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Tools for Community Self-determination

Prairie Heritage Farm. Photo © Ken Meter, 2017

EXPANDED GOLDEN TRIANGLE, MONTANA

POTENTIAL COMMUNITY FOODS COLLABORATIVE

Produced For **Montana Cooperative Development Center**

by
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August 2017

EXECUTIVE SUMMARY

In response to requests from a diverse group of local food advocates, the Montana Cooperative Development Center (MCDC) has facilitated discussions that may lead to a new food collaborative in the Golden Triangle region. One concept under consideration is a multi-stakeholder cooperative that would operate as a food hub network. The steering committee is open to changing this vision as it learns more about local markets, which is part of the deliberation phase in forming any new cooperative.

The first step in these deliberations was to perform a market analysis and demand study to further inform the scope of cooperative's activities and services. Crossroads Resource Center and New Growth Associates have been contracted to produce this analysis.

Although we have concluded from this initial analysis that the concept of a multi-stakeholder co-op is the correct long-term vision, immediate focus should be placed on building a stronger network of collaboration among community foods initiatives across the region. Early steps in doing so should be taken strategically so that the foundation for a multi-stakeholder cooperative is carefully constructed over time.

Our consulting team was given the following four objectives for this phase of the work:

Objectives

1. Define and describe the market area, including demographic and geographic data and challenges, for a 150-mile radius around Great Falls.
2. Describe the basic elements of a local food hub system and principles to consider in system design, including case studies and relevant models from other communities in the country.
3. Acknowledge the social service aspect of the enterprise and assess its required economic contribution.
4. Quantify potential income streams from identified stakeholder groups.

Market Area

The leadership team defined the initial area of interest to include the following counties: Blaine, Cascade, Chouteau, Glacier, Hill, Lewis and Clark, Liberty, Phillips, Pondera, Teton, and Toole Counties. This geography was chosen to include the Golden Triangle plus adjacent areas that might be engaged in a community foods system.

Key Findings

1. While several established farmers grow high quality food and are very interested in selling to local markets, it seems unlikely that the amount of food produced for sale in Expanded Golden Triangle communities is sufficient at this time to support a new aggregation business. Most emerging farmers rely upon direct markets to get started. Many growers are considering also serving wholesale markets, but are just getting started with these new market channels. The region also will need to cultivate new farmers to achieve the long-term vision.

2. Growth in local food production also has been hampered by the apparent limited interest that Great Falls area residents hold for purchasing and eating food from nearby farms. Raising awareness among residents will be a critical strategy, as will making local food purchasing both convenient and competitive.

3. Several key buyers, including a hospital food service, grocers, and selected schools are deeply interested in purchasing more food from the region's farms if it is grown. We have identified at least $22 million of potential institutional markets. Household consumers purchase another $619 million of food.

4. Direct sales from farms to household consumers will continue to be important to farms as well as consumers for the community connections they form. These could also hold great economic importance if a concerted effort were made to purchase from Golden Triangle farms: if each resident of the region purchased $5 of food each week from some farm in the region, farmers would earn $56 million of income in a year.

5. The Steering Committee should frame its work as an initiative to build *community-based food systems*, not merely an effort to increase local food trade.

6. The Expanded Golden Triangle region may gain local efficiencies by combining aggregation and processing in a single firm, or on a single campus. A regional network of supportive infrastructure (such as storage facilities, meat processing plants, distribution, etc.) is likely to be required as well.

7. The first steps toward the formation of a multi-stakeholder cooperative are likely to be discrete steps that achieve solid success and also build mutual trust and a culture of collaboration.

8. The Steering Committee should select one or two action strategies from those that are proposed (see list below) and form collaborative networks by accomplishing one or more of these as soon as possible.

We strongly believe this is a time for building stronger collaborative networks, not launching new bricks and mortar facilities or a new business. We encourage members of the steering team to study the examples of Northeast Indiana, Shreveport, and South Carolina as examples of such a strategy to be adapted to the Expanded Golden Triangle.

Such networks will build trust by achieving success in attaining discrete goals. Note that it is more important to build a strong collaborative network than to achieve rapid business success, yet it will also be important to achieve business and strategic successes in time in order to build trust and gain lasting respect in the community.

Organizing Strategies (Next 12 Months)

- Hire a community foods coordinator to convene key stakeholders, form collaborations, and build networks of trust among farmers, wholesalers, processors, school and hospital food services, grocers, food banks, and other key leaders, as well as lead education initiatives. Education initiatives may include crop planning and pricing for wholesale markets, food safety standards and protocols, scratch cooking in institutional settings, etc.

- Expand and convene clusters of leaders already engaged in aspects of community food systems to identify opportunities for collaboration. It may be useful to formally hire a facilitator for the most interactive sessions.

- Create a formal unified vision among these leaders to construct a community-based food system that builds "health, wealth, connection and capacity" in the Expanded Golden Triangle region.

- Contract for one or more feasibility studies that can document the economic viability of each prospective system component. Discuss in the study whether an integrated processing and distribution initiative, modeled after Mission Mountain Food Enterprise Center and Western Montana Growers Cooperative, could be mounted in Great Falls, Helena, or elsewhere.

Additional strategies that might be considered and pursued would be:

Near-term (1-2 years)

1. Coach any farmers who choose to participate through a process of establishing agreements about how to collaboratively market food items, determining which farms would supply which products for local markets, setting price minimums and maximums, and ensuring that the identity of each farm is protected and passed along to buyers as wholesale sales are made.

2. If these discussions lead growers to form one or more formal grower cooperatives, then extend additional technical assistance to interested farmers and ranchers.

3. Raise awareness among Golden Triangle residents and rural storeowners of the importance of purchasing food from local farmer cooperatives that serve their communities. One campaign that might be run is an "Eat Five, Buy Five" campaign promoting healthy eating (five fruits and vegetables each day) and local economies (buy five dollars of food from a local farmer each week). First steps would include compiling information on existing campaigns (such as the Montana Local Food Challenge and the Choose Local Campaign), and coordinating through the Montana Department of Agriculture with these initiatives to maximize their reach and effectiveness.

4. Work with institutional food buyers in the region, including food banks, to assist them in forward contracting to source more beef, grains, and pulses grown by the region's family farms and utilizing them in their food service programs. Coach staff in economical and tasty preparation of raw food products from nearby farms. Margaret Corcoran would be an excellent resource for this process.

5. Explore collaborative processing and aggregation among Great Falls area growers and the Ursuline Center, St. Vincent de Paul, the Montana Food Bank Network.

6. Explore how a Blackfeet-owned meat processing plant could best interface with this collaborative in the Great Falls/Helena region.

7. Identify and implement a small number of back-hauling opportunities that can be launched with minimal new infrastructure (e.g. shipping fresh produce from Big Sandy and Havre to Great Falls in empty food bank trucks, or shipping Blackfeet branded beef to Great Falls markets.)

Longer Term (2-3 years)

8. If the above collaborations are launched successfully, engage Quality Foods Distributors, Thomas Cuisine Management, or individual hospital food service directors to assess their interest in joining the board of a multi-stakeholder cooperative similar to Fifth Season Cooperative.

9. Request assistance from MCDC in completing the process of legally forming a regional, multi-stakeholder cooperative for the Golden Triangle. Negotiate a formal agreement with all parties to collaborate on all fundraising and investment initiatives to avoid duplication of efforts.

10. Develop an expanded network of packing, storage, and smaller "hub" distribution facilities in Browning, Havre, and possibly other locations along the Hi-Line, thus creating more "circular" distribution routes that would carry food to and from each area, and connect to co-op facilities in Great Falls. For example- shipping fresh produce from Big Sandy to Havre to Great Falls in empty food bank trucks, or shipping Blackfeet branded beef to Great Falls markets.

11. Align with Montana's existing, concerted efforts to train/equip new farmers and make sure each graduate has access to land they can farm at a commercial scale.

Finally, it will be important not to overthink this. What is most important is to commit to a collaborative vision to building an inclusive and responsive community-based food system. The specific steps that may get taken are less important than whether they are (a) taken with an eye toward the long view (building a multi-stakeholder co-op is one such long-term vision); and (b) practical and achievable in a way that will build closer trust among key partners in the Golden Triangle.

Bear Paw Meats in Havre. Photo © Ken Meter 2017

TABLE OF CONTENTS

ACKNOWLEDGMENTS

The following 52 people made significant time and informational contributions to this study by partaking in interviews and offering data useful to our research. We are indebted to all:

First name	Last name	Organization	Position	Location
Stanley		2J's Fresh Market	Meat Manager	Great Falls
Marlo	Auger	Tribal meal program	Cook	Browning
Jim	Barngrover	Timeless Seeds	Founder, Procurement & Grower Liaison	Ulm
Jenn	Battles	AERO	New Executive Director	Helena
Audra	Bergman	Groundworks Farm	Owner, Farmer	Fort Shaw
Eric	Bergman	Groundworks Farm	Owner, Farmer	Fort Shaw
Loren	Birdrattler	Blackfeet Nation	Project Manager	Browning
Seth	Bostick	Thomas Cuisine Management	Executive Chef	Kalispell
Janice	Brown	Montana Cooperative Development Center	Executive Director	Great Falls
Jay	Buckley	Organic Heaven	Owner, Farmer	Great Falls
Ashley	Callaghan	Bear Paw Meats	Owner	Havre
Gayle	Carlson	Montana Food Bank Network	Chief Executive Officer	Missoula
Chris	Christiaens	Montana Farmers Union	Special Projects Director	Great Falls
Josie	Cliff	Red Paint Creek Trading Post & Pantry	General Manager	Ft. Belknap
Margaret	Corcoran	Benny's Bistro	Former Owner, Operator	Helena
Courtney	Cowgill	Prairie Heritage Farm & Bakery	Owner, Farmer	Power
Jacob	Cowgill	Prairie Heritage Farm & Bakery	Owner, Farmer	Power
Doug	Crabtree	Vilicus Farm	Owner, Farmer	Havre
Danelle	Crary	Crary Ranch	Owner, Rancher	Choteau
Marceline	Crawford	Tribal meal program	Director	Browning
Roy	Crawford	Blackfeet Food Distribution	Director	Browning
Mike	Dalton	Sunburst Unlimited	Executive Director	Great Falls
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Brandon	Fish	Blackfeet Community College	Intern	Browning
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Stephanie	Hystad	MT Dept. of Agriculture	Business Development Specialist	Helena
Anna	Jones-Crabtree	Vilicus Farm	Owner, Farmer	Havre
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Deb	Kottel	St. Vincent DePaul	Executive Director	Great Falls
Barb	Lassiter	Great Falls Farmers Market	Manager	Great Falls
Randy	Lindberg	Quality Foods Distributing	Co-Founder/Owner	Bozeman
Taylor	Lyon	Bear Paw Development	Director, Food and Agriculture Development Center	Havre

Lea	McGiboney	USDA Rural Development	Area Director	Great Falls
Kaleena	Miller	AERO	Program Manager	Helena
Dawn	Newman	Blackfeet Community College	Regional Director, USDA Extension	Browning
Dave	Oien	Timeless Seeds	President, Founder	Ulm
Charlie	Overby	Quinn Farm and Ranch	Operator	Big Sandy
Jill	Owen	Mountain View Market	Owner, Operator	Choteau
Bob	Quinn	Quinn Farm and Ranch	Owner, Operator	Big Sandy
Aubree	Roth	Montana State University	Montana Farm to School Director	Bozeman
Jolene	Schalper	Great Falls Development Authority	Director of Business Development	Great Falls
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Stephen	Skierka	Marias River Farms	Owner, Farmer	Chester
Jan	Tusick	Mission Mountain Food Enterprise Center	Director	Ronan
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Michael	Vetere	2J's Fresh Market	Owner, Operator	Great Falls
Jerry	Waldner	East End Colony	Produce Manager	Havre
Joe	Waldner	East End Colony	Secretary	Havre
Joe	Waldner	East End Colony	Pork Coordinator	Havre
Kathy	Weigand			Helena
Isaac	Wurtz	St. Vincent DePaul	Food Bank Manager	Great Falls
Sally	Young	Greenfield School	School Food Service Director	Fairfield

Steering Committee Members

Members of Co-op Feasibility Study Advisory Team

Eric Bergman – Groundworks Farm
Jay Buckley – Organic Heaven
Gayle Carlson – Montana Food Bank Network
Chris Christiaens – Montana Farmers Union
Mike Dalton – Sunburst Unlimited
Kaleena Miller – AERO
David Oien – Timeless Seeds
Lisa Schmidt – A Land of Grass Ranch

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Janice Brown - Montana Cooperative Development Center, Great Falls
Taylor Lyon – Bear Paw Development, Havre

INTRODUCTION

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Market area – The "Expanded Golden Triangle"

The leadership team defined the initial area of interest to include the following counties: Blaine, Cascade, Chouteau, Glacier, Hill, Lewis and Clark, Liberty, Phillips, Pondera, Teton, and Toole Counties. This geography was chosen to include the Golden Triangle plus adjacent areas that might be engaged in a community foods system. Full profiles of the food and farm economies of these counties are available in Appendix A.

The original Golden Triangle was named because of the wealth that was once built by growing wheat in the expansive fields east of Glacier National Park. The "triangle" shape is roughly defined by the cities of Great Falls, Havre, and Shelby, but these are merely outposts of a massive rural region containing more than 15 million acres of farmland, which amounts to a full 25% of the Montana's land under cultivation.

Those who initiated this study wished to focus attention on a wider region for several reasons. First of all, the market in Helena looms important, with its concentration of state employees and tourists. Furthermore, leaders wished to make sure that three tribal areas — The Blackfeet, Fort Belknap, and Rocky Boy Tribes — would be included in our consideration. This geography also includes some 30 Hutterite Colonies (see list in Appendix B). We have chosen to call this the "Expanded Golden Triangle."

Today wheat accounts for half of all the farm products sold in the expanded region, and indeed nearly half of all the wheat grown in Montana. Cattle-raising is the second-largest farm industry, while barley ranks third. These three commodities account for 84% of farm cash receipts earned by the 7,013 farms in the region as of 2012.

Table 1: Top farm products in Expanded Golden Triangle in 2012

	$ millions
Wheat	641
Cattle & Calves	295
Barley	130

Source: Census of Agriculture, 2012

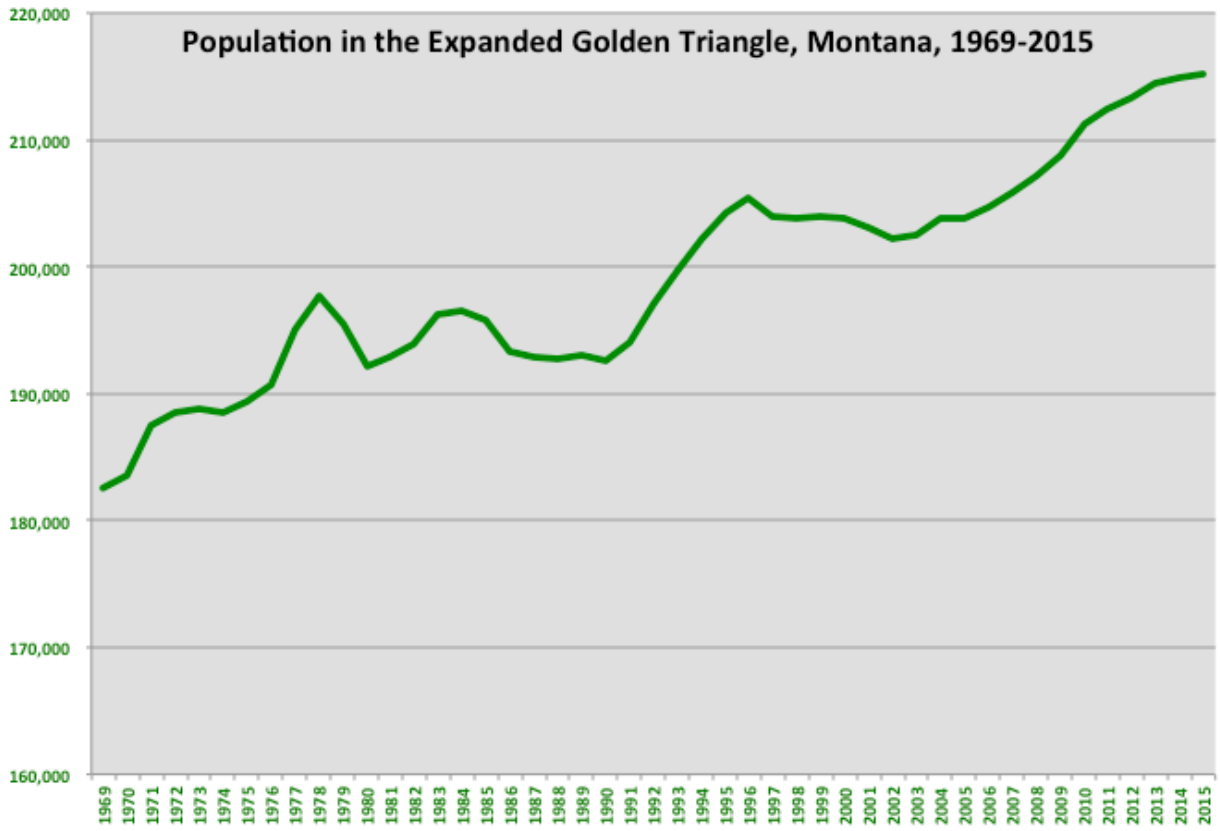
This makes the Expanded Golden Triangle a region of very large farms as growers responded to global market forces that required them to adopt large-scale equipment. As of 2012, the region boasted 2,946 farms that were 1,000 acres or larger. With a moderate climate helping to offset a short growing season with limited water, considerable economic power has been built by agriculture.

Yet the expansion of agriculture has also encouraged an exodus of the population from rural communities, as machines replaced labor and farm children opted for more urban lifestyles.

Socioeconomics

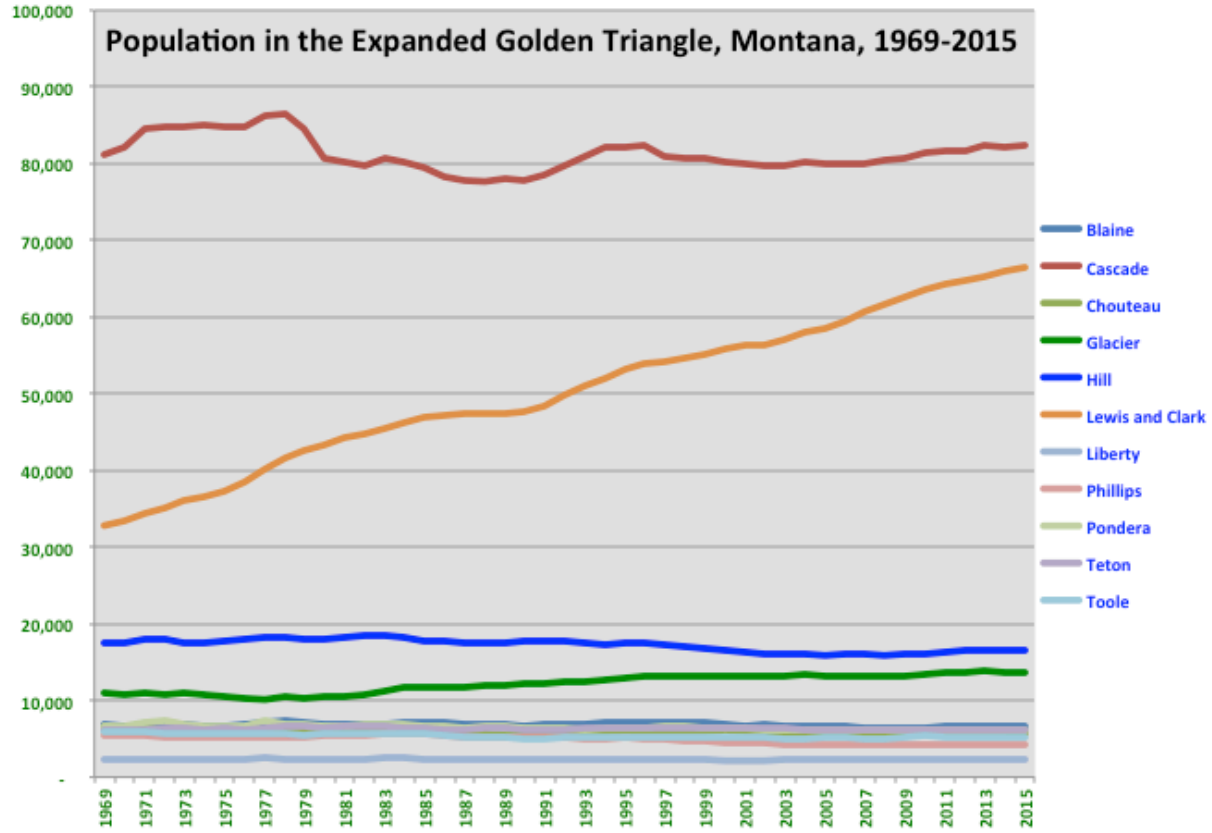
This expanded region hosted a population of 215,211 residents in 2015 (Bureau of Economic Analysis). As Figure 1 shows, this represents a healthy increase of 18% since 1969. Yet as the next figure (2) demonstrates, most of this increase has occurred in Lewis & Clark County as the Helena economy expanded. All other counties in the region have experienced either steady or declining populations. 59,563 reside in the City of Great Falls (Federal Census, 2011-2015).

Chart 1: Population in the Expanded Golden Triangle, 1969-2015



Source: Bureau of Economic Analysis

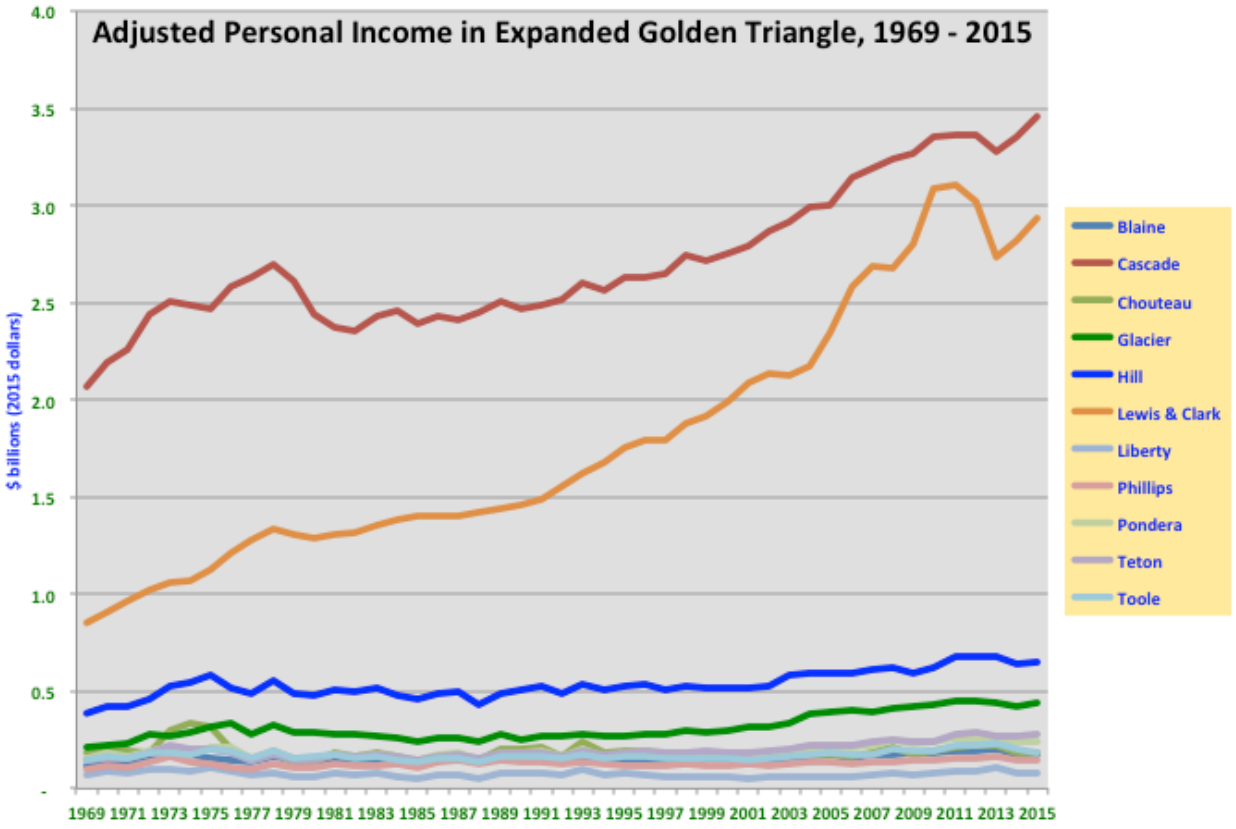
Chart 2: Population by County in the Expanded Golden Triangle, 1969-2015



Source: Bureau of Economic Analysis

Similar patterns have occurred in personal income, but with the dramatic difference that personal income practically doubled from 1969 to 2015 (Bureau of Economic Analysis), after taking inflation into account. In 2015, the region's residents brought in $8.8 billion (See Figure 3). This increase far outpaced population gains, and also was led by rising incomes in Helena. Great Falls also played a strong role, spurred by a strong governmental sector including Malmstrom Air Force base, with retirees also making a strong contribution as Figure 4 shows.

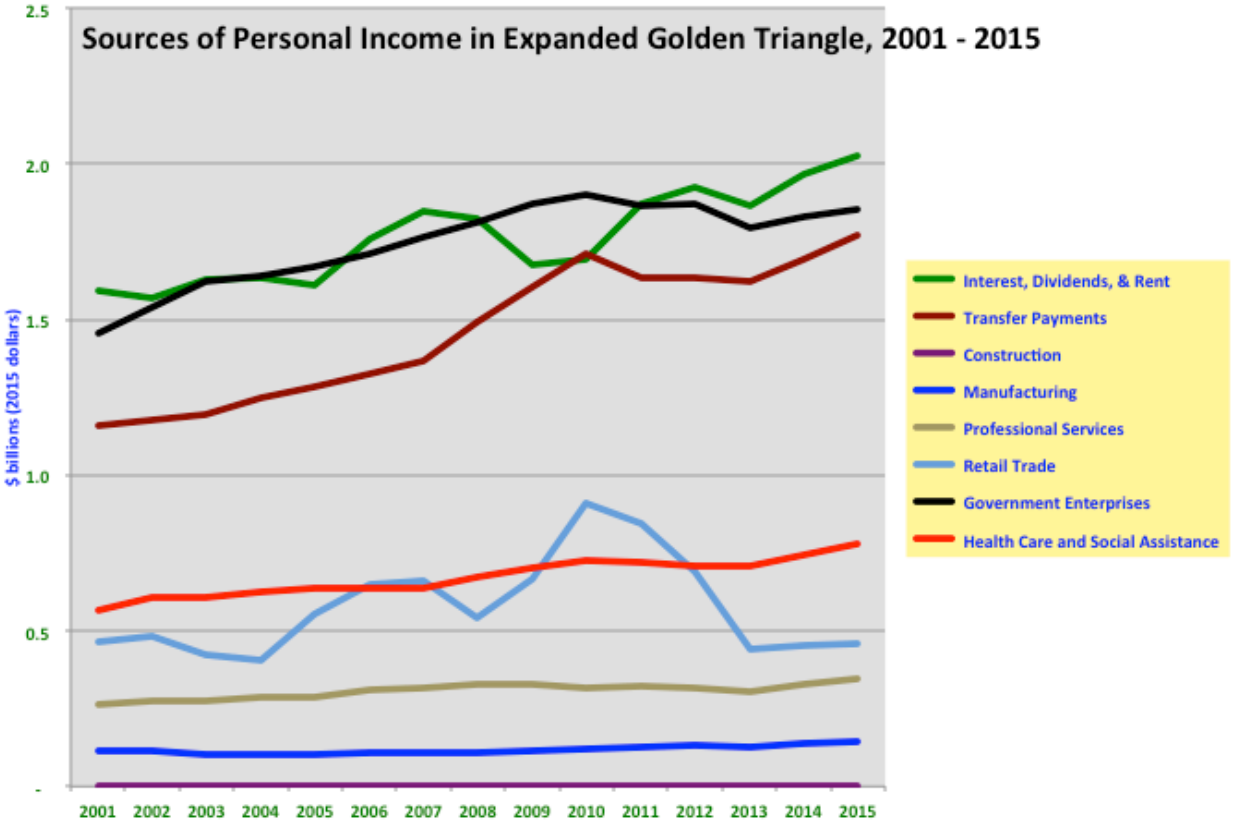
Chart 3: Adjusted Personal Income in Expanded Golden Triangle, 1969 - 2015



Source: Bureau of Economic Analysis

It is sobering to note that 41% of all income earned by residents of the Expanded Triangle derives from government sources, a fact that certainly does not square well with the region's dedication to individual liberty. As Figure 4 shows, all sources of income have risen over the past decade, even taking inflation into account. In 2011, capital income (from interest, dividends, and rent payments) overtook government jobs as the primary source of personal income. By 2015, capital income totaled $2 billion, while government workers earned $1.9 billion. The third largest source of income is not far behind, at $1.8 billion — and this represents transfer payments from public programs such as retirement, unemployment, and disability benefits. The next largest sector is health care, where workers earned $778 million in 2015. Retail workers' income peaked in 2010 and now hovers below $500 million. Tellingly, manufacturing income is holding quite low at $144 million.

