Seafood product preparation and packagin	$161,270
Wineries	$155,088
Confectionery manufacturing from purchas	$141,280
Cheese manufacturing	$140,298
Dog and cat food manufacturing	$139,364
Retail Stores - Food and beverage	$132,196
Grain farming	$126,338
All other food manufacturing	$120,909
Oilseed farming	$119,848
Nonchocolate confectionery manufacturing	$107,867
Dry, condensed, and evaporated dairy prod	$101,845
All other crop farming	$90,756
Coffee and tea manufacturing	$89,788
Distilleries	$89,453
Tree nut farming	$87,404
Ice cream and frozen dessert manufacturin	$67,475
Poultry and egg production	$46,771
Flour milling and malt manufacturing	$44,869
Animal production, except cattle and poult	$36,359
Other animal food manufacturing	$35,076
Fats and oils refining and blending	$26,936
Beet sugar manufacturing	$25,145
Sugar cane mills and refining	$23,762

Non-Economic Benefits from Food Localization

There are many other benefits from a 25% shift that should be noted. Among the non-economic benefits that are difficult to quantify but nevertheless real are those mentioned earlier: greater environmental stewardship and smaller carbon footprints; improved public health; and a richer civic life. Moreover, there are other *economic* benefits:

- ***Entrepreneurship*** – Nearly all of the food businesses in the region right now are small. Indeed, except for a few food-processing sectors, the vast majority of food enterprises, such as farms and food service operations, can be started by a good entrepreneur with modest levels of capital. The 25% shift would lead to a region-wide entrepreneurship revolution, with positive spillovers throughout the economy.

- ***Branding*** – As the epicenter of a local food renaissance, Washtenaw County would be creating a powerful new magnet for tourism. Agritourism is already making a significant contribution to eastern parts of the County.

- ***Attraction & Retention*** –Becoming a dynamic region that naturally attracts and retains non-local businesses because of local economic richness and vitality – Richard Florida's notion of a creative economy –is economically valuable.

- ***Public Assistance*** – Increased employment and entrepreneurship would lead to reductions in public assistance outlays in unemployment, food stamps, housing vouchers, health subsidies, and other government supports.

- ***Fiscal Health*** – Reduced government outlays from public assistance and increased tax revenues would improve the fiscal health of various county and local governments in the region. This would improve their credit worthiness, lower the cost of capital, and reduce payments on existing and future bonds and other debts.

- ***Capital Improvements*** – With better fiscal health, government entities either could cut residents' taxes or make more investments in public schools (human capital) and infrastructure (built capital), which can add to economic vitality, foster entrepreneurship, and increase the attractiveness of the region to outside business and investors.

- ***Rural Economies*** – The 25% shift provides a stimulus to expand existing farms, diversify farm economies, and revive farms that have gone bankrupt or otherwise been abandoned. By connecting urban demand with nearby

rural supply, food localization could lead to a renaissance of rural economic life.

- ***Economic Security*** – Diversification of the local food system could help inoculate the region against sudden cutoffs in food that could occur because of contamination, war, terrorism, or global shortages.

Caveats About the Model

Like all economic models, IMPLAN needs to be treated critically. Some parts of the model may well understate the potential benefits of a 25% shift. Other parts may overstate them. Above all, a model is no better than an educated guess about an uncertain future.

Here are considerations that suggest that IMPLAN understates the potential benefits of from localization:

- First, IMPLAN draws no distinction between locally-owned businesses and non-local ones. The multipliers of each sector are drawn from national, state, and regional aggregates of all businesses, local and non-local. If some chain businesses were replaced by local ones – a likely eventuality if the state embraced a comprehensive plan for food localization – the economic benefits would be much higher.

- Second, no effort has been made here to model the impacts of a growing population over the years envisioned for the shift. A larger population will mean that, in absolute numbers, the benefits of localization will be proportionally larger as well.

- Third, the model has not been adjusted for the probable price increases of non-local foods. These rises, already front-page news in recent years, are likely to accelerate, as will the benefits of localization.

- Fourth, as noted above, movement to localize one sector will naturally lead to a localization of other sectors as well, and no effort has been made here to model these spillover effects.

- Finally, the categories of IMPLAN imperfectly capture the food economy. One advisor, for example, pointed out that food banks in the county have their jobs registered in social service sectors. The existing and potential jobs in these sectors are not counted in our analysis.

At the same time it's worth noting other factors that could reduce the predicted benefits from localization:

- As various economic factors such as labor, land, and capital are increasingly put to use in the state, their own relative prices will rise. For example, greater demand for farmers could raise the incomes of farmers—and the costs of food. This could lead to local pockets of inflation and reduced spending power for residents.

- Some economic factors, such as land and water, might simply be unavailable to achieve the levels of self-reliance sought (as elaborated in the next section).

- Increasing economic benefits envisioned here will likely attract more people to move into the state, which could bring down per capita income.

III. From Possible to Plausible Economic Benefits

The previous section described the jobs and other benefits that are *possible* with 25% localization. But not all these jobs are *plausible*. Among the challenging constraints are:

- Can the soil, climate, and water availability in Washtenaw County support all the crops envisioned?
- Is enough land available, of the right quality, for additional farming and grazing?
- Are there enough entrepreneurs to start up or expand needed local food businesses? Will there be enough new farmers?
- Are there solid business models available for smaller, local food businesses to compete effectively?
- Are consumers prepared to buy more local food, more of the time?
- Is there enough capital available to support a 25% shift?

While comprehensive answers to these questions are beyond the purview of this paper, we present some short points on the first five questions – and a somewhat deeper analysis on the sixth, capital.

Regarding natural resource constraints, Michigan is a remarkable diverse agricultural state. The late economist Kenneth Boulding once wrote that "anything that exists is possible." And by that criterion, the only crops that do not exist in the state, and therefore would be difficult to expand, are tobacco and cotton, neither of which are really foodstuffs. (We actually assume no growth of jobs in these sectors with a 25% shift.)

Of course, the IMPLAN categories are broad and within each category are specific items that also may be difficult to localize. For example, while Washtenaw County might be easily able to ramp up local production of "fruit" – one adviser noted that local schools could easily use local apples, peaches, and melons -- it might not be able to grow bananas. And as noted, local fish would only be possible through aquaculture. Factors like these underscore why choosing a 25% shift rather than 50% or 75% is sensible. Perfect localization of all items is neither feasible nor smart.

Regarding land availability, a consistent finding in more than dozen other analyses of food localization we have performed is that this constraint is formidable. In well-developed urban and suburban areas like Ypsilanti and Washtenaw County, there is simply not enough land to support land-intensive grain crops and animal grazing.

Moreover, new kinds of local food production are more likely to be done by new farmers, and they face especially challenging problems purchasing or leasing land in the County. That said, several United Nations reports on urban agriculture have shown how many densely populated cities in the world are feeding their residents locally. Key to their success are the full deployment of public lands (for animal grazing, for example), highway strips, abandoned properties, leased private properties, rooftops, greenhouses, and building sides.[30] Moreover, part of this challenge can be met by shifting local diets to lower consumption of meat, or at least more consumption of animals that consume fewer resources like chicken and lamb. As a study region gets larger and more rural areas are included, however, these land constraints become less severe. And overall Michigan is a state with healthy mix of urban and rural areas, which means that a regional approach to Washtenaw's food system could resolve the land issues.

Regarding human capital constraints, it is important to distinguish between entrepreneurship and workforce challenges. Most food sector jobs – in farming, manufacturing, and service – can be performed by people without Ph.D's or years of training, which means that generally speaking, at a time of relatively high unemployment like today, filling these jobs should not be very difficult. That said, workforce development programs may be needed to fill some of the food manufacturing jobs, such as new regional slaughtering facilities. Recruiting entrepreneurs who will lead new local food businesses and getting these entrepreneurs to focus on the biggest local food "leakages" may not be easy, though these challenges would be lessened if many new local food opportunities are seized by *existing* farms or food businesses that choose to expand or diversify. Ultimately, successful food localization must be accompanied by an expansion of entrepreneurship programs at community colleges, private institutions, existing food businesses, and community kitchens. And since many food jobs, such as animal processing and farm work, have long histories of labor abuse, it is critically important that expansions in these sectors be done with vigilance toward strong labor standards.

A particularly important, and difficult, part of entrepreneurship training is to recruit new farmers. Today's farmers must excel at a wide-range of skills: setting up and managing a farm business, raising crops and animals, selling their outputs directly or through attractive intermediaries, maintaining and using proper tools and technology, and preparing sophisticated financial and marketing plans.[31] The last thing a 25% shift will

[30] Care must be taken, of course, to ensure that food is not grown in polluted areas, such as highway strips or brownfield sites, without protective measures. These sites might be best deployed for the growing of salable plants and trees.

[31] The New England Small Farm Institute has prepared extension self-evaluation processes for potential farmers which are available at: http://www.smallfarm.org/main/for_service_providers/tools_and_resources_for_working_with_new_farmers/nesfi_tools_and_resources/dacum_occupational_profile/

want to do is to create a new generation of farmers who, like their predecessors, teeter on bankruptcy or require massive federal subsidies to survive. New models of farming that emphasize multiple income streams, value-added products, niche marketing, and non-farm production (such as wind-electricity generation) will be necessary to improve their probability of long-term profitability. Given the land constraints of Washtenaw County and Ypsilanti, local farmers also may have to be skilled at biointensive farming, greenhouse farming, and vertical growing methods.

