Central Wisconsin
Preliminary Food System Assessment



Focusing on Marathon, Portage, Waupaca and Wood Counties

May 6, 2015



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Introduction

The Central Wisconsin Food System Assessment is a project of the Center for Land Use Education (CLUE). CLUE works to create learning opportunities for communities to help them make sound land use decisions that result in a sustainable Wisconsin. CLUE is often asked to engage in food systems research and discussions, and has noticed a growing interest in assessment and planning in the central region.

The food system includes a diverse range of farm and food businesses and community partners. A growing number of consumers are more interested in the social and environmental impacts of their food, often associated with local food.[1] Definitions vary, but the United States Department of Agriculture (USDA) describes local food as "produced, processed, and distributed within a particular geographic boundary that consumers associate with their own community." A broader definition looks at the community food system, which can be defined as "one in which sustainable food production, processing, distribution and consumption are integrated to enhance the environmental, economic and social and nutritional health of a particular place."[2]

There are many ways to approach a community food system assessment. This assessment includes four counties: Marathon, Portage, Waupaca and Wood. This region was selected based on regional markets and working relationships. Taking a regional approach can help to think about the economic issues around food systems, including where and how aggregation and distribution can occur. A regional approach also can highlight the commonalities in a region, which may help in marketing. The purpose of the assessment is to provide partners with a concise overview of the regional food system to inform future research and planning.

Community Input

CLUE asked representatives from the four counties to serve on an advisory committee to oversee the process and provide input on the report. CLUE's suggested roles for committee members included: attending three meetings, sharing insights and data with CLUE, reviewing drafts of the report, and informing colleagues and partners about the report and using it as appropriate. We also asked select state experts to act as reviewers.

Contents of the Report

This report is organized into six sections: regional characteristics, food production, food processing, food distribution, local markets for food, community health and food access, and food residuals. The community initiatives section and related appendix includes existing organizations and initiatives related to food system work in the region. A conclusion provides a summary of the report and future assessment opportunities.

How to Use This Report

The assessment is an initial step to understanding what is going on in the Central Wisconsin food system. As such, it provides a base from which communities can engage in future assessment, community and regional planning and goal setting, grant writing, and other activities. The summary portion of each section includes future research options and discussion questions that communities can use to build a community-wide understanding of our food system. The report and figures are available for download on the CLUE website. See back cover for Web address.

The assessment can be used in a number of ways: for use in future community and regional planning, in grant writing, and in other community activities.

Data and Its Limitations

For the preliminary assessment, the authors relied on secondary data, i.e., data collected by someone else. Many of the data sources are from the U.S. Census, such as the Decennial Census and County Business Patterns, and the USDA's Census of Agriculture. The authors discuss some of the limitations of each source in each section. Other data was collected from organizations and partners.

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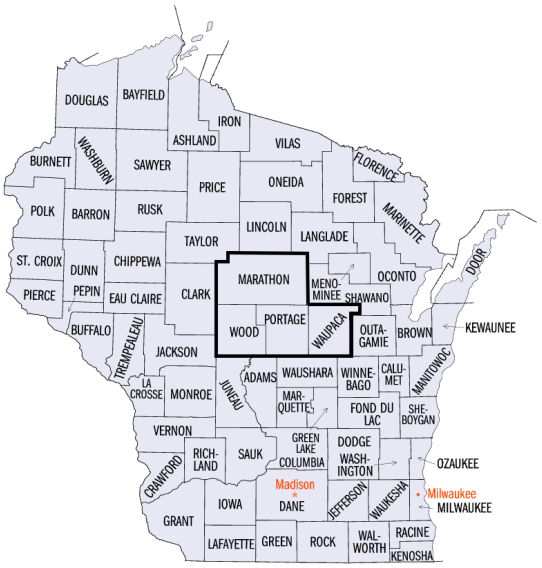
1 Martinez, Steve, et al. May 2010. Local Food Systems: Concepts, Impacts, and Issues. USDA Economic Research Report 97.
2 Feenstra and Garrett. 1999. Growing a Community Food System.

For each figure, map and table, the authors provide an interpretation of the data and points of interest. Readers may see new patterns and interpretations from this data.

History of the Region

Each community's food system is impacted by its history. This includes the geology, geography, and climate, cultural heritage, and agricultural experience within our region.

The southern portions of Wood, Portage and Waupaca counties are part of the Central Plains. This area is flat and marshy. Acres of Wood and Portage Counties are covered in sandy soil from when Old Glacial Lake Wisconsin receded at the end of the last Ice Age. The northern parts of Wood, Portage and Waupaca counties, and all of Marathon County are part of the Northern Highlands. This area is characterized by rich cropland and heavy clay soil.



The Wisconsin River, and broader Central Wisconsin River Basin, passes through Marathon, Portage and Wood counties. Waupaca County is home to the Waupaca Chain of Lakes and the Wolf River. Farming in the region relies heavily on groundwater resources through irrigation. The region draws groundwater from unconfined aquifers.

Native Americans have hunted and farmed in Central Wisconsin for centuries. In 1836, tribal lands along the Wisconsin River were transferred to the US government in a treaty.[3] European settlers increasingly came to the area to farm. When Wisconsin was founded in 1848, two out of three residents lived on a farm, and the average farm was less than 100 acres in size.[4] The US Homestead Act of 1862 allowed settlers to claim 160 acres of land in Wisconsin.[5] After the forested portions were logged, agriculture was expanded.

Central Wisconsin had large settlements of German and Scandinavian immigrants, some of whom began dairy farming.[6] The first Polish immigrants, primarily farmers, arrived in Portage County in the mid-1850s and expanded into other areas. Some settled on land obtained through the Homestead Act. During this period, wheat was the main crop, but production in Central Wisconsin shifted to cranberry and produce by the latter half of the century.

Industrialization, including the mechanization of agriculture, was occurring at the turn of the century. More people began moving off farms to work in the cities. Wetlands were also drained for agricultural purposes. For example, Portage County's Buena Vista Marsh was drained in 1903. Pastures and grasslands were developed in portions of Marathon, Wood and Portage Counties now known as the Central Wisconsin Grassland Conservation Area.

Farmers began to organize farm organizations and cooperatives. The Wisconsin Farm Bureau was founded in 1920, and the Wisconsin Farmers Union was founded in 1930. The number of farms in Wisconsin peaked in 1935 during the Great Depression and began a steady decline.[7] Industrial agriculture farms began installing high capacity wells in the Central Sands Region in the mid-1900s, and expansion has continued. During World War II, many people planted backyard gardens as part of the government's "victory garden" initiative.

In the 1950s, immigrants from Mexico and Latin America began settling in Wisconsin. Many had been migrant laborers. In the late 1970s, Hmong refugees began moving to Central Wisconsin. The Hmong were escaping persecution in South East Asia after aiding the Americans in the Vietnam War. The Hmong were sponsored by area churches and families, and many began working as laborers in the cucumber and ginseng industries.[8] Around 2000, Hmong families began to grow and sell products at area farmers' markets.

At the turn of the 21st century, farmers' markets and local food businesses were becoming more popular. Sunny Sky Farm, which started in 1996, was the first community supported agriculture (CSA) farm in Central Wisconsin. The Wisconsin Farm to School program began in 2002. The Department of Agriculture, Trade, and Consumer Protection (DATCP) Buy Local Buy Wisconsin Program was created in 2007.

3 Marathon County website. The US government took ownership of all Native American lands in Wisconsin by 1848.
4 CLUE. 2010. Land Use Megatrends: Agriculture.
5 Library of Congress website: www.loc.gov/rr/program/bib/ourdocs/Homestead.html
6 Wisconsin Historical Society website: www.wisconsinhistory.org/turningpoints
7 CLUE. 2010. Land Use Megatrends: Agriculture.
8 Koltyk, Jo Ann. 1997. *New Pioneers in the Heartland: Hmong Life in Wisconsin.*

Regional Demographics

This section begins to frame who lives in this region, how that population has changed in the last ten years, and suggests population trajectories for the next ten years.

Most of the data included below is from the US Census, Decennial Census from 2000 and 2010. This data is reasonably accurate as all households fill out a census form.

Population

Table RD1 shows total population for each county, the four-county region and the State. All but one county, Wood County, had grown during the decade from 2000-2010. The region grew more slowly than the state, although one county, Marathon County, grew faster. This assessment area includes the Stevens Point, Wisconsin Rapids, Marshfield, Wausau and Waupaca market areas.

Table RD1: Population

	2000	2010	% Change
Marathon	125,834	134,063	6.14%
Portage	67,182	70,019	4.05%
Waupaca	51,731	52,410	1.30%
Wood	75,555	74,749	-1.08%
Region	320,302	331,241	3.30%
State	5,363,675	5,686,986	5.69%

Source: 2010 US Census

Eighty percent of the population in the United States is urban. In contrast, this region is more rural. Waupaca County's population is the most rural in the four-county region. The rest of the counties have the reverse – a more urban than rural population. See Table RD2.[1]

Table RD2: Urban/Rural Population

	Urban Population	Percent	Rural Population	Percent
Marathon	76,429	57%	57,634	43%
Portage	44,790	64%	25,229	36%
Waupaca	18,375	35%	34,035	65%
Wood	47,329	63%	27,420	37%

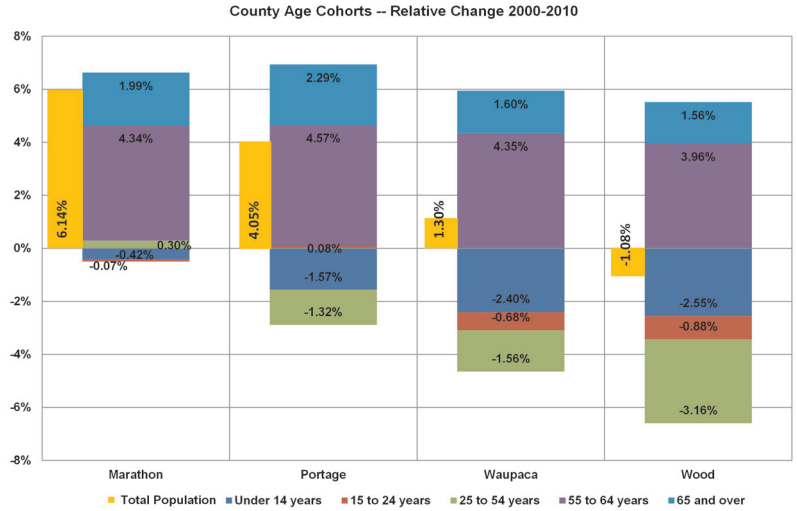
Source: 2010 US Census Urban and Rural Classification and Urban Area Criteria

The United States Department of Agriculture (USDA) has several definitions of rural.[2] Marathon County is the only county classified as urban by the USDA Office of Management and Budget. Portage, Waupaca and Wood counties are classified as rural. The USDA defines rural (nonmetro) counties as those that include open countryside, rural towns (with fewer than 2,500 people) and urban areas with populations ranging from 2,500 to 49,000.