Chart 4: Source of Personal Income in Expanded Golden Triangle, 2001 - 2015



Source: Bureau of Economic Analysis

A considerable portion of this personal income is earned by workers in food and food-related sectors, as County Business Patterns data show. Although some data are withheld to protect confidentiality, the data we do have show that food is at least a $212 million sector, far larger than total manufacturing, not including the region's farms.

With 800 firms offering nearly 11,000 jobs, it is a potent sector indeed (See Table 2). The largest employers are grocery stores, dining establishments, and food manufacturers. This suggests that supplying these sectors with raw materials produced on the region's farms by building commercial linkages among Golden Triangle firms, thus retaining greater wealth within the region, can be an important economic development strategy. Taking such a step should also raise awareness among regional food businesses that they hold considerable self-interest in ensuring that the farm sector is solid financially.

Table 2: Employment in Food-Related Industries, 2015

	NAICS Code	Firms	Employees	Payroll, $1,000s
Support activities for agriculture and forestry	115	30	51	2,650
Food manufacturing	311	31	521	25,039
Beverage and tobacco product manufacturing	312	11	71	1,794
Fertilizer & pesticide manufacturing	325	3	(D)	-
Agricultural implement manufacturing	333	4	(D)	-
Grocery and related product merchant wholesalers	4244	25	339	12,722
Farm product raw material merchant wholesalers	4245	42	228	11,969
Alcoholic beverage merchant wholesalers	4248	9	128	4,679
Farm supplies merchant wholesalers	42491	33	196	11,038
Food and beverage stores	445	86	1939	34,674
Food services and drinking places	722	527	7492	107,970
		801	**10,965**	**212,535**

Source: Federal Census of 2015, County Business Patterns. (D) means data were suppressed to protect confidentiality. Because of this, the figures shown below understate actual employment and payroll. NAICS codes are standard industry codes used to specify different industry categories.

More specifically, the Expanded Golden Triangle region hosts 9 farmers markets, or 13% of state's markets (USDA-AMS, 2017), two craft breweries, many independent coffee shops, and several grocers and restaurants that are creating the foundation of a culture of informed consumerism, a sense of place, and dedication to region and economic development.

Montana is considered a national leader in "locavore" activity — scoring 4th in 2017 and 2016 on the Locavore Index[1]. Yet this activity is largely concentrated in the Western side of the state, or in Bozeman and Billings. Many of our respondents feel like interest in locally grown foods is not strong in Great Falls or the rest of the original Golden Triangle, yet those leading the food service at Benefis Hospital said they see strong interest at that facility.

We will cover the cluster of producers who hold interest in selling to local markets later. First, however, we look at the overall farm economy of the Expanded Golden Triangle.

Regional Food and Farm Economy

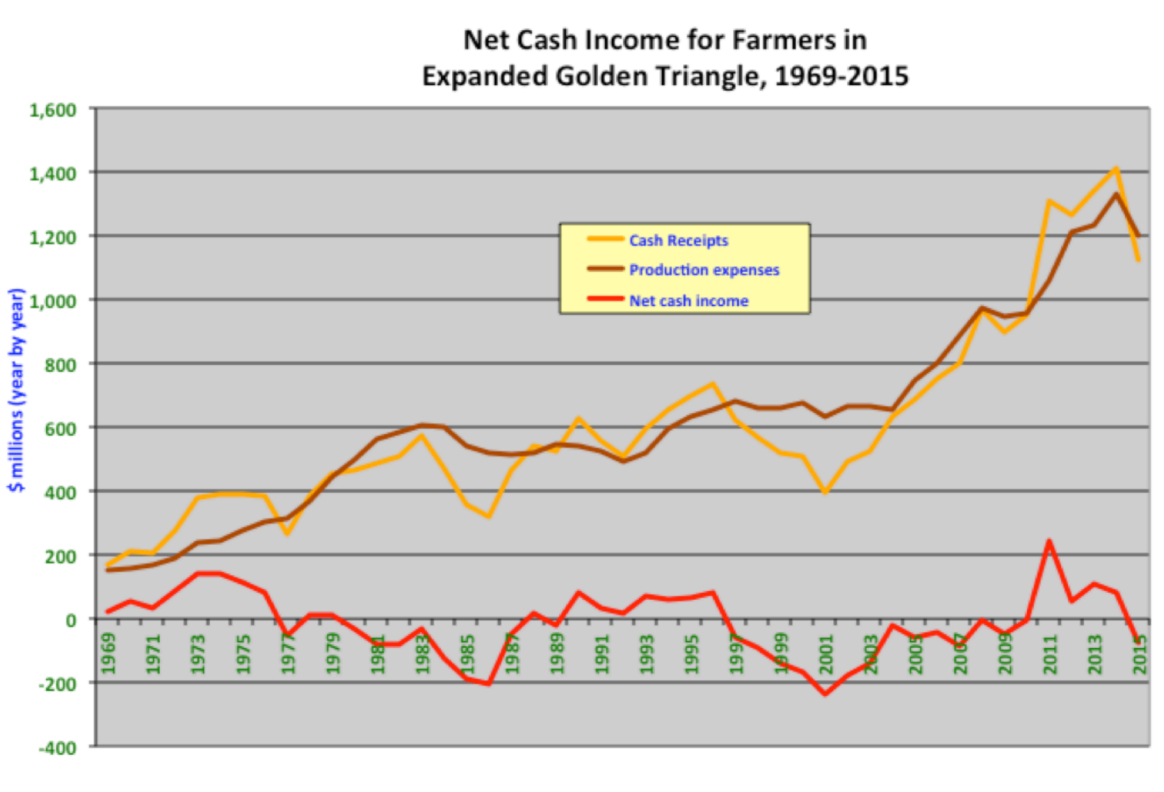
As noted above, three primary commodities are grown by the region's farms: wheat, cattle, and barley. With $1 billion of cash receipts, the farm sector is an important economic engine, although it appears to create more value for other sectors of the economy than it does for the communities where farm families live.

[1] The Locavore Index uses seven different data sets reflecting patterns of local food consumption and analyzes them as a function of population density. It is researched and compiled by Strolling of the Heifers, a non-profit food advocacy organization based in Vermont.
http://www.strollingoftheheifers.com/locavore/

Figure 5 shows the strength of the farm sector, which has sustained consistent growth in cash receipts since 1969. Indeed, sales tripled from 2001 to 2014. Yet production costs have risen equally fast, with the price of both seeds and fertilizers outpacing cash receipts. All told, then, it is difficult to detect a significant rise in net cash income for farmers over that period, despite the fact they more than doubled productivity during that stretch.

Indeed farm production costs exceeded cash receipts for 23 of the past 27 years, as global wheat prices fell to levels below the cost of Montana farmers' production. Nearly half of the region's farms — 41% — reported that they lost money in 2012 (Census of Agriculture, 2012). Since that census was taken, in the middle of a speculative bubble for global grain prices, net income has plunged even further, to a $77 million loss in 2015.

Chart 5: Net Cash Income for Farmers in Expanded Golden Triangle, 1969 - 2015



Source: Bureau of Economic Analysis

Yet it is important to view this data from one additional lens. Inflation has taken a toll on the value of the dollar since this figure was started in 1969, and the dollar is now worth one-sixth the value it held in that year. To give an idea of how hard a farm family has to work to earn a dollar today compared with 1969, the next figure (6) shows the same data in 2015 dollars.

Once adjusted for inflation, these same data show that farmers enjoyed a boom in 1973, when the US was selling wheat and corn to the Soviet Union after crop failures and distribution difficulties plagued that nation, and as America sought to recover dollars that had been spent overseas purchasing oil at suddenly high prices (about $40 per barrel at current prices) once OPEC decided to restrict production.

In this single year, the region's farmers earned a net cash income of $756 million (in 2015 dollars) as part of a three-year bubble of prosperity. It was a golden time for the Golden Triangle. Yet this largesse did not last. Four years later, farmers were enduring negative cash flow, and they have endured this ever since. Cash receipts are essentially holding steady, with production expenses in a similar pattern.

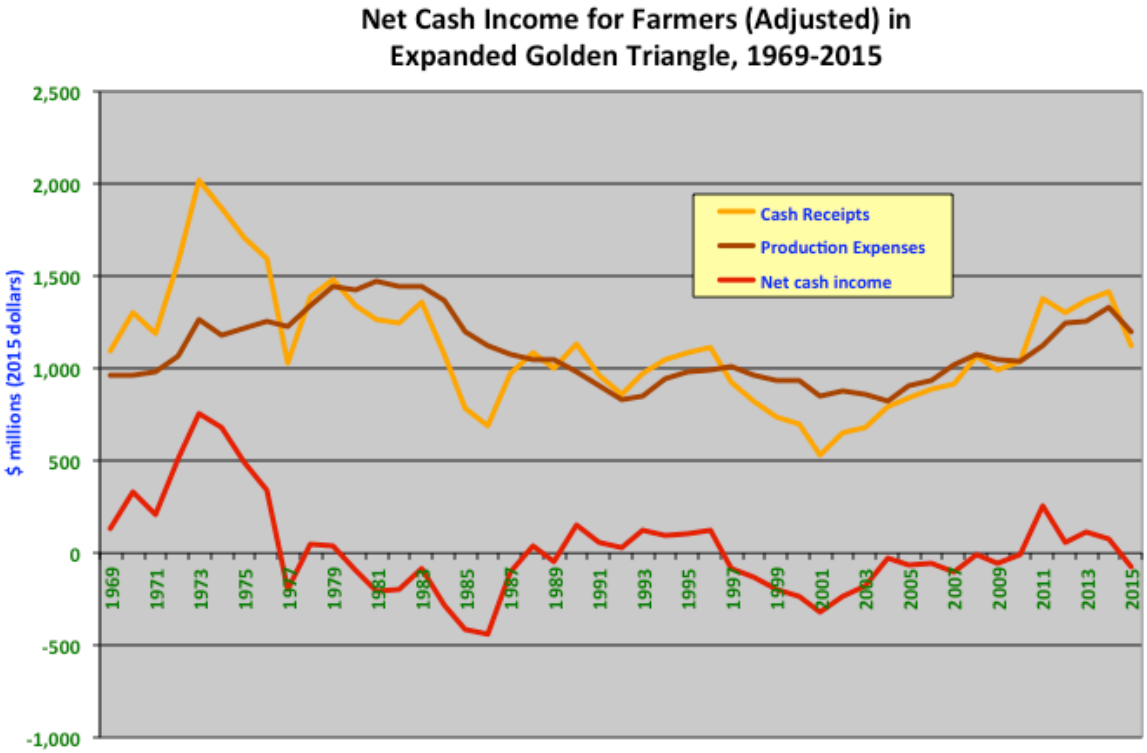
All told, as Figure 6 shows, the 7,013 farmers in the region sell an average of $976 million of food products per year (1969-2015 average), spending $999 million to raise them, for an average loss of $23 million each year. This is an average net loss of $3,280 per farm.

Overall, farmers spent $618 million more to produce crops and livestock over the years 1969 to 2015 than they earned by selling these commodities, and earned $206 million less by selling farm products in 2015 than they earned in 1969 (in 2015 dollars; Bureau of Economic Analysis).

Farmers and ranchers rely heavily on off-farm income, sending at least one member of the family to work off-farm jobs, often to obtain health care benefits and to even out the cycles of global farm prices. Yet farmers also earn another $89 million per year of farm-related income — primarily income from renting land and performing custom work for neighboring farms (27-year average for 1989-2015).

Once again, however, the government plays a strong role. Federal farm support payments are a far more important source of net income than commodity production, averaging $187 million per year for the region for the same 27 years.

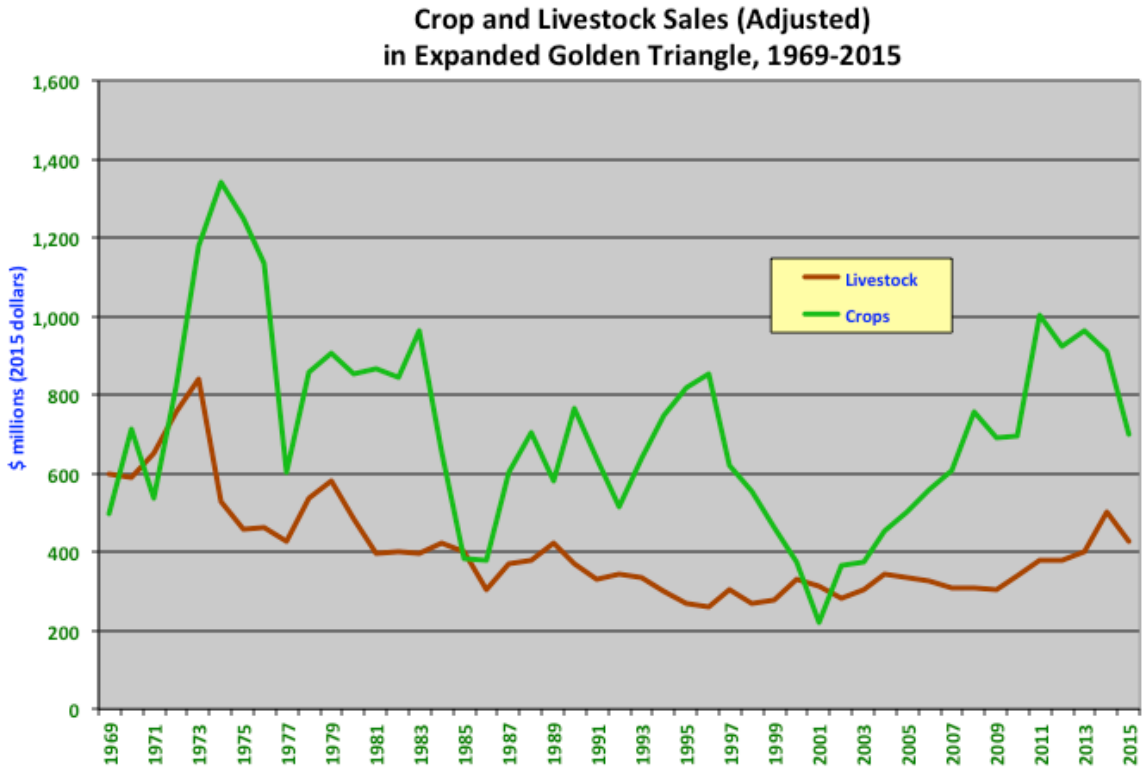
Chart 6: Adjusted Net Cash Income for Farmers in Ezpanded Golden Triangle, 1969 - 2015



Source: Bureau of Economic Analysis (in 2015 dollars)

Upheaval in cash receipts has been tempered by the cattle industry, as Figure 7 below shows. This data makes it clear just how variable wheat prices have been. Truly, the scaling up of farm technology has resulted in cash receipts that are no higher today than they were 47 years ago. This figure also shows how livestock sales have dampened these ebbs and flow. Cattle sales declined steadily in 2015 dollars (as production moved to more centralized feed lots and margins became too low for the region's farmers to endure) until 2002, when consumer preferences began to shift to a higher-priced, more differentiated product. Yet despite this recovery, cattle sales are $200 million below what they were in 1969.

Chart 7: Adjusted Crop and Livestock Sales in Expanded Golden Triangle, 1969 - 2015

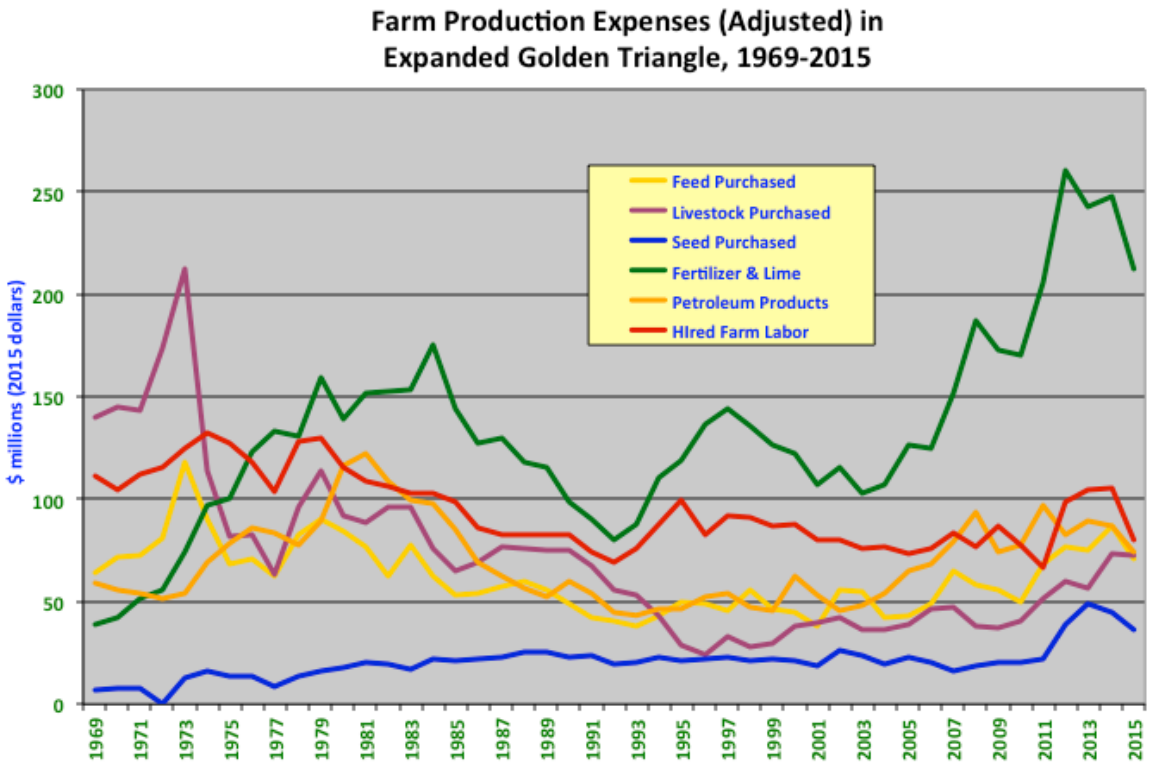


Source: Bureau of Economic Analysis (in 2015 dollars)

Production expenses, as noted above, kept pace with cash receipts, so farmers have experienced very little in the way of growth since 1969. As Figure 8 below shows, rising production costs were led by spiking fertilizer costs, and by steadily rising fuel, oil, and seed costs — as fewer and fewer residents earned income from farm work. The shift from labor to capital meant new costs, but more importantly to the region, perhaps, new flows of money outside the Triangle, as farmers became increasingly dependent upon inputs that were sourced outside. Our conservative estimate is that farmers now spend about $645 million each year buying inputs produced outside the Triangle, so they can farm at a loss.

This loss of farm labor has also contributed to the weakening of rural communities, and to the shift of population, noted above, from rural areas to urban centers.

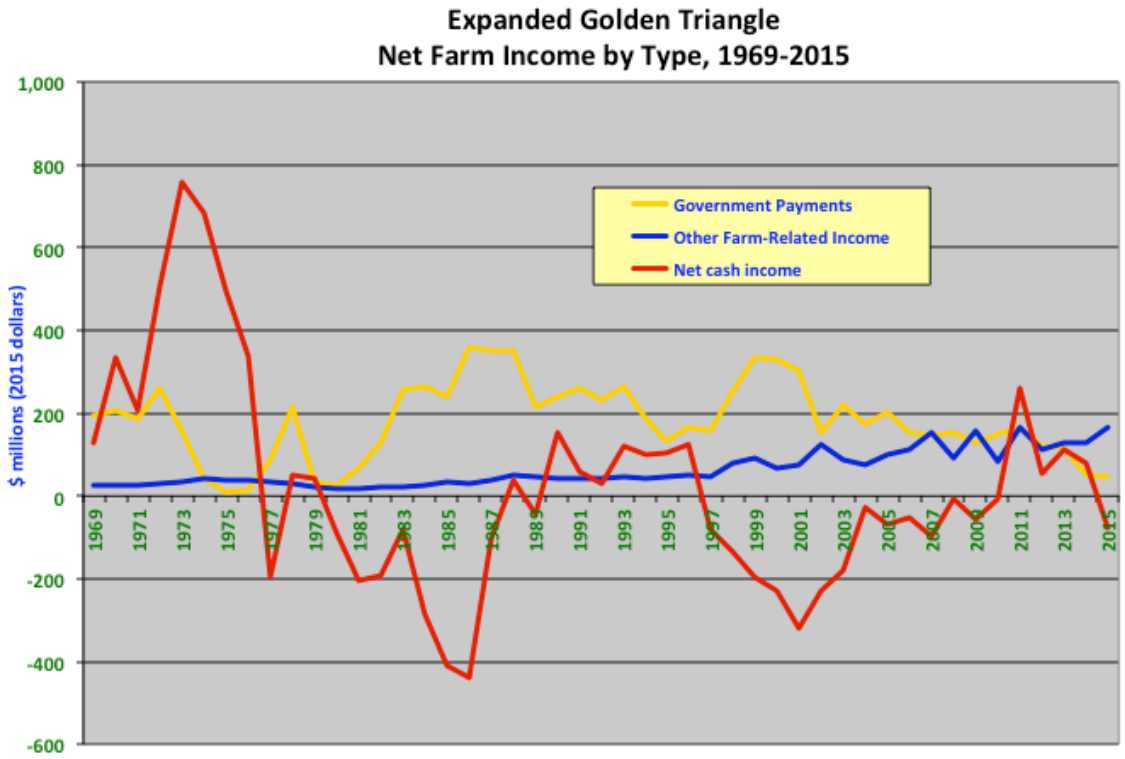
Chart 8: Adjusted Farm Production Expenses in Expanded Golden Triangle, 1969 - 2015



Source: Bureau of Economic Analysis (2015 dollars)

These complex trends have led to a rather profound set of complications. From 1977 to 2011, as Figure 9 shows, federal supports have been the largest source of net income for farmers (aside from off-farm jobs), far outpacing farm production itself. Currently, the most important, and steadiest, source of farm income is renting out land. Those who own land often prefer to let someone else take on the risks of farming.

Chart 9: Adjusted Sources of Net Cash Income for Farmers in Expanded Golden Triangle, 1969 - 2015



Source: Bureau of Economic Analysis (2015 dollars)

These harsh financial trends express a deeper dynamic that is at work in the Triangle: inherent to this erosion of farm income is an increasing separation of farmers from their consumers. It will be recalled that the cattle industry began to recover when it paid closer attention to consumer desires for leaner, more differentiated meat. No such feedback loop is available to the region's wheat and barley farmers, who largely grow commodities for impersonal global markets, unless they choose to dedicate a portion of their land to raise food for nearby consumers.

Those who have taken this step have found rewarding niche markets, our interviews showed. Moreover, local markets are substantial, especially when the vibrancy of the Helena food market is included in the calculation. The 11-county region's residents purchase $619 million of food each year, including $354 million to eat at home.

Note that the market for retail food in the region is about half of the value of the wholesale markets the region's farms currently supply. This certainly suggests spending power is sufficient to support local farm and food enterprises. What is lacking, however, is a clear commitment from Triangle residents to

purchase from local farms, and physical infrastructure (such as aggregation centers, storage facilities, and distribution routes that would create efficient local food trade).

This leads us directly into the next section, where we discuss the market areas that are most relevant for this study. Yet first we take a small excursion to look at one element of the local consumer market that is often overlooked — low-income residents.

As the Triangle has become more and more dependent upon government programs to provide income for its residents, and as manufacturing and farm production have been less and less reliable as ways of making a living, and as farm workers were displaced by mechanization, the region has developed a significant population of low-income residents. It is important to remember that these residents have been marginalized more by economic structures than by their own failings, though certainly some experience substantial disabilities.

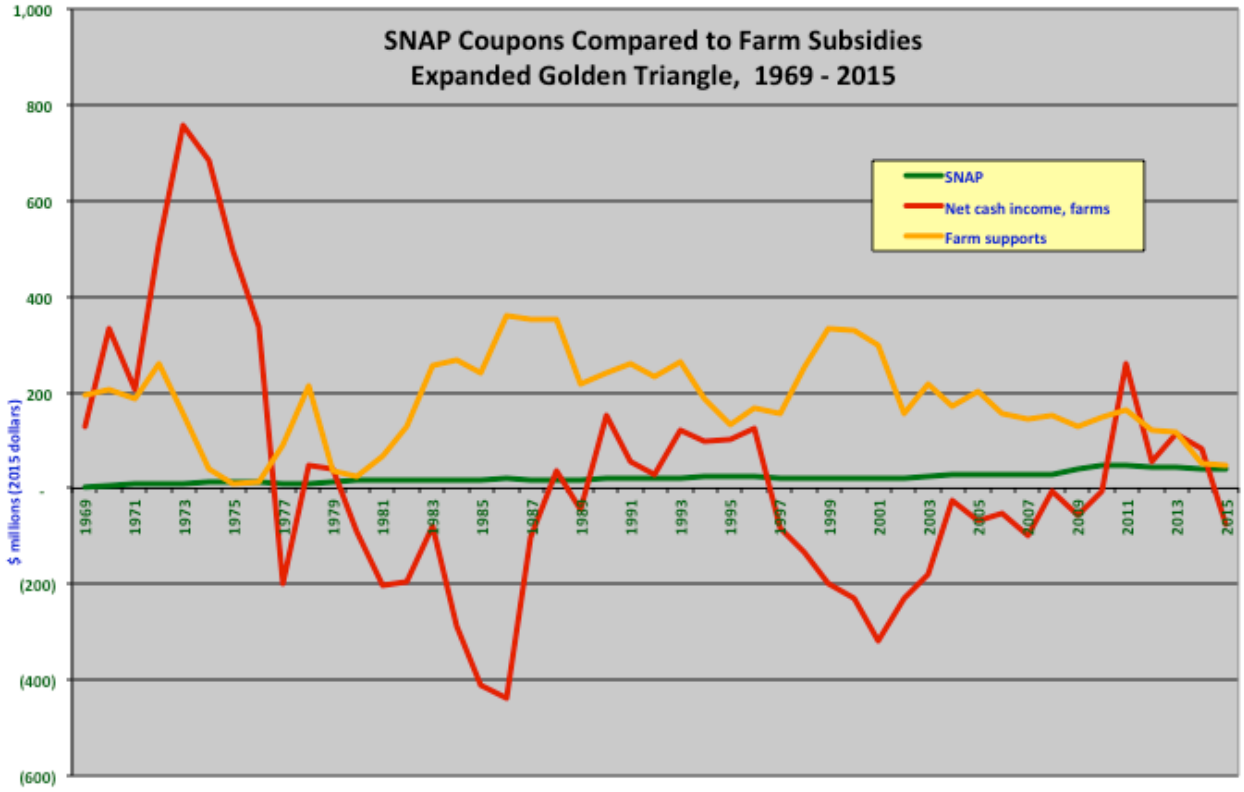
Fully one of every three residents — over 70,000 people living in the Triangle — earns less than 185% of the federal poverty guideline (this is about $45,000 for a family of four, and is barely a livable income). At this level, children qualify for free or reduced-price lunch at school.

These lower-income residents receive $28 million (27-year average, 1989-2015; 2011 total was $47 million) of SNAP benefits (formerly known as food stamps) and additional WIC coupons. This covers perhaps 15% of a minimal diet.

As it turns out, the region's farmers are far more heavily subsidized, with, 4,500 (64%) of the region's 7,013 farmers receiving an annual combined total of $187 million in subsidies (27-year average, 1989-2015), mostly to raise crops such as wheat that are sold as commodities, not to feed local residents.

As a result, as Figure 10 shows, SNAP benefits, while relatively small, have often been a more important source of food for Triangle residents than farming itself has been (See 1997 to 2009).

Chart 10: Farm Subsidies Compared to SNAP Benefits, 1969 - 2015



Source: Bureau of Economic Analysis (2015 dollars)

Some glimpses of the distance between Triangle farmers and local consumers can also be tracked through health data, since eating well is so central to health.

Food-related Health Conditions

As of 2012, one of every five (19%) adults aged 18-64 in the Great Falls metro region carried no health care coverage (Centers for Disease Control). This may have improved under the Affordable Care Act, but no more recent data for the city have been located.

Many Triangle residents could benefit from eating more fresh produce, since 39% of Montana residents reported in 2015 that they eat less than one serving of fruit per day, and 19% eat less than one serving of vegetables (Centers for Disease Control). These are key indicators of health, since proper fruit and vegetable consumption has been connected to better health outcomes. Many providers recommend consumption of at least five servings of fruit and vegetables each day, while others suggest even higher rates.

Exercise is also problematic. Only one of five (21%) Great Falls metro area adults reported in 2011 that they get sufficient exercise each week to meet recommended guidelines (Centers for Disease Control).

Currently 67% of the Great Falls metro residents are overweight (36%) or obese (31%) (Centers for Disease Control, 2012).

Diabetes levels are relatively low in Great Falls, with 7% of metro area residents reporting they have been diagnosed with diabetes as of 2012 (Centers for Disease Control). Still, this disease takes a strong financial toll, with medical costs for treating diabetes and related conditions in the state of Montana estimated at $560 million annually (American Diabetes Association).