Moreover, different demographic groups have different needs. Immigrant populations may have extensive knowledge and experience in traditional farming, but may need support in finance and marketing. Those laid off from a manufacturing job, with no background in agriculture, will require more comprehensive training. Women and nonwhites may especially need support entering a profession that historically has been dominated by white men and where they continue to face subtle forms of discrimination. The good news is that beginning farmers represent a growing fraction of farmers across the United States, and they are increasingly women and non-whites.[32]

Regarding competitive business models for local food, it's worth pointing out that many mainstream economists are skeptical about localization because they believe that what exists today is the natural result of supply and demand curves efficiently intersecting. Those who believe it is the "magic hand" of the marketplace often overlook the myriad public policies, laws, and subsidies that have decidedly tilted markets against local business.[33] Their models assume that consumers have perfect information, even though most turn out to be relatively uninformed about local goods and services (local businesses are far from perfect advertisers). Businesses themselves also are assumed to have perfect information about how to structure themselves efficiently, while in fact innovation diffuses more slowly with local businesses (how many small business proprietors can afford to attend summer programs at Harvard Business School?).

Recall the many factors noted earlier, however, that are likely to shake apart the existing food system. Existing global food systems have high distribution costs, and local competitors are learning how to bring them down. Rising oil prices will hasten this shift. Public demand for local food is rising, in part because of rising concerns about the untrustworthiness of food from distant places like China and the increasingly understood health benefits of eating locally. And local entrepreneurs are making huge strides, some working alone and others working in partnerships and cooperatives, in improving the competitiveness of their local food businesses.

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[32] "Beginning Farmers and Ranchers," Mary Ahearn and Doris Newton. Available from the USDA at http://www.ers.usda.gov/Publications/EIB53/

[33] A forthcoming study by the author, looking at the three largest state economic development programs in fifteen states finds that 90 percent of these programs spend most of their money – often well over 90 percent – on attracting or retaining nonlocal business.

As a rough guide, we turn again to Kenneth Boulding's adage. Are there any food sectors in Michigan that register no activity, which would suggest that expansion is impossible? In fact, there are only two food manufacturing categories that meet this standard: "wet corn milling" and "chocolate and confectionary manufacturing." Their role in our analysis is trivial – about 4 potential jobs for Washtenaw County and 1 potential job for Ypsilanti.

Regarding changing consumer purchasing patterns, to buy more local more of the time, some argue that local food prices will need to come down. The general consensus right now is that these prices are relatively high, because local food demand exceeds local food supply. Demand for locally grown food in recent years has grown dramatically for consumers, businesses, institutions, schools, and municipalities, while local supply, facing the many barriers noted above, has expanded more gradually. A variety of surveys across the country suggest that this expansion of demand has occurred because consumers are interested in local food and willing to pay more for it. Even some low-income consumers, as noted earlier, are prepared to spend more on local foodstuffs that they perceive to be better values. That said, the basic laws of supply and demand suggest that if prices of local food do come down, more consumers will buy more local food.

But even if local food prices remain constant, more consumers might be local if they were better educated about the health, environmental, and economic benefits of local food, and if they were better aware of which stores were locally owned and which foodstuffs were locally produced. For businesses, institutions, and other mainstream food purchasers this will require greater ease in purchasing bulk food items, prepared foods, and partially processed foods (i.e. chopped or diced vegetables). Aggregation will also be critical to enabling larger-volume buyers to access the products of local producers. For public agencies or institutions such as schools, this will require an overhaul in public procurement practices.

Of all the obstacles to the 25% shift, many have come to the conclusion that the biggest by far is capital. Farmers and small businesses always have some difficulty getting credit, but the challenges have become especially acute during the financial crisis since 2008. Even companies with terrific track records for borrowing and repaying are having difficulty today obtaining credit from mainstream banks, thrifts, or credit unions. This underscores the need for new mechanisms for capitalizing local food businesses, and the recent growth of organizations like Investors Circle, Fair Food Network, Business Alliance for Local Living Economies (BALLE), and Slow Money (a Michigan chapter is in formation) to mobilize people across the United States to create these mechanisms.

Among the new finance tools for available to bring new capital into new or expanded local food businesses are the following:

- *Targeted CDs* – A few banks, such as Ithaca's Alternatives Credit Union, have agreed to set up special certificates of deposits that fully collateralize loans to high-priority local businesses. Eastern Bank in Boston has a CD that collateralizes a line of credit to Equal Exchange, a local fair-trade company.

- *Coops* – Some coops, like Weaver Street Market in North Carolina, pay their members handsomely to borrow money for capital projects. Others, like Coop Power in western Massachusetts, invest some member capital in supplier businesses. The La Montanita Grocery Coop in New Mexico has created a revolving loan fund so that members' capital can support local farmers and food processors. The Twin Pines Cooperative Foundation, based in northern California has helped set up foundations across the country so that charitable giving can support the establishment and expansion of local coops.

- *Pre-Purchase*– In most U.S. states, preselling is not regarded as a security, so businesses can raise capital without attorneys by convincing their most loyal customers to make purchases in advance. And even in those states where it may be a security, well-established businesses still can use this technique. Hence, Awaken Café raised most of the $100,000 it needed to open a new store by preselling coffee. Credibles is a pre-selling web site for small food businesses seeking to expand.

- *Sponsorship* – Last year, web sites like Kickstarter and IndieGogo raised more than $100 million for small businesses and projects. Even though all you get for your money is a t-shirt or token of appreciation, you know that thousands of small contributors like yourself are helping to get a big idea off the ground. A new generation of web sites, like Lucky Ant and Community Funded, specifically facilitate local sponsorships.

- *P2P Lending* – Kiva facilitates peer-to-peer lending to microentrepreneurs, mostly in the global South but increasingly in U.S. inner cities, though as a dot-org it only pays back principal. Prosper and the Lending Club, both dot-coms, also pay interest (now averaging close to 10% per year).

- *Investor Networks* – The Local Investment Opportunities Network (LION) of Pt. Townsend brings together local investors and businesses each month to establish "preexisting relationships" that facilitate the circulation of business plans. New LIONs are spreading around the country. Unlike traditional angel-investor networks, where entrepreneurs present their business plans at periodic dinners, LIONs often involve unaccredited (non-wealth) investors.

- *Federal Programs* – Various national programs provide generous tax deductions for local investors who support anti-poverty initiatives through New Markets

Tax Credits and provide other benefits to designated Community-Development Corporations (CDCs) and Community Development Financial Institutions (CDFIs). Make sure accredited investors and foundations in your region are fully aware of these opportunities, and encourage them to participate.

- *Program Related Investments*– By law, foundations must give away at least 5% of their assets each year. The other 95% is typically invested in distant stocks and bonds. Are number of foundation are now open to helping local food businesses with some of that 95% (or even just 1%). If these businesses are "program related" and the investment does not succeed, the foundation can apply any losses to fulfill its annual grant-giving obligations.

- *Slow Munis* – Some local governments are considering issuing bonds to finance local food businesses? Properly structured, the interest from these bonds could be tax exempt, and these bonds could be sold locally.

- *Crowdfunding* – Until recently, it has been very expensive to restructure a small business so that it could accept investment from the 99% of non-wealth people in your community who are "unaccredited." But thanks to "crowdfunding reforms" signed into law by President Obama last year, new web sites will soon be set up that bring down the costs of "going public" and allowing unaccredited investors to purchase as much as $2,000 of local stock per company per year.

- *Local Stock Markets* – As crowdfunding spreads, there will be a growing number of local stock purchasers who wish to sell their shares. Mission Markets of New York has a turn-key web platform that enables a community to get started with this immediately.

- *Local Fund* – Pools of capital are preferable to one-off investments because they diversify risk. There are thousands of local-investment pools around the country, most of them linked with local economic-development programs, but nearly all of them are only open to accredited investors. Important exceptions that allow unaccredited investor participation include MountainBizWorks in North Carolina, the New Hampshire Community Loan Fund, and ECDI in Columbus, Ohio. PV Grows in Western Massachusetts is developing a royalty finance model focusing on local food businesses.

- *Investment Clubs* – Neighbors can form their own investment pools via stock clubs. The legal key is that all your decisions have to be made together, as a group. A great example of an investment club focusing on local food businesses is No Small Potatoes, a project of Slow Money Maine.

- *Self-Directed IRAs* – By rolling over tax deferred IRAs or 401k's into a Self-Directed IRA, investors can direct a custodian (for about $200-300 per year) to invest instead in any and all of the items above. The only restriction is that they cannot invest in their own family's business or home.

How much additional capital must these tools shift to finance the 25% shift in Michigan? The 2012 *Statistical Abstract* estimates the "Net Stock of Private Fixed Assets," the aggregate value of the capital assets of different industries.[34] Chart 14 shows these values nationally for four sectors of food businesses, and then scales them by population for the two study areas. Assuming that the food system has a constant relationship between jobs and capital, the additional capital required for the 25% shift is about $147 million for Washtenaw County and $59 million for Ypsilanti. These numbers could be higher if new businesses turn out to be more capital intensive.

Chart 20
Capital Requirements for 25% Shift (2011)

(Private Assets in $ millions)

	United States	Washtenaw County	Ypsilanti
Agriculture	$493,000	$559	$168
Food Manufacturing	$238,000	$270	$81
Food Retail & Wholesale	$154,000	$175	$52
Food Services	$269,000	$305	$91
Total	$1,154,000	$1,308	$392
Population	307,000,000	347,962	104,350
Population %		0.11334%	0.03399%
Existing Food Jobs		19,549	4,180
Additional Jobs with 20% Shift		2,193	628
Percent Expansion		11.22%	15.02%
Additional Capital Requirements		$147	$59

There's no question that this capital, in theory, is available locally, as shown in Chart 21. Residents of Washtenaw County have approximately $9 billion of savings in short-term accounts and $31 billion in long-term accounts. Reallocating 1.7% of the former or 0.5% of the latter could fully finance the businesses needed for the 25% shift. For Ypsilanti, the equivalent percentages of capital shift necessary are 2.4% of short-term savings and 0.7% of long-term savings.

[34] Table 781, for the year 2009. food-related wholesale is assumed to be 10% of the "retail and wholesale category."