Age

Age cohorts[3] have varied in growth over the decade. Figure RD1shows components of change as a percent of total population change. Note that the cohorts that have negative growth are below the zero percent line on the figure. There is (1) negative growth in two age cohorts – under 14 and 15-24 years, and (2) positive growth in all four counties for two cohorts (55-64 and 65 and over).

Figure RD1



Source: 2000 and 2010 US Census

1 Data available at www.census.gov/geo/reference/ua/urban-rural-2010.html.

2 See definitions at http://ric.nal.usda.gov/what-is-rural.

3 Age cohorts are generational groups as defined by demographics, statistics or research.

Negative growth in the young age cohorts indicates an overall declining population. However, the strong increase in the retirement age population may buffer that decline if it continues.

Race and Ethnicity

The region has a larger white population than the state as a whole. The state's population is 86.2 percent white. Marathon and Portage counties have a larger Asian population than the state (2.3 percent). The Hispanic or Latino population is 5.9 percent of the total population of the state. In the four-county region, this percentage is about half that of the state and similar across all four counties. While the percent of Asian and Hispanic populations is low, the growth of the population has doubled in this region. See Appendix A for Figures AA1 through AA4 on race and ethnicity.

Income

In 2000, median[4] household income in the region ranged from about $41,000 in Waupaca County to about $45,000 in Marathon County. See RD3. By the 2009-2013 period,[5] Wood County had the lowest household income in the region at almost $48,000 and Marathon County had the highest median households income at $53,000. In both time periods, this range was in line with the State's median household income ($44,000 in 2000, and $52,000 in 2009-2013). Poverty affects about 11 percent of the population in the region, while the State's level is 13 percent. See Table RD4. Portage County has a poverty level similar to the state but this may reflect the student population.

Table RD3: County Median Income		
County	2000	2010
Marathon	$45,165	$53,363
Portage	$43,487	$50,996
Waupaca	$40,910	$50,822
Wood	$41,595	$47,685
Wisconsin	$43,791	$52,413
Source: 2010 US Census		

County Economic Type

USDA's Economic Research Service (ERS) creates two typologies, one focused on economic type and the other on policy types.[6] For economic type, Marathon and Wood counties are classified as manufacturing-dependent counties. Portage County is classified as a nonspecialized county, which means it is not dependent on any specific type of economic typology. Waupaca County is classified as both manufacturing-dependent for economic type, and a retirement destination for policy type. None of the other counties are classified in a policy type. Note in the age section that Waupaca's population distribution is skewed to 55 and over.

Table RD4: Persons Below Poverty	
County	2010
Marathon	10.9%
Portage	13.7%
Waupaca	10.6%
Wood	11%
Wisconsin	13%
Source: 2010 US Census	

Summary

In summary, the demographics for our region are characterized by:

1. Most of the region's population lives in urban areas, although that means living in small villages and cities.
2. The region's population is older, and that may lead to a declining population in the future.
3. The region is likely to have a more diverse population in the future.
4. Income is in line with the state and generally growing, and the poverty level is slightly lower than the state.

Discussion questions:

- What are the strengths of our regional demographics? What are the weaknesses?
- How might these demographic changes influence an interest in local food?

4 Median means that half the households had a higher income than the median and half the households had a lower income.
5 The American Community Survey has largely replaced the Decennial Census. The 5-year period in the statistic is a Median Household Income 2000 and 2009-2013 ACS rolling average.
6 USDA. ERS. Available at www.ers.usda.gov/data-products/county-typology-codes.aspx. There are six economic types, including farming-dependent. None of the counties in this region are farming dependent. There are eight policy types. Counties can be designated as both an economic and a policy type. It is a way to capture economic and social characteristics of counties.

Food Production

Most food is grown and raised by farmers, growers or tenants on farms. Food producers decide which products to grow or raise depending on a variety of factors, including climate, soil, education and experience, personal preferences, culture, marketability and more. Some farms focus on commodities, whereas others focus on products for local distribution. Food production also occurs off-farm in sites such as home gardens and community and school gardens. Hunting and fishing are also popular methods of food gathering in our region.

The USDA has a list of definitions in the farm economy glossary.[1] In general, the data we collected refers to farm operators or principal farm operators.[2] We attempt to use the term "food producer" as a general term when a more technical term is unavailable.

This section includes food production on and off farm, characteristics of farms, types of production, farm income and other factors.

Farm Operator Population

In comparison to the total population, the number of farm operators is quite low.[3] See Table FP1. Portage County has about twice as many farm operators as the other counties. Except for Marathon County, the region has a higher percentage of farm operators than the state. See Table FP2.

Table FP1: Farm Operator Population

	Marathon	Portage	Waupaca	Wood	State
Population	134,681	70,308	52,069	74,357	5,724,554
Farm Operators	1,579 (1.2%)	3,602 (5.1%)	1,751 (3.4%)	1,636 (2.2%)	111,080 (1.9%)

Source: USDA. 2012. Census of Agriculture.

Characteristics of Farm Operators

There were 111,080 farm operators in Wisconsin in 2012, a decline of almost 11 percent from 2007 when there were 123,217. In the four-county region there were 9,468 farm operators in 2007 and 8,568 in 2012, a decline of about 900 operators during the five-year period. Figure FP1 shows the decline in each county. While women account for about one-third of the operators, they farm much less acreage. See Figure FP2.

In both time periods, most farm operators are men that farm upwards of 95 percent of the farm acres. Wood County, in contrast, has slightly fewer men and more women operators than the other three counties.

Another dimension of farm operators is age of the operators. Figure FP3 shows the percent of principal operators who are 25-34 years. Overall, there is a low percentage of principal operators in this age bracket, about 5 percent of all principal operators. The figure shows the decline in this age group from 2007-2012. With fewer younger farm operators and the average age moving toward retirement, there may be imminent changes in the number of farm operators and farm size. The average age of principal operators is 56.5 years.

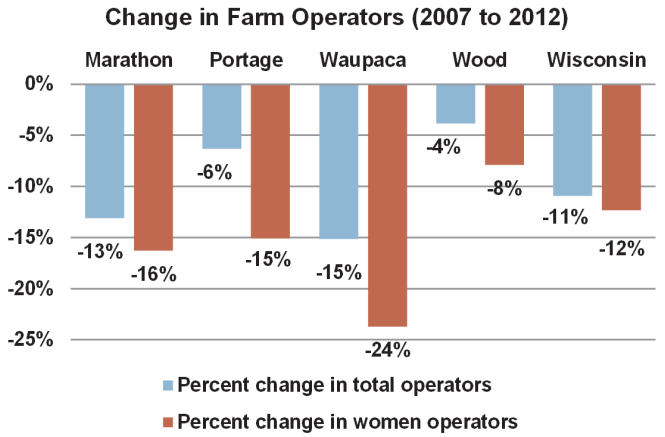
In terms of race, Wisconsin's principal operators are more than 99 percent white. This holds true for the four-county region. For example, Marathon County has a total of 15 farms with non-white principal operators.

1 Definitions are available at www.ers.usda.gov/topics/farm-economy/farm-household-well-being/glossary.aspx.

2 The farm operator is the person who runs the farm, making the day-to-day management decisions. The operator could be an owner, hired manager, cash tenant, share tenant, and/or a partner. If land is rented or worked on shares, the tenant or renter is the operator. In the recent Census of Agriculture and in the Agricultural Resource Management Survey (ARMS), information is collected for up to three operators per farm. Accessed March 17, 2015.

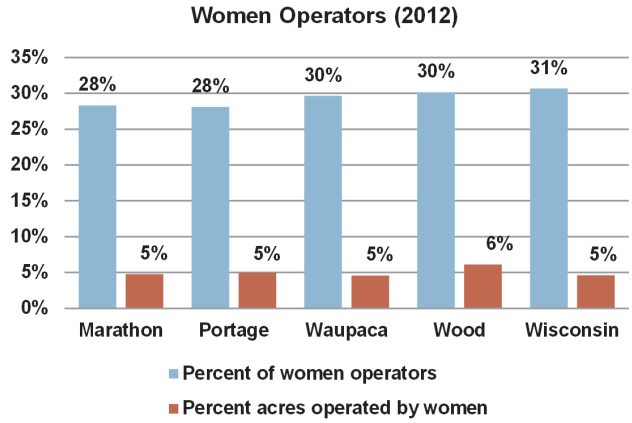
3 Operator. A person who operates the farm doing either the work or making day-to-day decisions for the farm. Appendix A: Definitions. www.agcensus.usda.gov/Publications/2002/Aquaculture/aquacen2005_appendixa.pdf

Figure FP1



Source: USDA. 2007 and 2012 Census of Agriculture.

Figure FP2

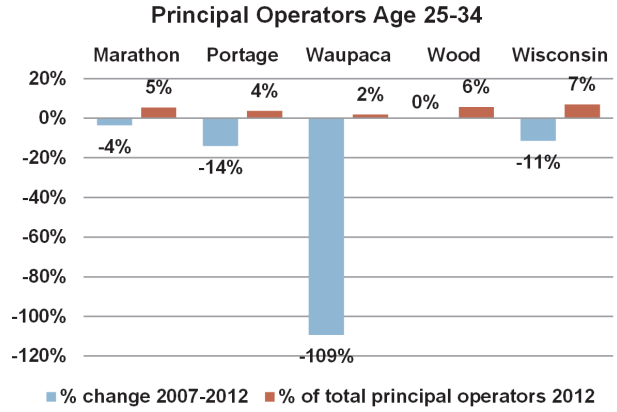


Source: USDA. 2012 Census of Agriculture.