Benny's Bistro in Helena. Photo © Ken Meter, 2017

DEFINING LOCAL — GEOGRAPHIC MARKET AREA

In practice, definitions of the term "local food" are inherently local in nature. This means there are multiple working definitions of "local food," varying widely by place and institutional purview. The New Oxford American Dictionary's definition of "locavore" as a person who consumes a diet of food grown within a 100-mile radius is frequently used, receiving popular attention in the *100-Mile Diet* (Smith & MacKinnon, 2007) and Barbara Kingsolver's book *Animal, Vegetable, Miracle* (2009). The People's Food Coop, located in Kalamazoo, Michigan, uses this 100-mile definition. The USDA's official definition of 400 miles or within the state of production is useful for federal policymaking, but has been met with much resistance from community practitioners, given that for many regions this distance includes areas most people would not identify as their local foodshed. In some communities the term "local" might signify very close quarters, such as "within my valley," or "within my county." Many local food leaders in more densely settled areas consider "local" to be within a 30-minute drive, or within a 50-mile radius. Gary Nabhan used a 220-mile radius in his book, *Coming Home to Eat*, to highlight that in a sparsely populated desert area, widely scattered local options might range from edible cactus, to rangeland livestock, to Mexican seafood (Nabhan, 2009).

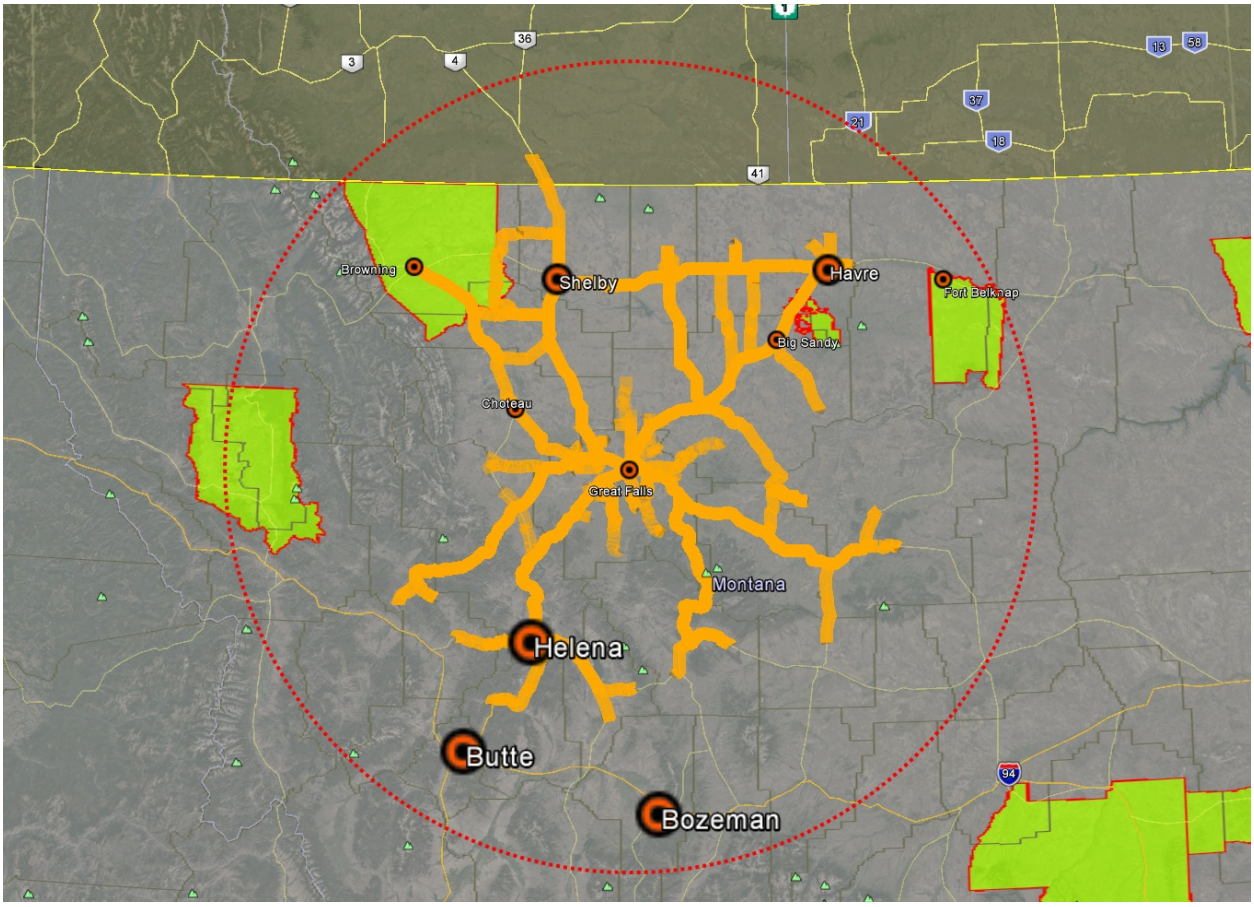
The consumer economics literature suggests that it is not so much a geographic location or distance that consumers are concerned with, but instead they are concerned with fresh, healthy, and safe food, and community well-being (Snyder, Smith, Meter, Goldenberg, Miller, & Amsterdam, 2014). However, the goals of farm-to-institution purchasing are often, but not always, economic development, increased healthy food access, community building, and environmental stewardship, none of which are intrinsically dependent on locale or region (Born & Purcell, 2006) (Jackson & Perrett, 2014). These goals are discussed further in the next section.

In collaboration with the project Steering Committee, it was decided that the area of interest at this stage of exploration centers in the population center of Great Falls, but also includes the regions surrounding Helena, Browning, and Havre and intermediate areas such as Big Sandy, Choteau, Power, Ulm, Fort Benton, Valiere, Heart Butte, Kevin, and Chester, three tribal reservations, as well as some 30 Hutterite Colonies scattered through the region (see list in Appendix B). Blackfeet tribal leaders pointed out, however, that their landscape is actually High Plains, even though many people consider their reservation to be part of the Golden Triangle.

We found no official and/or significant regional designations that would have a strong effect on the supply and demand region of a food hub. Central Montana and the Golden Triangle appear to be the most utilized regional brands, with Central Montana being more encompassing than Golden Triangle. Golden Triangle is largely associated with large, conventional grain farms and ranches, which could help brand this specific products, but also undermine the brand identity of fresh produce and specialty crop items.

National scans of food hubs reflect a variety of regional definitions, largely ranging from 50-mile to 500-mile radii for supply regions, and market regions being considerably smaller: 50-mile to 150-mile radii (See Figure 11). This reflects common food distribution models where products are aggregated from outlying production areas and distributed to denser, more urban areas.

Map 1: Two-Hour Travel Time and 150-mile Radius Around Great Falls

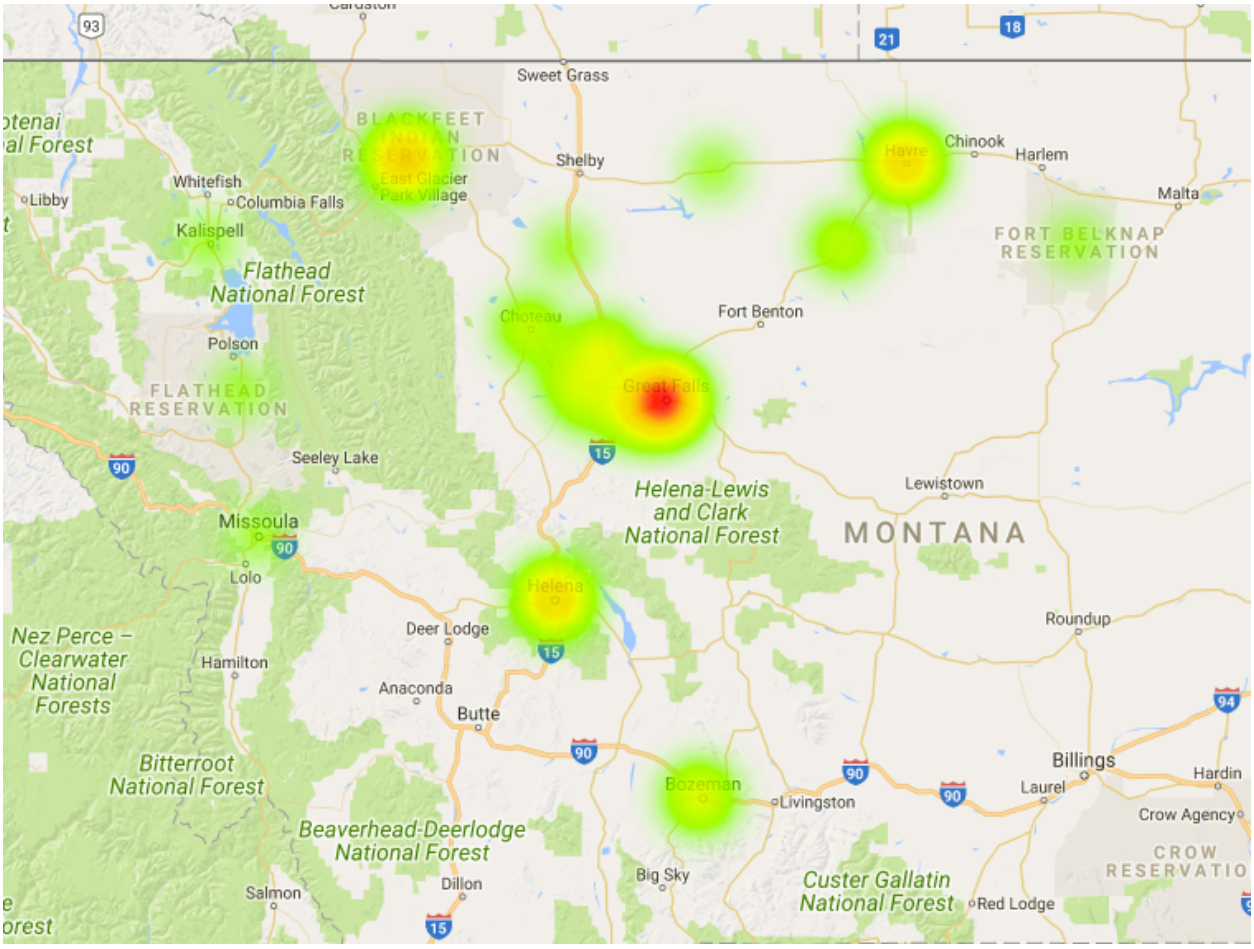


Map by Brownfield Listings, Inc. See Appendix C for 30-minute and 1-hour travel time maps.

At this time, the largest determinants of the proposed collaboration will the strength of relationships with existing partners, the availability of infrastructure, and transportation corridors. Within Central Montana, primarily known for its large-scale production, only Cascade County appears to have a specific core of farms selling direct to consumers. Western Montana hosts a greater concentration of farms participating in direct-to-consumer marketing, but whether Expanded Triangle residents will embrace these farms as "local" is an open question. Perhaps more critically, if the Triangle wants to support local food production, and be less dependent on long-distance hauling, it will need to cultivate new farms.

All things considered, due to the location of MCDC, the project's leadership, and existing infrastructure, it seems clear that this initiative will be centered in the Great Falls region for the time being. Great Falls is both a population and business center, and the home of several farms reaching local markets. It also has a hospital that is exploring local food purchasing, several food processing facilities already on line, and is conveniently located to farms in the Havre/Fort Benton area, as well as Browning. It is within a relatively easy drive of Helena in clement weather, so it could access growing consumer markets. Figure 12 shows where the stakeholders we interviewed for this project are located geographically.

Map 2: Heat Map of Contacts Made Near Great Falls, 2017



One respondent, however, suggested that Helena might make an ideal location for an aggregation and processing center, since two key distributors already deliver food there, and a children's hospital purchases food from both. This source also felt that Great Falls would be an excellent location, yet its role would be limited by the fact that it would be the northern terminal of interest in local foods, with few customers to the north.

Freeway access to Helena is a dual-edge sword. One the one hand, this ensures that Central Montana food producers will have easy access to markets. On the other hand, this simultaneously means that producers in other regions have similarly easy access to local markets.

Overall, our assumption is that Great Falls works well as a location assuming food production for direct sales and local wholesale markets is expanded in Great Falls, Browning, and Big Sandy/Fort Benton. If, on the other hand, the region does not assert itself as an important producer of foods for local sale, aggregation activity will quite naturally gravitate toward Helena. This may involve trade of foods grown in Western Montana and the Bozeman area, rather than in Central Montana.

Several of our respondents suggested that outlying towns such as Fort Benton, Choteau, and Havre would be less compelling as locations due to general size, population density, and travel-time burden. However, such locations may hold appeal to certain funders. Currently, some aggregation and

distribution is centered at Fort Benton and Havre. Food activity contemplated in Browning and Fort Belknap may well establish any of these locations as additional, secondary centers, or "nodes." (See the profile of South Carolina food production nodes on page 58).

If the eventual project is a physical food hub, then a "circular" pickup/distribution route is contemplated that would include Havre/Fort Belknap, Browning, and Great Falls, with additional intermediate points as practical. That is to say, food items could be picked up from farmers at the same drop sites where foods are delivered for household, retail, and institutional consumers. By combining all elements into one route, it is hoped that empty backhauls might be avoided. This is an approach that has been pioneered by the Oklahoma Food Cooperative (www.oklahomafood.coop/*)* in a sparsely settled region, as well as by La Montanita Co-op in New Mexico (www.lamontanita.coop/), in a state with several centers of population and wealth.

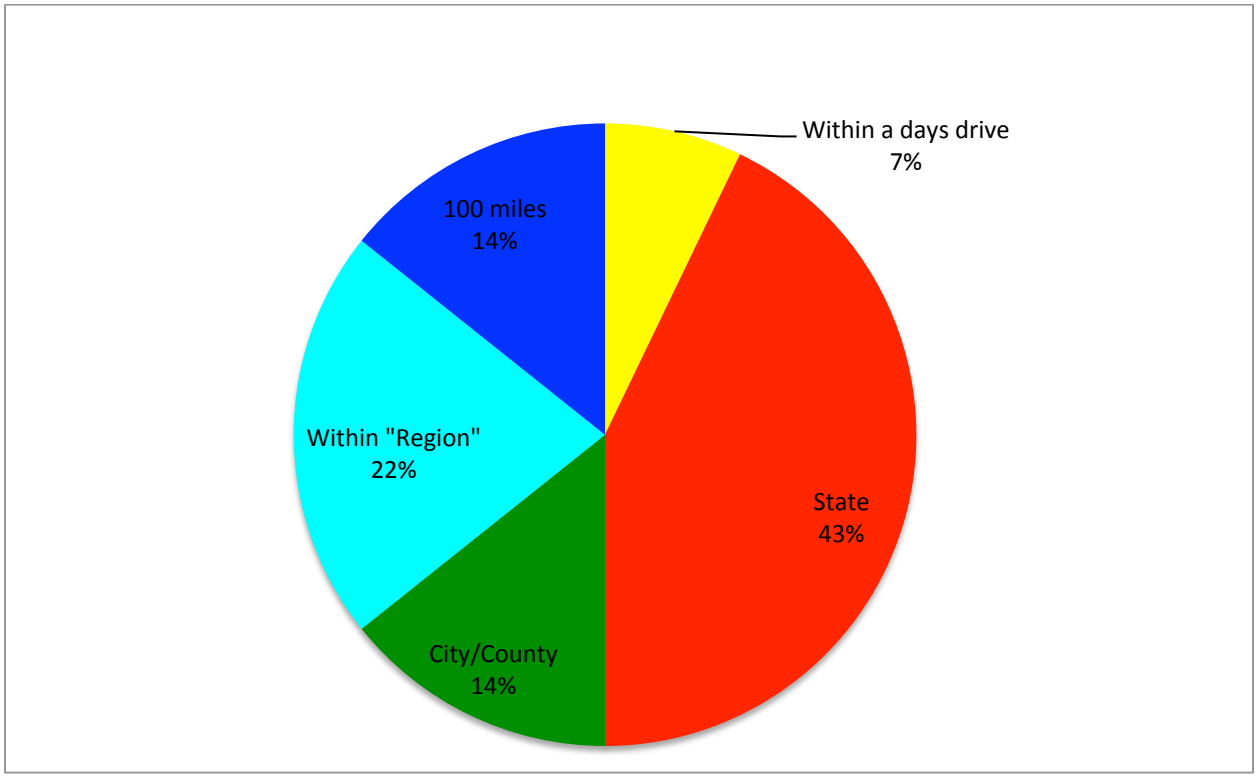
Yet in the early stages, one-way trips are likely — potentially making use of empty backhaul routes — for example distribution trucks are already traveling north on 89 to deliver to resort areas. Those trucks currently return south via the Flathead, but perhaps could backhaul local food items from the Glacier region to Great Falls before returning to their home warehouses. Additionally 2Js Fresh Market sends an empty refrigerated truck to Missoula on a weekly basis to retrieve other products.

Including Helena and even Missoula or Bozeman could be important politically and practically, because of the presence of state government employees and large institutions, plus populations that have supported local foods to a limited extent already. Each has emerging local food supply networks and inter-regional trade (Bitterroot Valley, Flathead, Billings) facilitated by I-90. This makes it difficult for Great Falls or Golden Triangle products to make strong market inroads unless very unique products are offered at favorable prices.

Moreover, local leaders should keep in mind that incorporating these additional areas may distract from current efforts to develop local food trade within the Golden Triangle region and undermine any Golden Triangle branding efforts. Two growers we interviewed would prefer to market directly into the regions where they farm, while several other growers are focused on expanding for wholesale trade.

Institutional markets are less likely to be concerned about sourcing food within the immediate area, as long as they can claim their products are sourced "local enough" to offer a sense that distance has been reduced from conventional sources. Schools in Central Montana that responded to the USDA FTS Survey (n=14) use definitions for local procurement (Figure 13) that are fairly broad. Institutional purchasers we spoke with are happy to source anywhere within Montana — but do hold concerns about the reliability of food traversing mountain passes during bad weather.

Chart 11: How Central Montana Schools Define "Local" (n=14)



Source: Survey of School Food Services

HOUSEHOLD, WHOLESALE, AND INSTITUTIONAL DEMAND

Individual/Household Food Consumption

Our informants forcefully pointed out that residents of Great Falls and surrounding regions hold limited interest in purchasing food from local farms. Accustomed to paying low prices for food and assuming that the quality of foods at grocery stores is "good enough," Great Falls consumers are not broadly looking for local food options, especially if they cost more than what is available at a supermarket.

A relatively small core of the consumer market is interested in purchasing from local farms. These shoppers are happy to patronize farmers markets and stores such as 2J's Fresh Market that provide local offerings. Many have joined CSAs. Yet two CSA farmers are shifting their attention to wholesale markets, hoping to simplify their farming chores by specializing in growing a handful of crops well, and allowing others to focus on marketing.

As other supermarkets have started carrying a more extensive line of organic products, more traditional organic foods market outlets have seen their sales suffer. As "local" is often considered the next phase of "organic", these businesses are putting more emphasis on marketing the local aspect of their products.

Still, the household market for food is considerable. Residents of the 11-county region purchase $619 million of food each year, including $354 million to eat at home. These purchases are categorized below:

Table 3: Expanded Golden Triangle Markets for Food Eaten at Home (2015)

	millions
Meats, poultry, fish, and eggs	$ 75
Fruits & vegetables	71
Cereals and bakery products	44
Dairy products	37
"Other," incl. sweets, fats, & oils	128

Source: Bureau of Labor Statistics Consumer Expenditure Data

Although the two data sets are not strictly comparable, household food consumption can also be estimated by using Economic Research Service "Food Availability" data. This is an estimate of per capita food consumption for most commercially available foods. Multiplying these figures by the total population of the region yields the following results, more suitable for planning food production than the BLS counts:

Table 4: Estimated Food Consumption in the Expanded Golden Triangle, in pounds, 2015

Category	Pounds
Vegetables	39,900,000
Fruits	29,600,000
Grains	30,200,000
Dairy & Milk	50,100,000
Eggs	7,500,000
Meats	50,500,000
Fish	3,100,000
Nuts	7,890,000
Total	**219,000,000**

Source: USDA Economic Research Service

These categories are listed as specific food items in Appendix D. Farmers who wish to grow for regional markets can use these counts to estimate how much of the local market they wish to meet.

It's important to note that most regions nationally import more than 90% of their foods from surrounding regions, states, and countries. Northern growing climates in particular may never produce enough fruits and vegetables for their population, especially if their population desires to eat bananas and tomatoes. Similarly, if the Golden Triangle wishes to consume primarily food that is grown in the region, consumers would want to adjust their tastes to food items that are easy to grow in the region.

Household purchasing, if focused on local farms, could make considerable economic impact. If each resident purchased $5 of food each week directly from some farm in the Expanded Triangle region, this would generate $56 million of farm income annually.

Wholesale and Institutional Demand

The concept of forming a cooperative food hub in Great Falls is subject to a dilemma typical of food hub initiatives: since the region currently has few producers who are willing to or able to produce at significant volume, wholesale and institutional sales have been limited. Since wholesale and institutional purchases are limited, few farms can consider supplying wholesale and institutional buyers.

However, many larger-scale buyers in the Triangle are interested in purchasing locally, as our field research showed. Among them are 2Js Fresh Market, Mountain View Market, Bear Paw Meats, Benny's Bistro, Browning Public Schools, Greenfield School, Montana Food Bank Network, Red Paint Creek Trading Post & Pantry, and Thomas Cuisine. Several of these buyers are willing to purchase anything that is available to them. Yet so far quantities have been limited. Several commented that consistent, high

quality supply is difficult to locate. Many of these buyers say the key-limiting factor is that simply not enough food is being produced locally for wholesale trade.

Typically institutions use a cyclical menu in their cafeterias and "retail" operations.[2] Cyclical menus repeat every 3-8 weeks. In-patient menus at hospitals are typically the same every day of the year, with very minor revisions. The hospitals and senior meal service programs must have their patient menus approved by a dietician, increasing the lead-time on changes to regular orders. Some schools may also have wellness policies that require menus to be reviewed for nutritional content and compliance. Hospitals, care facilities, and prisons tend to serve the same numbers of meals all year, with relatively little fluctuation. University and college orders will fluctuate quite a bit, maintaining scaled-back meal services through summers and holidays for staff, faculty, and summer classes, but requiring the bulk of their food during the typical school year.

Our discussions with Steering Committee members indicate that we have interviewed most of the key buyers. This means that performing a formal survey of demand would be redundant. Accordingly, the consulting team referenced additional sources of secondary data to estimate potential local demand (See Appendix E). From this, we estimate that institutional demand in the region is about $18 million, with Benefis and Malstrom being the largest buyers. School food service demand is an additional $4.9 million.

Retailers & Restaurants

2J's Fresh Market, a small, independent grocer in Great Falls, "is not married to any suppliers" and thus purchases from several local farms. The owner indicated they are willing to purchase any other local products they can find and try to make purchasing from local vendors as easy as possible. From 2J's perspective, a farmer or local vendor only needs $1 million in product liability insurance and consistent supply. After that, they'll do whatever it takes to make the transactions easier, including paying on delivery. Yet, owner Vetere says that sourcing high quality, local meats is both the biggest opportunity and the biggest challenge.

Mountain View Market in Choteau has been selling organic and local foods since 2007. Overall, owner Jill Owen sees a greater demand for food products during the winter since so many of the local residents are farmers and ranchers themselves with large gardens. Yet, she states that her consumers are more enthusiastic about the organic options and not as interested in the local options. Furthermore, the

Bear Paw Meats in Havre sells locally grown beef (raised to yearlings on 30 neighboring farms and then finished on the company's own feedlot), as well as chickens, eggs, and produce from Hutterite colonies. It also sells dried garlic and a few specialty grains from nearby farms. The owners would like to open a retail storefront in Great Falls, and are open to collaborating with others in Great Falls to develop a cluster of food enterprises on a single campus.

The Fort Belknap Nation will open a grocery store and food pantry in July. The tribe is looking for sources of fresh produce, meats, and other foods to sell at the store. The tribe has money to stock the store once the building is complete. The store will sell memberships at $25/person, but has not enrolled any members yet.

[2] A retail outlet is considered a place where customers can buy a variety of items ala carte (drinks, candy bars, fruit, wrapped sandwiches, packaged deli foods, etc.), whereas a cafeteria is explicitly serving meals, often with pre-determined portions.

Margaret Corcoran has sold Benny's Bistro in Helena. She would be open to using her skills in sourcing from local farms to assist other chefs and food service workers to do the same. In her experience, sourcing locally has slightly reduced food costs.

Thomas Cuisine Management

Perhaps the most devoted institutional advocate of sourcing foods locally is Thomas Cuisine Management, led by executive Chef Seth Bostick. Based at the Kalispell Regional Medical Center, Bostick oversees food service across the Thomas Cuisine system, which holds a mission of sourcing local, fresh, and organic food wherever possible.

Thomas Cuisine recently took over management of the Benefis Hospital food service in Great Falls. A new chef, Phillip Winkler, was hired in June, 2017. Bostick estimated that the Great Falls hospital and retirement center purchase as much as $20,000 of produce each week in prime harvest season. He hopes that by 2018 their purchasing program will be fully functioning in Great Falls.

Bostick said that the three hospitals he serves are currently sourcing about $300,000 of locally raised products per year. Doing so, he added, costs about $100,000 more per year at each facility than the firm would spend using conventional sources. He justifies this to hospital executives as an investment of greater value than hiring one more managerial staff, at a comparable cost. He said that this is a relatively small amount of his overall food budget of $5.5 million per year.

Bostick added that he has worked closely with both Western Montana Growers Co-op in Missoula and Mission Mountain Food Enterprise Center in Ronan, and said their presence was "elemental" to Thomas Cuisines' success in sourcing Montana foods. Mission Mountain processes winter squash, zucchini, pumpkins, carrots, potatoes, and cherries for the Thomas Cuisine system, peeling, cubing (or hashing), and freezing these products into packets that can readily be heated at each hospital food service.

He said there are great opportunities for most of these products (save cherries) to be grown and processed in Central Montana. These would not compete with Mission Mountain's efforts, he added, because Ronan is a six-hour drive away. Ideally these foods would be grown, processed, and stored in the Central region to reduce travel costs, and minimize weather disruptions.

Bostick also sees considerable opportunity for Central Montana farmers to supply frozen diced tomatoes, stripped and frozen kale, and frozen green beans. He currently sources kamut seeds, lentils, and unbleached flour from Montana Flour and Grain. He purchases fresh mixed greens and tomatoes from two small farms close to the Kalispell hospital for use at that facility.

He said he can already obtain most of the supply he currently needs from either the co-op or from Quality Food Distributing in Bozeman. QFD runs a truck to Helena, where Thomas Cuisine manages the food service for Shodair Children's Hospital, and Thomas Cuisine conveys these products to its Western Montana locations. Since QFD is a full-service distribution company, Bostick purchases dry goods, energy bars, and other shelf-stable items from them, including some winter squash. Helena is well served by firms along the I-90 corridor, he added, from both directions — Missoula as well as Bozeman/Billings.

Bostick said that the best opportunity for Thomas would be if a processing center similar to Mission Mountain were located right next to an aggregation center such as the Western Montana Growers Co-op. Currently there are minor inefficiencies in hauling food from the growers to the processors to the

distribution center in the Western part of the state, which could be trimmed if all functions were performed in close proximity. "Currently, there are no processing facilities like Mission Mountain in the center of the state."

He added that Great Falls would be a good location for such a cluster, but so would Helena. The drawback he sees for Great Falls is that there are few hospitals to the north who hold strong interest in sourcing fresher organic foods, so Great Falls would more or less serve as a terminal. Helena would have the advantage of dovetailing easily with both Quality Foods Distribution and Western Montana Growers Cooperative making use of I-90 access. The main reason to locate in Great Falls, he added, would be if there were tax breaks or other specific incentives to locate there.

Thomas is accustomed to forward contracting with growers who supply them, and Bostick said he has all of the ordering forms and procedures in place. While he is starting to purchase organic foods this summer, the firm's priorities are "local, fresh, and natural." This means he is open to purchasing from farms that use less chemicals and he does not require organic certification (although "it is a nice selling point."). Similarly, Thomas does not insist on Good Agricultural Practices (GAP) certification, although it, too, is "marketable." Primarily, Bostick added, he will insist that each farm have liability insurance. While he normally asks for a $5 million liability policy, he has negotiated this down to $2 million for some small growers.

Ultimately, Bostick added, the principal concern is reliability. "We are not like schools. We never slow down. We feed people every day." He looks for firms that follow through on strict timetables. "It is hard for us to take a disruption." He said that each new account requires a "gestation process." He likes to work with one or two products at first, to establish a steady flow of product. "After that, we can expand the product line."

School Food Services

Two food service directors were interviewed for this study. These were Greenfield School Food Service Director Sally Young, and Browning Public Schools' Food Service Director Lynn Keenan. As the outgoing president of the Montana School Nutrition Association, Young has a deep knowledge of school food service issues across the state. Greenfield School is one of the many small, rural schools in Montana. With a small student body and a rural location, Greenfield School is not obligated to contract with a prime vendor as larger schools (i.e. Great Falls) are. Under Young's direction and leadership, the school sources as much food as possible from the local area, spending approximately 12% of its food budget on locally sourced food. It sources beef from local farms and at times relies upon backyard gardeners for fresh produce. Furthermore, Young will drive into Great Falls to purchase from Pasta Montana, Montana Flour and Milling, and Sam's Club. She has to do this because the limited size of the school's food orders precludes her from deliveries by distributors. Many rural schools and groceries, similarly, do not order enough food to meet minimum-order requirements. Some enter into purchase agreements with their local grocery store, if they can. This may represent an opportunity for the proposed collaborative hub to serve both small, rural schools and small, rural grocers.