Of course, for the region to amass $59-147 million for new or expanded local food businesses, it might only need to come up with a small percentage – perhaps 20% -- in equity. This, in turn, could leverage debt to finance the rest.

A growing number of food entrepreneurs are looking for equity or near-equity kinds of finance, which will not put them in further debt. Many of the businesses needed for the 25% shift – meat processing; food manufacturing, packaging, and distribution; food service – cannot be done through small loans. The capital requirements for these enterprises are larger, and the scale requires more experienced entrepreneurs who tend to be more interested in equity or near-equity.

Chart 21
Estimated Household & Nonprofit Capital (2010)

	$ million	
Short Term Savings	**Washtenaw County**	**Ypsilanti**
Checking	$337,865,725	$ 91,571,620
Savings	$7,051,361,469	$ 1,911,127,839
Money Markets	$1,514,053,574	$ 410,353,369
	$8,903,280,768	$ 2,413,052,828
Long-Term Savings	**Washtenaw County**	Ypsilanti
Corporate Stock	$8,606,927,557	$ 2,332,732,328
Corporate Bonds	$2,534,569,503	$ 686,943,416
Mutual Funds	$4,787,776,422	$ 1,297,629,237
Pension Funds	$13,778,694,718	$ 3,734,434,431
Insurance Funds	$1,432,181,675	$ 388,163,659
	$31,140,149,875	$ 8,439,903,071

The exact kind of finance needed by these businesses varies enormously. Some will prefer convertible debt, while others will prefer more active shareholders. Another option, being developed by the Vermont Sustainable Jobs Fund, is royalty financing, where repayment and royalties are tied to monthly revenues or profits. This is especially attractive to local food businesses, where the flow of business is often seasonal.

Local food advocates in Washtenaw County might encourage residents to shift part of their long-term savings into self-directed IRAs. There are many scenarios in which this could happen. If two percent of residents– one in twenty households -- shifted 5% of their long-term savings accordingly, all the finance needed would be available.

IV. Interviews on Capital Gaps

As part of our evaluation of the capital needs for Washtenaw local businesses, we conducted in-depth interviews with seven individuals who have been active, personally and professionally, in expanding the County's local food system. They were (in alphabetical order):

- Jane Bush, owner and manager of the Appleschram Organic Orchard and former Business Development Specialist for the Food System Economic Partnership;
- Amanda Edmonds, director of Growing Hope, an urban farm and non-profit in Ypsilanti (East Washtenaw);
- David Klingenberger, owner and Chief Fermenting Officer for The Brinery;
- Jeff McCabe, who owns a hoop house business (Nifty Hoops) and founded a non-profit that raises money for local food businesses (Selma Café);
- Carole Peterson, produce manager for the local Whole Foods Market;
- Guadalupe Quetglas, owner of the Ann Arbor Tortilla Factory; and
- Tim Redmond, Founder of Eden Soy, who is now involved in various local food projects.

A detailed transcription of their answers is contained in the Appendix. While the answers were filled with rich details, eight generalizations can be distilled from them:

(1) ***Myriad Gaps*** – The local food system in Washtenaw County, while growing fast, is quite small in absolute terms. Among the many shortcomings in the current system are the following:

- information and resources about local food businesses;
- a dearth of new farmers prepared to prioritize local food over commodity crops;
- local food organizations and leadership;
- farmer training and recruitment programs;

- distributional “infrastructure” that connects farmers to consumers (though opinions split as to whether the biggest gaps are in processing, warehousing, or transportation);

- commercial kitchen space and food-business incubators;

- institutional purchasing of local foods;

- access to grocery stores by lower-income residents;

- continued patterns of discrimination against non-white farmers and entrepreneurs;

- an over-emphasis on farmers markets (the demand for these might be saturated); and

- regulatory and food-safety barriers imposed by national, state, and local authorities.

(2) ***Capital Gaps*** -- Everyone interviewed agreed that a huge challenge facing farmers and local food businesses is the availability of capital, in the right amounts, in the right forms, and at the right time. Specifically, there is a need for:

- greater debt capital, primarily for startups;

- greater patient equity capital, primarily for long-term growth of existing businesses; and

- greater support (in multiple forms) for existing or new farmers who are committed to serving local markets acquire land in the county.

(3) ***Entrepreneurship Gaps*** -- On the question of whether the bigger challenge is mobilizing capital or creating capital-worthy entrepreneurs, the answer is decidedly BOTH. Significant work is needed on both sides of this equation.

(4) ***Banking Capital*** -- Few think that local banks and credit unions are very responsive to the needs of local farmers and entrepreneurs. One exception is the Farmers Fund, a targeted CD program of University Bank—but this program is quite small.

(5) ***Angel Capital*** -- Nor is there much finance for local food from “deep pockets.” A few reported a little bit of contact with angel investors and venture capitalists,

but their interest in small food players appears to be limited. Government programs like Community Development Financial Institutions and USDA programs play a small role. There are emerging programs of program-related investment from community foundations. Some larger businesses, like Zingermans', also provide some capital.

(6) ***Grassroots Capital*** – Small, cutting-edge efforts are beginning to mobilize unaccredited investors, through the following:

- local deals posted on donation sites like Kickstarter;
- local pre-sale deals;
- local small-stock deals;
- a new Slow Money chapter; and
- Angela Barbash's local company Reconsider.

(7) ***Favored New Tools*** – All the alternative tools for increasing local investing in local food received a positive reception. These were:

- self-directed IRAs;
- new revolving loan funds;
- cutting-edge co-ops;
- "slow munis" (municipal bonds supporting food finance);
- a web-based inventory of existing investment opportunities;
- a consortium of banks providing more credit to local food businesses;
- local investment clubs; and
- local business-investor consortia (like the Local Investment Opportunities Network of Port Townsend, Washington).

(8) ***Recommended Public Policies*** -- Interviewees called on Washtenaw County to undertake several initiatives:

- shift economic-development resources from outside corporate attraction to local food business nurturing;
- move past the current emphasis on farmers markets;
- provide assistance to small or new farmers;
- create grocery stores in low-income communities;
- expand institutional purchasing of local foodstuffs;
- lighten regulatory burdens on small food businesses and farmers; and
- increase the level of information available to the public about local food investment opportunities.

V. Final Recommendations

There are literally hundreds of initiatives that Washtenaw County could take – through local policymakers, businesses, financial institutions, and nonprofits – to make the 25% shift possible. Below is our list of the top ten options, based on the analysis here as well as the in-depth interviews we conducted with seven top participants in the local food system today. Since this paper was commissioned by Washtenaw County, we focus our recommendations on *County-led* initiatives:

(1) *Farm & Land Inventory* – One of the most challenging parts of the 25% shift is to expand local farming. To meet this challenge, the County might carefully inventory all the existing farms, and survey current farmers. It would be helpful to know which farmers are considering selling their land (so that the County can devise strategies for keeping the land in farming), and which might be open to shifting from commodity production to local production. A comprehensive inventory of other land in the County would be helpful to estimate all promising other sources of farmland, including rooftops, sides of buildings, lawns, highway strips, abandoned urban parcels, etc.

(2) *Land Trust* – The County should help set up a land trust (or some other land-holding structure like a REIT or community-owned corporation) that can help to purchase existing farms or potential farmland—or at least purchase easements so that farming can be done on these properties. This land trust could be financed through contributions (as a 501-c-3) or through loans from community foundations and local self-directed IRAs. A municipal bond also could be used to capitalize this entity.

(3) *Meat Processing* – Given the leakage of fresh meat expenditures, the County might initiate a highly focused study on the specific opportunities for local meat processing, both for poultry processing and for multi-species processing. This might assess the demand, identify the most promising entrepreneurs to lead these businesses, and analyze how other small-scale processors are able to meet various regulatory requirements. An excellent resource in this area is Mike Lorentz, who runs Lorentz Meats in Canon Falls, Minnesota, a USDA-licensed multi-species processing facility, and who mentors groups around the country interested in small-scale processing. Recommendations for changes or waivers in County regulations might be framed, including those concerning the raising of these animals near highly populated areas. For example, the raising of chickens in small flocks might be permitted throughout the County as the City of Cleveland now allows.

(4) *Food Manufacturers Consortium* – To plug food processing leakages, the County might try to create a consortium of local food manufacturers, perhaps integrated

with related experts in nearby universities. Good resources for these efforts include the several dozen food-business incubators around the country, most of which focus on food processing (e.g., AceNet in Athens, Ohio). One goal would be to work with them to expand their products to plug various food purchasing leaks. Discovering and remedying legal, tax, or other barriers to their expansion would be important. Another goal would be to provide a brain trust that could support newer food manufacturers with mentorship, joint contracts, or other forms of collaboration. For example, factory space in existing manufacturers might be made available to new manufacturers who cannot yet afford their own facilities.

(5) *Institutional Purchasing* – To increase the probability of local food businesses succeeding, the County (and, where possible, other public institutions) should overhaul its procurement policies to increase purchasing of local food. This is especially important for public school lunches, where children can learn about local food through their eating habits. We are mindful that across-the-board bidding preferences are sometimes hard to defend economically or legally. No one wishes to undermine the basic principle of good government that it should enter contracts with the lowest-cost bidder. A better approach might be for the County to obtain representations from every bidder about how much of a bid will be spent in-state. A quick multiplier analysis can be done to determine how much additional tax revenue the County will collect. Bidders that spend more in-state will generate more tax revenue than bidders that spend out of state. By adjusting the bid by the anticipated tax revenue, the state can better calculate which bidder is truly delivering the best price. Moreover, because non-local vendors can perform equally well under this approach, the measure is not discriminatory and therefore legally sound.