According to the 2012 USDA Census of Agriculture, there are 14 Asian operators in Marathon County, and zero in Portage, Waupaca, and Wood counties. Jack Chang, Agriculture Program Specialist with DATCP, notes that most Asian operators in Wisconsin are Hmong. He estimates that the Census data represents half or less of the actual Hmong producers in Wisconsin. Many Hmong producers are vendors at farmers markets. For example, there were approximately 40 producers at each of the Stevens Point and the Wausau Farmers Markets on a regular basis in 2014, of which almost half were Hmong.

There are 18 Hispanic operators in Marathon County, 2 in Portage County, 15 in Waupaca County and 7 in Wood County.

Figure FP3



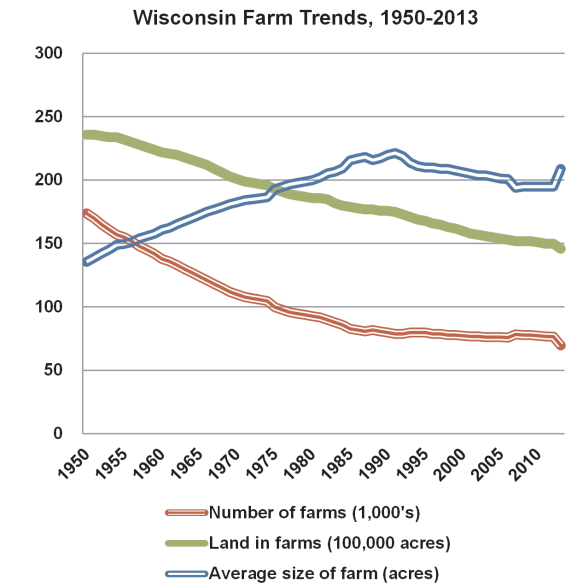
Source: USDA. 2012 Census of Agriculture.

On Farm Production

Figure FP4 shows Wisconsin farm trends from 1950-2013. It shows three indicators: total farmland, average farm size, and number of farms.[4]

Average sizes of farms have increased since 1950. In contrast, land in farms and number of farms decreased steadily from 1950 to 2013. Wisconsin has 14,568,926 acres in farms, about 42 percent of total land.

Figure FP4



Source: USDA. Census of Agriculture.

4 USDA defines a farm as "any place where more than $1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year."

Figure FP5

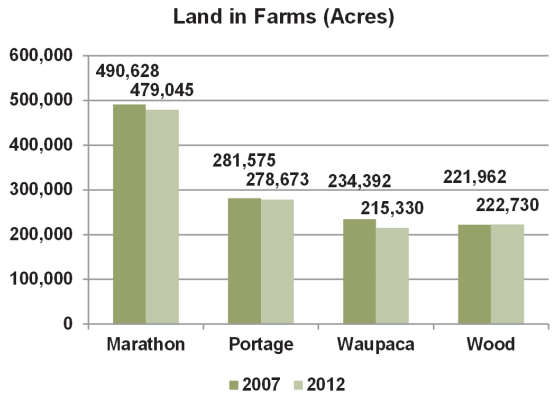
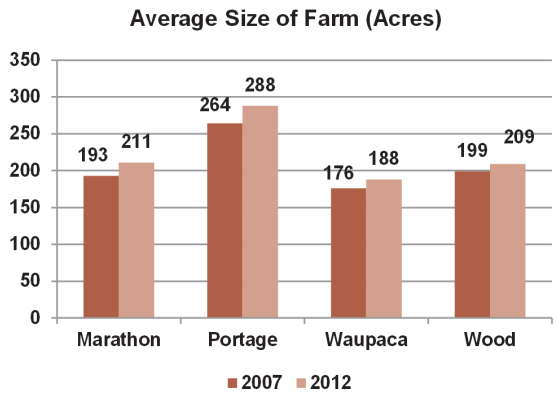
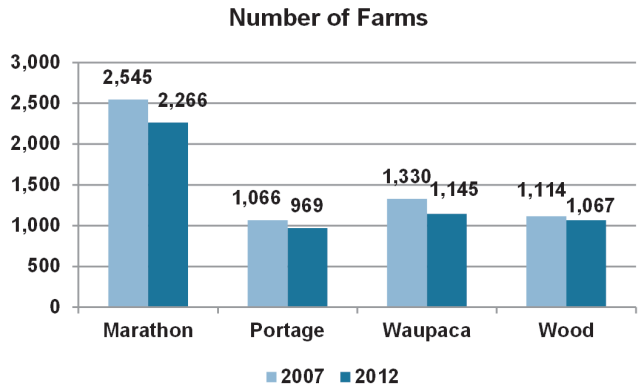


Figure FP6



In comparison to the state, Figures FP5, FP6, and FP7 show three indicators for the region in two time periods, 2007 and 2012. Land in farms[5] has remained reasonably stable. Average size of farms has increased more in Marathon and Portage than in Waupaca and Wood counties. The number of farms, like the state, has decreased for all four counties with Marathon and Waupaca counties seeing the most decrease.

Figure FP7

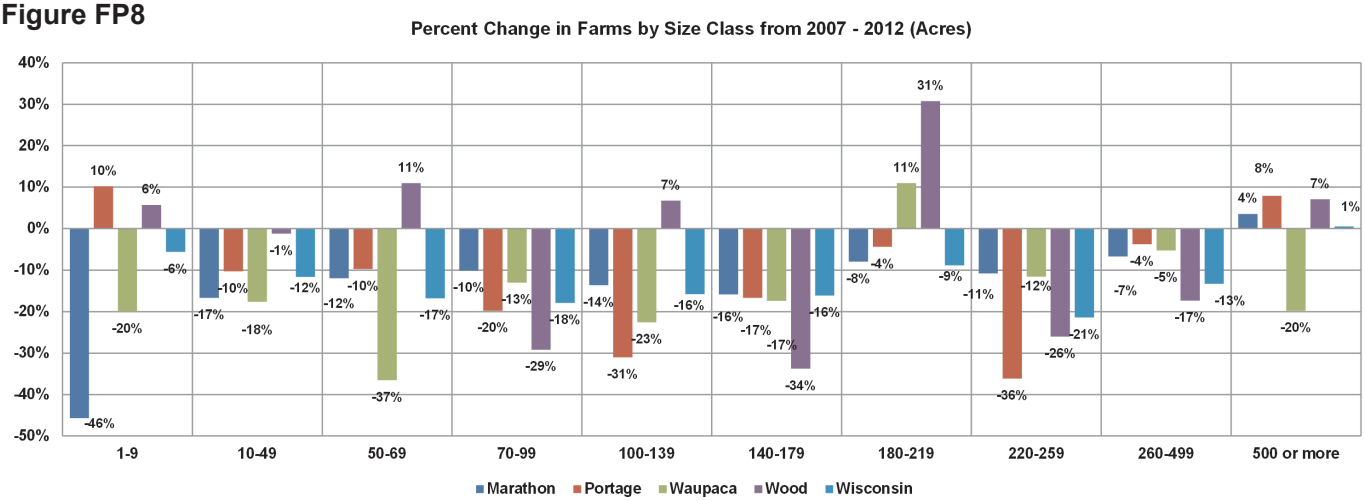


Source: USDA. 2007 and 2012 Census of Agriculture.

Farm Size

Figure FP8 shows different sizes of farms. During the 2007-2012 period, in all four counties and the state, a percent decrease is evident for all but a few size classes in a couple of counties. A notable exception is farms with 500 acres or more. Three counties saw an increase in this size class. Also notable is the smallest size class (1-9 acres). Portage and Wood counties saw an increase in the number of farms of this size, while one, Marathon County, saw a large decline.

Figure FP8



Source: USDA. 2007 and 2012 Census of Agriculture.

Hired Labor and Unpaid Workers

Figure FP9 shows hired farm labor and unpaid workers.[6] About 30 percent of the farms in all four counties have hired farm labor. Workers in the region are hired to work on farms and their pay totals $89.234 million or an

5 A farm is defined as any place from which $1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year. There are exceptions, see the glossary.

6 Unpaid workers are workers who worked without a wage or salary on the operation in 2012. Unpaid workers could include non-operator partners or family members who are not operators.

annual income of about $11,500 per person on average. A substantial number of farms also have unpaid workers, which totals over 5,400 workers.

The most noted change in hired labor is in Marathon County with a decrease in both the number of farms that hire farm labor and a large decline in the number of paid workers. In most of the other counties and the state, there is an increase in farms, workers and payroll. Waupaca County shows a slight decline in the number of farms with hired labor. Unpaid worker data was not collected in 2007.

Some farmworkers are migrant workers, many of whom are Hispanic. Roughly one-third of migrant farmworkers engage in field work, and nearly two-thirds work in canning and food processing.[7] There are 256 migrant workers in field work and food processing in Portage County and zero registered in Marathon, Waupaca and Wood counties.[8] In addition, many migrant farmworkers work in the dairy industry, which is not included in the above statistics. In Wisconsin approximately one-third of the hired workers on dairy farms (4,220 total) are Spanish speaking.[9]

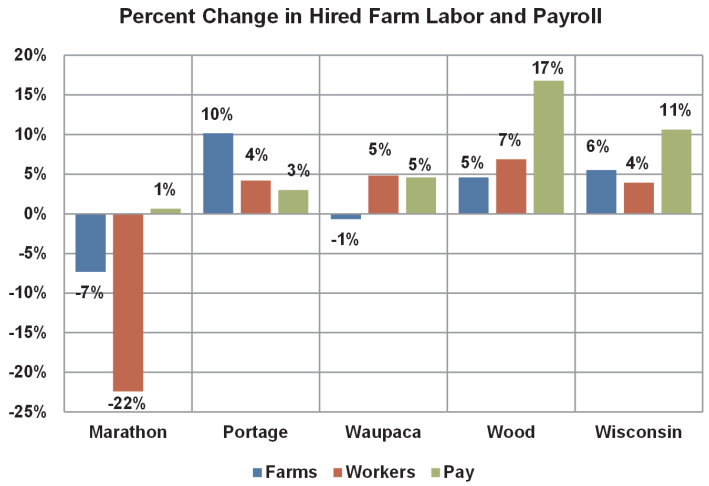
Price of Land

In Wisconsin, the price of agricultural land has increased in number of sales and the value of land sold from 2009-2013.[10] The total value of agricultural land sold that would continue in agricultural use was up 8 percent to $4,615/acre. (Land diverted to other uses rose 24 percent to $7,229/acre.) Figure FP10 includes average value per acre in Wisconsin.[11]

In this region, land values for land continuing in agricultural use increased by 11 percent from 2009-2013. However, land prices ranged from $1,650 to $5,100, which is in the middle of the pack in Wisconsin, which had a range from $800 to $14,500 per acre. See Figure FP11. Very little land was diverted to other uses in this region – five transactions totaling 111 acres, averaging about $3,000 per acre.