Lynn Keenan added that Browning Public Schools offers 7 fresh fruit and vegetable options at each school meal as a way of encouraging students to eat more healthy foods. She purchases at the Browning farmers market, buys carrots, green beans, and onions from Hutterite farms, and relies on Sysco as needed. USDA funds for purchasing produce help the school maintain these options. The school also sources 600 pounds of ground beef from reservation herds each week. This is purchased at $2 per pound. Additional beef is donated by USDA, or purchased through commercial channels. According to

the USDA FTS Census, Browning Elementary School spends approximately 10% of its school food budget with local providers. Keenan would like to offer as many locally produced items as possible.

Food service spending by an additional 93 public schools/districts in the Expanded Golden Triangle region is estimated in Appendix E. This demand is largely concentrated in the 9 months that school is in session, since kindergarten through Grade 12 (K-12) schools typically close for summers and holidays. Some schools, however, become summer feeding sites and community food service providers.

Emergency Food Assistance

The Montana Food Bank network currently obtains produce from both the Pacific Northwest and North Dakota through distributors that bring food to Montana. The statewide network distributed 10.5 million pounds of food in 2016, a 23% rise over 2015. Gayle Carlson noted that, "We would like to be able to use our trucks more," adding that the network's trucks return empty from Havre once or twice each month. She added that the network does not purchase directly from farmers, nor does it glean farm fields since it lacks staffing to do so. The network does take donations from farms, but Carlson added, "Lots of farmers are plowing their crops under," because they do not have enough markets, or labor to harvest.

Carlson expressed a strong interest in joining the collaboration, but added that the food bank network would need to add storage facilities if it were to expand its attention to locally raised foods. The Network is embarking upon a strategic planning process, so now it is in a good position to consider new directions.

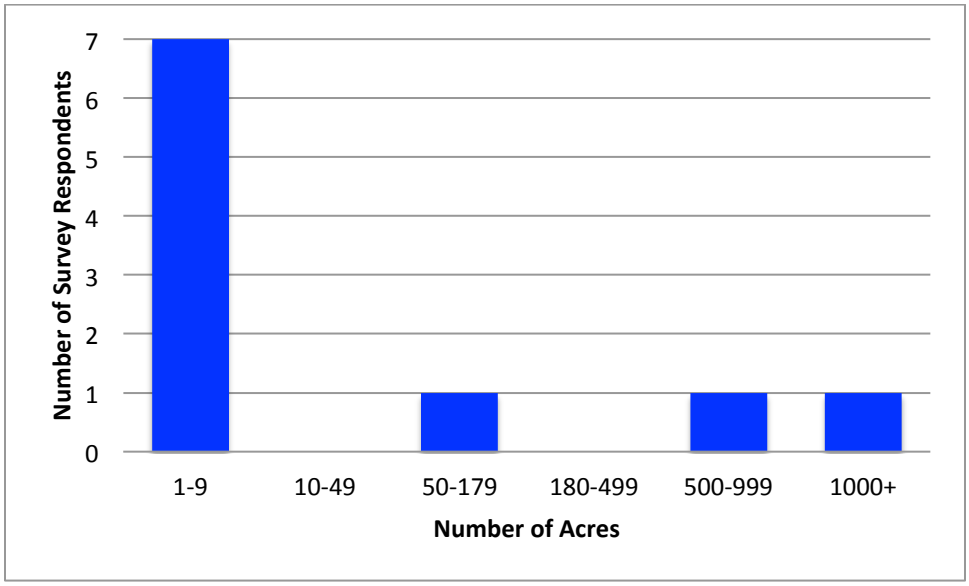
Prairie Heritage Farm. Photo © Ken Meter, 2017

AGRICULTURAL PRODUCTION AND LOCAL FOOD SUPPLY

Nineteen producers representing fifteen farms were interviewed in person and over the phone. Ten farmers responded to an online survey. Local outreach was limited by internal communications gaps within the local team.[3] Many of the survey respondents were also interviewed, but at least 3 farm operations are represented only in the survey data.

Collectively, the farms that responded represent several thousands of acres of productive farmland. Respondents were exclusively owner/operators (100%), with an average of 27 years in operation (range of 5-105 years), and an average of 639 acres in specialty crop production (range of 4-5,600 acres, Figure 14).

Chart 12: Acres is Specialty Crop Production (fruits, vegetables, herbs, niche meats, etc.)



Source: Survey of the Region's Farmers

The interviewed producers were selected based on their willingness to engage with the study process, and because of current experience direct marketing to consumers plus an interest in expanding into intermediated sales. Farmers in the North Central region of Montana were asked to respond to the online survey through email listservs (Montana Cooperative Development Center and the Montana Farmers Union). Of the ten survey respondents, only one indicated no interest in wholesaling and no desire to expand or change current business operations.

Farmers interested in selling to household and institutional markets in the region are very limited in number. Neither Vilicus Farms nor Timeless Seeds orients their business toward local markets since each has national and international buyers and considerable scale. Small produce farmers have in the past

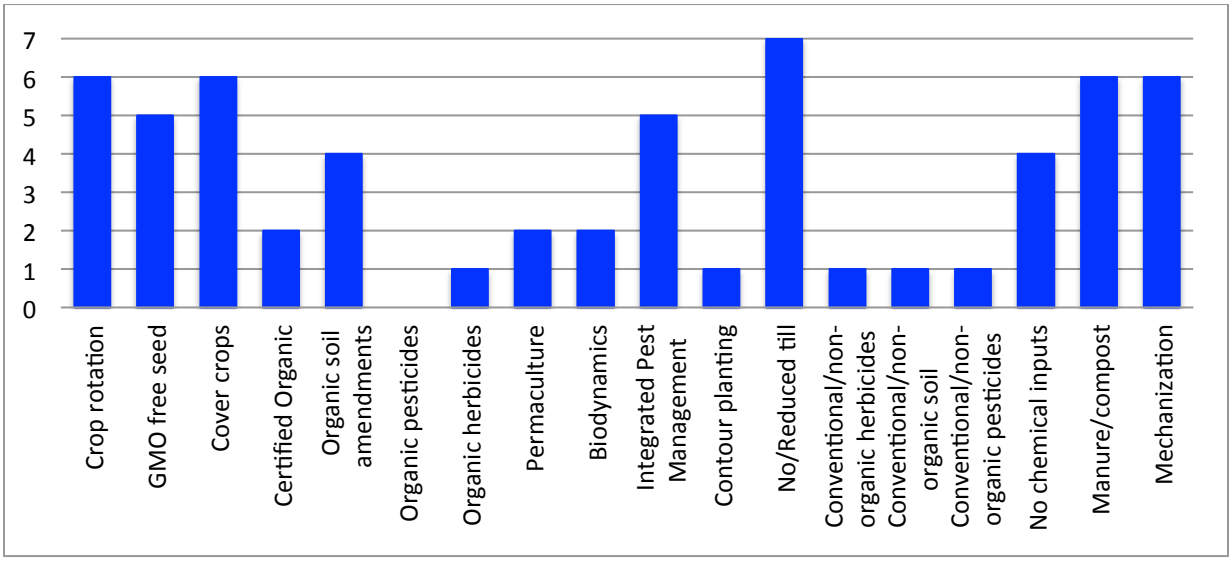
[3] We also learned that AERO hopes to perform its own farmer survey later in 2017, and our team offered AERO the opportunity to join forces with us for a survey at that time, perhaps using or adapting many of the questions we developed but for statewide dissemination.

relied primarily upon direct sales to household customers. Some are reassessing this strategy, and only a few farms in the region have opted to scale up for wholesale production. We have spoken with most of all the known and identified farms.

Production Practices

Producers utilize a wide-variety of production practices, as outlined in Figure 15. Notably, responding producers are already utilizing practices congruent with "locavore" consumer values. It is common for producers who are engaged in direct-to-consumer markets to use organic practices or similar methods without being certified organic because they feel the trust established through a direct sales relationship surpasses the need for 3rd party certification. In wholesale markets, however, certification is often necessary to realize price premiums through the whole supply chain.

Chart 13: Which practices do you utilize on your farm for plants and crops? (N=10)



Source: Survey of the Region's Farmers

Marketing and Sales

60% (6/10) of surveyed producers utilize wholesale channels as some part of their diverse marketing plan, however, only 20% (2/10) rely primarily (or solely) on wholesale channels. The majority (7/10) of surveyed producers primarily rely on direct-to-consumer marketing channels (i.e. greater than 50% of sales are through farmers markets, CSAs, farm stands, etc.). None of the surveyed or interviewed producers currently sell to institutions. The engaged producers manage their sales and deliveries themselves, relying on email and telephone calls for receiving orders.

Food Safety

40% the survey respondents have no food safety certification or program in place. Of those that do, only 20% (2) are GAP Certified[4] while the remaining respondents have a written food safety manual for their operation but no certification. However, 70% of respondents do have $1 million in product liability insurance, while 30% have no product liability insurance at all. A $1 million policy is usually not enough to work with a mainstream aggregator and distributor or a health care facility, but is usually enough to work directly with schools, grocers, and restaurants.[5]

In general, producers are only mildly concerned about food safety certifications and compliance. At this time, producers do not feel that certification is necessary to run a successful business and that there are plenty of buyers that do not require food safety certifications. This, however, is likely to change in the near future. See Appendix F for a short discussion of food safety and scale.

Motivation For and Interest In Expanding or Reorganizing a Farm Business

In interviews, nearly every producer revealed a desire to make their farm more successful through increasing production efficiencies and expanding their operations to include wholesale and institutional sales. This is borne out of a need to diversify their sales channels beyond direct-to-consumer outlets of traditional farmers markets and CSAs and/or a desire to focus more on the act of farming and less on marketing.[6]

Several farmers spoke of the business opportunities that would follow for their family members and community members, either through the advantages of wholesale volumes or by specializing in a few crops for commercial sales. Some were also motivated by the resulting need to hire more labor due to expanding operations and creating jobs. Tied closely to business success were other personal values such as being good stewards of the land and crop rotation. Only one respondent indicated no desire to explore wholesaling opportunities or change their operation in any way.

Prairie Heritage Farm and Groundworks Farm have discussed the possibility of forming a farmers' co-op, hoping to attract other farmers to such a structure. These talks have been fairly general to date. Both farms report a lack of time to market directly to consumers and buyers, and a desire to have products picked up at the farm. Both farms are scaling back CSA operations. Prairie Heritage Farm has ceased its

[4] Costs for GAP Certification are estimated to be $600 - $1000 per year, plus time to create customized food safety manuals, policies, and documentation. Many small farms consider reporting and record keeping to be significant barriers, and are looking for creative solutions in achieving necessary food safety training and compliance via Group GAP processes and others. Product liability insurance costs are generally considered marginal and not a barrier to entering wholesale markets. All the same, collaborations like Fifth Season Co-op have reduced farmer costs by entering into a common insurance pool, cutting premiums substantially.

[5] Many institutions, particularly schools, may only require $1 million in product liability insurance, but large broadline distributors will often require $2-5 million. Large hospitals are known to require more as well, sometimes as much as $5 million.

[6] When specialty crop producers "out grow" direct-to-consumer outlets and start engaging in wholesale distribution, it is generally considered a sign of a maturing local food system. Established farms start diversifying their marketing channels, which creates more financial resiliency for those farms and creates space in the direct-to-consumer marketplace for new farms.

CSA and wishes to focus on selling grain, making bread, and raising a limited number of crops for wholesale. Groundworks Farm has lost CSA members through attrition and wishes to move toward producing a limited number of crops for wholesale markets.

Meeting the demands of a wholesale market will require that farms scale up both production volumes and production skills. Producers need to know what it costs to grow each product, and to price it accordingly; to compete with broadline distributors, producers must develop the systems to provide a continuous supply of reliable volumes timed to the needs of the buyers. This is not always an extension of market farming skills and techniques. For example, market farmers may plant crops densely to increase production volumes and suppress weeds, but a wholesale farm will plant to accommodate mechanization in order to increase production volumes. Part of scaling up production is letting go of old habits.

Barriers and Challenges In Expanding or Reorganizing a Farm Business

Difficult barriers to expanding local food trade are present. Communication, accessibility, delivery logistics, higher costs – or the perception of higher costs – have been cited as barriers to expanding local food sales in the region. Additionally, the farm-to-wholesale distribution presents unique conditions – continuous demand for large volumes and consistent quality, constrained budgets, long-term buying contracts, and enormous logistical challenges, to name a few. Not the least of which is a rather sparse production base and consumer demand base to build off of.

Key limiting factors, according to Charlie Overby at Quinn Farms, are aging or small equipment, too little root cellar and storage space, and having the time to make contact with potential local buyers. He has some interest in ramping up to wholesale levels, if a reliable and trusted intermediary were to form, but also enjoys the trust he was won by selling products direct to customers, and likes to raise food for people he knows.

Infrastructure Investments

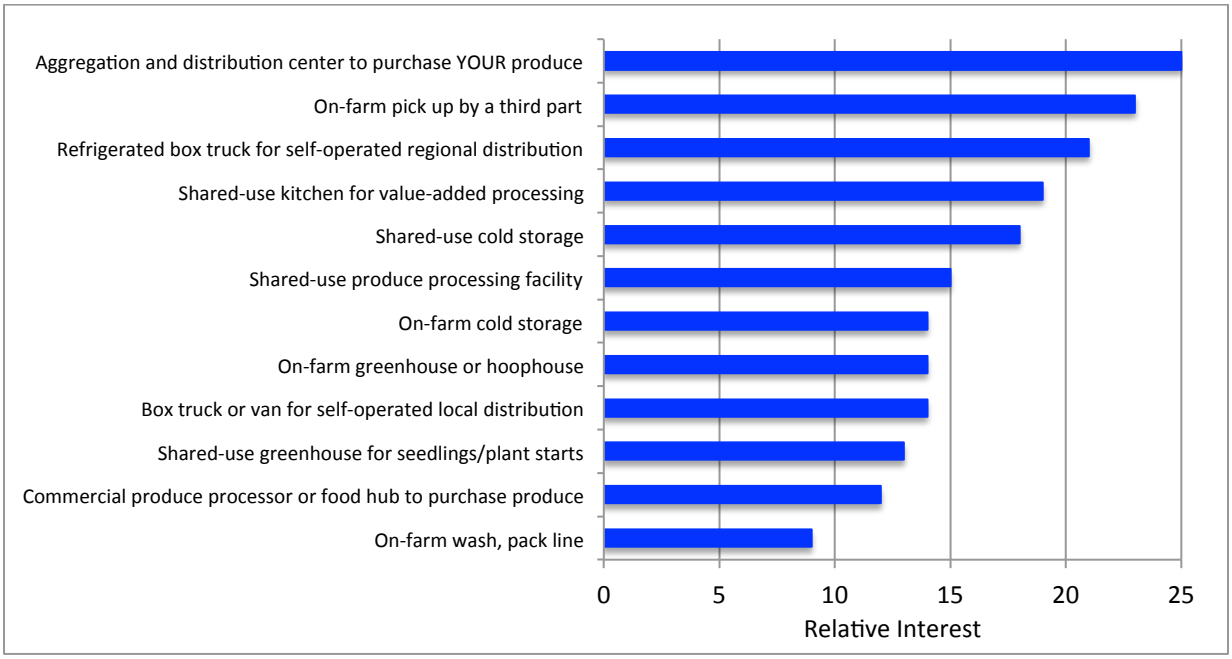
High Interest or Need

- Aggregation and distribution center to purchase YOUR produce and resell
- Stronger coordination of community farms and food businesses
- On-farm pick up by a third part
- Refrigerated box truck for self-operated regional distribution
- Shared-use kitchen for value-added processing
- Shared-use cold storage

Low Interest or Need

- Shared-use produce processing facility
- Box truck or van for self-operated local distribution
- On-farm greenhouse or hoophouse
- On-farm cold storage
- Shared-use greenhouse for seedlings/plant starts
- Commercial produce processor or food hub to purchase produce for processing and distribution
- On-farm wash, pack line

Chart 14: Relative Interest in Infrastructure Investments & Services



Relative Barriers and Challenges

Significant Barriers and Challenges

- Travel distance for selling directly to customers
- Lack of an aggregator/distributor
- Distance to wholesale market

Moderate Barriers and Challenges

- Need better sales and marketing skills
- Lack of an aggregation firm where I have power to set prices
- Costs of marketing
- Availability and cost of land for production
- Costs of packaging and branding
- Lack of access to capital
- Lack of skilled or motivated labor

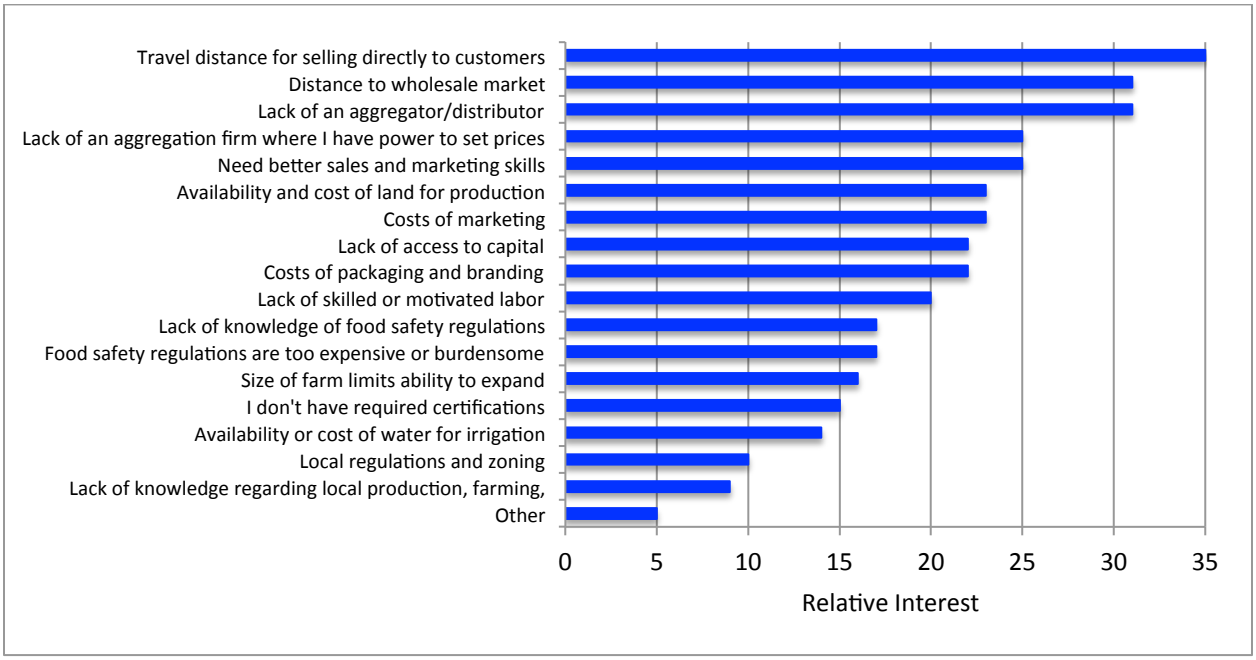
Mild Barriers and Challenges

- Food safety regulations are too expensive or burdensome
- Lack of knowledge of food safety regulations
- Size of farm limits ability to expand
- I don't have required certifications
- Availability or cost of water for irrigation

Insignificant Barriers and Challenges

- Local regulations and zoning
- Lack of knowledge regarding local production, farming, seasonality
- Other

Chart 15: Relative Degree of Challenge or Barrier to Expanding Business



While producers selected "travel distance" and "lack of an aggregator/distributor" as significant barriers from a checklist provided, conversations about the challenges of running a successful local food farm business identified a flood of concerns around consumer demand and lack of interest. Delivery logistics – such as needing to deliver product to multiple sites, spending time in a vehicle instead of on farm, and minor or small volume deliveries – coupled with perceived low purchase pricing and competition with global food prices offered by broadline distributors were identified as challenges in current operations.

Several producers also spoke of the need for habits and commitments to local food purchasing to be built over time, and said that establishing and maintaining strong and positive buyer relationships were essential tasks. Some producers reported incidences in which they agreed produce or deliver products for retail sale based on a handshake, but the purchase was never completed.

Opportunities and Initiatives in Expanding or Reorganizing Farm Businesses

Charlie Overbay raises produce at Bob Quinn's farm in Big Sandy. While not certified organic, he pursues organic practices. He currently raises 4-5 acres of produce, focusing on winter and summer squash, potatoes, onions, and decorative corn. As a board member of the Central Divide Organic Seed Co-op, he also grows sunflower seeds. He also maintains small vegetable plots in backyards in the town of Big Sandy. The Quinn farm also has an apple orchard, 6 plum trees, 6 pear trees, one apricot tree, one peach tree and grows several kinds of berries, grapes, and cherries. Overbay said he would like to expand production, especially of sweet corn, apples, and cherries. He sells his products primarily to households, restaurants, schools, activity centers, and grocers in Big Sandy and Havre. He sees considerable opportunity for selling more items in these very local markets. "There is quite a bit of demand in this area," he said.

Bob Quinn is making plans to retire from active commercial production and is transitioning the farm so it will focus on research. He is currently experimenting with dry-land watermelon as well as various grain trials. Quinn is the champion of the ancient grain, kamut, and he processes and sells deep-fried kamut berries. He hopes the farm will sell enough wholesale produce to hire a full-time sales manager. Once they have a marketing person, the farm could easily allocate more land.

The main suppliers of vegetables in the region are Hutterite colonies, who sell direct to household consumers at farmers' markets, and through mobile sales in Eastern Montana. A few restaurants and stores purchase vegetables from select colonies, and report that they choose carefully which ones to trade with. Several colonies also offer organic chicken and organic eggs. One colony reportedly sells organic vegetables. Collaboration among colonies appears to be limited, except for a collaboration to invest in a new egg-processing plant in Great Falls.

Many wheat and barley farmers have begun to rotate pulses into their crop mix in an effort to reduce fertilizer costs and improve soil quality. Markets are generally distant for the grains and pulses. There is only limited trade of regionally grown grains to customers within the region. Vilicus Farms, Marias River Farms, and Timeless Seeds sell large quantities outside the region. Gary Gunderson of Gunderson Farm sees the inefficiencies inherent in shipping food in and out of the region, and thinks it would be beneficial to add more value to farm products in the region and develop local distribution capacity. The Great Falls Development Authority also supports this view. Marias River Farms is considering value-added processing on their farm for regional markets.

Some respondents stated that beef was the product most likely to serve as the core of local marketing efforts. All ranchers interviewed reported a desire to direct market more beef and lamb though cited a lack of time to pursue additional marketing activities. Yet processing can also be a significant obstacle, with only two USDA certified kill plants in the state, and limited capacity at some state-inspected plants. Several farmers reported they travel long distances, and must schedule long in advance, to obtain high quality meat slaughter and processing. Quality of processing varies from plant to plant, regardless of their certification level. For example, some ranchers prefer exempt custom processors or state processors because they feel the facilities are cleaner and the animals are treated better. Ranchers listed processing as both their biggest obstacle and opportunity.

The Blackfeet Nation is currently drafting a comprehensive plan for agriculture, which is likely to conclude that the tribe should create a high-quality branded grass-fed beef product featuring the region's clean air and water. The tribe would likely build their own processing plant on reservation land, and hopes to both export beef and sell to higher-end markets in the US. They will seek sales outlets in the Great Falls area. Loren Birdrattler added that he wants to overcome the "disconnect" between Native and nonnative leaders: "I'd like to remove racial lines."

When farmers interested in wholesaling were asked which crops they would like to sell at larger scale, most all mentioned the same crops, such as garlic, strawberries, raspberries, onions, squash. In some cases, one farmer would steer away from producing an item that a neighboring farmer already grew. One of the key responsibilities a collaboration would shoulder would be to manage the supply of fresh food items so that not all farmers are selling the same products at the same time; this could easily lead to oversupply and lower prices, driving some farmers out of business.

CONTEXTS: CORE ISSUES FOR THE COLLABORATIVE

The Steering Committee for this initiative identified several key areas that they hope to address. Below are some insights from the literature that we hope will guide the group's decision-making.

Economic Development

Local economic development can be realized with farm-to-institution purchasing through a number of mechanisms. First, switching from imports (e.g. apples from Washington) to a local product (e.g. apples from Big Sandy) reduces economic leakages and keeps more money in the local economy. Purchasing from a local farmer is referred to as having a "direct impact" on the local economy. When the farmer spends that money on labor, for example, it creates additional economic development, referred to as an "indirect impact". These impacts, additional impacts, and multiplier effects are thoroughly discussed in *Critical Analysis of Economic Impact Methodologies* (Meter & Goldenberg, 2015). The magnitude of these indirect impacts is largely a function of where the originating direct spending occurs. For example, a small produce farm tends to spend a greater portion of its operating budget on labor than a larger produce farm; therefore dollar for dollar, purchases at a smaller farm will have a greater indirect impact on the local economy (Schmit, Jablonski, & Mansury, 2013).

Second, farm-to-institution programs tend to increase meal participation, potentially increasing total demand and sales to producers, further magnifying the effects discussed above (Abernethy Elementary, et al., 2006) (Flock, Petra, Ruddy, & Peterangelo, 2003) (Center for Food & Justice, et al., 2006) (Feenstra & Ohmart, 2005a) (Feenstra & Ohmart, 2005b) (Feenstra & Ohmart, 2004) (Christensen, 2003) (Ohmart, 2002). In addition, when schools work closely with local food retailers, local foods featured on the school menu are often also cross-promoted at the grocery store, further driving demand and sales (Lynch, et al., 2015). Many schools find that as more students eat lunch at school, the school obtains larger reimbursements from USDA; this means they have more funds available for purchasing food.

Third, local purchasing programs have been known to decrease total spending on behalf of the institution and the farmer. As one well documented example, DuRussell Farm supplies Michigan Department of Corrections with carrots, potatoes, corn, collard greens, and cabbage. Due to this shift from exporting products to other states to shipping products across Michigan, the DuRussells report significant savings on freight. The prison system reports an estimated savings of $7 million a year (Michigan Good Food, 2012). Previously, this money was leaking out of the state economy. Now it is available for other purposes.

Healthy Food Access

The food environment is defined by the availability, affordability, accessibility, and marketing of food (Ahern, Brown, & Dukas, 2011). Communities need access to a wide variety of healthy and nutritious foods; however, research has indicated that the food environment does not provide communities with equitable access to these types of foods.

Studies have found that "Metropolitan communities with access to an abundance of fast food restaurants are associated with poorer health outcomes" (Ahern, Brown, & Dukas, 2011) (Berning 2010) (Dunn, 2010). This type of food environment is commonly referred to as a food swamp, an extension of

the food desert concept. Ahern, Brown, and Dukas (2011) and Morland, Wing, and Roux (2002), have shown that communities with available grocery stores and supermarkets have better health outcomes than communities that only have convenience stores available. Morland and her colleagues also demonstrated a link between an increase in supermarkets per census tract and an increase in fruit and vegetable consumption. Further, Berning (2010) showed that direct farm-to-consumer sales have positive health impacts. The food environment has been heavily influenced by food industry practices and government policies; therefore public health practitioners are increasingly extending their work beyond nutrition education and looking at changes in the broader environment and structural factors that will increase community access to healthful, nutritious, and sustainably grown food.

For institutions such as schools, senior centers, and prisons, which can provide one to three meals a day, every day, for their clients, it is essential to individual and public health that these meals contain healthy and nutritious foods. In hospitals and temporary care facilities, healthy food is necessary for treating disease and promoting wellness. Addressing the food environment in institutions and using these locations as an entry point for increasing healthy food access for individuals has the greatest potential for impact.

Preliminary reports suggest positive outcomes regarding increased fruit and vegetable consumption both at school and at home due to farm-to-school programs (Abernethy Elementary, et al., 2006) (Flock, Petra, Ruddy, & Peterangelo, 2003) (Center for Food & Justice, et al., 2006) (Feenstra & Ohmart, 2005a) (Feenstra & Ohmart, 2005b) (Slusser, Cumberland, Browdy, Lange, & Neumann, 2007) (Joshi & Azuma, 2006) (Schmidt, Kolodinsky, & Symans, 2006) (Feenstra & Ohmart, 2004) (Christensen, 2003). As mentioned above, when foods are cross-promoted from schools to grocery stores, it is reported that children recognize those foods at the store and ask for them (Lynch, et al., 2015). Furthermore, when institutions start substituting their proteins (e.g. chicken products from their broadline distributor for local chicken), those protein products tend to be of higher quality (e.g. the chicken is free-range, antibiotic free; milk is organic, etc.). As a result of purchasing more expensive but higher quality animal proteins, institutional food service providers will also often substitute in less expensive plant-based proteins, such as lentils, which are also thought to increase health outcomes (Lynch, et al., 2015).

Community Building

A variety of studies finds that a shift towards large-scale, industrial agriculture in rural communities is correlated with declining population (Heady & Sonka, 1974), lower incomes, lower standards of living (Gilles & Dalecki, 1988), gaps in community services (Poole, 1981), a lack of community integration (Heffernan, 1972) (Heffernan & Lasley, 1978) (Martinson, Wilkening, & Rodefeld, 1976), and a lack of diversity of economy and employment (Marousek, 1979), and is correlated with increasing high school dropout rates, higher teen pregnancy rates, and larger rates of eligibility for free or reduced-price lunch in school nutrition programs (Peters, 2004).