(6) *Local Investing Portal* – To facilitate the expansion of all kinds of local investing tools, the County might add a section on its web site for the posting of all local-food investment opportunities. (The purpose is to provide information and not to undertake transactions.) The County also should find one or more providers for self-directed IRAs. In exchange for promising low annual fees, the County could promise to list these providers on its web pages. By providing the public with critical information, the County could effectively facilitate millions of dollars of new local deals each year. Among the web sites continually presenting news about these kinds of innovations are those of Cutting Edge Capital (www.cuttingedgecapital.com) and the Local Investing Resource Center (www.local-investing.com).

(7) *Local Banking* – The County should move all its banking to local banks and credit unions, and perhaps work with these institutions to help them use these additional financial resources to facilitate more lending to local food businesses. To overcome the anticipated legal hurdles to doing this, the County should

consult with Portland, Oregon, which just moved its municipal funds out of big banks.

(8) *Slow Munis* – The one specific action the County might take to support local food investment is to begin exploring the use of tax-exempt municipal bonds. A County commission could be creating bring together municipal finance staff, attorneys, and local food experts to explore various frameworks to make this happen. With public involvement should come a clear public purpose: To make local food businesses, especially grocery stores, available to Ypsilanti and other poor food deserts in the County.

(9) *Incubator/Portal* – The County should convene all food business incubators, food hubs, or other kinds of food-business technical-assistance providers to create a "community portal," so that the best food businesses can more easily find local unaccredited investor capital. The portal might be best run by a private or nonprofit entity, but the County be play an invaluable role in setting it up and helping it amass the needed startup capital ($50-100,000). A helpful resource is Mission Markets, based in New York City, which is creating community portals across the country and which switched on its first community portal – the ChangeExchange in Oregon – this month.

(10) *Local Branding* – To facilitate more local food purchasing by consumers and businesses, the County might help create a Washtenaw Grown brand. The insignia would identify food local grown or locally processed, and identify food businesses that are locally owned. Over time, the County might work with other groups to launch specific tools, in alignment with the brand, that further encouraged consumers to buy local. These might include local loyalty cards (e.g., Supportland in Portland, Oregon), gift cards (e.g., Edmonton Originals in Edmonton, Alberta), and debit cards (Bernal Bucks in the Bernal Heights District of San Francisco).

Appendix: Interview Transcripts

Below, we lay out each question asked in the interviews (highlighted in yellow), and then provide the answers below. Each bullet point represents one person's response. In some instances, where an individual made multiple points, we provide a bullet point for each. Not every interviewee chose to answer every question. We thought it would be more useful for readers to provide each comment without attribution. This decision also enabled interviewees to speak more freely.
We provide virtually verbatim responses of the seven individuals we interviewed. Most of our editing involved removing "ums" and "likes," removing redundancies, or correcting grammar. We added phrases (with brackets []) or edited out phrases (with ellipses) to improve the flow for the reader.

QUESTIONS FOR ALL INTERVIEWEES

(1) Generally: What are the biggest business gaps in the local food system today?

- Our local food system, our resurgence of farms, is pretty young, pretty small, pretty early, and pretty green. When you compare us to the Northwest or Vermont, there were some remnants of commercial farming here that made it through the 80s intact, [including] family farms that were of substantial size. But until recently, everything was corn and soybeans with the exception of maybe Ann Arbor Community Farm that started up in the 80s. So it's been miniscule….There are some really brave young people starting farms….If you really look at the percentages of what foods people eat [locally], it almost doesn't even show up on the radar. It's growing fast and we're starting to see a lot happening, but everything I referenced is just tiny. We have a seed company now that's forming, but it's tiny. We have a food hub about to happen, but it hasn't really happened yet. We've got [food] finance through Selma Café and but it's kind of a drop in the bucket….

- I'm [a member of] the Washtenaw Food Policy Council, so I'm all about thinking about the local food system and how to improve it, and there are a number of levels to talk about. For instance there is a Slow Food chapter, and it is putting on a Slow Food CSA Fair this coming weekend and it does not have much of a budget….The success of that kind of a fair, which is trying to get people to come in and sign up for a CSA, depends on turn out. But the only people they can communicate to and get to come out are the farmers….I fear they won't get much of a turnout, because they don't have much power to communicate. We're trying to raise money to fund the Washtenaw Food Policy Council, [but] it's hard to do things like that when we can't communicate to a wider audience…I wrote a note to the local director of the Slow Food chapter and said publicizing this kind of event is exactly the

sort of thing the Food Policy Council should be doing for you guys. There are a lot of foodies here in Ann Arbor, which is great, and the farmers markets are all, by and large, successful. But if you go outside of the foodie circle, a lot of people just don't relate to the local food system….they just go to the supermarket, pick up food and eat it. [We need to educate the public] about what's available and to understand where the problems are for access. If you can communicate, you will drive the demand, and you will increase the options for local farms to produce for the local public. Now, there are limited options for the producer, because there is limited interest from the consumer.

- There are big gaps in terms of healthy food access for food insecure folks -- particularly in eastern Washtenaw County but also in under-served rural areas where there are different challenges of access and transportation. In urban areas there's a lack of access to close-by, healthy, culturally appropriate food, and transportation to get to those places. Groceries in underserved areas are a big gap. So when I'm talking about food access I'm talking about possibly growing that food yourself but mostly in a retail setting, from farmers markets and groceries.

- Distribution is another gap, especially at an appropriate scale for small producers. We run farmers markets, and we look really closely at how we're able to help our vendors….Some of our vendors are literally backyard gardeners who've now become mini-urban farmers; [others include] more traditional relatively small-scale growers. Distribution channels that they could get into…places like gas stations or liquor stores…just do not exist. I'll talk to liquor store owners and they'll just say that they don't have enough [customer demand for local food] to make it worth it for anyone to distribute to them. Therefore they don't offer the healthy stuff. They're small business owners. A lot of them will tell you they'd go to a wholesale produce market if it was near where they live, but for the small quantity they're getting it's not worth it. They just don't have the time. And that's [the response of] owners who are decently motivated. So there are just not the systems in place to address that need for both the small grower and the really small retailer. [It's] very different, night and day, between Ann Arbor and the rest of the county. Ann Arbor and suburbs west of Ann Arbor [have] lots of really small sources and little high-end groceries. But I'[m talking about [food distribution in the rest of the county], which is liquor stores, gas stations, [where there are many] EBT and food stamp sales.

- Another [gap] is commercial kitchen space. Right now, I've been running a farmers market over the last 7 years, the calls and questions we get on a really regular basis [inquire about the] availability of licensed kitchen facilities that are affordable and are close-by and have flexibility for start-up

entrepreneurs. "I have a full-time job and I need to do this on nights or weekends."…There's just not that many places. Half of our vendors (we have about 70 total) make under $25,000 per year, whether they're growers or bakers or value-added food entrepreneurs. [Considering the cost of] the gas it takes to drive a half an hour, or the time, and [that] they're often working a bunch of jobs, they can't afford it. There's a kitchen incubator in the middle of the state, [and people using it have to drive] two or two and a half hours away!

- [Another gap is that food producers do not understand the regulatory hurdles they face.] We were a big part of the cottage food law that passed in 2010. That's made a huge difference, but it's really just a first step, and it's very limited just to baked goods and jams and jellies. [It's hard for facilities] to scale up. Most of the folks we talk to don't have the luxury of the money or time to go out and seek out the state agencies and resources that could help them scale up. It's the nature of the food business. It makes the nature of [a food processing] incubator really different from a tech incubator, where it's a 20-something who can afford to spend the time and here's this promise of cashing out. We have two vendors at our market who are school teachers, so they teach all day and then come to the farmers market after that.

- The other thing that I don't think is available is, from the growers' perspective, opportunities for aggregation. There is the Washtenaw Food Hub, which is based in Ann Arbor and is working very well. [But] it's Ann Arbor-centric and that's just how it is. Our market has a racial diversity of vendors, and there are folks that have been historically discriminated against, including in the financing of loans. So we're looking [for how to bring the benefits of a food hub to] that population.

- Another challenge right now is too many farmers markets--oversaturation. I'm excited about the growth in markets overall, and growth in sales and EBT sales, but the challenge is that everyone wants a market and there's too many little markets all over the place. Just on Tuesday afternoons, there are 4 farmers markets in the county. The Ann Arbor Township [wants] to open a Thursday afternoon farmers market, and I'm trying to talk them out of it, because there's already one across the highway. They're choosing a location with no public transportation access and it's not a population center. It's a real disservice to vendors! A lot of vendors will spread themselves thin, [even though] they're pretty cash poor, because these opportunities are hard to turn down. Growers are going to these markets all the days of the week and it's taking away from their time farming and doing business development. And they aren't making enough sales for it to be worth their while. And each market takes infrastructure and systems and money, and what we've seen is a serious lack of professionalization of markets.

- The Ann Arbor Township, before they decided on the Thursday farmers market, had also thought about leasing quarter or ½ acre plots of land to growers. The thing is, the other big need [of local farmers] is affordable access to land. That would have been so perfect! Here they are between Ann Arbor and Ypsi, two urban centers, and [they would be providing farmers with] affordable land, where access to capital for land for the new generation of growers is a big barrier. Small plots are really fine for a lot of small organic production. But then they decided to start [another farmers'] market, which is totally not needed.

- Farmers—that's currently the biggest gap. There's a gap in farming and on farm processing of fresh fruits and vegetables.

- The biggest gaps are in logistics, transportation, and aggregation points.

- In Washtenaw County [it is challenging to] access information and resources, everything from kitchen spaces to information on how to start a food business.

- I think there is a lot of [receptivity] to local products, local healthy stuff, local farms. It would be great to [market local foodstuffs to] institutions. We have such a huge university system here, with the University of Michigan and many other public schools, universities, hospitals. But there are some regulations where schools can't even buy from a local farmer. They have to go through distributors, who do not buy from local farmers. You could have an apple farm across the street from a school, but then you can't sell apples to that school. The regulations make it impossible for a lot of small farmers to sell to bigger buyers.