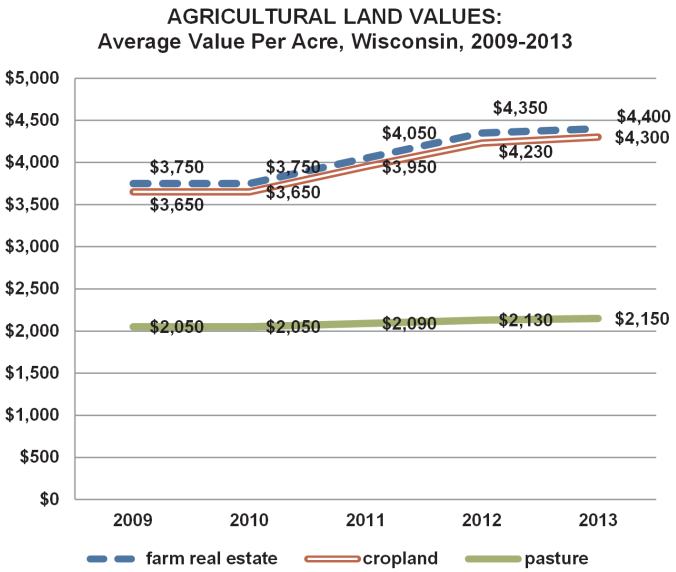
The price of land may be a barrier to beginning and/or socially disadvantaged farmers. For example, nine acres of land might cost almost $40,000, and 40 acres might cost more than $180,000.

Figure FP9



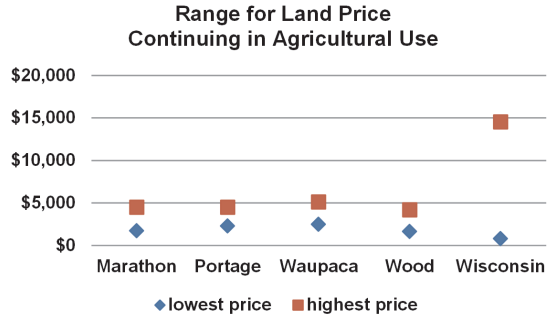
Source: USDA. 2012 Census of Agriculture.

Figure FP10



Source: USDA. 2013. Wisconsin Agricultural Statistics.

Figure FP11



Source: USDA. 2013.Wisconsin Agricultural Statistics.

7 CLUE. 2010. Wisconsin Land Use Megatrends: Agriculture.

8 Bureau of Migrant Labor Services. 2011 Migrant Population Report. Migrant workers are defined here as workers who "temporarily leave their principal, out-of-state residence and come to Wisconsin for not more than 10 months in a year to accept seasonal employment in agriculture, horticulture or food processing." These numbers may be underreported due to immigration issues.

9 USDA. 2007 Dairy Producer Survey. A former UW-Madison and UW-Extension program developed a four-part fact sheet series on immigrant workers on Wisconsin dairy farms in 2009. This series is available at www.pats.wisc.edu/pubs.

10 2013 Wisconsin Agricultural Statistics, page 2. Available at www.nass.usda.gov/Statistics_by_State/Wisconsin/.

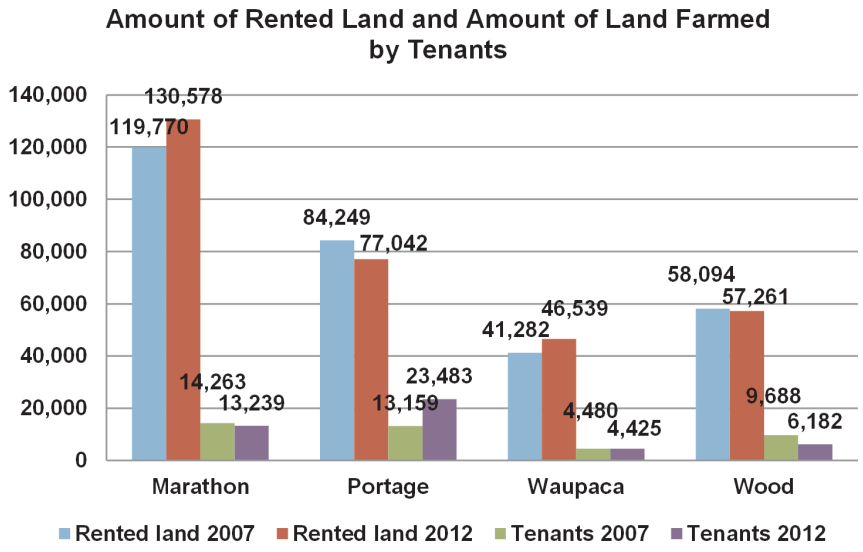
11 The graph shows the value at which the land could be sold under current market conditions. Farm real estate value includes land and buildings.

Rented Land

Figure FP12 shows the amount of land that is rented for farming in two periods – 2007 and 2012.[12] For Marathon, Portage and Wood counties, about 27 percent of the total land in farms was rented, which mirrors the state's percentage. In Waupaca County almost 22 percent of the total land in farms was rented.

In terms of the amount of land farmed by tenants,[13] Waupaca had the least at 2 percent and Portage had the most at almost 8.5 percent. The state had almost 4 percent of the land farmed by tenants.

Figure FP12



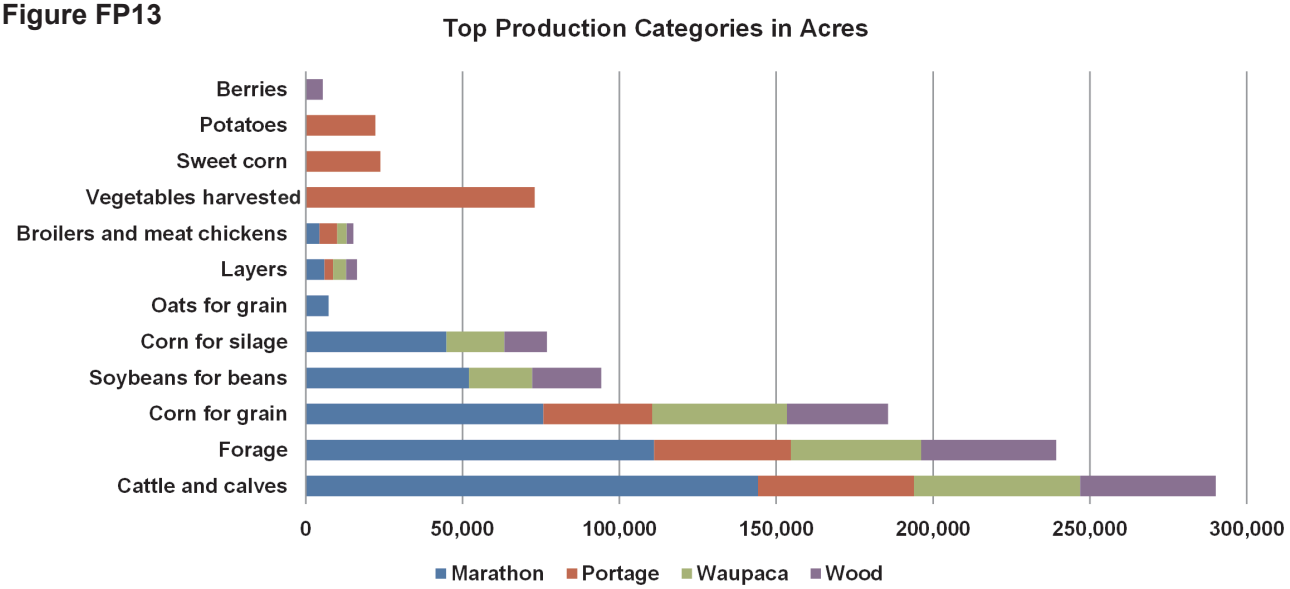
Source: USDA. 2007 and 2012 Census of Agriculture.

Type of Production

Another aspect to examine is the type of products grown on farms. Some farms and regions produce a few products, whereas others produce a wider range of products. The next four figures show the amount of acres devoted to various products. Figure 13 includes the top production categories for the region in acres in 2012. Cattle and calves, forage, and corn for grain are three types of production that dominate farm acres in all four counties. Cattle and calves include beef, dairy, feedlot and other cattle. The number of milk cows in Wisconsin has remained stable during the past decade at about 1.27 million. In 2012, Wisconsin ranked second in the US in the value of sales of milk from cows, and Marathon County ranked third in the state and 21st in the nation.[14] Marathon County ranked first in the US in forage production, that is, the plants on which cattle graze.

Figure FP14 shows the number of farms using rotational grazing in the four-county region.[15] Wisconsin had 11,469 in 2007 and by 2012 had a total of 7,569 grazing operations – a 51 percent decline. Marathon and Wood counties have the most grazing operations. Marathon County has about two to three times the number of grazing

Figure FP13



Source: USDA. 2012 Census of Agriculture.

12 USDA defines rented land as the land area of a farm is an operating unit concept and includes land owned and operated as well as land rented from others.

13 USDA defines tenants as operators who operate only the land they rent from others or work on shares for others.

14 USDA. 2012 Census of Agriculture.

15 Table 43 in 2012 Census of Agriculture was verified as there are mistakes in the Census table.

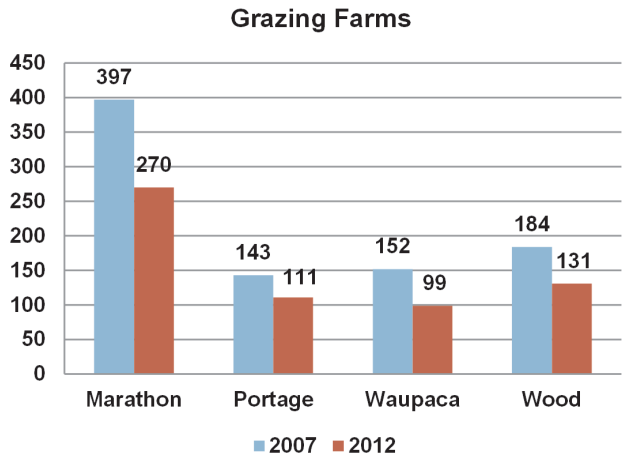
operators as any of the other region's counties. However, like the state, the number of grazing farms has declined since 2007 with a 53 percent decline in Waupaca County and a 28 percent decline in Portage County.