The decline of traditional family-owned agriculture and the rise of large-scale industrial agriculture is often blamed for the degradation of rural communities and social structures, and many have argued that the localization of food systems is central to building community wealth and well-being. Although research to date on the extent to which local food systems can rebuild a community is limited, studies are emerging that correlate social capital and strong networks to communities with the ability to capitalize on resources necessary to restore the food system (Flora & Flora, 1993) (Smith, 2009) (Courtney, 2010). Indeed, some communities that suffered in the wake of farm consolidation are now

experiencing a revival alongside the rise of their local food system (Courtney, 2010) (Hewitt, 2010). It's hard to tell if local food systems build community or if communities build local food systems. Preliminary research suggests that it's the latter (Flora & Flora, 1993) (Koc & Dahlberg, 1999) (Lacy, 2000) (Feenstra, 2002). Yet, farmers markets studies suggest that it is social connectivity that causes some consumers to engage in the local food system in the first place (Snyder, Smith, Meter, Goldenberg, Miller, & Amsterdam, 2014). It seems plausible to assume that each works to reinforce the other mutually.

Farm-to-school studies and evaluations suggest that local procurement programs that go beyond putting local foods on the menus (e.g. school gardens, farm tours, nutrition education, etc.) result in increased knowledge of nutrition, food, and agriculture, and result in positive long-term social behavior changes (Joshi & Azuma, 2006) (Murphy, 2003) (Triant & Ryan, 2005) (The Food Trust, 2007). Additional studies also suggest that the integration of education, farm tours, and community partners in a local procurement strategy is what results in increased school meal participation and increased produce consumption, thus ensuring the long-term success of a program (Kane, Kruse, Ratcliffe, Sobell, & Tessman, 2011).

Environmental Stewardship

Some view small-scale agriculture and local food systems as more sustainable and better for the environment. However, this is generally a biased opinion that ignores nuance. Nearly all farmers along the production spectrum from large scale conventional agriculture to small scale "better than organic" market gardeners, and everywhere in between, consider themselves good stewards of the land and their farm operations as sustainable, though their definitions of good stewardship and sustainable may differ farmer to farmer. There is some general, research-based consensus that USDA Certified organic cropping systems are better for the environment, but that it mostly depends on the individual producer. For example, any farm using precision production technology and no-till techniques will have a smaller environmental impact than those that do not, regardless of whether they employ conventional or organic inputs; a large commercial production farm employing a precision sprayer will contribute less to nitrate pollution than a farm that sprays synthetic nitrogen uniformly. Farms using smart cover cropping systems and crop rotations may not contribute to nitrate pollution at all, regardless of their scale and crops.

According to research, organic farms tend to use less inputs altogether and those inputs are considered "natural" (compost, manure, fish emulsions, for example). However, in lieu of chemical herbicides, organic producers rely more heavily on mechanization such as tine weeding and moldboard plowing, which consumes more fossil fuels and may contribute more to soil erosion. Comparing and contrasting these environmental benefits and costs against those associated with more conventional agriculture is difficult. However, one clear, significant difference is that organic farming systems are far more likely to incorporate a resting or cover period into their crop rotation, whereas conventional producers are more likely to continuously plant a commercial crop, relying on synthetic fertilizers and fungicides to support this system (McBride, Greene, Foreman, & Ali, 2015). These monoculture systems are particularly damaging, as they lead to persistent pest and disease presence and imbalanced nutrient leaching (Committee on the Impact of Biotechnology on Farm-Level Economics and Sustainability, et al, 2010). It is reasonable to assume that any scale of agriculture that incorporates crop rotation and cover cropping will be more environmentally friendly than one that doesn't.

To say one cropping system is better than another is nearly impossible, especially given the wide variety of techniques employed and diverse soil and climate regimes. The differences between organic and conventional are a little more tangible and easier to measure than the differences between small and large farms; however, so much depends on the individual producers and, in some ways, the culture of the region (e.g. the particular knowledge and philosophy of experienced farmers and the local Extension office and crop support services). Ensuring that farmers have access to the latest technologies and information regarding best practices for environmental preservation may be more impactful than promoting one particular cropping system or scale over another.

Timeless Seeds. Photo © Ken Meter, 2017

BASIC ELEMENTS OF A POTENTIAL FOOD HUB SYSTEM

Some estimate that food hubs break even between $600,000-900,000 in annual revenues (Hardy, Hamm, Pirog, Fisk, Farbman, & Fischer, 2016), though others say its closer to $1.5-2.0 million (Matson, Thayer, & Shaw, 2015) for a facility that combines aggregation, processing, and distribution. These numbers imply a variety of assumptions – namely that financial viability and profit making are explicit goals of the food hub entity. Furthermore, these figures tend to include capital loan costs.

In the case of a Golden Triangle Food Hub Network, which could be a hybrid model with a social mission based in healthy food access, earned income is a means to an end and not the end itself. In this situation, the food hub can leverage a variety of resources to address gaps in the food system without being hindered by the explicit need to return profits to investors. Because of this, the Golden Triangle Food Hub Network doesn't need to be any one thing, but the stakeholders engaged in this study still need to clarify their vision and mission. Regardless, deliberate scaling and market penetration is necessary.

Immediate Opportunities to Strengthen the Local Food System

In the beginning, while the Golden Triangle Food Hub Network develops its vision and mission, it needs to focus on fostering a spirit for collaboration among producers and demand for local products among consumers.

Although the assumptions about supply are based on a limited data set, it is reasonable to assume that some effort on the part of Golden Triangle Food Hub Network will have to be dedicated to increasing production for local markets. Nearly every food hub in the country has had to make this a priority. Sometimes the solution is just telling producers what is needed at which volumes and prices, while other products will require considerable attention, education and training, and even capital investment in shared equipment. Whenever possible, issuing growing contracts to producers before a growing season (i.e. the winter before) is encouraged.

Future Opportunities to Strengthen the Local Food System

Purchasers may have high demand for cut greens and tomatoes, for which there is little local wholesale supply. Producers will need additional encouragement and maybe even incentives to grow these crops at scale. Similarly, producers largely want wholesale markets for products that are easy to grow such as garlic, kale, and spinach, preferring to save high-value, high-input crops such as heirloom tomatoes and grass-fed meats for direct markets. Increasing the wholesale demand for things like summer and winter squash, kale, and garlic will increase the financial sustainability of farms. The Golden Triangle Food Hub Network has considerable work ahead of it in order to bring institutional demand and wholesale supply into alignment.

Additional Opportunities to Create Value

Shared Marketing Services and Sales Coordination

Most farmers interviewed for this study and others conducted by Crossroads Resource Center and New Growth Associates have founds that farmers would prefer to focus on growing good food and not on the

other details (i.e. marketing, book keeping, delivery logistics, billing) associated with running a farm business. Similarly, purchasers prefer a codified ordering and bill payment process, when possible. Thus when there are opportunities to consolidate and/or align these essential services, procedures and protocols should be developed.

Labor

Skilled and motivated labor is one of the most common barriers to expansion or success cited by small farmers across the country, and the farmers engaged in this study were no different. This was one of the primary barriers cited by area farmers during interviews. Yet further elaboration indicates that the problem is more complex than a lack of skilled labor. Several farmers declared a general frustration or lack of interest in continuing to use hired labor, preferring instead to "right-size" the operations to something that is manageable for the family or partners only. Thus there maybe a need to inspire business relationships that develop into entrenched partnerships versus employer-employee relationships.

Transparency

It is imperative that local food distributors and purchasers start collecting, retaining, and reporting farm-of-origin point location data in order to better support local purchasing preferences and values. A source identification or traceability program and label will increase integrity, transparency, and traceability in the food supply chain, while also giving buyers the needed information to more actively implement local purchasing goals, whatever those may be, and applying pressure to large-scale distributors to change their sourcing and reporting habits.

It is recommended that all farm products carry a "farm-of-origin" label – at least on the packing crate, if not on each individual food item – that provides point location data (giving the physical address of the farm, or at least the name of the nearest municipality). This label (and accompanying tracking documents such as receipts) would convey this information through the entire supply and reporting chain. Many farm-to-institution programs across the country are moving in this direction, as well as many farm support organizations and distributors. In Figure 17, Hudson Valley Harvest, a New York-based light processing and distribution company, prioritizes transparency and traceability on their labels (Hudson Valley Harvest, 2014).

Figure 1: Hudson Valley Harvest Label Prioritizes Traceability and Transparency

Sharing Infrastructure and Resources

Partnerships with other commercial operations should be seriously explored. Cold storage is often the limiting factor to growth in any sort of food operation, and the maintenance of cargo vehicles is often the most expensive aspect of aggregation and distribution services (or at least the most frustrating). Partners such as Quality Foods Distributing, which aggregates and distributes regional and high value products and has started establishing itself across the state, may provide the opportunity to bridge production regions, tying the Golden Triangle into Flathead region consumer base and produce farms.

Farmers we spoke with not only discussed a willingness to change their operations to accommodate wholesale markets, but also expressed a sincere desire for food service providers to change their own practices as well. One such request was for chefs to embrace rutabagas as an essential part of menu planning, akin to onions or potatoes. Chefs should consider it a creative challenge to incorporate crops that grow well for Montana farmers, and consumers should be encouraged to reward them for their efforts.

SOCIAL SERVICE ASPECTS OF THE PROPOSED ENTERPRISE

Whether the leadership team decides to create a food hub or opts to launch a different enterprise, the work will involve more than economic exchange, thus it will be important to measure success in broader terms than simply financial outcomes — though of course, financial results are important. This section will focus on other aspects of the food enterprise.

As noted above, our team recommends that this initiative be framed as a "community-based food initiative," rather than as a "local food initiative." This is because the competitive advantage any local effort to produce and distribute food to local consumers is based on the loyalties the initiative builds among community members. This is most clear when the price of locally grown produce exceeds the price a consumer could pay for a similar product that is imported. At such times, will a consumer purchase a green pepper raised in her community over one that was imported from Mexico, Canada, or Holland? Will a consumer opt to purchase primarily products from sources in their community, or will they favor other attributes?

If this is viewed as a community-based food initiative, then the initiative itself must build community capacities and resilience as it moves toward its goals. One shorthand that Meter has developed for this is that food systems should build "health, wealth, connection, and capacity" in communities (Meter, 2009).[7] While this framing does not include all of the desirable purposes a food system should achieve, it offers a fairly simple way to convey the reality that food systems are complicated, and multiple outcomes are always sought.

Perhaps the first place to begin this discussion is the need for an effort to build consumer awareness in the Great Falls area itself. As noted above, our informants forcefully pointed out that residents of the town hold limited interest in purchasing food from local farms. One of the key initiatives that MCDC and its partners will likely want to undertake is to market the concept of eating locally, and its many benefits, to nearby residents.

While some commercial enterprises may make such an appeal part of their marketing to consumers, building awareness of the potential for local foods may happen through a variety of other efforts. The State of Alaska, for example, is promoting a "Alaska Grown $5 Challenge" campaign through supermarkets, encouraging shoppers to purchase $5 of food each week that was grown on Alaska farms or manufactured in the state (http://buyalaskagrown.com/fivedollarchallenge/). Such a campaign involves both commercial and noncommercial activity. Launching this kind of initiative would advance the social mission of the proposed co-op or collaborative.

Fostering consumer commitment to foods produced in the broader Triangle region is only the first level of activity required. For one thing, the results of the campaign suggested above will be deeply limited unless more farmers produce food for local markets. Thus, launching such a campaign will also require further attention to growing new farmers and offering technical assistance to current farmers who wish to scale up to reach additional wholesale markets. These training functions are also nonprofit in nature, and until they thrive, it will be difficult for for-profit farms to make a proper livelihood by growing for local markets.

[7] Meter, K. (2009). *Mapping the Minnesota food industry*. Crossroads Resource Center. October. Available at http://www.crcworks.org/mnfood.pdf

Assuming sufficient food can be grown, additional issues will surface. Low-income customers, especially, often find it difficult to access high-quality foods at stores if they are more expensive than offerings at discount stores. Some food banks have shouldered the task of purchasing high-quality and second-quality produce items from nearby farms to distribute to those who face food insecurity — another nonprofit function. Even those who gain access to high-quality foods may not hold the skills to prepare them in an appealing manner. Many low-income households may lack kitchen utensils that would make it possible to prepare food regularly. Even those who do have proper equipment may be working two or three jobs, with limited time to cook. Others may feel that the foods they have available to them are not culturally desirable, or conducive to health.

Luckily, MCDC has partners who engage in this educational activity. We interviewed several who were enthusiastic to collaborate in a new food initiative once its scope and available resources were more clearly defined. Thus, the new food collaborative is likely to gain considerable strength from partnering with these organizations that are deeply experienced in working with low-income residents. It may wish to join fundraising efforts to build strategic partnerships focused on building the capacities of low-income (and other) consumers. In effect, this will be to build a stronger network of food leaders in the Great Falls area. Building such a network will therefore be part of the social mission of the proposed collaborative.

Before we list specific activities that might be pursued by the collaborative, it is important to make a general point about this nonprofit outreach and educational activity: seldom will this activity pay its own way through sales of food items alone, especially amidst a system that has externalized these costs so that the basic cost of a food item to consumers is often artificially low. Thus, business planning for the proposed collaborative should incorporate both projections for what can be earned as income by selling food items, and projections covering the educational activities that will require philanthropic support.

To take one simple example, schools across the US, including the Great Falls region, once offered agricultural production training and home economics / health courses to middle and high-school students as a routine part of their education. Over the past 40 years, Montana, like most American states, has chosen to eliminate many of these programs from its schools. As a result, many who live in Montana have never gained such skills. This means that if the Triangle region wishes to inculcate these skills into its communities, foundation support will be required to fulfill this role.

Prior decisions such as these make building a community-based food system a formidable task. Literally each aspect of the food system requires close attention, in a long-term effort to build skills in production, safe food handling, food preparation, eating, and waste recycling. All of this activity will be more effective if local residents are strongly networked with each other so they can make decisions in a trusting way as conditions change over time, and new challenges arise. Foods available must be healthy to eat, and all food enterprises must also be sustainable financially.

Keep in mind that some of the more prominent food hubs across the nation rely upon foundation support ten or twenty years after they opened. Many well-known food hubs are still trying to cover the costs of even distributing the food they sell, let alone for the educational functions they serve.

Here is a partial list of educational and social functions that may over time become the purview of the new collaborative and its partners. While this is a long list, it is certainly not all-encompassing, if only because unforeseen challenges await:

Food Production

- Building healthy soil (adding organic matter, fertility, etc.)
- Protecting water resources
- Protecting clean air
- Pest control
- Following Good Agricultural Practices (GAPs)
- Growing fruits and vegetables
- Packaging fresh products for retail and wholesale trade
- Marketing food to household and wholesale customers
- Branding one's farm
- Labeling food with the name of the farm (transparency)
- Building storage, cooling, and freezer capacity on or near farms

Food Purchasing

- Becoming acquainted with nearby farms
- Learning about farm practices pursued on each farm
- Selecting a balanced diet from major food groups
- Knowing how to obtain what one wants from the grocer
- Knowing how to purchase within one's budget
- How to substitute available products for others that are desired but distant

Food Preparation

- Basic cooking skills
- Basic cooking equipment
- Preparing meals from scratch using raw ingredients
- Keeping meats and vegetables separate to avoid cross-contamination
- Cooking to enhance appeal and flavor
- Preparing a balanced diet

Food Processing

- Processing foods grown on Triangle farms
- Building sufficient processing facilities that local demand can be met
- Marketing community food items
- Train residents in food processing
- Retrain veterans and others for food processing careers
- Building capacities at local food banks to process foods grown on local farms for distribution to low-income residents

Food Consumption

- Eating a balanced diet
- Eating enough but not too much
- Eating seasonally using foods that are grown in the Triangle region

Food Distribution

- Building efficiencies in local food trade

- Building adequate storage, cooler, and freezer capacity for regional food production
- Integrating the distribution and storage resources of food banks with private distribution firms
- Forging collaborations with external distributors so that production from several locales is available

Food Retailing

- Marketing locally produced foods
- Introducing consumers to nearby farmers
- Playing a consistent role in building community food trade

Waste Recycling

- Composting skills
- Building composting businesses
- Safe handling of manure
- Applying manure and compost to farm fields

Knowledge Bases & Evaluation

- Safeguarding information on local food production and markets (such as that found in this report)
- Measuring success in building health, wealth, connection, and capacity
- Drawing maps that show new food networks as they form
- Building strategic models showing proposed systemic changes, and systems levers that must be moved to create better community food systems
- Extension agents who can work with area residents
- Annual gatherings of those who are members of the Triangle food collaboration.
- Track surprising developments

EXEMPLARY MODELS FROM OTHER REGIONS

Fifth Season Co-operative, Viroqua, Wisconsin

Fifth Season Co-op is perhaps the nation's most comprehensive example of a community creating a food system that will be rewarding for all parties concerned. The co-op was launched in Viroqua, a town of 4,000 in Southwestern Wisconsin, about 40 miles south of La Crosse. The land in this region is unglaciated, featuring both flat expanses of open land, forested ravines, and scattered hillside.

The co-op was launched in 2009 by growers who sought larger markets for their produce. Several of these growers had started their farms 40 years before, purchasing land when it was relatively inexpensive, and building soil fertility gradually over time through intensive use of manure and crop rotations. They had persisted despite limited demand for their products, until buyers turned their attention to sourcing produce as close as possible.

The broader community of Viroqua had also established a cooperative grocery store in 1995 that expanded twice as business grew. The grocery co-op now occupies a Frank Lloyd Wright-style building they built in a prominent location in town, and boasts more than 3,400 members, garnering more than $7 million in sales.[8] Its formation was aided by the presence of a cheese producer's co-op, the recent growth of the $1-billion cooperative of co-ops, Organic Valley, as well as a regional heritage of collaboration that goes back to the 19th Century.

When the farmers first began discussing the formation of a cooperative, they quickly realized that they would have little power to set prices in highly competitive produce markets if they acted alone. As they consulted cooperative development experts, they were introduced to the concept of a multi-stakeholder co-op that would engage food buyers and other parties in the management of the co-op. A common form of cooperation in Europe, this had seldom been implemented in the U.S.

Accordingly, the growers approached the CEO of Gunderson Lutheran Hospital, a private hospital based in LaCrosse, asking him to purchase the produce the farmers raise, but more importantly, to join the board of the co-op. The executive readily agreed (one testament to the strength of the cooperative culture in Southwest Wisconsin) and further offered to invite his friend, the CEO of a national food distribution firm, to join the co-op board as well. The farmers agreed, adding that they wanted the workers of the co-op to also have a seat on the co-op board.

The initial group of co-op leaders worked patiently for more than two years to establish the policies and procedures of the co-op before actually opening doors to their operation. In this planning process, they were aided in critical ways by the Vernon County Economic Development Association, which not only convened the co-op members at their office, but also offered space in an abandoned 100,000 square foot factory that VEDA had purchased and renovated using federal funds.

Since incorporating in 2010, Fifth Season Co-op has grown slowly but steadily. Profits have never been high, but the partners have hewn closely to the collaborative vision. Local schools were invited to join the co-op; the schools ultimately decided they could not join since public purchasing procedures would create a conflict of interest (the schools would essentially be negotiating with themselves if they

[8] http://www.viroquafood.coop/vfcs-history

purchased from a co-op where they sat on the board) yet the schools readily agreed to purchase foods from the co-op.

Each fall, the hospital and schools determine how much of each specific food they will purchase from the co-op, increasing their orders in concert with growers' capacity to expand production. The co-op boards set minimum and maximum prices for each product, set at a level at which, in the words of one co-op leader, "no one will make a killing, but no one will go broke." Essentially, the co-op has simultaneously established both a supply management system and a pricing system that works for all partners — and each of the partners has solid reasons to adhere to these policies since they have helped establish the policies. Moreover, the presence of the co-op encouraged a nearby group of Amish farmers to refine their production practices and sell to the co-op.

Given the fact that root crops as relatively inexpensive and easy to grow in the region, and encouraged by the fact that VEDA could offer them processing space, the farmers developed a vegetable medley specifically designed for the needs of the schools. Setting aside root crops during harvest when prices are at their lowest, and storing them until the farming season subsides, the co-op peels, dices, parboils, and freezes this root crop medley into lots that are scaled to the needs of school kitchens. Schools can purchase the product, store it in their freezer, and tear the bag open and then cook the vegetables on steam tables before serving to students. Lightly seasoned with garlic and butter, it is a quality product that is relatively inexpensive to produce and serve, and cycles income to farmers.

Now the co-op offers a wide variety of locally produced foods produced by nearby vendors, including grass-fed beef, yogurt, honey, jams, frozen vegetables, maple sugar, fermented foods, locally pressed sunflower oil, and locally roasted coffee.

Northeast Indiana Food Network

A different approach to economic development was launched by the Northeast Indiana Regional Partnership, based in Fort Wayne. With the assistance of a USDA grant, this regional development organization invited 11 county-level economic development organizations to join in forming a Local Food Network. One key insight that led the Partnership to take this step was that the region had both a concentration of farms and a concentration of food processing firms. Believing in the importance of forming effective collaboration among these businesses, the Partnership sought to formalize an efficient producer network. Crossroads Resource Center joined the consulting team, led by Manheim and Associates, and performed a farm and food economic assessment that concluded (a) Several successful farmers had already formed vibrant networks of support around their individual farm operations; (b) The economic development community had largely overlooked these networks due to the priority they had placed upon attracting factories to the region; (c) While these farmers had built successful businesses, none of these farms had reached many consumers in Fort Wayne itself; (d) In particular, low-income areas of the city had not been reached; Finally, the developers themselves recognized that they had done little to address the economic development needs of low-income residents.

This initiative is still in its formative stages, but the food bank in Fort Wayne has made a $5-million investment in building its own capacity to process fruits and vegetables at a commercial scale, and a local food leader has been hired to coordinate the work of diverse parties in the region. Now the region

is consciously pursuing an effort to build greater collaboration that would include low-income residents.[9]

Shreveport Inner-City Food Networks

In the city of Shreveport, Louisiana, several partners have formed a collaboration to foster food production, healthy eating, and community capacity among low-income residents.

What is perhaps most impressive about this initiative is that high-level officials at several universities are active in the collaboration. More importantly, each official works in city neighborhoods, engaging directly with low-income residents.

The collaboration is aligned with We Grow Together, a coalition that has addressed hunger in low-income neighborhoods of the city. The Slow Food chapter of Northwest Louisiana and LSU Extension are key partners in the effort. Their goal is to build a network of interrelated facilities and social connections that will foster a culture that promotes health. This means that diverse strategies are being pursued at the same time, hoping to work synergistically in building capacity among community members. Tackling a combination of approaches in one neighborhood, they aim to make more concerted impacts.

Institutional partners include Dennis Wissing, Associate Dean for Academic Affairs at the Louisiana State University School of Allied Health Professions; Janice Sneed, Vice Chancellor of Southern University at Shreveport; Lucinda Murray the Occupational Therapy Program Director at the Louisiana State University School of Allied Health Professions; Mary Hawkins, an Assistant Professor at the Department of Kinesiology and Health Science at Louisiana State University in Shreveport; and Emmanuel Clottey, an Assistant Professor in the same department; and many others.

Sneed has worked with officials in the City of Shreveport to launch planning for a grocery store and farmers market in the MLK Neighborhood, which is close to the Southern University campus. When fully built, Sneed envisions that the facility will have a commercial kitchen and business incubator where residents can learn food preparation skills, test out a potential commercial product, and learn how to better fashion an emerging business.

Murray works with student volunteers who cleared land near the church to create a community garden with 10 plots where residents of the church's Hope House could grow food. She reported that interest in growing food is high, because the neighborhood has no grocery stores.

Hawkins hosts community health fairs in low-income communities where people can obtain information about living healthier lifestyles, and devoting more time to walking and biking.

In addition to his responsibilities as dean, Wissing maintains a community practice by managing a free pharmacy clinic run by the MLK Health Center. While patients wait for prescriptions to be filled at no cost, they are encouraged to select free, fresh food to take home. This food has been delivered by a nonprofit distributor, Shreveport Green. Wissing says his indicator of the strong interest the community holds in the clinic is that 96% of its customers have returned for further care. This amounts to the largest return on investment that any project he has undertaken in Shreveport he has experienced, he added.

[9] For further information, see the plan for the Northeast Indiana Local Food Network at http://www.crcworks.org/innetworks16.pdf

Clottey teaches an introductory course in public health with the theme, "Food is Medicine." He adds that "75% of health is eating healthy food, having clean water and air, and getting enough sleep." Through community assessments, his team has identified homes where children live who require special attention. The college students work directly with these households to help them locate sources of healthy foods, and turn to corner stores to encourage the proprietors to carry more healthy food options. Clottey added that where he grew up as a farmer in Africa, food is interwoven into the culture. Neighbors tell each other stories that take root in local culture and carry forward traditions. These tales encourage positive behaviors that would not otherwise be embraced by the culture. "Food has a history there. Part of eating is story telling."[10]

South Carolina Food Production Nodes

Several of the produce farmers we interviewed in the Expanded Triangle emphatically pointed out that in order to maximize the value of the products they grow, and to properly prepare these foods for market, they would need to build additional washing, packing, and storage facilities on their farms. Yet few felt they could afford to take this step while launching a farm operation with limited capital.

Our consulting team believes the farmers' analysis is correct. These facilities are urgently required, and few farmers have the means to build them on their own. Moreover, such packing infrastructure is crucial to build at training farms, incubator farms, or urban farms — wherever a group of producers might be able to share these spaces, collaborating to bring their foods to market.

On-farm infrastructure is a critical set of facilities that would build new efficiencies for community food trade in the Great Falls region. Furthermore, without on-farm packing opportunities, wholesaling efforts and eventual collaborations to build so-called "food hubs" will be vulnerable.

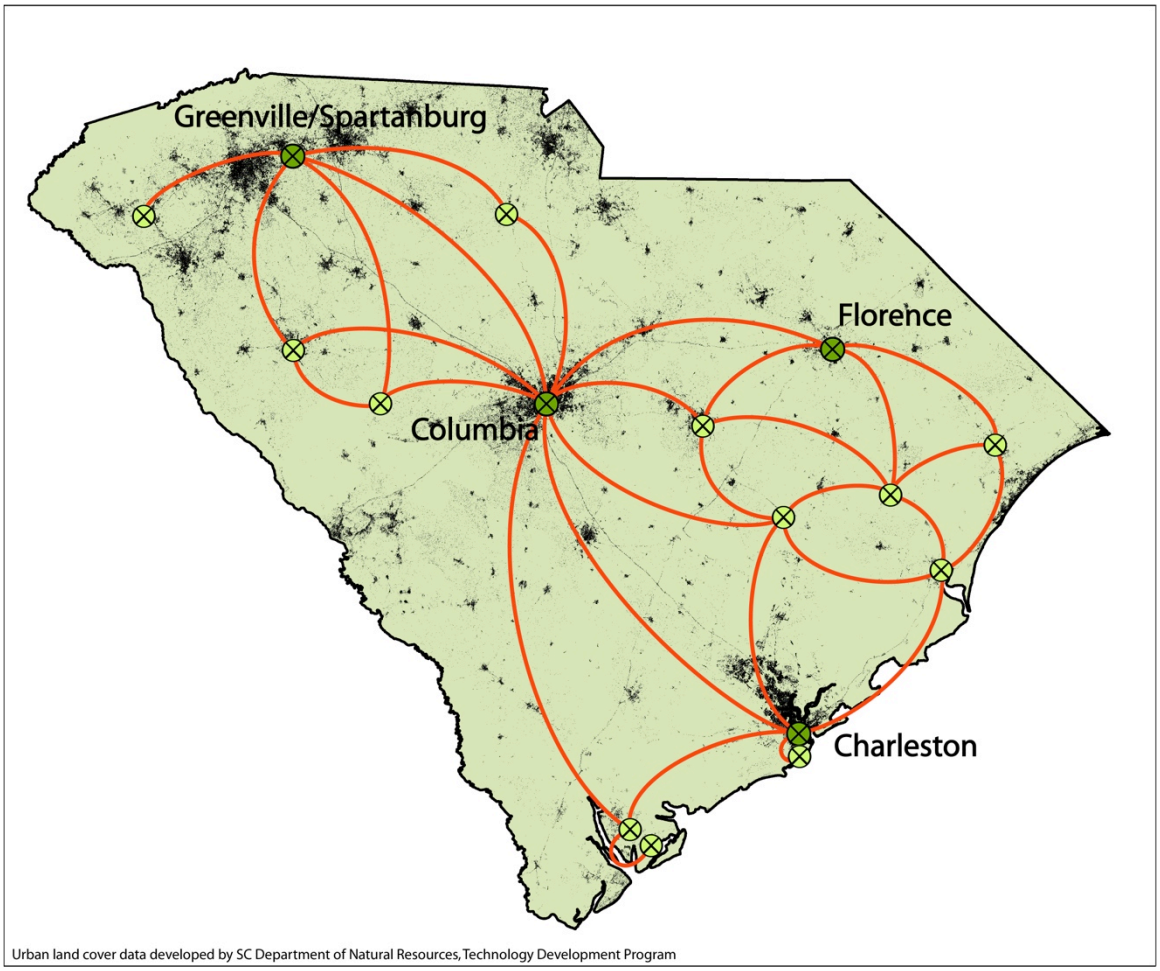
When our team was commissioned buy the State of South Carolina to develop an investment plan for local food production in 2013, we drew a map of the state showing a coordinated network of food facilities we called the "food web" of South Carolina. To build such a set of social and commercial networks, we offered a $9.85-million investment plan to state officials.