- I think we've got pretty much everything, we have the local farms the organic and we've got all kinds of foods that are fresh and good.

- Capital is a major concern, especially for small businesses. You [an entrepreneur] put all your money into them and then you want to grow. You need loans but since you have high debt, they don't want to give you credit. Then you have to look elsewhere for money for your businesses. Sometimes I think it would be beneficial if the state were able to provide capital, because it would increase employment. I know in my case I would hire more people if I had more machines.

- People are just going crazy about food safety out here, saying everybody has to have to be GAP certified. I would just like the School of Public Health at

the University of Michigan to do research on exactly where this food borne illness comes from—[to show that it] doesn't come from small farms. It's going to be a very slow ramp up to meet those standards. They're talking about group GAP certification, but that hasn't even been approved by the USDA yet.

(2) Many people argue that intermediate businesses – food processing, distribution, warehousing, and wholesaling – are the biggest gaps in the local food system. Do you agree?

- Do you know about the Washtenaw Food Hub? That's going to be the future primary hub and hopefully that's going to flesh out and be part of the intermediary, distribution.

- I think that the main hang up is access to consumers. There are farmers markets, CSAs, retailers, chefs, restaurants, but it's inefficient for the most part [for farmers to work individually with them]. There's nobody here in Washtenaw county working on distributing produce for local farms. The [emerging] food hub will do a little bit of that, but [farmers still] have to get out there and [use] it. A food hub would fill more of the gap if it [could be a place where] small farms were able to sell at wholesale prices, if there were somebody loading those items from the different farms into a truck and delivering them to chefs and retailers and so on.

- Eat Local Eat Natural was started about 5 years ago by Bill Taylor after reading Michael Pollan's book, *Omnivores Dilemma*. Bill is somebody who more or less has been in the conventional business world, made a bunch of money, got turned on by the organic food world, and decided to put some of that money into the region's organic food system, to help it, to improve it. And it hasn't been profitable, though it might make a profit this year. Demand hasn't been great enough. [You've got to pay for] a warehouse, a couple of trucks, the electricity bills for the compressors, and the diesel fuel. You have to have a certain amount of volume to cover those costs. We started in 2008 when the market was crashing and chefs were having to rule out more expensive foods, so it took us a little longer than it would have had we started in 2003 or 2013. It's by the grace of our founder, who had 300,000 dollars to put into it and keep it going, [that explains why our business is] still going and why it might turn a profit this year. We'd like to see this develop for the next twenty years, but I'm 65 and he's about 60 and we're not going to be around – well, who knows. We'd like to expand the demand from chefs, which right now Is most of our business (about 90 chefs around southeast Michigan), and restaurants, which is expanding, to things like retail, stores like Whole Foods and Co-ops and Slow Food markets around here.

- We [at Eat Local Eat Natural] pick up from farms and it's all meat. We don't do produce. We tried but it's too difficult to mix the two, and we don't have the cooler space. That's why there are produce distributers and meat distributors. So we're on the meat distribution end. And with big animals, you need a USDA inspected slaughterhouse to be able to sell to the public. There are ways to get around that if you have a CSA, you structure it properly, you use small processing slaughterhouses. But if you're going to do what we do, where you sell to a restaurant or to a retailer, you've got to have a USDA inspected slaughterhouse, which is very limiting. There just aren't very many small ones around anymore, because the cost of having USDA inspector around is high, and the costs of getting USDA approval is also very high….So it's a very limiting factor for a small producer, small farmer to handle his production process.

- No, I think we've really got to develop the whole local food system.

- Transportation is everything. In the local season, we try to get stuff direct to the stores as much as we can, so you know you'll see the five Michigan stores dealing with as many as a dozen vendors at a time. It becomes increasingly difficult with every year, on the part of the grower, to be able to bring the products to our stores. I use a house broker down in Detroit, and they have a warehouse and a fleet of trucks that they are sending around the state all the time. And they pick things up and bring them back. There are things I need from specific growers, so its logistically challenging for the stores…It winds up being a lot of stupid paperwork but it's the best way that we've found to still work directly with growers….If I had the money…I would like to have a full service operation that does aggregation and distribution and also helps people with paperwork.

- I disagree. I think we have plenty of wholesalers.

(3) Generally: What kinds of capital do the most urgently needed new food businesses need?

- **To what extent might these businesses resist taking on more debt?**
- **To what extent might these businesses resist losing control through equity shareholders?**

- The kind of capital we started with is angel capital, and the "angel" isn't full time, day to day involved in the business. Nor am I. We're both working with the business about 10-20 hours a week, because the business can't afford to pay us anything at this point. [The company] owes

us both but we've been happy to see it grow and to encourage its growth, and that's the definition of angel capital. If [we] hadn't had angel money, it would have been pretty difficult to get this started.

- Well, [we need] access to land, and then infrastructure on that land.

- We need capital –and this is the case across the country—to recruit and incentivize grocery development. Small to medium sized, I would say. A big chunk of our population, without cars, doesn't have access to a full grocery store. There are communities where big chains are unable to move into. Community survey after community survey after assessment has said that certain communities desperately need a full grocery store, but no one will take that on. The lack of access to capital is a huge barrier.

- We need capital for incubators!

- I was talking to someone who runs another incubator, and she was saying that the banks don't understand [local food] businesses. They know certain industries and know how to look at their financials, but the bank doesn't know how to look at an urban farm, which can be quite profitable. Or how to look at aquaponics. The new world of these things is different and outside the experience of bankers. We at Growing Hope have an old house, a working urban farm, and a retail store. We employ 15-25 people depending on the time of the year. We're trying to refinance and banks don't know how to deal with us. They don't know how to appraise our business, which is a huge barrier.

- A lot of the people getting into [local food] businesses are relatively young, college-educated, and have a whole lot of debt. These are folks without farms and land and equity and those sorts of things. I have friends with various value-added food businesses, which are doing quite well. [But if] you look at them on paper, [you will be] turned off. If you have all that debt, particularly from colleges, how in the world are you going to qualify for loans, or mortgage to buy land, or that kind of thing.

- To have a food hub you would need a warehouse, refrigeration unit, trucks, insurance, and all sorts of certification--organic certification, food safety certification. It's a tremendous initial investment to have such a warehouse. And for my purposes I would need the warehouses to be able to make assurances about certified organic products as well and being able to maintain the organic integrity of certified organic products that really important.

- A lot of the land is really tied up into commodity crops, and to get a hold of that land is really hard. Not many people are selling and most of the productive farmland in the area is tied up in commodity crops. Also, the land in production needs to be more efficiently farmed. There has to be more mechanical harvesting, more mechanization.

- I think it's in the nature of farmers, and of many business owners, to resist taking on debt. Farmers are farmers for a reason: They're independent, they don't want to give up control.

- Gosh, our economy is such a mess, and no matter how many billions of dollars the Food Bill or whatever-you-call-that-thing is, I know there's hundreds of millions of dollars spread around to all these [big corporations]. I would like to see a bigger chunk of money going to real private sector entrepreneurs like myself and others from the Food Hub. I'd like to see more resources directed towards [small business owners]. The amount of money that's sent our way right now, in the category of sustainable ag, is a pittance.

- Debt vs. equity? I think both [are needed]. Equity capital is really exciting potential and could entice local investors. But as a business owner, I'd rather not give up a chunk of business. I'd rather get a low-interest loan and pay it back. Especially if you're just starting out your small business, [with equity investors] you're going to end up having to give up a larger piece of your business. So I think you have to start first with a loan, and then prove yourself. Then you can start opening up to local investors and you can get a better equity deal. [That said,} equity capital does sound exciting. That's probably an avenue I'm going to be exploring with my business, because as I say this I also don't want to go to a bank and get an inflated interest loan. So I do like the idea of equity capital, especially if it's local people. I've been approached by businesspeople who really want to own a chunk of my company and that really turns me off. But I love the idea of opening up a local food business like mine to the community and letting people who may have their money tied up in the stock market do something more conscientious with their money. But to get off the ground, at the beginning, I think folks need debt capital, [and for them] I would love to see some low-interest, maybe subsidized loans.

- Debt vs. equity? A combination. Because sometimes when you start up you use credit cards and then the high balance [generates] high interest. So it would be nice if you wouldn't be paying so much interest and you could finance perhaps with equity shares. [If I can] buy more machines, then I will be able to fulfill more orders and get new markets and I'd be

able to bring in a lot more income. But I'm not able to this, because I just don't have the capital.

(4) Generally: What's a bigger problem? Making more capital available to local food businesses, or making local food businesses more investment-worthy to existing investors?

- This question is definitely a chicken or the egg thing. But I do think that if capital were more easily available, we would see more of that type of business, [especially businesses] that are a little more capital intensive. For starting a small farm, having capital is definitely the greatest barrier--to get property, to get your tools to work your property, a tractor or horses or whatever. You have to do a lot of work in farming before you get any kind of return.

- I work primarily on the sourcing side, so I talk to a lot of farms. These are local small farms and they typically produce a wide range of crops or products, including meat. There are goats and sheep and cattle, and there are chickens and turkeys and rabbits, or they may have any combination of those along with 5 acres of produce. There is nobody handling produce distribution out here. There are models [out East] up in Vermont, in the Berkshires, down into Boston and into NYC, where there are cooperative. A consolidation point like a food hub is necessary--one place where there's a cooler, where can load and store [the produce] for a few hours, where there's enough for somebody to move it downstate or to wherever the buyers are. In the distribution part of business there's a basic nut you have to crack you have to rent the [space], buy the fixtures…nobody is going to do that for you. There's a lot of capital you have to start with. It's harder for a distribution to get started than a farm because there are more hard costs.