In contrast, Portage County's top product in number of acres is vegetables, and it ranks first in the state and 17th in the US in the value of sales of vegetables, melons, potatoes and sweet potatoes. In our region, only Portage County saw an increase in the number of acres from 2007-2012. See Table FP3. Portage County accounts for 25 percent of the state's vegetable acreage. Wood County had a large decrease in acreage. This may have been due to a couple of farms stopping production.

Berry production in our region is largely concentrated in Wood County. Wood County ranks first in the state in fruits, tree nuts and berries, primarily due to cranberry production. However, the number of acres devoted to berries is only about 5,400. See Table AB3 in Appendix B for fruit farms data. The number of farms in Marathon and Portage counties growing fruits and nuts doubled, while Waupaca and Wood counties remained stable.[16] Wisconsin ranks number one in cranberry production in the US, growing 50 percent of national cranberry production.

Grains produced in the region include corn, oats, soybeans and wheat. Figure FP14 shows the change in the amount of grains produced. Glancing at the figure, decline in the amount of grains produced is obvious.

Figure FP14



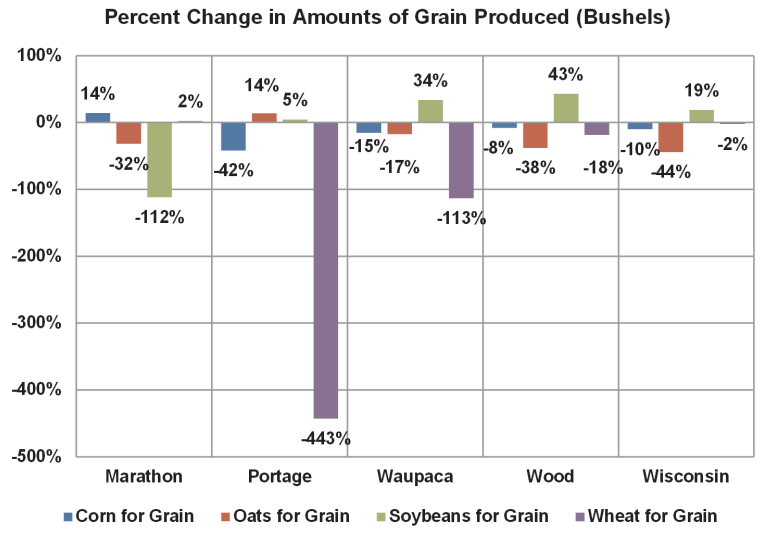
Source: USDA. 2007 and 2012 Census of Agriculture.

Table FP3: Vegetables Harvested for Sale (Acres)				
	2007	2012	2012	2012
	Total	Total	% Fresh Market	% Processing
Marathon	4,857	3,889	30%	70%
Portage	69,145	73,005	21%	79%
Waupaca	4,502	1,612	30%	70%
Wood	1,185	74	100%	0%
Wisconsin	297,238	288,528	17%	83%
Percentage of 2012 Wisconsin Total Acreage				
Region	26.81%	27.23%	34.90%	25.70%
Portage	23.26%	25.30%	31.33%	24.09%
Source: USDA. 2007 and 2012 Census of Agriculture.				

Figure FP16 (next page) shows the generalized crop rotation of the four counties. Potato/grain/vegetable rotation stands out prominently in Portage County and overall acres for this type of rotation is very high in comparison to the other counties. Portage County has 10 times or more the amount of land in potato/grain/vegetable crop rotation.

In western Marathon County, dairy and cash grain are the dominant types of crop rotation as is the case for Waupaca and Wood County. The main difference is the amount of land devoted to these types of crops. Marathon County has more than twice the acres in dairy crop rotation than the other three counties.

Figure FP15

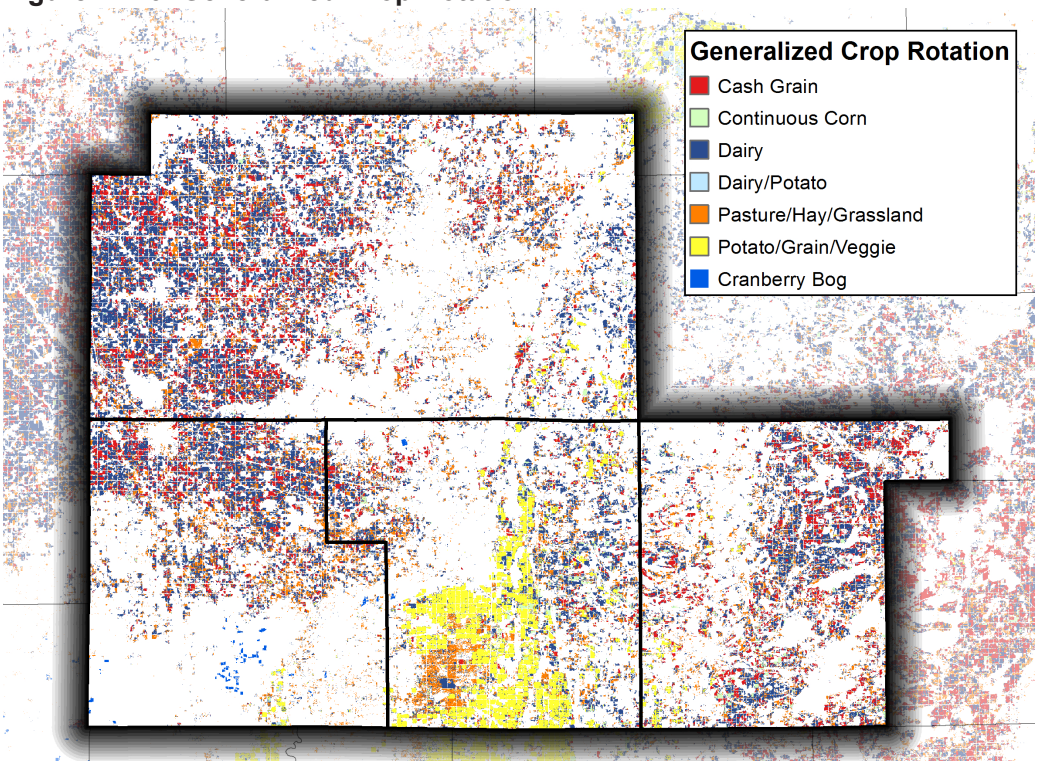


Source: USDA. 2007 and 2012 Census of Agriculture.

The types of production on the landscape can be influenced by the types of soils. Figure FP17 shows the prime farmland soils. Marathon County has the most prime farmland soils, which coincide on the western side with the rotation map. Wood County has the least amount of prime farmland soils but where it is located is where the dairy and cash grain rotation are evident.

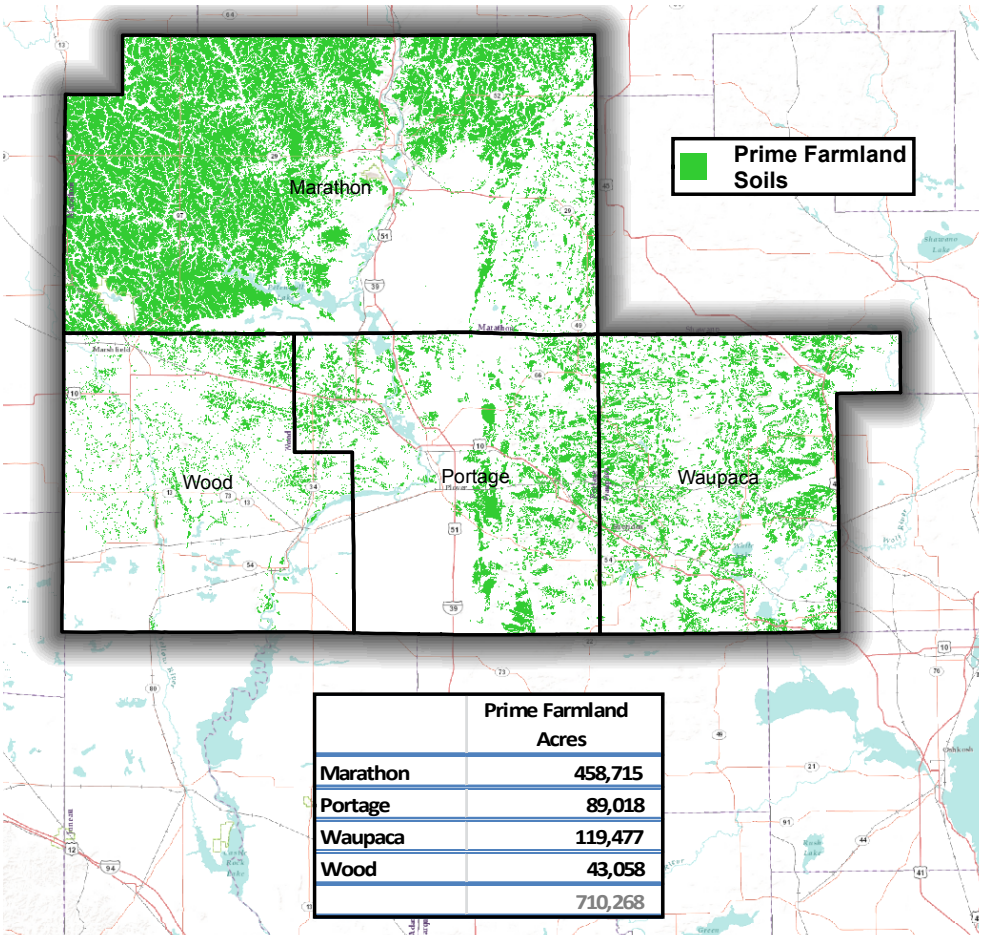
16 Fruit and nut production is measured in terms of number of farms rather than acres due to the suppression of data.

Figure FP16: Generalized Crop Rotation



Sources: Center for Land Use Education and USDA Cropland Data Layers

Figure FP17: Prime Farmland Soils



	Prime Farmland Acres
Marathon	458,715
Portage	89,018
Waupaca	119,477
Wood	43,058
	710,268

Source: USDA-NRCS Soil Survey Geographic (SSURGO) Database

Organic Agriculture

Wisconsin has the highest number of organic farms in the Midwest, and the second highest number of acres in transition to organic.[17] The state also has the highest number of organic dairy and beef farms in the nation, and ranks fourth in organic vegetable and melon production. Statewide, 84 percent of organic farms market fruits, vegetables and crops, and 73 percent market livestock and poultry products.