As one example of suitable on-farm infrastructure, we asked a team of architects to draw a schematic plan for a washing and packing facility that could serve a group of farms. While less expensive models are also available, this schematic could be built for about $350,000, and would serve 5 farms.[11]

[10] For more information covering food initiatives in Shreveport and surrounding areas, see http://www.crcworks.org/arklatex16.pdf

[11] For more information regarding the "food web" we proposed for South Carolina, see http://www.crcworks.org/scfood.pdf

Map 3: Proposed Network of Food Production Nodes and Food Hubs in South Carolina



Source: Meter & Goldenberg, 2013

Regional Food Systems Working Group (RFSWG) of Iowa

Beginning in about 2004, the Leopold Center for Sustainable Agriculture at Iowa State University mounted a model coordination effort for local foods that helped spawn a dozen regional working groups across the state.[12] This effort was adequately funded and comprehensively documented until 2011, when opposition from commodity groups weakened its presence.

Importantly, the Leopold Center can take advantage of a tax established by the Iowa legislature through the 1987 Iowa Groundwater Protection Act. This legislation taxes farm chemicals, with the proceeds directed half to the Leopold Center for Sustainable Agriculture, and half to commodity research dedicated to reducing agricultural impacts on groundwater.[13]

[12] https://sites.google.com/site/iowarfswg/home
[13] https://www.leopold.iastate.edu/files/page/files/LeoLetter_WINTER_2016.pdf

RFSWG established a community of collaboration that fostered communication among diverse stakeholders — including farmers, buyers, processors, wholesalers, distributors, grocers, institutions, academic scholars, extension agents, students, and many others. By connecting food leaders in an honest and trusting way, this network sparked considerable self-organized collaboration, honest and deep discussions that helped refine practice, and also lent great visibility to regional foods efforts across the state.

The RFSWG model was based on these principal strategies: (1) convene the statewide network once each year in an annual meeting that highlighted both research results, action campaigns, and individual networking; (2) Serve local foods to each gathering as a way of familiarizing food leaders with local producers and products; (3) Convene these stakeholders on a relatively equal basis so that no one felt excluded by reasons of hierarchy and collaborations were fruitful; (4) Offer small ($5,000-$20,000) research grants through a simple application process so that grassroots collaborations could easily tap funding to try innovative approaches. In exchange for the funding, recipients were required to report their findings (again in a simplified format) to the entire group; (5) Quarterly annual meetings were held that focused on specific topics; (6) One of the main purposes of the process was to build a solid network of food leaders who were intimately aware of each other's efforts and sought collaborative ways to work; (7) Evaluation was performed on an ongoing basis as a way of strengthening the work in real time, not merely judging outcomes at the end of the process.

Since Crossroads Resource Center was intimately involved in RFSWG from 2004 to 2010, and the initiative documented its work thoroughly, it should be relatively easy for Montana food leaders to learn about the structure and results of this model, and to adapt it to the metro area.

ValleyHUB, Kalamazoo Valley Community College, Michigan

ValleyHUB is a project of the Kalamazoo Valley Community College's Food Innovation Center. The objectives of this social enterprise include: 1) Build the supply chain for local produce into institutions; 2) Flexibly support the local food system by filling gaps in training, production, and processing; 3) Provide hands-on training and credit-based education that leads to jobs in the local food system; 4) Create opportunities for education and engagement with community organizations. In order to support these objectives, they commissioned a study similar to this one.[14] An identified strategic opportunity for them to pursue was light processing of limited products, namely root vegetables, for local institutions. They intend to scale up into a variety of produce items from many local suppliers and process this produce into frozen, dehydrated, and sauced products. They are focusing on growers who are currently marketing directly and are supporting their shift to institutional sales in order to develop more stable revenue chains.

[14] newgrowthassociates.com/portfolioASupplyAndDemandPlanningProcess.html

CONCLUSIONS AND RECOMMENDATIONS

The current steering committee has identified several clear needs and opportunities for further developing the local food system, however, there is less alignment on a concrete vision or path forward. During initial conversations, we notice that at least five diverse visions for this collaboration are in discussion. All are interesting visions. These are not mutually exclusive over a long timeline (several decades). Yet not all of these visions can be initiated and accomplished at the same time with limited time, capital, and staffing. The five most prominent visions are:

- Form a farmers' cooperative to gain more strength in negotiating prices and delivering larger quantities of food to institutional buyers.
- Form a buying cooperative that will convey products grown primarily in other regions such as the Flathead and Bozeman, and convey this to markets in the study area — for example to grocers (especially small independent grocers in rural towns), institutions (food banks, schools, and hospitals), restaurants, and other buyers.
- Form a multi-stakeholder cooperative that would integrate farmers and institutional buyers into a single organizational framework, and establish both prices and quantities for food items traded within this network.
- Form a collaboration that would purchase or glean "seconds" from farmers in the study area as well as perform grocery rescue in the area, and buy in produce from the Pacific Northwest, convey that to area processors, and distribute these processed items to food pantries and banks, schools, or even institutional food services.
- Develop a food hub that might aggregate products from small farms, process into value-added products for household and institutional customers, and distribute food throughout the region. This entity might further coordinate community food system activity in the region.

Our initial sense is that the multi-stakeholder cooperative concept is the correct concept for the long term, but that it may well take decades for the region to build such an entity. We hope it could happen more rapidly, but whether it will or not depends on several critical factors:

- Supply of foods grown for local household and institutional markets must grow dramatically to a level of hundreds of thousands (even millions) of sales to support such a business.
- Demand for community-based foods must increase to similar levels.
- Supply and Demand must grow step by step in concert with each other.
- A culture of cooperation must be strengthened.
- Principals in the farming, food buying, and distribution sectors must form a common set of shared values and gain experience upholding them in competitive commercial settings.
- A clear and qualified leadership team must form and commit to building such an entity over the long term.
- Considerable mutual respect and trust must be built among these leaders, and then among the broader community of participants.
- A solid vision must be built promoting community-based food trade, rather than simply fostering Montana grown and processed food products.
- Considerable capital must be raised to build food infrastructure, and to build new storage and cooling facilities at several points in the region.

Similar achievements would be required to make a "food hub" successful. General experiences working with food hubs and multi-stakeholder cooperatives indicate that it can take 7-10 years for these entities

to start breaking even, requiring at least an average in $1-2.5 million in annual sales before viability, though some smaller models have proven workable. Most food hub models require consistent support in the form of donations, particularly to perform farmer-training and consumer-education initiatives that are difficult to support through sales alone.

Forming a farmers' cooperative or a buying cooperative might well be solid steps forward, especially if done with a long-term view of creating these co-ops to serve as the foundation for a multi-stakeholder cooperative at a later date.

The concept of gleaning or purchasing second-quality food items for distribution to low-income residents has attracted considerable appeal among our interviewees. This strategy has the benefit of making use of a nonprofit food bank sector that is highly experienced in raising philanthropic support, and in addressing the food and other needs of the marginalized residents of the region — something that market-based approaches are unlikely to meet. Once again, if this step were taken within a long-term view of using investments in feeding low-income residents as a strategy for creating local food infrastructure for broader community-based food trade, this could have exceptional power. The main limitation at this point with regard to this strategy is whether local leaders will make this a clear priority, and whether low-income residents will be engaged in framing and implementing this vision on the front end so that it truly serves their needs and does not become imposed on them.

Given this current situation, our sense is that the most obvious steps to take are rather discrete. These will allow the Steering Committee to gain more experience in working together, build trust among its members, and engage both low-income residents and new leaders. We strongly believe, based on what we have learned so far, that this is a time for building stronger collaborative networks, not launching new bricks and mortar facilities or a new business.

It is notable that at this stage, no single person among the Steering Committee appears to be ready to assume a role as core leader or director of operations. Nor is there an institutional structure (such as a cooperative board) that can clearly take the reins of sponsoring this long-term initiative. Building each of these essential capacities will be critical.

Key Findings

1. While several established farmers grow high quality food and are very interested in selling to local markets, it is not at all clear that the amount of food produced for sale in Expanded Golden Triangle communities is sufficient at this time to support an aggregation business of any sort. Most emerging farmers rely upon direct markets to get started. Many growers are considering serving wholesale markets, but are just getting underway. The region will also need to cultivate new farmers.

2. Growth in local food production is also hampered by the limited interest that Great Falls area residents hold for purchasing and eating food from nearby farms. Raising awareness among residents will be a critical strategy.

3. Several key buyers, including a hospital food service, groceries, and selected schools are deeply interested in purchasing more food from the region's farms if it is grown. We have identified at least $22 million of potential institutional markets. Household consumers purchase another $619 million of food.

4. Direct sales from farms to household consumers will continue to be important to farms as well as consumers for the community connections they form. These could also hold great economic importance if a concerted effort were made to purchase from Triangle farms: if each resident of the region purchased $5 of food each week from some farm in the region, farmers would earn $56 million of income.

5. The Steering Committee should frame its work as an initiative to build *community-based food systems*, not merely an effort to increase local food trade.

6. The Expanded Golden Triangle region may gain local efficiencies by combining aggregation and processing in a single firm, or on a single campus. A regional network of supportive infrastructure (such as storage facilities, meat processing plants, etc.) is likely to be required as well.

7. The first steps toward the formation of a multi-stakeholder cooperative are likely to be discrete steps that achieve solid success and also build mutual trust and a culture of collaboration.

8. The Steering Committee should select one or two action strategies from those that are proposed (see list below) and form collaborative networks by accomplishing one or more of these as soon as possible.

The Path Forward

We strongly believe this is a time for building stronger collaborative networks, not launching new bricks and mortar facilities or a new business. We encourage members of the steering team to study the examples of Northeast Indiana, Shreveport, and South Carolina as examples of such a strategy to be adapted to the Expanded Golden Triangle.

Such networks will build trust by achieving success in attaining discrete goals. Note that it is more important to build a strong collaborative network than to achieve rapid business success, yet it will also be important to achieve business and strategic successes in time in order to build trust and gain lasting respect in the community.

Organizing Strategies (Next 12 Months)

1. Hire a community foods coordinator to convene key stakeholders, form collaborations, and build networks of trust among farmers, wholesalers, processors, school and hospital food services, grocers, food banks, and other key leaders, as well as lead education initiatives. Education initiatives may include crop planning and pricing for wholesale markets, food safety standards and protocols, scratch cooking in institutional settings, etc.

2. Expand and convene clusters of leaders already engaged in aspects of community food systems to identify opportunities for collaboration. It may be useful to formally hire a facilitator for the most interactive sessions.

3. Create a formal unified vision among these leaders to construct a community-based food system that builds “health, wealth, connection and capacity” in the Expanded Golden Triangle region.

4. Contract for one or more feasibility studies that can document the economic viability of each prospective system component. Discuss in the study whether an integrated processing and distribution initiative, modeled after Mission Mountain Food Enterprise Center and Western Montana Growers Cooperative, could be mounted in Great Falls, Helena, or elsewhere.

Additional strategies that might be considered and pursued would be:

Near-term (1-2 years)

5. Coach any farmers who choose to participate through a process of establishing agreements about how to collaboratively market food items, determining which farms would supply which products for local markets, setting price minimums and maximums, and ensuring that the identity of each farm is protected and passed along to buyers as wholesale sales are made.

6. If these discussions lead growers to form one or more formal grower cooperatives, then extend additional technical assistance to interested farmers and ranchers.

7. Raise awareness among Golden Triangle residents and rural storeowners of the importance of purchasing food from local farmer cooperatives that serve their communities. One campaign that might be run is an "Eat Five, Buy Five" campaign promoting healthy eating (five fruits and vegetables each day) and local economies (buy five dollars of food from a local farmer each week). First steps would include compiling information on existing campaigns (such as the Montana Local Food Challenge and the Choose Local Campaign), and coordinating through the Montana Department of Agriculture with these initiatives to maximize their reach and effectiveness.

8. Work with institutional food buyers in the region, including food banks, to assist them in forward contracting to source more beef, grains, and pulses grown by the region's family farms and utilizing them in their food service programs. Coach staff in economical and tasty preparation of raw food products from nearby farms. Margaret Corcoran would be an excellent resource for this process.

9. Explore collaborative processing and aggregation among Great Falls area growers and the Ursuline Center, St. Vincent de Paul, the Montana Food Bank Network.

10. Explore how a Blackfeet-owned meat processing plant could best interface with this collaborative in the Great Falls/Helena region.

11. Identify and implement a small number of back-hauling opportunities that can be launched with minimal new infrastructure (e.g. shipping fresh produce from Big Sandy and Havre to Great Falls in empty food bank trucks, or shipping Blackfeet branded beef to Great Falls markets.)

Longer Term (2-3 years)

12. If the above collaborations are launched successfully, engage Quality Foods Distributors, Thomas Cuisine Management, or individual hospital food service directors to assess their

interest in joining the board of a multi-stakeholder cooperative similar to Fifth Season Cooperative.

13. Request assistance from MCDC in completing the process of legally forming a regional, multi-stakeholder cooperative for the Golden Triangle. Negotiate a formal agreement with all parties to collaborate on all fundraising and investment initiatives to avoid duplication of efforts.

14. Develop an expanded network of packing, storage, and smaller "hub" distribution facilities in Browning, Havre, and possibly other locations along the Hi-Line, thus creating more "circular" distribution routes that would carry food to and from each area, and connect to co-op facilities in Great Falls. For example- shipping fresh produce from Big Sandy to Havre to Great Falls in empty food bank trucks, or shipping Blackfeet branded beef to Great Falls markets.

15. Align with Montana's existing, concerted efforts to train/equip new farmers and make sure each graduate has access to land they can farm at a commercial scale.

Finally, it will be important not to overthink this. What is most important is to commit to a collaborative vision to building an inclusive and responsive community-based food system. The specific steps that may get taken are less important than whether they are (a) taken with an eye toward the long view (building a multi-stakeholder co-op is one such long-term vision); and (b) practical and achievable in a way that will build closer trust among key partners in the Golden Triangle.

Lentils at Timeless Seeds. Photo © Ken Meter, 2017

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APPENDIX A: DATA COVERING THE FOOD & FARM ECONOMY

Expanded Golden Triangle (Montana)
Local Farm & Food Economy

by Ken Meter, Crossroads Resource Center (Minneapolis)[15]
for

Montana Cooperative Development Center (MCDC)

June 30, 2017

Data compiled from public data sets covering Blaine, Cascade, Chouteau, Glacier, Hill, Lewis and Clark, Liberty, Phillips, Pondera, Teton, & Toole Counties of Montana

Expanded Golden Triangle

(Bureau of Economic Analysis, 2015)

215,211 residents receive $8.8 billion of income annually. Personal income increased 98% from 1969 to 2015, after dollars were adjusted for inflation. The largest source of personal income is capital income (from interest, rent or dividends), totaling $2 billion. Government work ranks as the second largest source, with $1.9 billion. Transfer payments (from government programs such as pensions), account for $1.8 billion of personal income *[see below]*. Health care workers rank fourth at $0.8 billion, while retail workers earn $0.5 billion, professionals earn $0.3 billion, accommodation and food service workers earn $0.2 billion, and manufacturing workers earn $0.1 billion.

Note that income from public sources makes up 41% of all personal income in the region. This total is strongly influenced by government workers who live in Lewis & Clark County.

Income earned from transfer payments includes $685 million of retirement and disability insurance benefits; $679 million of medical benefits; $150 million of income maintenance benefits; $24 million of unemployment insurance; and $110 million of veterans' benefits.

Government income includes $441 million of income earned by federal workers and $1.1 billion earned by state and local government workers. Military personnel earn $280 million of personal income.

Although population has increased nearly 18% since 1969, there has been only limited public planning to assure a secure and stable food supply.

[15] Significant research contributed by Austin Wertheimer of New Growth Associates

Issues Affecting Low-Income Residents of the Expanded Golden Triangle Region:

Over 70,000 residents (33%) earn less than 185% of federal poverty guidelines. At this level of income, children qualify for free or reduced-price lunch at school. These lower-income residents receive $28 million (27-year average, 1989-2015; 2011 total was $47 million) of SNAP benefits (formerly known as food stamps) and additional WIC coupons. Meanwhile, 4,500 of the region's 7,013 farmers receive an annual combined total of $187 million in subsidies (27-year average, 1989-2015), mostly to raise crops such as wheat that are sold as commodities, not to feed local residents. *Data from Federal Census of 2011-2015, Bureau of Labor Statistics, & Bureau of Economic Analysis.*

7% percent of the region's households (more than 15,700 residents) earn less than $10,000 per year. *Source: Federal Census of 2011-2015.*

19% of adults aged 18-64 in the Great Falls metro region carried no health care coverage in 2012. Data could be substantially different for more rural areas. *Source: Centers for Disease Control.*

Food-Related Health Conditions:

39% of Montana residents reported in 2015 that they eat less than one serving of fruit per day. 19% eat less than one serving of vegetables. This is a key indicator of health, since proper fruit and vegetable consumption has been connected to better health outcomes. Many providers recommend consumption of at least five servings of fruit and vegetables each day, while others suggest even higher rates. *Source: Centers for Disease Control.*

21% of Great Falls metro area adults reported in 2011 that they get sufficient exercise each week to meet recommended guidelines. Data could be substantially different for more rural areas. *Source: Centers for Disease Control.*

7% of Great Falls metro area residents have been diagnosed with diabetes as of 2012. Data could be substantially different for more rural areas. *Source: Centers for Disease Control.* Medical costs for treating diabetes and related conditions in the state of Montana are estimated at $560 million annually. *Source: American Diabetes Association.*

67% of the State's residents were overweight (36%) or obese (31%) in 2012. Data could be substantially different for more rural areas. *Source: Centers for Disease Control.*

Farms in Expanded Golden Triangle

(Census of Agriculture, 2012)

Census of Agriculture data for 2012 were released February 4, 2013

The Census of Agriculture defines a "farm" as "an operation that produces, or would normally produce and sell, $1,000 or more of agricultural products per year."

Land:

- 7,013 farms. This is a 5% decrease in farms since 2007.
- The region has 25% of Montana farms.
- 2,946 (42%) of these are 1,000 acres or more.
- 1,350 (19%) farms are less than 50 acres.

- The most prevalent farm size is 1,000 acres or more.
- Average farm size is 2,220 acres, slightly more than the state average of 2,134.
- The region has 15.5 million acres of land in farms.
- This amounts to 26% of the state's farmland.
- 47% of the region's farmland is cropland.
- 4,188 farms have 3.5 million acres of harvested cropland.
- 1,788 farms have a total of 411,241 acres of irrigated land.
- Average value of land and buildings per farm is $1.7 million. This is the same as the state average.

Sales (Note that there may be discrepancies between Census of Agriculture data and Bureau of Economic Analysis data, below):

- $1.2 billion of crops and livestock sold in 2012, 30% of state ag sales.
- This is a 56% increase in sales over 2007 sales of $808 million, though the number of acres farmed decreased 5%. Much of this increase was caused by a price spike that has since subsided.
- $885 million of crops were sold (70% of sales).
- $379 million of livestock and products were sold (30% of sales).
- 3,133 (45%) of the region's farms sold less than $10,000 of products in 2007. Their aggregate sales of $4.4 million amounted to 0.3% of the county's farm product sales.
- 2,288 farms (33%) sold more than $100,000 of products, an aggregate total of $1.2 billion, 94% of county farm product sales.
- 4,500 farms (64%) received $103 million of federal subsidies in 2007. *[Note that Census of Agriculture data differ from Bureau of Economic Analysis data; see below.]*
- 41% (2,902) of region's farms reported net losses in 2007 even after subsidies are taken into account. This is less than the Montana average of 51% (14,251 of 28,008).
- Top farm products sold by the region's farmers were wheat, cattle, and barley, as shown below:

	$ millions
Wheat	641
Cattle & calves	295
Barley	130
Forage crops	43

Production Expenses:

- Total farm production expenses were $1 billion, an increase of 50% over 2007 expenses of $696 million.
- The largest expense items involved in farm production were fertilizer and chemicals, depreciation, cash rent, and feed, as shown below.

	$ millions
Fertilizer, lime, and soil conditioners purchased	166
Depreciation expenses	107
Cash rent for land, buildings, grazing fees	106
Feed purchased	102
Chemicals purchased	93
Gasoline, fuels, and oils	84
Supplies, repairs, and maintenance	82

Other production expenses	76
Hired farm labor	61
Livestock and poultry purchased or leased	58
Interest expense	57

Grains, Dry Edible Beans, Oil Crops, and others:

- 2,165 (30%) of the region's farmers sold 85 million bushels of wheat for $641 million, raised on 2.4 million acres.
- 1,008 farms sold 23 million bushels of barley worth $130 million from 505,000 acres.
- 379 farms produced pulses worth $31 million.
- 29 farms sold 194,000 bushels of corn for at least $2 million from 1,995 acres of land in 2012. *Note: Data were suppressed by USDA in an effort to protect confidentiality for farmers in Hill, Lewis and Clark, and Phillips Counties, so sales totals are not complete.*

Cattle & Dairy:

- 2,434 farms hold an inventory of 482,000 cattle and calves.
- 294,000 cattle worth $295 million were sold from 2,213 farms in 2012.
- 30 farms reported selling milk or dairy products worth at least $14 million. *Note: Data were suppressed by USDA in an effort to protect confidentiality for farmers in Blaine, Hill, Lewis & Clark, and Phillips Counties, so sales totals are not complete.*
- 2,444 farms produced 803,260 dry tons of forage crops (hay, etc.) on 479,333 acres of cropland. Of these, 1,960 farms sold at least $43 million of forage. *Note: Data were suppressed by USDA in an effort to protect confidentiality for farmers in Chouteau, Glacier, Phillips, and Pondera Counties, so sales totals are not complete.*

Other livestock & animal products:

- 84 farms sold 252,592 hogs and pigs for a total of at least $30 million. *Note: Data were suppressed by USDA in an effort to protect confidentiality for farmers in Blaine, Chouteau, Hill, Lewis & Clark, and Teton Counties, so sales totals are not complete.*
- 86 farms held an inventory of 94,692 hogs and pigs.
- 356 farms sold at least $3.5 million of horses. *Note: Data were suppressed by USDA in an effort to protect confidentiality for farmers in Chouteau, Phillips, Pondera, Teton, and Toole Counties, so sales totals are not complete.*
- Inventory of laying hens was 286,529, held on 376 farms.
- 29 farms held an inventory of 108,011 broilers.
- 188 farms sold $4.6 million of poultry and products. *Note: Data were suppressed by USDA in an effort to protect confidentiality for farmers in Blaine, Chouteau, Hill, Lewis & Clark, and Toole Counties, so sales totals are not complete.*
- 228 farms held an inventory of 41,223 sheep, lambs, and goats, selling at least $5.8 million. *Note: Inventory data were suppressed by USDA in an effort to protect confidentiality for farmers in Liberty County, so inventory totals are not complete. Sales figures were suppressed for Liberty and Pondera Counties.*

Nursery, Landscape and Ornamental Crops:

- 34 farms sold ornamental and nursery crops. *Note: Data were suppressed by USDA in an effort to protect confidentiality for farmers most counties, so sales totals are not reported here.*

Vegetables & Melons (some farmers state that Census of Agriculture data does not fully represent vegetable production):

- 51 farms produced vegetables on 195 acres of land. *Note: Acreage data were suppressed by USDA in an effort to protect confidentiality for farmers in Glacier, Hill, and Phillips Counties, so acreage totals are not complete. Sales data were suppressed for farmers most counties, so sales totals are not reported here.*
- 36 farms raised potatoes.

Fruits (some farmers state that Census of Agriculture data does not fully represent fruit production):

- The region has 14 fruit farms with orchard acreage. *Note: Data were suppressed by USDA in an effort to protect confidentiality for farmers most counties, so neither acreage nor sales totals are reported here.*
- 10 farms sold fruit and nuts. *Note: Data were suppressed by USDA in an effort to protect confidentiality for farmers most counties, so sales data are not reported here.*

Direct & Organic sales:

- 231 farms sell $2.3 million of food directly to household consumers. This is a 8% decrease in the number of farms selling direct (251 in 2007), and a 61% inxcrease in direct sales, over $1.5 million in 2007. Direct sales account for 0.2% of county farm sales, just below the national average of 0.3%.
- The region's farmers make up 17% of the Montana farms selling direct.
- 48 farms sold at least $7.5 million of organic foods. *Note: Data were suppressed by USDA in an effort to protect confidentiality for farmers in Glacier, Hill, Lewis & Clark, and Toole Counties, so sales totals are not complete.*
- 56 farms are certified organic. This is 38% of Montana' certified organic farms.
- 89 farms sold directly to retail outlets.
- 25 farms market through community supported agriculture (CSA).
- 58 farms have on-farm packing facilities.
- 218 farms produce added-value products on the farm.

Conservation practices:

- 1,105 farms used rotational management or intensive grazing.
- 45 farms harvested biomass.

County Highlights

Blaine County highlights (Census of Agriculture, 2012):

- 546 farms, 17% less than in 2007.
- Blaine County has 2,204,248 acres of land in farms.
- Farmers sold $131.8 million of products in 2012.
- $71.6 million (63%) of these sales were crops.
- $42.3 million (37%) of these sales were livestock.
- The most prevalent farm size is 1,000 acres or more, with 299 farms (54.7%) in this category.
- The next most prevalent is 180 to 499 acres, with 79 (14.4%) farms.
- 299 farms (54.7%) are 1,000 acres or more.
- 49 farms (10.8%) are less than 50 acres.
- 170 farms (30%) sold less than $10,000 in farm products.
- 217 farms (39.7%) sold more than $100,000 in farm products.
- Blaine County ranks 5th in the state out of 54 counties in sales of sheep, goats, wool, mohair, and milk, with $1.8 million in sales.
- The county ranks 5th out of 53 counties in the state for sales of other animals and other animal products at $1.1 million in sales.
- The county ranks 9th in the state for acres in wheat for grain, with 224,806 acres.
- The county has 71,867 acres of forage-land used for all hay and haylage, grass silage, and greenchop, which ranks 7th out of 56 counties in the state.
- The county ranks 6th in 45 counties in the state for colonies of bees, *but inventory figures were suppressed by the USDA in an effort to protect confidentiality.*
- 34 farms sold $112,000 of food directly to consumers. This is a 15-farm decrease, and a 29.5% decrease in direct sales, from 2007 sales of $145,000.
- Direct sales were 0.05% of farm product sales, less the national average of 0.3%.

Cascade County highlights (Census of Agriculture, 2012):

- 1,105 farms, 1% less than in 2007.
- Cascade County has 1,254,745 acres of land in farms.
- Farmers sold $111.1million of products in 2012.
- $53.5 million (48%) of these sales were crops.
- $57.6million (52%) of these sales were livestock.
- The most prevalent farm size is 10 to 49 acres, with 288 farms (26%) in this category.
- The next most prevalent is 1,000 or more acres, with 255 (23%) farms.
- 255 farms (23%) are 1,000 acres or more.
- 398 farms (36%) are less than 50 acres.
- 653 farms (59%) sold less than $10,000 in farm products.
- 179 farms (16%) sold more than $100,000 in farm products.

- The county ranks 7th out of 42 counties in the state in nursery, greenhouse, floriculture, and sod sales, *but sale figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 2nd out of 55 counties in the state for poultry and egg sales, with $1.1 million in sales.
- The county ranks 2nd out of 27 counties in the state in sales in milk from cows, with $4.3 million in sales.
- Cascade County ranks 2nd out of 54 counties in the state in sales of hogs and pigs, with $7.4 million in sales.
- The county ranks 3rd out of 16 counties in the state in aquiculture sales, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 6th out of 49 in the state in acres of winter wheat for grain, with 97,841 acres.
- The county has 70,793 acres of forage-land used for all hay and haylage, grass silage, and greenchop, which ranks 8th out of 56 counties in the state.
- The county ranks 8th in the state in acreage of barley for grain, with 26,265 acres.
- Cascade County ranks 2nd out of 56 counties in the state for inventory of layers, with 48,717.
- The county ranks 3rd in the state for inventory of pullets for laying stock replacement and hogs/pigs, with 23,932 and 19,339 respectively.
- The county ranks 4th out of 46 counties in the state in inventory of broilers, with 8,848.
- 38 farms sold $211,000 of food directly to consumers. This is a 2-farm increase, and a 104% increase in direct sales, from 2007 sales of $103,000.
- Direct sales were 1.86% of farm product sales, greater than the national average of 0.3%.

Chouteau County highlights (Census of Agriculture, 2012):

- 774 farms, 9% less than the 849 farms in 2007.
- Chouteau County has 2,071,771 acres of land in farms.
- Farmers sold $186 million of products in 2012.
- $159 million (85%) of these sales were crops.
- $27 million (15%) of these sales were livestock.
- The most prevalent farm size is 1,000 or more acres, with 489 farms (63%) in this category.
- The next most prevalent is 500 to 999 acres, with 96 (12%) farms.
- 489 farms (63%) are 1,000 acres or more.
- 43 farms (5%) are less than 50 acres.
- 259 farms (33%) sold less than $10,000 in farm products.
- 390 farms (50%) sold more than $100,000 in farm products.
- Chouteau County ranks 1st out of 55 counties in the state for sales of grains, oilseeds, dry beans, and dry peas, with $155.2 million in sales.
- The county ranks 1st out of 54 counties in the state in acres of all wheat for grain, with 502,567.
- The county ranks 5th out of 55 counties in the state in acres of barley for grain, with 41,272.

- 32 farms sold $127,000 of food directly to consumers. This is a 14-farm increase, and a 130% increase in direct sales, from 2007 sales of $55,000.
- Total farm product sales were not reported.