- Well the two obviously go hand-in-hand. But when these types of farmers show up at a place like Greenstone and say look I'm going to grow arugula and cut it with scissors, these guys don't seem to match up. Partly it's just that they don't have language in common. And part of it is it just doesn't look the same as other commercial farming ventures, it doesn't have the same profit margins, whatever that would be—the guaranteed subsidies, the crop insurance, stuff that the bank likes to see to have some sense that they're going to be protected. But then again, when we come back to talking about Selma Café and finance, we work with the idea. We make more of a seat-of-the-pants assessment of business models, based more on the person. [We do what banks used to do. We assess] a person in the community that you think is going to have both the integrity and the skills

to make it. But how to transition from a prototype to something that's a substantial market sector—I'm not sure how we make all those steps.

- I would say the latter [making food businesses more investment worthy]. It's also about educating investors about what the returns are. I haven't seen in this community, like you nationally, many socially-responsible investors or social capitalists. But [financing gaps also have] to do with lenders and the way they are looking at things, so it's not just making [food businesses] more "investment worthy." The returns on food businesses are really small, no matter what. [It would be beneficial to help] investors and lending institutions understand what this world is, how it looks different from things they understand. The new, small organic farmers who are often college-educated have a lot of debt but have a lot of advantages. They [operate] near urban spaces, you know peri-urban, right on the edge of rural, where they're really close to markets and where they can go and drop off to restaurants that are 10 or 15 minutes away. [They are also] more tech savvy. So it's all changing, it's a changing world.

- The former, I think [--making capital available]. Again, from my perspective, Whole Foods will deal with a grower for a single commodity. I'll buy one single thing from you if you have it and I have the need for it and you're able to demonstrate the liability insurance, you're certified organic, etc.. But I don't think most other businesses operate that way. So flexibility among retailers would be helpful [to farmers].

- I think there is a big lack of business finesse [among farmers that causes investors not] to feel comfortable with investing in farms. There's a lack of business expertise. Farmers usually have their business plan in their head. They go through their business plan over and over and over again, I'm sure, every day. I think both ends need help. To make more capital available, but also to create a sense of community… a social network that is stronger.

- I absolutely think both, they have to go hand in hand. I think things are changing. Even in this community, people are really getting local investment and Slow Money. I think we're going to see a lot more local investing.

- I think more investment-worthy to existing investors. If investors could see the potential that these businesses have, that would be great.

- It's a chicken and an egg thing. I think there is a true need for more production in the local food scene, and I think as farmers realize that if

more supply is going to flow then they will have to gear up. When there's a clear vision or flow, farmers will rise to the occasion and more people will get into production. People are saying [the bottle neck] is processing or distribution. But I think that the bottle neck is in production. Distribution and processing will ramp up with production.

(5) How responsive are local banks and credit unions to local food businesses?

- We couldn't have gone to the bank for financing [for a meat distribution company], because the bank wouldn't have any kind of model to look at for us.

- In general, not really responsive at all. You just end up having to put everything you've got up for collateral.

- This relationship we've developed with the Farmer Fund program through Selma with the University Bank has been very unique. [Bank customers purchase five-year CD's that back low-interest loans to farmers.] I shopped [this concept] around to a lot of banks before that and they kind of scratched their head and couldn't figure out how to make it work….It was a very visionary thing for Steven Ranzini, at the bank, to say we're going to do this thing, spend the money and time it takes to set this up. I t started with Selma raising some money and thinking that choosing the production [financed] and providing the finance to create it were the most important incremental changes to the food system. We didn't have a lot of four season, hoop-house production. Farmers could grow a tomato with a seed in the summer, but when you wanted to grow something in the winter, you needed capital, a big hoop house, to go with it. People were finding their way into summer production, and throwing seeds into the ground, but it looked like we were going to need buy-in from investors to help make [four season production] happen. So we just started to make our own loans. We put it out there and said "hey, we've got money you can borrow," and people applied and we made loans. And then we wanted to expand….So we started inviting other people in the community to co-invest in those loans, that's when we started calling in the Farmer Fund. Individuals we knew, including ourselves, were writing checks and backing these loans, and we were still trying to do it in-house. [We started to realize] that banks can do things more efficiently than we can. Since we wanted to do a lot of projects, [we decided to] find a bank that would originate for us these loans and start to give us greater sophistication. [We knew we needed a] relationship with a bank, so that when more lending happens, they know us and they're used to us. The University Bank has not put any of its money directly into our projects, but they've talked about how they're interested. I just met Stephen Ranzini at an

event, we had a nice conversation, I told him what I was thinking about doing, we met, and in a very short amount of time hammered out the details of how it would work. There were a couple things that he offered that really made it remarkable and cool. For example, we would take 5-year CDs to get a decent earning….He also agreed to forgive any early withdrawal penalties for any money that's in this program, so that if you never found a farmer you wanted to lend your money to, you could pull your money back out. Or if the 3-year loan period is paid off in 3.5 years, you could pull the money out and start a new CD. That was the structure we set out, and it took about a year to work out the details, get it through their legal department, etc. There were forms people signed, etc. Just seeing there was a need for it, the bank bought into the idea that it's something the bank should be doing. But at the same time, regulators are making it harder and harder for small banks to exist. And when you go in to open a CD now, you fill out paperwork that has something to do with you proving you're not a terrorist. There's all this paperwork, everything gets more cumbersome. It makes you wish you could just shake hands with someone and hand them the money.

- I don't know too many people who are saying, "oh I can't get funded." But you've got to look good on paper. I've got enough on my own mortgage. But credit unions don't do commercial mortgages here.

- I hear from growers all the time, mostly hydroponic and aquaponic growers, that all I need is a guarantee from you that you will buy from me and I'll be able to get a loan from the bank. You need to be able to assure the bank that there's a market for your products, for your service. And then you stand a better chance of getting a loan.

- Well, I did approach a bank for financing and they were sort of responsive but you cannot the amount that you need. After seven months of giving them all sorts of documentation and paperwork, they said, oh, we can give you maybe $20,000. [If that's all I'm going to] get, I might as well remortgage the house or something like that. And I was dealing with a local bank! I've heard only two other stories of businesses trying to get financing, and they were the same as mine. The banks said they want all kinds of things, and in the end they offered very little money.

- I have not taken any loans. All the money I've generated has come through Kickstarter, or through local loans from people I know personally or through my network. I haven't gone after money from the bank. I belong to the local University of Michigan credit union, and as a bank they don't really have a good business program. Whether it's a credit union or

not, I just have a general distrust of our banking system in this country. I'd rather get money from a lot of local investors than from a bank.

- It seems like the Ann Arbor State Bank is pretty responsive, I don't know about the credit union.

(6) How responsive are community development financial institutions (CDFIs) – local financial institutions like the Washtenaw Federal Credit Union that receive federal capital to help mobilize finance in low-income/low-asset communities -- to local food businesses?

- I keep reading about these different CDFI projects, but I haven't been able to find any local ones—they seem to be concerned with housing primarily.

- I've never heard of CDFIs or the Washtenaw Federal Credit Union.

(7) How responsive of existing wealthy investors – angels, angel clubs, venture funds – to local food businesses?

- There are no [angel groups or venture funds] that I'm aware of in the area that are investing in local foods. But there could be. The Washtenaw Local Foods Policy Council could be somewhat involved with a purpose like that. There's a new local company called Reconsider, a capital company, set up primarily as an investment or financial consulting company....It says it helps people reconsider where they put their money, consider investing it locally, including in the local food system. There's a local network of investors that is lacking for businesses.

- Well I think a lot of the farmers who have started up have found their own angels. They have found land owners who would lease land at good rates or something like that. The people I know are more like little angels, making loans in the $1,000-$8,000 range. We're not talking about people stepping up with big chunks of money at this point. I think there are people ready to do that and there are some projects coming up that will take some big investors. There's this clustered farms model that I've been toying with for quite a while, and I've been having conversations along these lines, but it's early and we haven't developed a more sophisticated financing model yet.

- We have a really great situation right now. Our current mortgage is with a private investor, who was someone who supported our organization as a donor and came forward to buy the property five years ago. This was a creative social investment.

That investor made an LLC for the sole person of holding our mortgage, holding our note, to support our work.

- Our community foundation, Ann Arbor Community Foundation, is pretty small – they give out $100,000 or $200,000 per year – and they're just starting to do program-related investments (PRIs). Most of their money is given through donor-advised funds, so folks who want to do community investment do it with the community foundation as their fiduciary. So a lot of money is not through their grant-making program….Most people don't know that, it's not like they advertise….

- You know Zingermans' Community of Business? They support other businesses besides themselves.

- I don't know of a single grower who has an angel taking care of him or her. They are all very self-made. This means that a local producer loan program is not very appealing, because farmers want to do it themselves. And tying yourself to somebody like that must be kind of a weird. A farmer is by nature super independent

- I've heard something about venture capital, but I don't know anything about it. It would be nice if we could have some information. I don't know how to go about accessing it.

- I've been approached by two or three angel investors. Personally, I'm leery of it. I don't want to turn over big chunks of my business to people I don't know. I've chosen to grow my business organically.

- You're probably aware of the USDA starting to grant money to farmers to build hoop houses through a program called DLEG….Those funds have really complemented and in some way replaced the lending that Selma used to do. I think the state put up $850,000 for that program…

- Another program that we're a part of – a pilot involving the Kellogg Foundation, the Michigan Farmers Market Association, Michigan State, and other organizations -- is a loan program for hoop-house farmers serving low-income communities. The growers have to put up 25% up front, basically a 25% match, and they get a loan for the remainder. It's probably $15,000 total for a hoop house. And they're paying that loan by donating food to food- insecure folks. They could choose to pay down with cash, but the way they're structured is that they can pay it down in its entirety over five years and each of the growers decides at what rate.

(8) What mechanisms exist today to link unaccredited (non-wealthy) investors to local food businesses?