Table FP4 shows two snapshots of the number of organic farms in the four counties and the state. Overall, the number of organic farms has decreased in the state from 2007 to 2012. In the region, the number of organic farms has remained stable. In comparison to the total number of farms in each county, organic farms represent a very low percent.

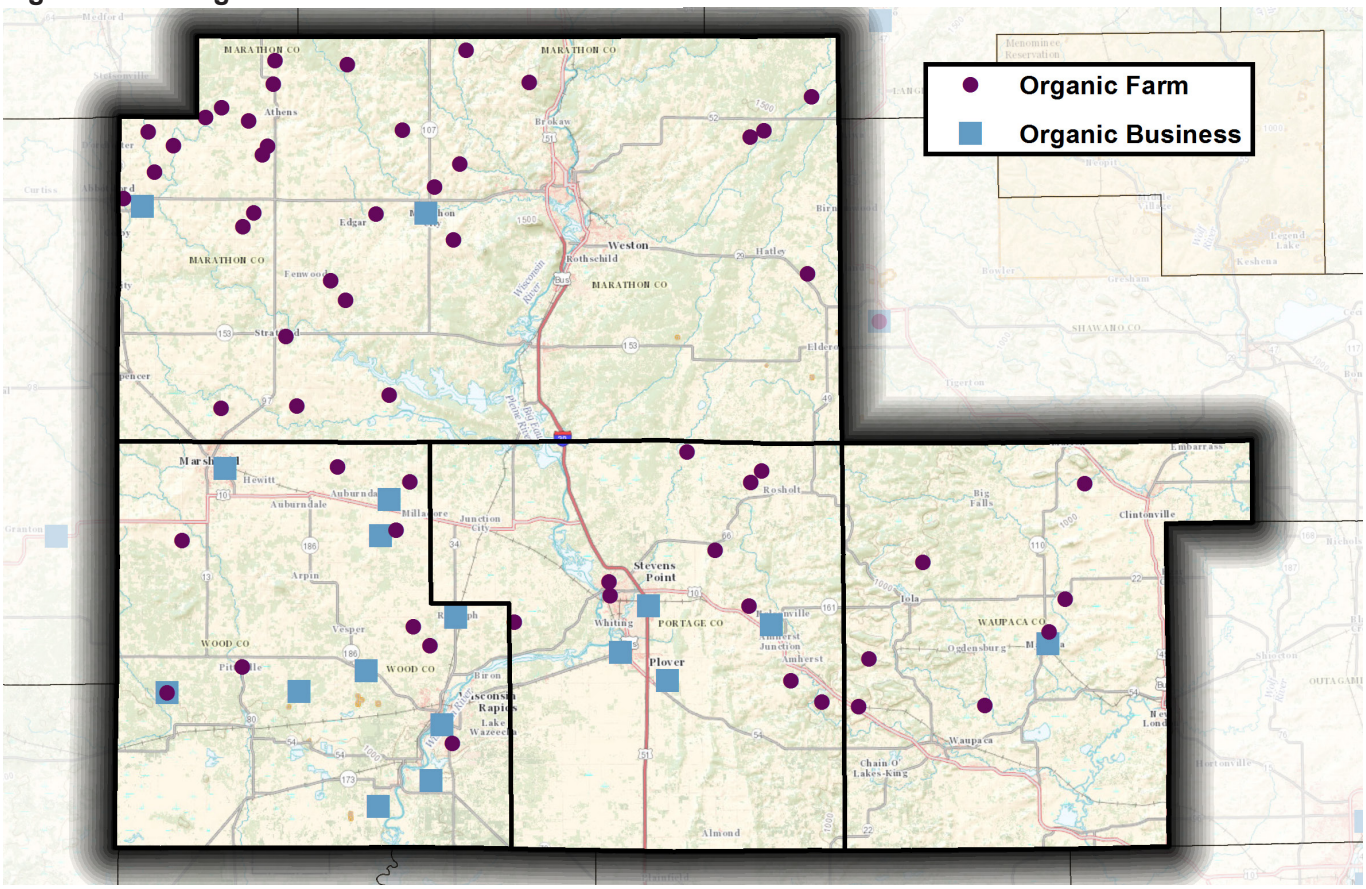
Table FP4: Number of Farms, USDA Certified or Transition to USDA Certified

	Marathon		*Portage*		*Waupaca*		*Wood*		*Wisconsin*	
	2007	2012	2007	2012	2007	2012	2007	2012	2007	2012
Farms	40	43	14	14	12	7	13	15	1,443	1,377
Source: 2012 Census of Agriculture										

Within the state, a higher percentage of organic farmers than non-organic farmers are under the age of 45 (29 percent versus 17 percent), and nearly 25 percent have been farming less than 10 years.[18]

Figure FP18 shows the locations of organic farms and organic businesses. Some farms do not pursue organic certification but market their practices as sustainable, Certified Natural Grown, or other labels.

Figure FP18: Organic Farms and Businesses



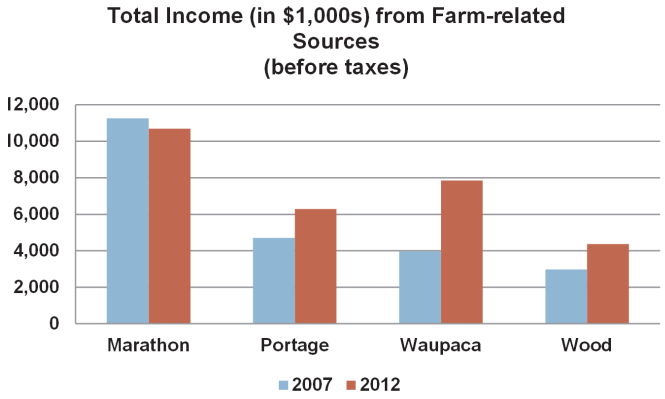
Source: DATCP_MISC File Geodatabase 2013. This feature class contains the locations and contact information for National Organic Program (NOP) businesses that process or handle organic products (mostly processors).

17 CIAS and DATCP. 2015. Organic Agriculture in Wisconsin 2015 Status Report.
18 DATCP. 2015.

Farm Profitability and Farm Income

Figure FP19 looks at total annual income from farms. Marathon County's total income from farms decreased from 2007 to 2012 while land in farms and number of farms declined. The other three counties experienced an increase in total income from farms even while land in farms and number of farms declined. The average annual income per farm ranges from $7,000 in Waupaca County to $14,000 in Portage County.

Figure FP19

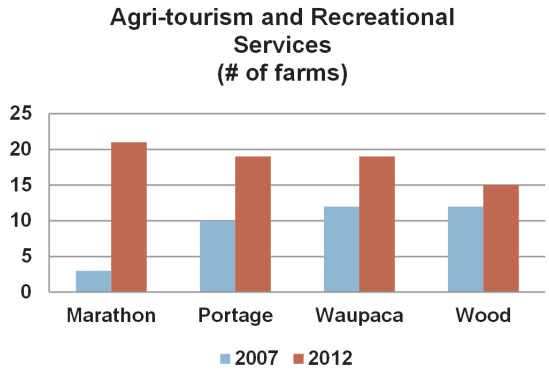


Source: USDA. 2007 and 2012 Census of Agriculture.

Agri-tourism

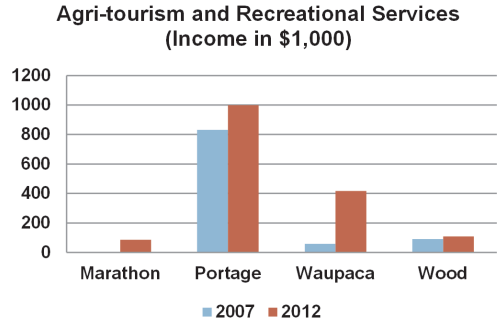
A number of farms use other sources of income for farm viability. Agri-tourism is one way to increase income on a farm. See Figures FP20 and FP21. This form of income is increasing and can include hay rides and farm tours.

Figure FP20



Source: USDA. 2007 and 2012 Census of Agriculture.

Figure FP21



Source: USDA. 2007 and 2012 Census of Agriculture.

Other Inputs

Food production also relies an a variety of other inputs, including water resources, topsoil, and so forth that are not covered in this report. County farmland preservation plans are often of a good source for this information.

Maple Syrup and Honey

Many producers and households in Wisconsin collect maple syrup and honey on their land. In 2007, there were 216 farms in our region that produced maple syrup. In 2012, there were 153 farms that produced maple syrup.

For honey, there were 49 farms in our region in 2007 and 57 in 2012. See tables in Appendix B.

Off-Farm Production

In addition to farm production, off-farm production of food occurs in home gardens, community gardens, school gardens and other sites. The National Gardening Association estimates that 31 percent of households participate in home gardening.

There are at least 20 community gardens and 15 school gardens in our four-county region. (See Appendix B for a map and listing of garden sites.) Community gardens are sites where multiple gardeners garden. School gardens are sometimes managed in conjunction with a Farm to School program.[19]

Hunting, Fishing and Foraging

In Wisconsin hunting and fishing are popular pastimes that also serve as a source of food for many households. In 2011, there were 938,000 Wisconsin residents that went fishing, a decrease of 4 percent from 2001. There were 763,000 that hunted, an increase of 29 percent from 2001. As a business, there are 17

19 Farm to School programs exist throughout the US. Schools buy and feature locally produced food on their menus, develop school garden programs, and/or conduct educational activities.

establishments in Wisconsin (fishing, hunting and trapping). In this four county region there are none of these types of establishments. Foraging mushrooms and other wild edibles is another popular pastime.

Community Policies

Food production can be impacted by local policies and planning and zoning decisions. Community food system partners can work with local government staff to identify opportunities and barriers.[20] The state of Wisconsin requires each county to have a Farmland Preservation Plan in order to participate in Wisconsin agricultural programs. The plans outline county use of agricultural conservation easements, agricultural enterprise areas, farmland preservation zoning, and other tools. Marathon County completed their first Farmland Preservation Plan in 1982, and finished their update in 2013. Waupaca County completed their first Farmland Preservation Plan in 1981, and updated the plan in 2014. Portage County and Wood County expect to complete their updates in 2015.

Farmland Preservation Plans outline county use of agricultural conservation easements, agricultural enterprise areas, farmland preservation zoning and other tools.