Glacier County highlights (Census of Agriculture, 2012):

- 602 farms, 4% less than in 2007.
- Glacier County has 1,570,323 acres of land in farms.
- Farmers sold $105.6 million of products in 2012.
- $68.1 million (65%) of these sales were crops.
- $37.4 million (35%) of these sales were livestock.
- The most prevalent farm size is 1,000 acres, with 242 farms (40%) in this category.
- The next most prevalent is 180 to 499 acres, with 137 (22.7%) farms.
- 242 farms (40%) are 1,000 acres or more.
- 77 farms (12.8%) are less than 50 acres.
- 280 farms (46.5%) sold less than $10,000 in farm products.
- 154 farms (25.6%) sold more than $100,000 in farm products.
- The county ranks 1st out of 27 counties in the state for sales in cow milk, with $2.48 million in sales.
- The county ranks 3rd out of 54 counties in the state for sales of hogs and pigs, with $6 million.
- The county ranks 4th out of 56 counties in the state in sales of horses, ponies, mules, burros, and donkeys, with $1.3 million in sales.
- Glacier County ranks 1st out of 55 counties in the state for acres in barely for grain, with 102,392.
- The County ranks 1st in the state for inventory of layers and pullets, with 116,293 and 70,980 respectively.
- The county ranks 2nd highest in the state for inventory of hog/pigs and horses/ponies, with 21,831 and 5,367 respectively.
- 69 farms sold $231,000 of food directly to consumers. This is a 15-farm increase, and a 175% increase in direct sales, from 2007 sales of $84,000.
- Direct sales were 1.66% of farm product sales, greater than the national average of 0.3%.

Hill County highlights (Census of Agriculture, 2012):

- 802 farms, 6% less than in 2007.
- Hill County has 1,597,982 acres of land in farms.
- Farmers sold $163.6 million of products in 2012.
- $138.6 million (85%) of these sales were crops.
- $625.4million (15%) of these sales were livestock.
- The most prevalent farm size is 1,000 acres, with 380 farms (47%) in this category.
- The next most prevalent is 50 to 179 acres, with 141 (18%) farms.
- 380 farms (47%) are 1,000 acres or more.

- 70 farms (9%) are less than 50 acres.
- 353 farms (44%) sold less than $10,000 in farm products.
- 302 farms (37%) sold more than $100,000 in farm products.
- The county ranks 2nd out of 55 counties in the state for sales of grains, oilseed, dry beans, and dry peas, with $134.5 million in total sales.
- The county ranks 7th out of 54 counties in the state for sales of hogs and pigs, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 7th out of 16 counties in the state for sales in aquaculture, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 2nd out of 54 counties in the state for acreage in all wheat for grain, with 460,167 acres.
- The county ranks 9th out of 52 counties in the state in inventory of hogs and pigs, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- 35 farms sold $110,000 of food directly to consumers. This is a 1-farm increase, and a 17.3% decrease in direct sales, from 2007 sales of $133,000.
- Direct sales were 0.85% of farm product sales, greater than the national average of 0.3%.

Lewis and Clark County highlights (Census of Agriculture, 2012):

- 703 farms, 4% greater than in 2007.
- Lewis and Clark County has 843,160 acres of land in farms.
- Farmers sold $44.5 million of products in 2012.
- $18.3 million (39%) of these sales were crops.
- $28.2million (61%) of these sales were livestock.
- The most prevalent farm size is 10 to 49a cres, with 334 farms (47.5%) in this category.
- The next most prevalent is 50 to 179 acres, with 113 (16%) farms.
- 86 farms (12%) are 1,000 acres or more.
- 416 farms (59%) are less than 50 acres.
- 511 farms (73%) sold less than $10,000 in farm products.
- 59 farms (8%) sold more than $100,000 in farm products.
- The county ranks 4th out of 42 in nursery, greenhouse, floriculture, and sod sales, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 9th out of 54 counties in the state for sales of hogs and pigs, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 2nd out of 53 counties in the state for sales of other animals and other animal products, , *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 4th out of 56 counties in the state in inventory of layers, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 6th out 48 counties in the state for inventory of pullets, *but figures were suppressed by the USDA in an effort to protect confidentiality.*

- The county ranks 2nd out of 45 counties in the state in inventory of bee colonies, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 8th out of 52 counties in the state in inventory of hogs and pigs, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- 33 farms sold $67,000 of food directly to consumers. This is an 8-farm increase, and a 19.6% increase in direct sales, from 2007 sales of $56,000.
- Direct sales were 0.14% of farm product sales, less than the national average of 0.3%.

Liberty County highlights (Census of Agriculture, 2012):

- 304 farms, 2% greater than in 2007.
- Liberty County has 897,946 acres of land in farms.
- Farmers sold $84.6 million of products in 2012.
- $68.9 million (81%) of these sales were crops.
- $15.7million (19%) of these sales were livestock.
- The most prevalent farm size is 1,000 or more acres, with 202 farms (66%) in this category.
- The next most prevalent is 500 to 999 acres, with 43 (14%) farms.
- 202 farms (66%) are 1,000 acres or more.
- 12 farms (3.9%) are less than 50 acres.
- 89 farms (29%) sold less than $10,000 in farm products.
- 157 farms (51%) sold more than $100,000 in farm products.
- The county ranks 5th out of 55 counties in the state for sales of poultry and eggs, with $625,00 in sales.
- Liberty County ranks 7th out of 27 counties in the state for sales of milks from cows, with $1.75 million.
- Liberty County ranks 5th out of 54 counties in the state for sales of hogs and pigs, with $5 million in sales.
- The county ranks 8th out of 54 in the state in acreage of all wheat for grain, with 233,737 acres.
- The county ranks 9th out of 55 counties in the state in acreage of barley with 22,294.
- The county ranks 7th out of 56 counties in the state for inventory of layers, with 23,353 head.
- The county ranks 4th out of 52 in the state in inventory of –hogs and pigs, with 15,575 head.
- The county ranks 3rd out of 46 counties in the state in inventory of broiers, with 10,800 .
- 57 farms sold $180,000 of food directly to consumers. This is a 0-farm change, and a 6.3% increase in direct sales, from 2007 sales of $192,000.
- Direct sales were 0.42% of farm product sales, greater than the national average of 0.3%.

Phillips County highlights (Census of Agriculture, 2012):

- 507 farms, 9% less than in 2007.
- Phillips County has 2,066,540 acres of land in farms.
- Farmers sold $95.8 million of products in 2012.
- $58.4 million (61%) of these sales were crops.

- $37.4 million (39%) of these sales were livestock.
- The most prevalent farm size is 1,000 acres or more, with 267 farms (52.6%) in this category.
- The next most prevalent is 180 to 499 acres, with 66 (13%) farms.
- 267 farms (52.6%) are 1,000 acres or more.
- 66 farms (13%) are less than 50 acres.
- 183 farms (36%) sold less than $10,000 in farm products.
- 182 farms (35.8%) sold more than $100,000 in farm products.
- Phillips County ranks 7th out of 56 counties in the state for sales of other crops and hay, *but sales figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 4th out of 56 counties in the state in acres of forage land, with 78,924 acres.
- County ranks 9th out of 56 counties in the state in inventory of cattle and calves, with 85,086 head.
- 57 farms sold $212,000 of food directly to consumers. This is a 7-farm decrease, and a 32.5% increase in direct sales, from 2007 sales of $160,000.
- Direct sales were 0.16% of farm product sales, less than the national average of 0.3%.

Pondera County highlights (Census of Agriculture, 2012):

- 505 farms, 7% less than in 2007.
- Pondera County has 956,635 acres of land in farms.
- Farmers sold $113.7 million of products in 2012.
- $84 million (74%) of these sales were crops.
- $29.6 million (26%) of these sales were livestock.
- The most prevalent farm size is 1,000 or more acres, with 240 farms (47.5%) in this category.
- The next most prevalent is 180 to 499 acres, with 76 (15%) farms.
- 240 farms (47.5%) are 1,000 acres or more.
- 71 farms (14%) are less than 50 acres.
- 165 farms (32.6%) sold less than $10,000 in farm products.
- 211 farms (41.7%) sold more than $100,000 in farm products.
- Pondera County ranks 7th of 55 counties in the state for sale of grains, oilseeds, dry beans, and dry peas, with $78 million in total sales.
- The county ranks 7th out of 55 counties in the state for sales of poultry and eggs, with $561,000 in sales.
- Pondera County ranks 5th out of 27 counties in the state for sales of cow milk, with $3.2 million in sales.
- The county ranks 2nd out of 54 counties in the state sales of hogs and pigs, with $6.2 million in sales.
- Pondera County ranks 2nd out of 55 counties in the state in acres of barely for grain, with 94,665 acres.
- The county ranks 3rd out of 56 counties in the state in inventory of layers, with 35,032.

- The county ranks 2nd in the state for inventory of pullets and broilers, with 24,022 and 13,950 respectively.
- The county ranks 1st out of 52 counties in the state for inventory of hogs and pigs, with 23,381
- 94 farms sold $492,000 of food directly to consumers. This is a 2-farm decrease, and a 165.9% increase in direct sales, from 2007 sales of $185,000.
- Direct sales were 1.73% of farm product sales, which is greater than the national average of 0.3%.

Teton County highlights (Census of Agriculture, 2012):

- 742 farms, 4% less than in 2007.
- Teton County has 975,153 acres of land in farms.
- Farmers sold $140 million of products in 2012.
- $82vmillion (59%) of these sales were crops.
- $58 million (41%) of these sales were livestock.
- The most prevalent farm size is 1,000 or more acres, with 228 farms (30.7%) in this category.
- The next most prevalent is 180 to 499 acres, with 170 (23%) farms.
- 228 farms (30.7%) are 1,000 acres or more.
- 126 farms (17%) are less than 50 acres.
- 323 farms (43.5%) sold less than $10,000 in farm products.
- 242 farms (32.6%) sold more than $100,000 in farm products.
- Teton County ranks 9th of 55 counties in the state for sales of grains, oilseed, dry beans, and dry peas, with $74 million in sales.
- The county ranks 4th out of 55 counties in the state for sales of poultry and eggs, with $824,000.
- The county ranks 8th out of 54 counties in the state for sales of hogs and pigs, *but sales figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 9th out of 54 counties in the state in sales of sheep, goats, mohair, and milk, *but sales figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 5th out of 49 counties in the state in acreage of winter wheat for grain, with 103,775 acres.
- The county ranks 4th out of 55 counties in the state in acreage of barley for grain, with 85,069 acres.
- The county ranks 5th in the state for inventory of layers and pullets, with 28,618 and 18,506 head.
- The county ranks 1st in the state out of 46 counties for inventory of broilers, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 7th out of 52 counties I the state for inventory of hogs and pigs, *but figures were suppressed by the USDA in an effort to protect confidentiality*
- 25 farms sold $109,000 of food directly to consumers. This is an 8-farm decrease, and a 91.2% increase in direct sales, from 2007 sales of $57,000.

- Direct sales were 0.58% of farm product sales, less than the national average of 0.3%.

Toole County highlights (Census of Agriculture, 2012):

- 423 farms, 1% less than in 2007.
- Toole County has 1,128,523 acres of land in farms.
- Farmers sold $102.6 million of products in 2012.
- $81.9 million (80%) of these sales were crops.
- $20.7 million (20%) of these sales were livestock.
- The most prevalent farm size is 1,000 or more acres, with 258 farms (61%) in this category.
- The next most prevalent is 500 to 999 acres, with 61 (14.4%) farms.
- 285 farms (61 %) are 1,000 acres or more.
- 22 farms (5%) are less than 50 acres.
- 147 farms (34.7%) sold less than $10,000 in farm products.
- 195 farms (46%) sold more than $100,000 in farm products.
- Toole County ranks 7th of 55countiesin the state with sales of grains, oilseed, dry beans, and dry peas, with $79.2 million in annual sales.
- The county ranks 9th out of 55 counties in the state with sales of poultry and eggs, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- Toole County ranks 4th out of 54 counties in the state with sales of hogs and pigs, with $5.2 million.
- The county ranks 1st out of 56 counties in the state with sales of horses, ponies, mules, burros, and donkeys, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 10th out of 54 counties in the state with acreage in the category of all wheat for grain, with 221,515 acres.
- Toole County ranks 6th out of 53 counties in the state for acreage of spring wheat, with 182,587 acres.
- The county ranks 3rd out of 555 counties in the state in acreage of barley for grain, with 88,043 acres.
- The county ranks 8th out of 56 counties in the state with inventory of layers, with 23,180.
- The county ranks 5th out o5 52 counties in the state with inventory of hogs and pigs, with 14,374.
- The county ranks 7th out of 48 counties in the state with inventory of pullets, *but figures were suppressed by the USDA in an effort to protect confidentiality.*
- The county ranks 9th out of 46 counties in the state with inventory of broilers, with 3,800.
- 58 farms sold $151,000 of food directly to consumers. This is a 19-farm decrease, and a 30.4% decrease in direct sales, from 2007 sales of $217,000.
- Direct sales were 0.32% of farm product sales, slightly above the national average of 0.3%.

Prairie Heritage Farm. Photo © Ken Meter, 2017

Montana's Top Farm Products in 2015

(Economic Research Service)

The data in the table and pie chart below are for Montana as a whole. See chart on next page.

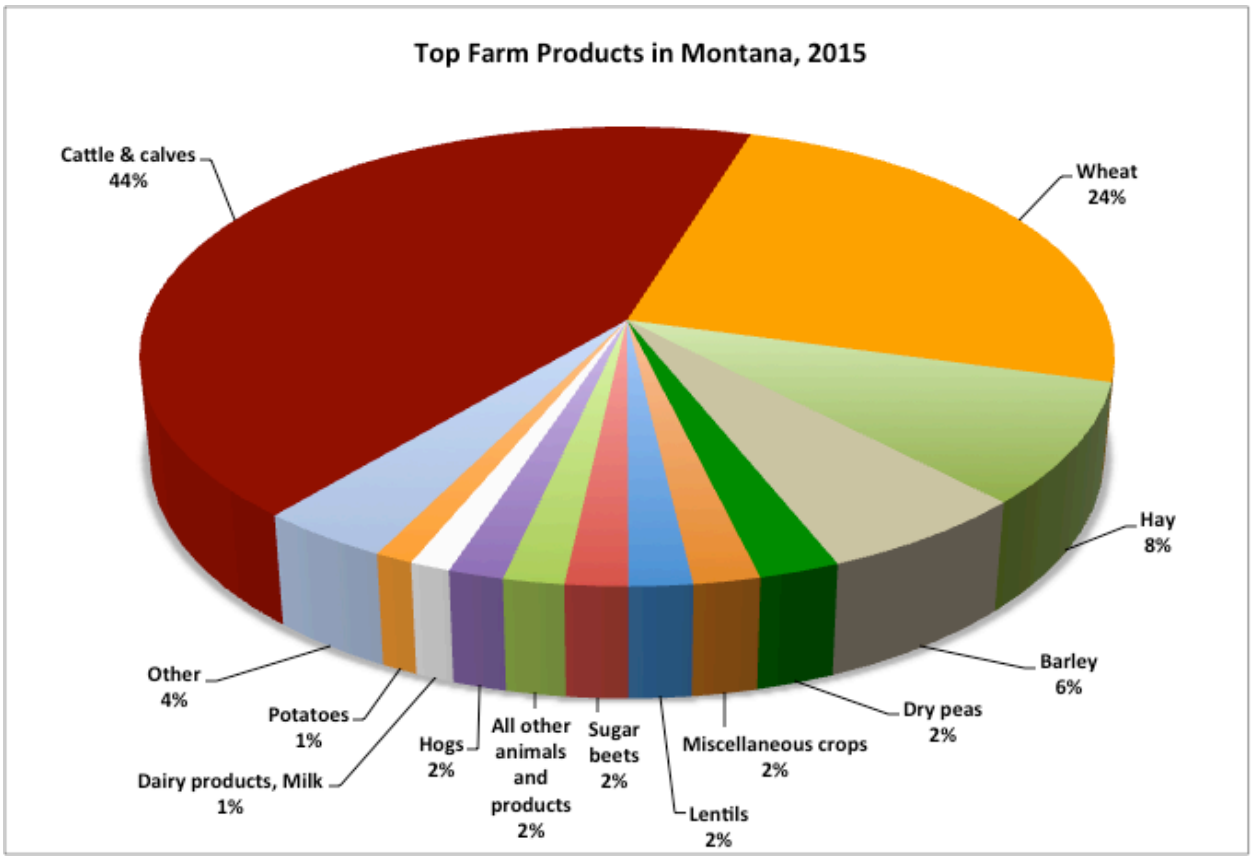
	$ millions
Cattle & calves	1,639
Wheat	919
Hay	321
Barley	229
Dry peas	87
Miscellaneous crops	72
Lentils	68
Sugar beets	67
All other animals and products	66
Hogs	60
Dairy products, Milk	44
Potatoes	41
Other	141

Source: USDA Economic Research Service

Montana's Top Farm Products in 2015

(Economic Research Service)

See table on previous page



Source: USDA Economic Research Service

Montana Highlights

Montana highlights (Census of Agriculture, 2012):

- 28,008 farms, 5% less than in 2007.
- Montana has 59.8 million acres of land in farms, 3% less than in 2007.
- 66% of Montana farmland is pastureland.
- 28.5% of Montana farmland is cropland.
- Farmers sold $4.2 billion of products in 2012.
- $2.3 billion (53%) of these sales were crops.
- $1.9 billion (47%) of these sales were livestock and related products.
- The most prevalent farm size is 1,000 acres or more, with 9,252 farms (33%) in this category.
- The next most prevalent is 10 to 49 acres, with 5,518 (20%) farms.
- 7,883 farms (28%) are less than 50 acres.
- 13,905 farms (50%) sold less than $10,000 in farm products.
- 7,341 farms (26%) sold more than $100,000 in farm products.
- Montana ranks second in the U.S. for acreage planted to spring wheat, with 2.9 million acres.
- The state ranks second in the U.S. for acreage planted to barley, with 778,521 acres.
- The state ranks third in the U.S. for acreage planted to wheat, with 5.6 million acres.
- Montana ranks fourth in the nation for acreage planted to winter wheat, with 2.1 million acres.
- The state ranks seventh in the U.S. for inventory of sheep and lambs, with 236,646.
- Montana ranks 8th in the U.S. for acreage devoted to forage, with 2.2 million acres.
- 1,389 Montana farms sold $9.4 million of food directly to household consumers. This is an 8% increase in the number of farms, and a 49% increase in direct sales over 2007 sales of $6.3 million
- Direct sales were 0.2% of farm product sales, less than the national average of 0.3%.

Blackfeet Reservation Highlights

(Native American Census of Agriculture, 2012)

Note: Not all tribal organizations consider the Census of Agriculture to be an accurate representation of agricultural activity for their tribe, but reporting has improved in recent years.
(D) means data has been suppressed to protect confidentiality

Farms:	**All farms**	**Farms operated by American Indians or Alaska Natives**
Farms (number)	526	335
Land in farms (acres)	1,771,525	957,476
Average size of farm (acres)	3,368	2,858
Reservation acres on farm (acres)	1,329,854	874,564
All farm land on reservation (number of farms)	361	273
Farms with all harvested land on reservation (number)	168	104
Farms with all livestock held on reservation (number)	340	277
Farms by size:		
0.1 to 9 acres	25	16
10 to 49 acres	37	26
50 to 179 acres	63	53
180 to 499 acres	113	81
500 to 999 acres	49	34
1,000 acres or more	239	125
Features:		
Total cropland (farms)	296	153
Total cropland (acres)	497,108	113,118
Harvested cropland (farms)	254	129
Harvested cropland (acres)	313,138	72,080
Irrigated land (farms)	130	69
Irrigated land (acres)	72,027	26,954
Tenure:		
Full owners (farms)	245	185
Full owners (acres)	635,106	541,337
Part owners (farms)	224	121
Part owners (acres)	1,060,020	400,444
Tenants (farms)	57	29
Tenants (acres)	76,399	15,695

Fort Belknap Reservation Highlights

(Native American Census of Agriculture, 2012)

Note: Not all tribal organizations consider the Census of Agriculture to be an accurate representation of agricultural activity for their tribe, but reporting has improved in recent years.
(D) means data has been suppressed to protect confidentiality

Farms:	**All farms**	**Farms operated by American Indians or Alaska Natives**
Farms (number)	150	121
Land in farms (acres)	707,759	561,541
Average size of farm (acres)	4,718	4,641
Reservation acres on farm (acres)	555,480	494,945
All farm land on reservation (number of farms)	96	89
Farms with all harvested land on reservation (number)	59	54
Farms with all livestock held on reservation (number)	91	87
Farms by size:		
0.1 to 9 acres	6	6
10 to 49 acres	4	2
50 to 179 acres	10	9
180 to 499 acres	25	24
500 to 999 acres	21	18
1,000 acres or more	84	62
Features:		
Total cropland (farms)	100	77
Total cropland (acres)	180,737	139,317
Harvested cropland (farms)	91	68
Harvested cropland (acres)	77,905	50,841
Irrigated land (farms)	35	23
Irrigated land (acres)	18,336	10,390
Tenure:		
Full owners (farms)	57	53
Full owners (acres)	321,758	(D)
Part owners (farms)	66	52
Part owners (acres)	281,586	162,743
Tenants (farms)	27	16
Tenants (acres)	104,415	(D)

Rocky Boy Reservation Highlights

(Native American Census of Agriculture, 2012)

Note: Not all tribal organizations consider the Census of Agriculture to be an accurate representation of agricultural activity for their tribe, but reporting has improved in recent years.
(D) means data has been suppressed to protect confidentiality

Farms:	**All farms**	**Farms operated by American Indians or Alaska Natives**
Farms (number)	79	74
Land in farms (acres)	105,475	94,558
Average size of farm (acres)	1,335	1,278
Reservation acres on farm (acres)	87,582	83,995
All farm land on reservation (number of farms)	50	49
Farms with all harvested land on reservation (number)	30	29
Farms with all livestock held on reservation (number)	51	50
Farms by size:		
0.1 to 9 acres	-	-
10 to 49 acres	6	6
50 to 179 acres	52	52
180 to 499 acres	5	5
500 to 999 acres	2	2
1,000 acres or more	14	9
Features:		
Total cropland (farms)	48	43
Total cropland (acres)	23,730	16,040
Harvested cropland (farms)	36	31
Harvested cropland (acres)	14,335	10,055
Irrigated land (farms)	2	1
Irrigated land (acres)	(D)	(D)
Tenure:		
Full owners (farms)	56	56
Full owners (acres)	66,759	66,759
Part owners (farms)	16	11
Part owners (acres)	37,866	26,949
Tenants (farms)	7	7
Tenants (acres)	850	850

Balance of Cash Receipts and Production Costs

(Bureau of Economic Analysis)

7,013 Expanded Golden Triangle farmers sell $976 million of food products per year (1989-2015 average), spending $999 million to raise them, for an average loss of $23 million each year. This is an average net loss of $3,280 per farm. *Note that these sales figures compiled by the BEA may differ from cash receipts recorded by the USDA Census of Agriculture (above).*

Overall, farmers spent $618 million more to produce crops and livestock over the years 1989 to 2015 than they earned by selling these commodities. Farm production costs exceeded cash receipts for 23 years of that 27-year period. Moreover, 41% of the region's farms reported that they lost money in 2012 (Ag Census), and the region's farmers earned $206 million less by selling farm products in 2015 than they earned in 1969 (in 2015 dollars).

Farmers and ranchers earn another $89 million per year of farm-related income — primarily income from renting land and performing custom work for neighboring farms (27-year average for 1989-2015). Federal farm support payments are a far more important source of net income than commodity production, averaging $187 million per year for the region for the same years.

The Region's Consumers:

See also information covering low-income food consumption and food-related health conditions, page 1-2 above.

Expanded Golden Triangle consumers spend $619 million buying food each year, including $354 million for home use. Most of this food is produced outside the region, so consumers spend at least $590 million per year buying food sourced elsewhere. Only $2.3 million of food products (0.2% of farm cash receipts and 0.4% of the region's consumer market) are sold by farmers directly to consumers.

Farm and Food Economy Summary:

Farmers lose $23 million each year producing food commodities, gain $187 million from federal subsidies, and spend (conservatively estimated) $645 million buying inputs sourced outside of the region. Even when farmers make money, these input purchases result in substantial losses to the region as a whole. Overall, farm production creates an outflow of $480 million from the region.

Meanwhile, consumers spend $590 million buying food from outside. Thus, total loss to the region is $1.1 billion of potential wealth *each year*. This loss is similar to the value of all food commodities sold by the region's farmers.

Expanded Golden Triangle: markets for food eaten at home (2015):

The 11-county region's residents purchase $619 million of food each year, including $354 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 75
Fruits & vegetables	71
Cereals and bakery products	44
Dairy products	37
"Other," incl. sweets, fats, & oils	128

If each resident purchased $5 of food each week directly from some farm in the region, this would generate $56 million of farm income annually.

Blaine County: markets for food eaten at home (2015):

Blaine County residents purchase $19 million of food each year, including $11 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 2.3
Fruits & vegetables	2.2
Cereals and bakery products	1.3
Dairy products	1.1
"Other," incl. sweets, fats, & oils	3.9

Cascade County: markets for food eaten at home (2015):

Cascade County residents purchase $236 million of food each year, including $135 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 28
Fruits & vegetables	27
Cereals and bakery products	17
Dairy products	14
"Other," incl. sweets, fats, & oils	49

Chouteau County: markets for food eaten at home (2015):
Chouteau County residents purchase $17 million of food each year, including $9 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 2.0
Fruits & vegetables	1.9
Cereals and bakery products	1.2
Dairy products	1.0
"Other," incl. sweets, fats, & oils	3.4

Glacier County: markets for food eaten at home (2015):
Glacier County residents purchase $39 million of food each year, including $22 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 4.7
Fruits & vegetables	4.5
Cereals and bakery products	2.8
Dairy products	2.3
"Other," incl. sweets, fats, & oils	8.1

Hill County: markets for food eaten at home (2015):
Hill County residents purchase $48 million of food each year, including $27 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 5.7
Fruits & vegetables	5.5
Cereals and bakery products	3.4
Dairy products	2.8
"Other," incl. sweets, fats, & oils	9.8

Lewis and Clark County: markets for food eaten at home (2015):
Lewis and Clark County residents purchase $191 million of food each year, including $109 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 23
Fruits & vegetables	22
Cereals and bakery products	13
Dairy products	11
"Other," incl. sweets, fats, & oils	39

Liberty County: markets for food eaten at home (2015):
Liberty County residents purchase $7 million of food each year, including $4 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 0.8
Fruits & vegetables	0.8
Cereals and bakery products	0.5
Dairy products	0.4
"Other," incl. sweets, fats, & oils	1.4

Phillips County: markets for food eaten at home (2015):
Phillips County residents purchase $12 million of food each year, including $7 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 1.4
Fruits & vegetables	1.4
Cereals and bakery products	0.8
Dairy products	0.7
"Other," incl. sweets, fats, & oils	2.5

Pondera County: markets for food eaten at home (2015):
Pondera County residents purchase $18 million of food each year, including $10 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 2.1
Fruits & vegetables	2.0
Cereals and bakery products	1.3
Dairy products	1.1
"Other," incl. sweets, fats, & oils	3.7

Teton County: markets for food eaten at home (2015):
Teton County residents purchase $18 million of food each year, including $10 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 2.1
Fruits & vegetables	2.0
Cereals and bakery products	1.2
Dairy products	1.0
"Other," incl. sweets, fats, & oils	3.6

Toole County: markets for food eaten at home (2015):
Toole County residents purchase $15 million of food each year, including $8 million to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 1.8
Fruits & vegetables	1.7
Cereals and bakery products	1.0
Dairy products	0.9
"Other," incl. sweets, fats, & oils	3.0

Montana: markets for food eaten at home (2015):
Montana residents purchase $3.0 billion of food each year, including $1.7 billion to eat at home. Home purchases break down in the following way:

	millions
Meats, poultry, fish, and eggs	$ 358
Fruits & vegetables	341
Cereals and bakery products	209
Dairy products	177
"Other," incl. sweets, fats, & oils	613

Key data sources:

Bureau of Economic Analysis data on farm production balance
http://www.bea.doc.gov/bea/regional/reis/

Food consumption estimates from Bureau of Labor Statistics Consumer Expenditure Survey
http://www.bls.gov/cex/home.htm

U.S. Census of Agriculture
http://www.nass.usda.gov/census/

USDA/Economic Research Service food consumption data:
http://www.ers.usda.gov/data/foodconsumption/

USDA/ Economic Research Service farm income data:
http://ers.usda.gov/Data/FarmIncome/finfidmu.htm

Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance Survey:
https://www.cdc.gov/brfss/index.html

Citations:
When citing the data included in this report,
please cite both the original source and this report.