- If somebody else wanted to start a local meat distribution company, they could maybe raise 100,000 bucks through crowdfunding. With enough of a socially interesting cause, you can get that from consumers. Or you can provide them with some meat credits or something like that.

- I think it probably happens person to person, through families and small networks. But I don't know of anything like a local lending club.

- I know of a lot of people that crowd source. I'm an investor, and I helped a local restaurant in a small crowd-source way. The restaurant was not a start-up but needed a loan and couldn't qualify at a bank. They came and said this is what I need, and here's my financial information, and this is how it'll work. They created a thousand dollar prepaid gift card. My money "invested" [made me feel] like I could eat for free at this restaurant for a long long time. And then once we used up our thousand dollar prepaid, she was able to raise $10,000 from ten others giving a thousand. Her business was doing really well, it was well loved, but she was still facing really specific capital barriers. And she personally didn't have financial resources, or family resources, so she turned to her community—and it worked!

- A Kombucha beer company here in Ypsi went through IndieGoGo, and I think they were not successful in raising money. I have 15 days to raise $15,000 more for my work on KickStarter!

- The food hub has been struggling for a quite a while to create a subscription or legal document to accept [money from unaccredited] investors, and we're still working on that. I hear that a food coop in the Upper Peninsula spent $35,000 creating a subscription just like we're trying to create down here, and they will share it. We hope to get that document as soon as possible. We've already spent $5,000 struggling with a SCOR for and working with lawyers.

- I did see that somebody last year trying to put together a Slow Money chapter, but I haven't heard anything at all about that.

- Have you talked to Angela Barbash? She's an investment person, and her business is called Reconsider. Her whole thing is Slow Money and and connecting local investors to local businesses. Paul Saginaw of

Zingermans' also is really interested and involved with Slow Money and BALLE.

(9) What NEW types of capital do START-UP local food businesses want now?

- **Type: Debt, equity, royalty?**
- **Monetary size of finance?**
- **Term (terms of payback, if debt or royalty; or terms of exit if equity)? (1 year, 5 years, or 10 years?)**

- I think each business is unique. My common experience in running businesses is self-financing--with a little bit of money that I had personally or that I was able to borrow from a family. I think that's what most of the people I know are doing. Certain projects on certain scales are going to need that more, but I'm seeing people that started doing something in their basement and just grew it out of their own revenue.

- Totally debt. A hoop house kit is $8,000, so we'd go up to $15,000, and it's grown to where Tom Becker was able to borrow $45,000. The terms used be three years at 6%, but now the DLEG finance is 4% for 6 years.

- If people are on a small scale, you could look at different models of how to produce different crops. If you're growing salad greens, you can toss seeds out with your hand, cultivate with a hoe, and harvest with a knife or scissors. For a bigger scale, you want a BTS Walk-behind tractor that cost thousands of dollars. There's also the fancy tractor-powered equipment. But most people are starting off very small scale and they throw people with scissors at it rather than other equipment, because that's something they can pay out of cash flow.

- I was at one of these small farmers conferences, and I heard this one speaker talking about how most people, when they're starting out farming, they don't really even start to think about it as a business until they get about three years into it. They think of it as a big garden that's going to feed them and provide some cash flow. In time I think we're going to see some people come in saying, hey, let's bring these elements together with a business plan, let's produce at a price point that can compete with the stuff being brought in, let's produce it at a volume where we can keep it on the shelves! That's the kind of stuff I'm looking at, but I don't think we're quite there yet. It may involve cooperative production like Organic Valley. It may involve universities. It will involve bringing in growers who are interested in being efficient and staying on the farm rather than being at the farmer's market pushing yams.

- Zingerman's, which is a giant around here, couldn't get any financing for the extension of its deli. Zingerman's is financially successful, a major employer, and has a proven track record, and yet the local banks wouldn't lend to them. It was because of the way the banks did the valuation. I generally think that banks need to be more friendly to local businesses, and offer helpful information and reasonable interest rates.

- People have successfully used Kickstarter, small micro loans, or their own cash flow.

- I think they're looking for terms where investors could get a CD with 5%. People would be just tickled with 5%.

(10) What NEW types of capital do MID-SCALE (with 3-7 years of successful operations under their belt) local food businesses want no?

- **Ask the same sub-questions as in #7.**

- Probably capital to expand.

(11) What NEW types of capital do LARGER, ONGOING local food businesses want for potential expansion?

- **Ask the same sub-questions as in #7.**

(12) Among the three types of local food businesses mentioned above – start-ups, mid-scale, and large ongoing – which would you prioritize for new local investment?

- Those terms don't even resonate with me. The category I'm most interested in right now is start-ups that are larger. And larger probably still doesn't get above mid-scale.

- I would say is that the CSA and Farmer's Market models seem to be doing pretty well….But we aren't seeing a lot of [direct purchasing from farmers] crossing over into institutional buyers. I think that it's for a lot of reasons. What does it take to add ten CSA shares? Oh, I just go a little wider with my field and hire a few extra hours of time—but don't have to change my production model or my price point. If [farmers] start to look at the transition, they'd have to make [to increase production seriously and sell] that food away at half that price to a wholesaler. It doesn't make sense [to them]. So I think that's why visioning this thing from the ground up as

a business model that's designed to grow for institutional buyers is going to be essential.

- I'm particularly for the little guy, for the start-up, or helping the start-up get to the mid-level. Everyone and their mother wants to package their BBQ sauce, but that's not necessarily the best use of funds. But if someone has been selling BBQ sauce successfully for four years now at 5 different farmers markets and is ready to move to a whole different level, I feel like that's really where there's an opportunity.

- Start ups.

- Oh I think small businesses. They are the ones that can grow. It's a little seed! Small business, especially in an area like Washtenaw County, drive the economy here. Potentially these small businesses can employ quite a few people.

- I would have to say existing (not start-up) businesses should be prioritized. It makes sense to strengthen what we have, and then work from there….Helping and guiding start-ups is important, but maybe not the priority for investment.

(13) Indicate whether each of the following would be an important addition to the capital landscape for Washtenaw County:

(13a) A web-based inventory of all current local food investment opportunities?

- Great idea, and something like the Washtenaw Food Policy Council should be sort of a hub, I would love for every town or region to have a food policy council that has a website that includes a hub for local investing, ways for people interested in investing in local food to find out where they can invest in the local food system if they want to.

- Sure.

- I think that's a great opportunity.

- Heck yes! Again the farmers would have to come forward and identify themselves as being in need of investment

- That would be great.

- Sure. It would be helpful just to have a point of reference we could point people to.

- Yeah. And there'd be links to where you could contact the local business? Sure, why not? Totally cool.

(13b) The expansion of food cooperatives? (That is, consumer cooperatives like grocery stores, producer cooperatives for farmers, worker cooperatives, or perhaps a hybrid consumer-producer coop involving these various classes.)

- People still have to earn a living to do what they do, and it doesn't matter that much whether it's privately owned or cooperatively…
- Absolutely…producer co-ops for sure.
- That's a great idea.
- I don't think we need more consumer coops. I think we need producer cooperatives….
- [We should incubate] a co-op here of urban growers…We have a collective here where we provide tools and equipment to small farmers, [but] it's not a full cooperative. The only danger is the organizational development [needed for] a non-profit or co-op is really intense….it's tiring. [But]I like the idea of cooperative buying and aggregation, and I've seen that work well.
- Sure. A really helpful thing would be developing aggregation hubs. For example, the Eaters Guild is a small organic local farm over in Bangor, Michigan, and they [have a loading] dock and cooler and will aggregate for people. Its super limited, but we let people use our dock.
- I like producer co-ops. It takes a lot of energy, but there's really a need to develop the markets. There are a lot of new farms, but what is really lacking is a development of the markets, and the distribution of [their] produce and products….There's all these new farmers growing green beans, but they're all going after the same couple of accounts and farmers markets. How do they get the stuff sold to a wider market?

(13c) A new revolving loan fund for local food businesses?

- Absolutely. Or just [pay more] attention to current ones and expand those, like the Farmer Fund.
- If you're a food business, you're local, and you're a start up, you need all the capital [you can get]. It is hard to see businesses putting money into a fund like that.

- Yeah, sweet.
- Yes! That would work.
- That is a great idea.
- That sounds really cool but again I'm not a grower.
- Sounds cool, but I could see a lot of problems in terms of businesses not [being able to repay these loans] in their cash flows. Like, I need the money but I can't spare $1,000 every month.

(13d) A consortium of banks providing more credit to local food businesses?

- That's a great idea, but what is their incentive to do this? Unless they are SBA guaranteed loans—and a lot of them do go to food business, small restaurants, and disadvantaged groups and minority groups. It would take something like that, because the SBA lending takes the risk away from the lending institution….Banks have owners that want a return on their capital.
- That'd be great! Especially because that consortium can become more educated about what the needs of those businesses are!
- Absolutely! Let's get these bankers to start helping their local food system!
- Sounds good to me.
- Yes.
- Yeah that's good if it could work.
- That would be great.

(13e) Creation of a network of food businesses and investors whose "preexisting relationships" facilitate local investment?

- Yeah. [Plus] education about why it's important and communications bringing people together. There's a local investing network that is lacking for small farms.

- That exists to some degree….There's all kinds of networking [about] what-not, but it's mostly been to get people to talk, less focused on something specific like capital [raising].

- Like Slow Money? Yeah that's all good. Unless it [just focuses on Ann Arbor], which is how many things can start to feel --the same old, same old…It would be awesome if it could remain really open and accessible, culturally and otherwise. We need to educate wealthy investors and VC funds about these opportunities….

- Yeah, let's do it.

- I think that a big piece would be mentorship and networking, to create an entrepreneurial environment….

- Oh that'd be wonderful!