Other ways that communities can support food production include developing relationships with local food producers and learning about issues and opportunities affecting their work. Communities may assist new or existing food producers with access to land, training and education, and credit. Land trusts, such as North Central Conservancy Trust, preserve conservation lands and may also be interested in helping landowners preserve farmland for food production. County UW-Extension offices provide information and technical assistance for food producers, including trainings on Good Agricultural Practices (GAP) certification and other policies impacting food production. Some area farms may provide internships or other training opportunities for beginning farmers. Several organizations provide assistance for managed grazing in the region. USDA Farm Services Agency, Natural Resources Conservation Service, and Rural Development office provide information and grant and loan opportunities. Food producers also need markets for their products, and some communities, businesses and institutions set goals for local food purchasing and prioritize purchasing local agricultural products when possible.

Off-farm food production in residential areas may also be incorporated in community plans and zoning. A select overview of community gardens and non-farm livestock is included in Appendix B. In addition, communities can support off-farm food production by providing land, education, and resources to support community and school gardens and other opportunities. A list of organizations working with food production in our region is included in the Community Initiatives section.

Summary

In summary, food production in our four-county region is characterized as follows:

1. The number of farm operators is declining.
2. Farm size is growing, including at both ends of the spectrum -- very small and very large.
3. Young farmers do not appear to be replacing retiring farmers.
4. The price of entry to farming, because of the price of land, continues to increase.
5. Dairy farms dominate the agricultural landscape, but are decreasing in number. Portage County has significant acreage in potato/grain/vegetable rotation.
6. Other farm-related sources of income may become more important, especially for smaller farmers.
7. Hunting, fishing, foraging, and maple syrup and honey production are popular methods of food gathering.
8. Communities can support food production through farmland preservation and supporting new and existing food producers through purchasing policies and programs that provide access to resources, education and markets.

Discussion questions:

- What are the strengths in food production in our region? What are the weaknesses?
- What is the outlook for food production in our region?
- How can the community support local food producers, including beginning farmers?

20 Find a list of potential activities in CLUE. 2014. Planning and Zoning for Local Food Systems: Food Production.

Food Processing

The community food system has many stages between production and consumption, including food processing. Food processing includes a wide variety of activities such as mixing, cutting, canning, distilling, baking, pickling, drying, stuffing, fermenting, freezing, packaging or other activities related to treatment or preservation. Producers may sell their product to third parties for processing, or process it themselves in a certified on-farm kitchen, shared use facility or a co-packing arrangement with another processor.[1]

Food grown or raised in Central Wisconsin may be processed within our region, or shipped to a processor outside of our region, likely in the Midwest. However, there has been an increased demand for products for local markets.[2] Availability of these products depends on the food processing infrastructure that connects local producers with local markets. Lack of infrastructure is a barrier to the development of the local food system.[3] When infrastructure for food processing is available, it may not be appropriately scaled to the small and midsize growers that often serve local markets.

The primary source of data in this section is County Business Patterns. County Business Patterns draws from the Business Register, a database that includes records for every known establishment with paid employees in the US. This information is aggregated to provide the total number of establishments for each type of food processing, and individual business names are excluded. Businesses are only listed in one category, so businesses that engage in processing as a secondary activity may show up under a different primary category (e.g. retail or restaurants).

Availability of local products depends on the food processing infrastructure that connects local producers with local markets.

Types of Processing

In Wisconsin, there are 875 food processing businesses.[4] This is down from 880 in 2002. Research on food processing clusters in Wisconsin identifies strengths and weaknesses in the sector.[5] One strength in the state that is growing is frozen foods, mainly in southern and eastern Wisconsin. Two strengths that are declining are cheese processing and fruit and vegetable canning and drying.

According to the US Census, there are 70 food processing establishments in the four-county region. This is down from 74 in 2002. See Table P1. Most processors in Marathon, Waupaca and Wood counties are dairy product manufacturing plants and produce cheese products.[6] Some of these sites have retail operations on site (e.g. Dairy State Cheese in Rudolph). The next largest category for our region is fruit and vegetable processing. Vegetables such as beans, carrots, beets and potatoes are primarily processed in Portage County, and cranberries are processed in Wood County. Listed under perishable prepared food manufacturing is fresh cut vegetables among other types. There is one processor in this category, which is likely not fresh cut produce.

The data indicates that there are five animal slaughtering and processing plants in the region, down from nine in 2002. There is no poultry processing in our region included in the Census data, but there are two known chicken processors: Sonday Produce, a chicken and turkey processing plant in Waupaca, and Mekong Meats, a chicken processing plant in Mosinee. However, Sonday Produce just closed in Spring 2015. Retail locations such as People's Meat Market in Portage County, are likely listed under retail. There are 10 meat markets in our region, including three meat markets in Marathon County, two in Portage County, one in Waupaca County and four in Wood County. This was an increase over the past decade. In 2002, there were eight meat markets in our region, including four meat markets in Marathon County, one in Portage County, two in Waupaca County and one in Wood County.

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1 DATCP. 2014.Wisconsin Local Food Marketing Guide, Third Edition.

2 USDA Agricultural Marketing Service. May 2014. Food Value Chains: Creating Shared Value to Enhance Marketing Success.

3 See USDA's website on food hubs for more information about infrastructure needs.

4 US Census. 2012 County Business Patterns (NAICS). State of Wisconsin. There are 955 food processors, of which 80 are animal food processors. Nearly half are dairy product manufacturing and bakeries.

5 Deller, Steve, and Matt Kures. 2014. "Agricultural Processing: Potential Clusters". The publication uses data from 2001 and 2011 and is available at http://wp.aae.wisc.edu/wfp/foodprocessinginwisconsin/.

6 All of the Waupaca County, 12 of 13 Marathon County and 7 of 10 Wood County plants process cheese.

The data indicates there are three breweries and one distillery in our region, all in Portage County. Breweries such as Blue Heron Brew Pub in Marshfield and Red Eye Brewing Company in Marathon County are not included, and are likely listed as restaurants. In addition, Bull Falls Brewery opened in Wausau in 2007.

Table P1: Types of Food Processing											
NAICS	*Type*	*Marathon*		*Portage*		*Waupaca*		*Wood*		*Region*	
		2002	2012	2002	2012	2002	2012	2002	2012	2002	2012
3112	Grain and Oilseed Milling	0	0	0	2	2	1	0	0	2	3
3113	Sugar and Confectionery	2	2	1	1	0	0	0	0	3	3
3114	Fruit and Vegetable Preserving and Specialty (subcategories below)	0	0	6	7	2	0	4	4	12	11
311411	-Frozen fruit, juice, vegetable manufacturing	0	0	3	4	0	0	0	2	3	6
311412	-Frozen specialty food manufacturing	0	0	1	2	1	0	0	0	2	2
311421	-Fruit and vegetable canning	0	0	1	1	1	0	3	2	5	3
311423	-Dried and dehydrated food manufacturing	0	0	1	0	0	0	1	0	2	0
3115	Dairy Product	12	13	1	2	9	8	11	10	33	33
3116	Animal Slaughtering and Processing	3	3	0	0	1	0	5	2	9	5
311611	-Animal (except poultry) slaughtering	2	2	0	0	0	0	2	1	4	3
311612	-Meat processed from carcasses	1	1	0	0	1	0	3	1	5	2
311613	-Rendering and meat byproduct processing	0	0	0	0	0	0	0	0	0	0
311615	-Poultry processing	0	0	0	0	0	0	0	0	0	0
3118	Bakeries and Tortilla	4	2	2	4	2	2	1	0	9	8
3119	Other Food Manufacturing	0	0	1	1	2	2	0	0	3	3
311991	-Perishable prepared food manufacturing	0	0	1	1	0	0	0	0	1	1
31212	Breweries	0	0	3	3	0	0	0	0	3	3
31213	Wineries	0	0	0	0	0	0	0	0	0	0
31214	Distilleries	0	0	0	1	0	0	0	0	0	1
	Total	21	20	14	21	18	13	21	16	74	70
	Source: County Business Patterns. Definitions and data available at www.census.gov/econ/cbp/.										

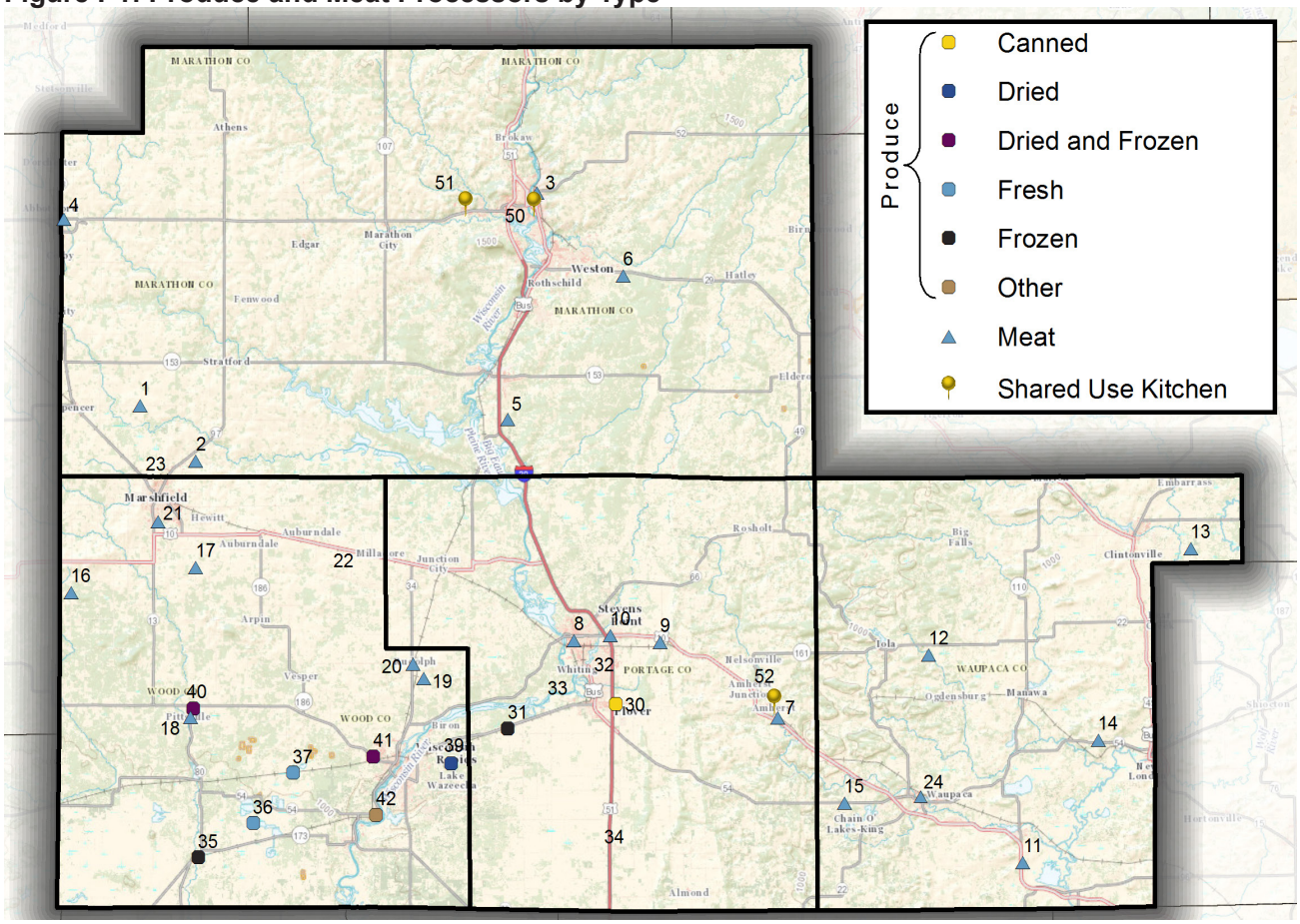
Figure P1 on the next page includes a map of meat and produce processors and shared use kitchens. CLUE obtained a list of establishments with processing licenses from 2014 from DATCP and cross-checked this list with our partners to verify the type of food processing activities. This includes meat markets. See Appendix C for a full list of the processors and shared use kitchens included on the map. On-farm processing is not included.