For more information:

To see results from *Finding Food in Farm Country* studies in other regions of the U.S.:
http://www.crcworks.org/?submit=fffc

To read the original *Finding Food in Farm Country* study from Southeast Minnesota (written for the Experiment in Rural Cooperation): http://www.crcworks.org/ff.pdf

For further information: http://www.crcworks.org/

Contact Ken Meter at Crossroads Resource Center
<kmeter@crcworks.org>
(612) 869-8664

Appendix B: Hutterite Colonies in or near the Region

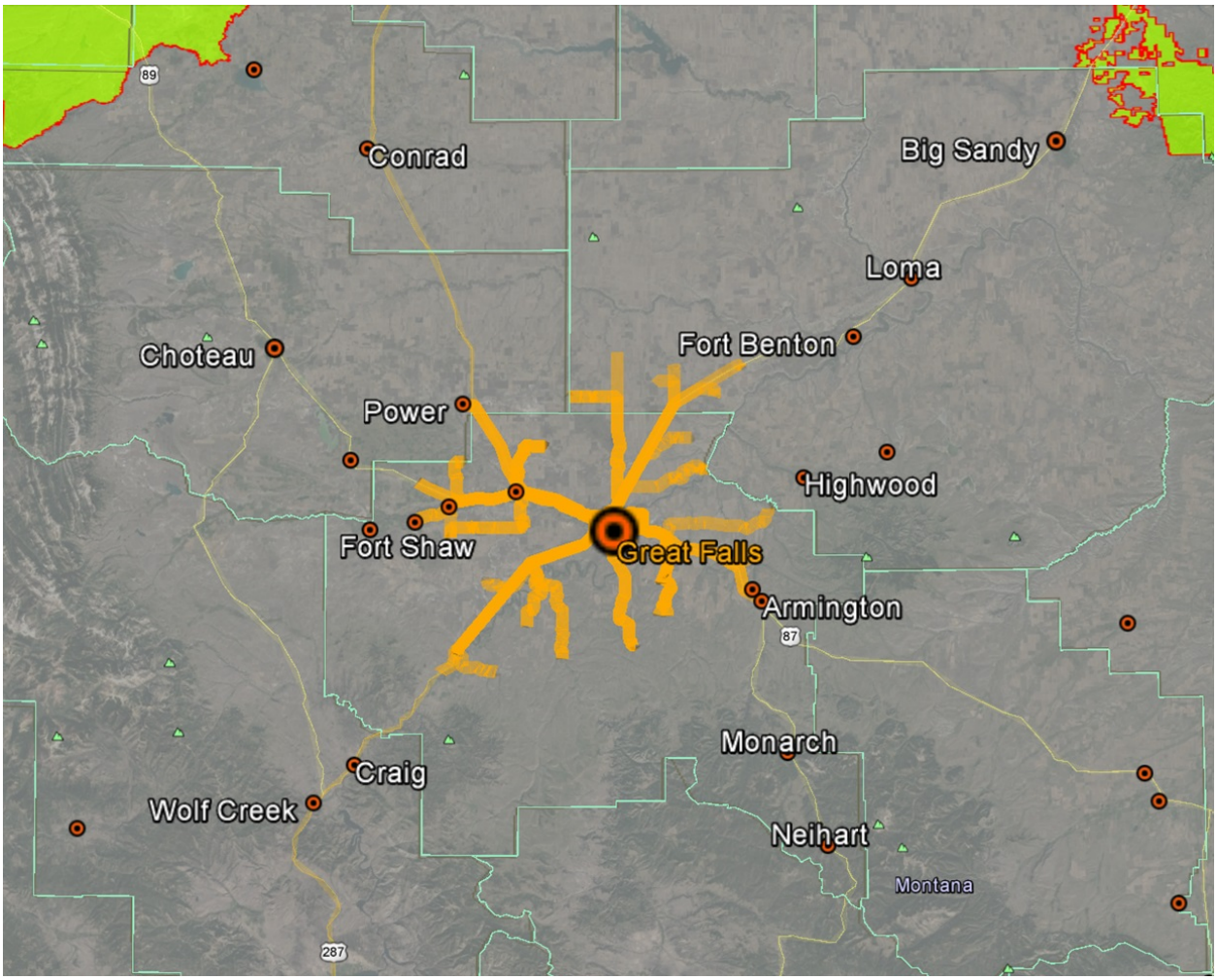
(Sources: http://www.hutterites.org/directory/ & Google Maps):

Big Sky Colony
Big Stone Colony
Birch Creek Colony
Camrose Colony
Cascade Colony
Cool Springs
Eagle Creek Colony
East End Colony
East Malta Colony
Elk Creek Colony
Fair Haven Colony
Gildford Colony
Glacier Colony
Glendale Colony
Hartland Colony
Hidden Lake Colony
Hilldale Colony
Hillside Colony
Horizon Colony
Kingsbury Colony
Loring Colony
Martinsdale Colony
Midway Colony
Milford Colony
Miller Colony
New Miami Colony
New Rockport Colony
North Harlem Colony
Pleasant Valley Colony
Pondera Colony
Rim Rock Colony
Riverview Colony
Rockport Colony
Sage Creek Colony
Seville Colony
Springdale Colony
Sunny Brook Colony
Surprise Creek Colony
Sweet Grass Colony
Turner Colony
Twin Hills Colony

Hartland Colony Chickens. Photo © Ken Meter, 2017

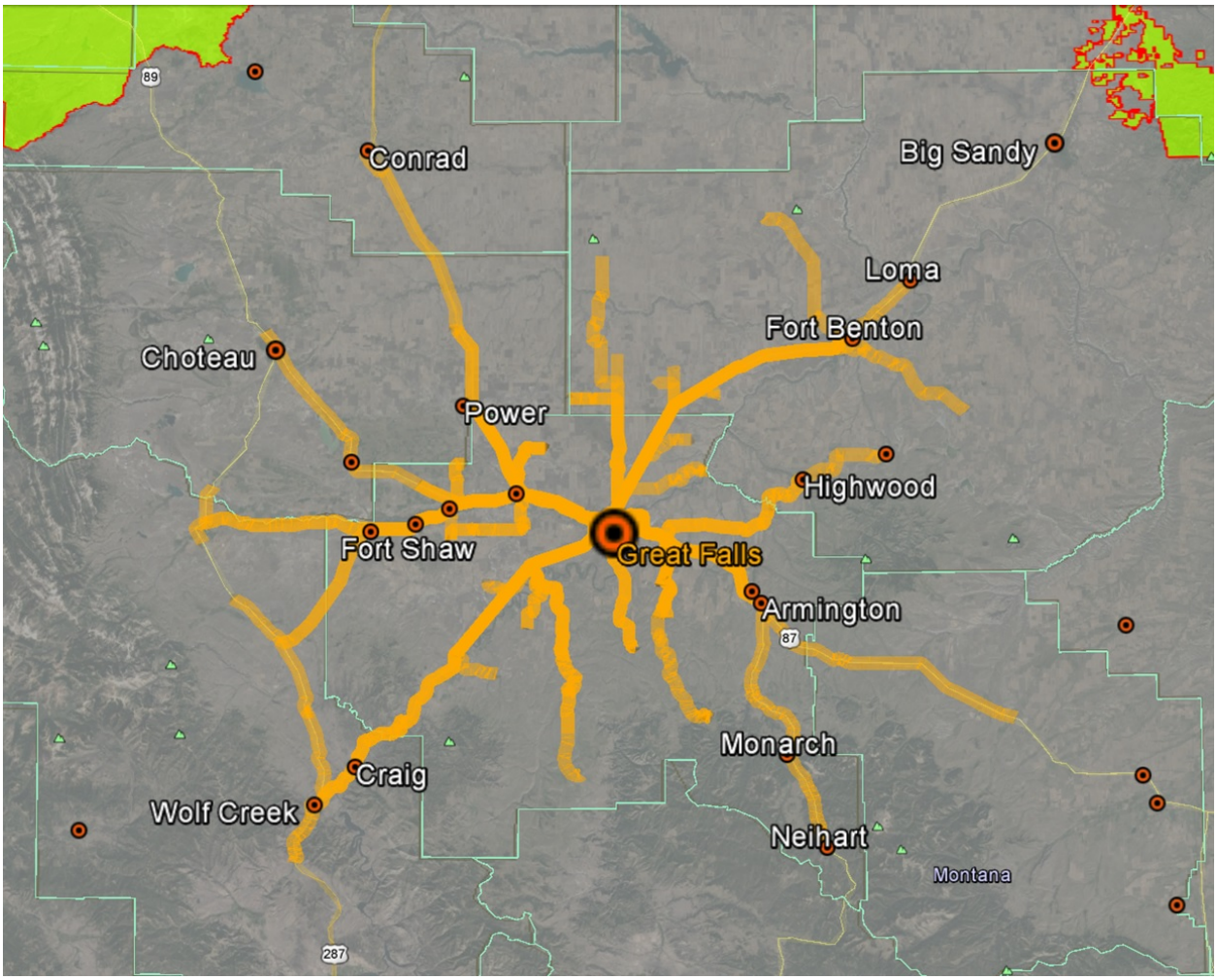
Appendix C: Travel Time Maps

Map 4: 30-Minute Travel Time from Great Falls



Map by Brownfield Listings, Inc. See page 26 for 2-hour travel time map.

Map 5: One-Hour Travel Time from Great Falls



Map by Brownfield Listings, Inc. See page 26 for 2-hour travel time map.

Appendix D: Food Consumption Estimates

Vegetables		Total Pounds
	Artichokes	300,985
	Asparagus	354,732
	Beans, Lima	387
	Beans, Snap	316,034
	Broccoli	1,427,527
	Brussels Sprouts	98,895
	Cabbage	1,436,127
	Carrots	1,820,957
	Cauliflower	277,336
	Celery	1,188,889
	Cucumbers	1,590,919
	Eggplant	182,741
	Escarole & Endive	36,548
	Garlic	414,929
	Green Peas	-
	Greens, Collard	331,083
	Greens, Mustard	83,846
	Greens, Turnip	83,846
	Kale	109,644
	Lettuce: Head	3,108,741
	Lettuce: Leaf & Romaine	2,317,581
	Mushrooms	640,667
	Okra	85,996
	Onions	3,934,299
	Peppers, Bell	2,298,232
	Potatoes	7,202,132
	Pumpkins	1,143,741
	Radishes	103,195
	Spinach	359,032
	Squash	986,800
	Sweet Corn	1,640,366
	Sweet Potatoes	1,614,567
	Tomatoes	4,407,275
	Total	**39,898,046**
Fruit		
	Grapefruit	522,423
	Lemons	735,262
	Limes	657,866
	Oranges & Temples	2,010,147
	Tangerines & Tangelos	1,083,545
	Apples	4,071,892

	Apricots	25,799
	Avocados	1,401,728
	Bananas	5,998,193
	Blackberries	17,199
	Blueberries	331,083
	Cantaloupe	1,502,773
	Cherries	255,837
	Cranberries	15,049
	Dates	107,495
	Figs	45,148
	Grapes	1,659,715
	Honeydew	354,732
	Kiwi	109,644
	Mangoes	537,473
	Olives	189,190
	Papayas	245,087
	Peaches & Nectarines	700,864
	Pears	617,018
	Pineapple	1,543,621
	Prunes & Plums	124,694
	Raspberries	105,345
	Strawberries	1,709,163
	Watermelon	2,895,902
	Total	**29,573,887**
Grains		
	Barley	156,942
	Durum Flour	-
	Oats	967,451
	Rice	-
	Rye	107,495
	Wheat Flour	28,959,018
	Total	**30,190,905**
Dairy & Milk		
	Fluid Milk & Cream	37,343,589
	Dry Milk Products	773,960
	Cheese	6,600,162
	Cottage Cheese	451,477
	Condensed & Evaporated Milk	193,490
	Frozen Dairy Products	4,708,259
	Total	**50,070,938**
Eggs		
	Eggs	7,503,116
Meats		
	Beef	16,532,654
	Veal	64,497
	Pork	12,705,850
	Lamb	236,488

	Chickens total	20,961,428
	Total	**50,500,916**
Fish		
	Fresh/Frozen Fish and Shellfish	2,321,881
	Canned Fish and Shellfish	709,464
	Cured Fish and Shellfish	64,497
	Total	**3,095,842**
Nuts		
	Almonds	365,481
	Hazelnuts (filberts)	5,331,727
	Peanuts	1,504,923
	Pecans (filberts)	107,495
	Pistachio Nuts	42,998
	Coconuts	193,490
	Walnuts	85,996
	Other Tree Nuts	257,987
	Total	**7,890,096**
Total		218,723,746

Appendix E: Institutional Purchasing Opportunities

Based on a combination of local data and national averages, this appendix estimates the number of meals served daily and annually for area institutions and estimates the annual food budget, including produce expenditures. Whenever possible, local level data was collected directly through first hand interviews (primary data-green) or from publicly available resources such as websites, annual reports, and databases (secondary data-blue). When specific data was not available for the listed entity through the above mentioned resources, calculations and estimations were made based on the collected data and national averages (orange). For example, the estimated number of meals a school may serve on a daily basis is based on that specific school's student and staff counts but calculated based on national school lunch participation rates. Thus, nearly all of the numbers included in these tables are just estimates and may not reflect the reality at each institution. For example, hospitals with really robust and appealing food service programs may have significant staff patronage in addition to patient services. Conversely, prisons tend to experience low staff patronage, if any at all. The purpose of these sheets is to estimate the magnitude of the various institutional food markets, and propose what maybe be possible through widespread farm to institution procurement.

Any cell highlighted in green contains data collected from the specific institution; orange cells contain data collected about the specific institution, red cells are estimates that include national averages.

Secondary Data
Primary Data
Calculations Based on Primary Data and National Averages
Calculations Based on National Averages

Public School District Name	County Name	# of Students	Estimated # of Meals Served Daily	Estimated # of Meals Served Annually	Estimated Total Annual Food Budget	Estimated Annual Produce Budget
Bear Paw Cooperative	Blaine		-	-	$-	$-
Bear Paw Elem	Blaine	5	3	567	$680	$102
Blaine	Blaine		-	-	$-	$-
Chinook Elem	Blaine	255	161	28,917	$34,700	$5,205
Chinook H S	Blaine	133	84	15,082	$18,099	$2,715
Cleveland Elem	Blaine	3	2	340	$408	$61
Harlem Elem	Blaine	440	277	49,896	$59,875	$8,981
Harlem H S	Blaine	158	100	17,917	$21,501	$3,225
Hays-Lodge Pole K-12 Schls	Blaine	221	139	25,061	$30,074	$4,511
North Harlem Colony Elem	Blaine	8	5	907	$1,089	$163
Turner Elem	Blaine	56	35	6,350	$7,620	$1,143
Turner H S	Blaine	15	9	1,701	$2,041	$306
Zurich Elem	Blaine	17	11	1,928	$2,313	$347
Belt Elem	Cascade	242	152	27,443	$32,931	$4,940
Belt H S	Cascade	83	52	9,412	$11,295	$1,694

Cascade Elem	Cascade	190	120	21,546	$25,855	$3,878
Cascade H S	Cascade	100	63	11,340	$13,608	$2,041
Centerville Elem	Cascade	192	121	21,773	$26,127	$3,919
Centerville H S	Cascade	71	45	8,051	$9,662	$1,449
Great Falls Elem	Cascade	7,354	4,633	833,944	$1,000,732	$150,110
Great Falls H S	Cascade	2,982	1,879	338,159	$405,791	$60,869
Mont Sch for Deaf Blind	Cascade	30	19	3,402	$4,082	$612
Simms H S	Cascade	98	62	11,113	$13,336	$2,000
Sun River Valley Elem	Cascade	157	99	17,804	$21,365	$3,205
Ulm Elem	Cascade	100	63	11,340	$13,608	$2,041
Vaughn Elem	Cascade	137	86	15,536	$18,643	$2,796
Benton Lake Elem	Chouteau	6	4	680	$816	$122
Big Sandy Elem	Chouteau	125	79	14,175	$17,010	$2,552
Big Sandy H S	Chouteau	49	31	5,557	$6,668	$1,000
Carter Elem	Chouteau	5	3	567	$680	$102
Fort Benton Elem	Chouteau	207	130	23,474	$28,169	$4,225
Fort Benton H S	Chouteau	71	45	8,051	$9,662	$1,449
Geraldine K-12	Chouteau	96	60	10,886	$13,064	$1,960
Highwood K-12	Chouteau	92	58	10,433	$12,519	$1,878
Browning Elem	Glacier	1,459	919	165,451	$100,000	$15,000
Browning H S	Glacier	511	322	57,947	$69,537	$10,431
Cut Bank Elem	Glacier	562	354	63,731	$76,477	$11,472
Cut Bank H S	Glacier	182	115	20,639	$24,767	$3,715
East Glacier Park Elem	Glacier	48	30	5,443	$6,532	$980
Mountain View Elem	Glacier	21	13	2,381	$2,858	$429
Box Elder Elem	Hill	293	185	33,226	$39,871	$5,981
Box Elder H S	Hill	107	67	12,134	$14,561	$2,184
Cottonwood Elem	Hill	26	16	2,948	$3,538	$531
Davey Elem	Hill	10	6	1,134	$1,361	$204
Gildford Colony Elem	Hill	11	7	1,247	$1,497	$225
Havre Elem	Hill	1,353	852	153,430	$250,000	$37,500
Havre H S	Hill	538	339	61,009	$73,211	$10,982
North Star Elem	Hill	118	74	13,381	$16,057	$2,409
North Star HS	Hill	53	33	6,010	$7,212	$1,082
Rocky Boy Elem	Hill	413	260	46,834	$56,201	$8,430
Rocky Boy H S	Hill	138	87	15,649	$18,779	$2,817
Auchard Creek Elem	Lewis And Clark	8	5	907	$1,089	$163
Augusta Elem	Lewis And Clark	59	37	6,691	$8,029	$1,204
Augusta H S	Lewis And Clark	25	16	2,835	$3,402	$510
Dept of Corrections-Youth	Lewis And Clark	55	35	6,237	$7,484	$1,123
East Helena Elem	Lewis And Clark	1,164	733	131,998	$185,000	$27,750

Helena Elem	Lewis And Clark	5,190	3,270	588,546	$1,000,000	$150,000
Helena H S	Lewis And Clark	2,858	1,801	324,097	$388,917	$58,337
Lincoln K-12 Schools	Lewis And Clark	115	72	13,041	$15,649	$2,347
Trinity Elem	Lewis And Clark	16	10	1,814	$2,177	$327
Wolf Creek Elem	Lewis And Clark	9	6	1,021	$1,225	$184
Chester-Joplin-Inverness El	Liberty	175	110	19,845	$23,814	$3,572
Chester-Joplin-Inverness HS	Liberty	55	35	6,237	$7,484	$1,123
Liberty Elem	Liberty	20	13	2,268	$2,722	$408
Dodson K-12	Phillips	78	49	8,845	$10,614	$1,592
Malta K-12 Schools	Phillips	492	310	55,793	$80,000	$12,000
Saco Elem	Phillips	30	19	3,402	$4,082	$612
Saco H S	Phillips	15	9	1,701	$21,000	$3,150
Whitewater K-12 Schools	Phillips	57	36	6,464	$16,000	$2,400
Big Sky SE Coop	Pondera		-	-	$33,193	$4,979
Conrad Elem	Pondera	353	222	40,030	$48,036	$7,205
Conrad H S	Pondera	176	111	19,958	$23,950	$3,593
Dupuyer Elem	Pondera	3	2	340	$408	$61
Heart Butte K-12 Schools	Pondera	187	118	21,206	$25,447	$3,817
Knees Elem	Pondera	16	10	1,814	$2,177	$327
Miami Elem	Pondera	14	9	1,588	$1,905	$286
Valier Elem	Pondera	121	76	13,721	$16,466	$2,470
Valier H S	Pondera	59	37	6,691	$8,029	$1,204
Bynum Elem	Teton	26	16	2,948	$3,538	$531
Choteau Elem	Teton	214	135	24,268	$29,121	$4,368
Choteau H S	Teton	112	71	12,701	$15,241	$2,286
Dutton/Brady K-12 Schools	Teton	147	93	16,670	$20,004	$3,001
Fairfield Elem	Teton	178	112	20,185	$85,000	$12,750
Fairfield H S	Teton	108	68	12,247	$14,697	$2,204
Golden Ridge Elem	Teton	40	25	4,536	$5,443	$816
Greenfield Elem	Teton	72	45	8,165	$34,538	$5,181
Pendroy Elem	Teton	23	14	2,608	$3,130	$469
Power Elem	Teton	66	42	7,484	$8,981	$1,347
Power H S	Teton	40	25	4,536	$5,443	$816
Galata Elem	Toole	4	3	454	$544	$82
Shelby Elem	Toole	312	197	35,381	$42,457	$6,369
Shelby H S	Toole	149	94	16,897	$20,276	$3,041
Sunburst K-12 Schools	Toole	189	119	21,433	$25,719	$3,858
TOTAL		***32,571***	***20,520***	***3,693,551***	***$4,878,914***	***$731,837***

Institution	County	Institution Type	# of Employees	# of Beds	Estimated # of Meals Served Daily	Estimated # of Meals Served Annually	Total Annual Food Budget	Annual Produce Budget
Crossroads Correctional Center	Toole	Correctional Facility	151	664	1,992	727,080	$1,163,328	
Helena Prerelease Center	Lewis and Clark	Correctional Facility	26	105	315	114,975	$183,960	
Great Falls Prerelease Center	Cascade	Correctional Facility	82	326	978	356,970	$571,152	
Great Falls Youth Transition Center	Cascade	Correctional Facility	2	7	21	7,665	$12,264	
Cascade County Regional Prison	Cascade	Correctional Facility	38	152	456	166,440	$266,304	
Benefis Hospital system	Cascade	Health Care	3,000	530	3,150	1,149,750	$4,599,000	$689,850
Great Falls Clinical Hospital	Cascade	Health Care	100	20	112	40,880	$163,520	$24,528
Northern Montana Hospital	Hill	Health Care	710	142	795	290,248	$1,160,992	$174,149
Shodair Hospital	Lewis and Clark	Health Care	420	84	470	171,696	$686,784	$103,018
St Peters Hospital	Lewis and Clark	Health Care	1,000	123	889	324,485	$1,297,940	$194,691
Liberty Medical Center	Liberty	Health Care	125	25	75	27,375	$109,500	$16,425
Pondera Medical Center	Pondera	Health Care	395	79	442	161,476	$645,904	$96,886
Montana State University Northern	Hill	Higher Ed	79	1,105	616	110,816	$443,263	$66,489
Great Falls College Montana State University	Cascade	Higher Ed	211	1352	813	146,297	$585,187	$87,778
Helena College University of Montana	Lewis and Clark	Higher Ed	114	1,600	891	160,457	$641,829	$96,274
Carroll College	Lewis and Clark	Higher Ed	125	1,500	845	152,100	$608,400	$91,260
Grouse Mountain Lodge	Glacier	Lodge/Resort	110	144	489	73,380	$476,970	$71,546
Glacier Park Lodge	Glacier	Lodge/Resort	160	162	569	85,380	$554,970	$83,246
St. Mary Lodge & Resort	Glacier	Lodge/Resort	160	116	431	64,680	$420,420	$63,063
Apgar Village	Glacier	Lodge/Res	32	48	161	24,096	$156,624	$23,494

Lodge & Cabins		ort						
Motel Lake McDonald	Glacier	Lodge/Resort	7	27	85	12,696	$82,524	$12,379
West Glacier Motel & Cabins	Glacier	Lodge/Resort	32	100	317	47,496	$308,724	$46,309
Malstrom Air Force Base	Cascade	Military Base	4,060		2,111	770,588	$3,082,352	$462,353
TOTAL			11,139	8,411	17,024	5,187,026	$18,221,911	$2403735

Appendix F: Food Safety and Scale

An overarching and necessary concern for institutional purchasers and policy makers is food safety. Every foodborne illness outbreak and food recall calls additional attention to this issue. Recently, the Chipotle E. coli outbreak has been one of the top stories in the news. One analysis of Chipotle's most recent outbreak points to fresh produce as the likely carrier of the bacteria even though fresh produce is not a source of it. It also clarifies that given the geographic range of the outbreak, the contaminated items probably came from their large suppliers, not their local farms (Berfield, 2015). Yet, this nuance is lost during conversations regarding outbreaks and liability. To be clear, produce from local farms is not intrinsically more or less safe than foods from broadline distributors; they just have less geographic impact. Adequately trained and diligent producers are the essential first step in a safe food supply, regardless of their location or how their products are distributed and to whom.

USDA GAP Certification is one way for institutional purchasers to ensure that producers are adequately trained and diligent, but this is not the only way. Additional third-party certifications are available and can vary from state to state.

While some institutional purchasers do not require any sort of food safety verification, some absolutely require that producers are GAP Certified and carry product liability insurance. Similarly, only some producers feel that food safety training and certification is an essential part of doing business. But this will change. New federal food safety regulations have yet to take their full effect, and though many people are aware that conditions are changing, there is a lack of clarity around who will be affected and how. The U.S. Food Safety Modernization Act is in the middle of its four-year compliance roll out, affecting different scale farmers and processors differently.

Appendix G: Methodology and Authors

Methodology: Research for this report included quantitative analysis of public data sets, review of scholarly and community journals, and study of books relevant to area agriculture, culture, and history. Semi-structured interviews were held the 53 stakeholders listed above. For the most part, interviewees were selected by the steering committee, who also made contact with each source to schedule meetings during one trip in 2017. Primarily these were carried out in person, in group or one on one settings. A few select interviews were performed by phone. In person interviews were held in Montana. Telephone interviews from our home offices in Minnesota and Michigan were performed in 2017. We are deeply indebted to all of those who offered such deep insights to our work.

Kenneth A. Meter, MPA is one of the most experienced food system analysts in the U.S., integrating market analysis, business development, systems thinking, and social concerns. Meter holds 45 years of experience in inner-city and rural community capacity building. His local economic analyses have promoted local food networks in 125 regions in 39 states and Manitoba. He developed a $9.85-milllion plan for local food investment for the state of South Carolina, and has completed similar studies for Alaska, Mississippi, Indiana, Ohio, and Minnesota. Currently he is writing a statewide food plan for Hawaii focused on low-income access. He has developed strategic regional food plans for regions near Shreveport, Lafayette, Monroe, Fort Wayne, Denver, and rural North Dakota, Virginia, Maine, and Washington State. Meter consulted with the USDA Agricultural Marketing Service and Colorado State University to help write a 2016 Toolkit for measuring economic impacts of local food development.

Meter has been invited to give more than 500 presentations across the U.S. since 2001. Typically, these appearances have unveiled new economic findings he uncovered while researching the local farm and food economy in each locale. In 2013, 2014, 2015, and 2016, Meter served as a keynote speaker at the Nashville Food Summit, for which he compiled economic data covering the Nashville region's farm and food economy. These appearances have also built exceptional trust among local farmers and local foods leaders. For a complete list of Meter's presentations, see http://www.crcworks.org/presentations.pdf

Meter holds a Master's Degree in Public Administration from the Harvard Kennedy School, a Master of Arts in History from Boston University, and a BA in Chemistry from Swarthmore College. He has taught microeconomics at the Harvard Kennedy School, the Economic History of U.S. Agriculture at the University of Minnesota, and Food, Land and Economic Justice at Metropolitan State University. He completed a summer course in cooperative economic development at the University of Bologna (Italy). Meter was one of the first to recognize, in 1974, the economic importance of local food systems.

Meter serves as president of **Crossroads Resource Center**, a nonprofit research and consulting group in Minneapolis, which he joined in 1973. In this capacity, he led 85 residents of the city of Minneapolis in a public process to develop a 50-year vision for a sustainable city, including 30 measures of success. These measures were incorporated into the city budget process, winning national recognition for the city. Meter has also consulted with USDA, EPA, several state governments, and Stanford University.

Subcontractor: Megan Phillips Goldenberg, MS, principal at **New Growth Associates (a woman-owned small firm)**, brings seasoned experience producing feasibility studies, economic analysis, and policy recommendations in Colorado, South Carolina, Alaska, Mississippi, Maine, Hawaii, and Michigan, with extensive background in project management, survey development, economic impact analysis, academic research, quantitative methods, interviews, and food-based business and organization

consulting. Megan is most interested in the intersections of public policy, food systems, and community development. She endeavors to work in a community building capacity in order to create and maintain a sense of place through better science and informed decision-making.

Goldenberg holds a Master's degree in Agricultural and Natural Resource Economics from Colorado State University. Her coursework emphasized Public Policy and Community Economic Development. Through her graduate research, Goldenberg worked with Be Local Northern Colorado, the Northern Colorado Regional Food System Assessment, Boulder County's Building Farmers Market Track program, and the Building Farmers in the West Beginning Farmer and Rancher Development Program.

Goldenberg then worked for WPM Consulting in Boulder, Colorado as a Food Systems and Policy Associate. With WPM Consulting, she assisted with the development and initial execution of the Colorado Food Systems Advisory Council (with networking support for local food coalitions, state-wide) and provided research support for three county and three regional food system assessments (including metro Denver and rural Colorado) while facilitating community projects focused on increasing healthy eating and active living through sound policy and planning. In her spare time, Goldenberg co-founded and co-directed The Growing Project, a 501(c)(3) nonprofit that promotes the value of a strong, diverse, and just local food system to all residents of Northern Colorado through direct agricultural experiences, education, and advocacy.

Her firm, **New Growth Associates**, was founded in 2010. New Growth Associates is a woman-owned company that brings together a small group of professionals in order to support evidence-based decision making for community and economic development projects, as well as to provide professional project management expertise and business consulting services. With particular interests in creating and supporting economic development opportunities for family farmers and increasing equitable healthy food access across communities, New Growth Associates is dedicated to providing sound analysis and professional project management to support informed decision making at all tiers of the food system in order to ensure long-term success. From enterprise analysis at the farm level to strategic policy planning and investment development at the state level, New Growth Associates leverages the expertise needed to grow your initiatives. New Growth Associates collaborates frequently with Crossroads Resource Center.