- I like that idea. I wish my company, Whole Foods, could do more like that….I was talking to my mushroom guy and I was asking: When are you going to be able to open up a house in Detroit, grow mushrooms in Detroit and distribute from there? And he said, "I'm so ready! Whenever Whole Foods wants to make the investment, and I've got all the equipment and all the know-how, I just need the capital! It's the capital needs, he said the amount would be $750,000-$1,000,000, and if he had that in the bank on Monday, he'd be in production in four months.

(13f) The use of tax-exempt municipal bonds to expand credit to local food businesses?

- That's a great idea…a subsidized capital instrument. Rather than bailing out banks, this would be a much better use of public capital. [Make] loans to small businesses [and create] incentives to form small farms through people who have access to capital.

- That's really intriguing.

- Never thought of it, cool.

- Yeah, let's do it! I say "yes" to anything that gets money [into] local food businesses.

- That sounds like a dream. Then you'd have to get everybody in the county to vote on how they'd like their tax money to be spent, right?

- Oh my goodness, yeah!

- That's great. We have the Public Act 88, and the Office of Economic Development could create something like this…

(13g) Local investment clubs focuses on local food businesses?

- Yeah. Like LION [the Local Investment Opportunities Network of Port Townsend, Washington]?

- Yeah, I think that's really cool, because then people can get [be part of] a group that's taking the power back. People can try to work with firms that are "green," but it's much more helpful to take control and take your own money and put it to work locally. Then investors can be really involved.

- Yeah, there's been some people toying with that. I haven't seen it do a whole lot yet. That's… what the people who have invested in the Farmer Fund are [doing] without calling it that.

- Yes.

- Yes.

(13h) A local crowdfunding platform?

- Yeah, I like that.

- These are all exciting ideas!

- Yeah, absolutely. I had great success with Kickstarter. I did Kickstarter because it had the most recognition [and greatest] convenience. Part of me is apprehensive [about Crowdfunding] because it's a little like asking for a handout, but I also see the benefit. It really enables people in the community to help out and make them feel like they're a part of the local food movement. But I also feel like Kickstarter is used by more privileged people. I would love to see it made more accessible to low-income people. There's a lot of privileged people asking for money in Ann Arbor, but I did it myself and I'm really grateful for the support I received. So I have mixed feelings about it…

- Yes!

- Yeah, that would be something! Small investors? Yeah, yeah!

(13i) A stronger capacity to direct tax-deferred IRA monies to local food businesses?

- This could be [very big]. People would have to have some confidence that they would get a return besides a social return. Some help from the public sector would go a long way to helping, perhaps by offering tax incentives, etc. Again, education would be a really important part of this.

- That would be a strong motivator for me to open an IRA, get a CD. There is the interest and culture in this county to do this kind of thing. …I'm trying do something (like this now), maybe RSF Social Finance. But finding people that are financial advisors and really get this -- that'd be huge.

- Sure, they're all great.

- Right.

- Heck yea!

- Yes.

- Yeah, absolutely! Anything we can do to get more money to local food businesses.

(14) What other policies should the County embrace to facilitate investment in local food businesses?

- I don't know what policies they have in place currently to help local food business!? Anything they can do—tax credits, etc. – [would be helpful.] I see local governments giving away so much [money in the form of] incentives to corporations to build their factory here. It's totally wrong if the same support is not given to local businesses. As a local business owner, I cannot afford land for building in downtown Ann Arbor, and it would make sense for local government to put some effort into enabling local businesses to become a part of the downtown fabric. I don't have much faith in that—the money seems to be there only for chain stores and high rises.

- When it comes to food safety and gaining access to institutional buyers in particular for small farms, there's a need to get young people into these farms that are going to turn over and go crazy in the next 2 years , that are either going to be converted to neighborhoods, or housing, or they're

going to stay farms and they will be large factory farms or they will be smaller animal farms, which is a better option because it employs people and families, and for other reasons, environmental, social, local economy reasons.

- For small farmers to be able to thrive… they need to gain access to some of the bigger buyers in the area. Without a doubt the local institutions, particularly if they have public money behind them, like university and hospitals. I think all of those should be required to gear at least a portion of their food purchasing to local farms, however you define local.

- Local produce needs some kind of safe food certification….There needs to be some kind of insurance that there's not salmonella in the lettuce or spinach. But getting GAP certified is prohibitively expensive for small farms. The Michigan food policy council, its farmers task force, is working on thing like a group GAP certification, but it's not there yet. For local meat, you have to make sure it's coming from a USDA approved slaughterhouse, to a cooler in a warehouse with the right equipment, and ensure that it's being stored at the right temperature, that it's being handled properly, with the right kind of delivery.

- A mechanism that would be helpful are workshops, like the highly educational one Michael Shuman put on. There should be more education for the general population and the business community about how to support local businesses.

- The institutions, like the University of Michigan, the community college, and food-service places, need to have a political will to pay more money for their food. I've been working with U of M for many years, and it really varies from chef to chef whether or not they will let [local food] in or not. Their budget and the divisions behind them are a huge barrier. There has to be a commitment.

- I don't think they're really paying attention right now to the possibility of expanding our local food system. The economic development mindset is to go find another Toyota or something…I think they've gotten burned a lot on these one big entities that come and go. But farmers are pretty rooted….[They also provide jobs that are pretty easy entry….

- The county could be more active in figuring out food access issues, and figuring out how to use tools (like New Market Tax Credits) to develop places that address core issues of food access—such as small groceries. The county has done a lot of community assessments for Ypsi that all say

we need a grocery store, so I'm trying to talk to people to find anyone who knows anyone who's a grocery operator. But I'm not an expert in that, so it shouldn't really be my role.

- [State loan programs are open to applicants] folks in urban and rural areas now, but in general a lot of the agricultural development financing focuses on rural development. There are restrictions if you're doing the same thing but you're not rural.

- [Public entities should provide] more information for small businesses and a website where discussions could take place and where there would be information about venture capital and that sort of thing. Sometimes what you need is information! [For most small business entrepreneurs,] you're busy with what you're doing, you are running your business, and you have no clue as to where you could go for help or for financing. Getting information is crucial.

- The SBA offers help but it's not concrete. We should be making the resources that we already have more practical.

- The county will look at the county-wide level, because that's their focus. But… there's a danger that a generalization [obscures] specifics. [Even though Ann Arbor and Washtenaw County look economically strong, that does not] mean there's not huge gaps in the places that are underserved like Ypsilanti or the rural area. Eastern Washtenaw is very different than Ann Arbor. If there's a kitchen incubator in Chelsea, west of Ann Arbor, that's a 40 minute drive for people who can't afford the gas in Ypsi. That would be my caution…. There's lots of local foodie-ism, but that doesn't necessarily mean that [it's positively] impacting the food insecure population or the food justice populations at all…. Thinking about this from an equity and grassroots angle: Who are the folks really underserved by capital? And who doesn't have that capital at all yet? How can we make sure that the needs and opportunities of these marginalized folks are being considered?

IF THE INTERVIEWEE IS A FOOD BUSINESS, ALSO ASK:

(1) What have been the capital needs of your own business for the past five years?

- I have met them by growing organically and not over-expanding. By growing slowly, I never needed funds. But I also put everything back into the business. I also got loans from people in the community.

- I was first able to finance the farm through my uncle, and he entered a land contract with me. After 5 years, he said go find your own money. Which shocked me!

- I've met my own capital needs through my friends and family.

(2) How responsive have existing capital providers been to your needs?

- My independent local bank financed me after my uncle told me to find my own money. They also allowed me to make a single yearly payment on my 20 year mortgage with them, which really helped my cash flow. My local bank is about 4 miles from my farm in the little town of Mulligan, so I have a great allegiance to local financing.

(3) What finance needs do you anticipate over the next five years?

- We're in a growth stage. We are ramping up production, so I have had to commit to a bigger refrigerated truck and we're shell shocked on the lease payments that we're looking at. A bridge loan would be helpful so we can add other local products and use the full capacity of our truck. We're in for about 6 months of hard times and austerity.

- That's a great question! It's been three years, we're going to be moving into this Food Hub project. There's a big kitchen being built there with USDA loans, and I'm going to benefit from that. And for that expansion, I'm looking, going into next year, to raise $50,000 minimum to buy more local produce and more barrels to make sauerkraut in. I'm looking to put together a local investment scheme where I can sell shares maybe, with a low interest 2% return, perhaps with product being part of the interest.

- I'm looking for used equipment so I can purchase it myself. I don't see banks helping out. I will just be doing what I have been doing. In reality, credit cards I have -- some charging 23% -- would be so much easier if I were paying 7 or 8% to the bank….I don't have a place to grab money from, I have to be saving it.

(4) Which alternatives (in question 13 above) would be most useful to you?

- The bank consortium one makes the most sense to me. They will have a whole lot of money right away. And the municipal bond too.

- The producers' cooperative is the one I think will actually prove to be the most viable, and will rise to the level of a larger entity that then gets the

attention of investors. I think what Organic Valley has modeled is pretty remarkable, and certainly they've been able to access a lot of capital.

- A two-year, 5% percent loan would take a lot of sweat off. But we haven't even entertained that right now, because we're taking from our own cash flow and asking everybody to take a little less. This is kind of good, because it gives everybody a sense of commitment to the process.

- Probably venture capital! We'll look into it.

- I think it's really important to get information [about local investment opportunities] out to the businesses, some kind of practical guide to explain how to recruit and solicit funding. Easing up on the credit score, requirements, paperwork, ugh, would be helpful. A banker told me that I missed a payment in 2007, and…I guess that was it. That's not practical! Does it make sense that this single thing seven days late affects me like that? It'd be helpful for banks or other funders to see the whole picture….

[We need a] social network, where people get to meet one another. It's amazing how well Slow Money works--you don't have to have all kinds of other stuff, just a promissory note. It's pretty incredible. But there haven't been any Slow Food events around Ann Arbor. We're trying to get something together with the food hub, but there's got to be more organizational efforts….