Processors are dispersed throughout the region. The processors on the map are categorized as fresh, canned, dried, frozen, dried and frozen, and other produce; meat; and shared use kitchens. The only fresh produce processing is cranberry processing in Wood County.

There are at least 23 shared use and incubator kitchens in Wisconsin.[7] This includes the Wausau Entrepreneurial and Education Center incubator kitchen in Marathon County and the Village Hive shared-use kitchen in Portage County. In addition, the Downtown Grocery in Wausau rents kitchen space with four other businesses. There are no known shared use kitchens in operation in Wood County or Waupaca County. The Market on Strongs and Central Rivers Farmshed in Stevens Point and Incourage, as part of its Tribune Building Project in Wisconsin Rapids, are developing shared use kitchens.

7 See www.organicprocessinginstitute.org/resources/kitchen-facilities/

Figure P1: Produce and Meat Processors by Type



Source: Data obtained from DATCP, CLUE and UW-Extension. 2014-2015.

Product Sourcing

Some processors source and/or distribute product in our region. Others may source product from other states or countries, and distribute to national and international markets. Researchers note that some of this is due to a "gap" in the market (i.e. the good or service is not available in the regional market) and some is due to a "disconnect" (i.e. regional suppliers may be available but firms do not use them). The goal of policy, they note, is "to minimize imports and maximize the use of regional suppliers."[8]

In Wisconsin fruit and vegetable canning, pickling and drying plants obtain 56.9 percent of fruits and vegetables and 66.3 percent of other food products from outside of the state. For frozen food processing, 94 percent of grains, flour and malt and 53.2 percent of fruits, vegetables and melons are from out of state. For animal (non-poultry) processing, 56.1 percent of cattle from ranches and farms and 60 percent of animal products (except cattle, poultry and eggs) are from out of state.

Some farmers and food businesses work to differentiate their products by maintaining certain social and environmental standards (such as local, organic, or made with renewable energy) throughout the supply chain, rather than selling food as a commodity on the open market. Farmers can maintain this distinction in direct sales from farm to consumers, but may need to create 'strategic alliances' among supply chain partners in the 'food value chain', that is businesses with shared values, to preserve this distinction in processing and distribution. Food value chains can lead to more profitability and advance social and environmental goals.

Food value chains can increase profitability and advance social and environmental goals.

Smaller scale processors may source and distribute food in their local region. There are 341 processors with under 10 employees in Wisconsin, about a third of the total.[9] Some producers process on farm, engage in co-packing,[10] or use a shared use kitchen.

8 Learn more at http://wp.aae.wisc.edu/wfp/foodprocessinginwisconsin/. The fact sheets include the data in the next paragraph.
9 US Census. 2012 County Business Patterns.
10 Co-packers are food processors that process products for businesses based on their specifications. Learn about copacking in

Community Policies

Infrastructure for processing can be impacted by local policies and planning and zoning decisions. Community food system partners can work with local government staff and UW-Extension to build relationships, conduct market analysis and identify opportunities and barriers.[11] Communities may want to develop goals for infrastructure in community plans including comprehensive, farmland preservation and other plans, and include food system infrastructure in the zoning code. For example, Door County created a community commercial kitchen category in their zoning ordinance and allowed this type of small-scale processing in multiple districts.

Communities may also be able to help farmers and other food businesses find appropriate infrastructure. For example, the Wood County Health Department has created a database of available commercial kitchen space.

Beyond infrastructure, food processing businesses may need assistance with business planning assistance and market development. The USDA, DATCP and county health departments also provide information about the Wisconsin food code, licensing, facility set up, and other food safety issues. Anyone who processes food for sale needs a license to manufacture, with a few exceptions.[12]

Starting a new food processing business can require a significant investment in equipment. UW-Extension's FoodBIN blog includes resources and videos related to food processing.[13] UW-Extension is conducting a Wisconsin Food Innovation Opportunity Analysis in 2014-2015 to assess the best way to support value-added processing statewide. DATCP's Buy Local Buy Wisconsin program offers local food business seminars, puts together a *Local Food Marketing Guide*, and operates a grant program.[14] The Organic Processing Institute is a nonprofit based in Madison that provides information and technical assistance to organic farmers and food processors, and operates the School for Organic Processing Entrepreneurs.[15] Some organizations, such as the UW-Madison Center for Integrated Agricultural Systems (CIAS), are developing innovative models to help processors serve specific markets, such as schools, with local products while maintaining profitability.[16] Organizations working with food processing are included in the Community Initiatives section.

Summary

In summary, food processing in our four-county region is characterized as follows:

1. Food grown or raised in Central Wisconsin may be processed within our region, or shipped to a processor outside of our region. Currently no comprehensive data exists for our region, but statewide data suggests that there are additional opportunities for processors to source products within the state.
2. Most food processing establishments in our region are dairy, followed by fruit and vegetables. This has held fairly steady during the past decade. Our region has frozen and canned produce processing, but lacks fresh cut vegetable processing.
3. The number of animal slaughtering and processing plants has decreased significantly in our region. There has been an increase in meat markets.
4. There are at least three shared use kitchens in our region, and others under development.
5. Communities can support food processing through relationship building, market analysis and connecting processors to resources.

Discussion questions:

- What are the strengths in food processing in our region? What are the weaknesses?
- Are producers in our region easily able to access processing options that fit their needs?
- Are there additional types of processing that our region could support?

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this fact sheet: www.organicprocessinginstitute.org/wp-content/uploads/OPI_Co-packerFnl.pdf

11 See potential activities in CLUE. 2014. Planning and Zoning for Local Food Systems: Processing and Distribution.

12 Learn more at http://datcp.wi.gov/Programs/Food_Safety/. A summary is in the Wisconsin Local Food Marketing Guide.

13 Learn more at http://fyi.uwex.edu/foodbin/. Mary Pat Carlson provides technical assistance for shared use kitchens.

14 Learn more at http://datcp.wi.gov/Food. The Pickle Bill allows limited sales of home-canned foods without obtaining a license.

15 Learn more on their website: www.organicprocessinginstitute.org

16 One example is the Wisconsin Harvest Medley Project. Read an overview at www.cias.wisc.edu/growing-farm-to-school-supply-chains-with-local-vegetable-blends-research-brief-96/.

Food Distribution

A key aspect of the food system is the distribution of food from farm to market. This is done through a variety of means, depending on the markets the producers are trying to reach. Located in the center of the state, the region is easily accessible by Highway 51/39 from north to south and Highways 10 and 29 from east to west.

Michelle Miller with the UW-Madison Center for Integrated Agricultural Systems (CIAS) explains the "current food freight system" for food distribution.[1] Food producers sell product to a shipper – that is, a large farm, food hub, packing house, processor, or distributor – that aggregates (and in some cases processes) the product and arranges for its transportation. The shipper then contracts with a carrier to deliver food to distribution facilities.

Small and midsize producers and others serving local markets may have challenges in accessing established transportation services and need alternate solutions.[2] Most food is transported by truck. Each step in the process works to minimize food costs (especially fuel and labor costs). Transportation barriers often occur at the beginning when product is being aggregated and at the end of the supply chain when product is being delivered to customers. Producers and distributors that cannot fill a truck or that use small trucks incur higher costs. Strategies to reduce costs in local distribution have included aggregating product from producers and using backhaul routes. As comprehensive data for distribution is not readily available, this sections provides examples for different types of distribution facilities and methods.

Distribution Facilities

Distribution facilities in Wisconsin that serve our region are owned by grocery chains and food service businesses. Local products from our region typically need to be delivered to these sites. This includes Roundy's (warehouse in Oconomowoc), Sysco (Baraboo and Jackson), Reinhart (La Crosse, Shawano and Oak Creek), and Indianhead (Eau Claire), among others. These businesses use their own fleet or a contract fleet to deliver product to its destination (e.g. a grocery store, institution or other site). The Roundy's distribution warehouse in Stevens Point closed in 2014.

Other distribution warehouses in our region include on-farm warehouses, such as potato aggregating and packing warehouses. In addition, refrigerated and frozen storage is important, particularly for meat products. Service Cold Storage opened in Stevens Point in 2014 and works with both large and small producers and processors in our region. There are other cold storage operations available in Wisconsin Rapids and Mosinee.

Tiers of Food System

Beyond personal production of food, the food system relies on relationships within the supply chain to access different markets. See Figure D1. The tiers are not mutually exclusive; some food businesses may sell in multiple tiers.

Direct Producer to Consumer: In tier 1, food producers transport their product directly to farm stands, farmers markets, community supported agriculture (CSA) drop sites, and other direct to consumer venues to sell to consumers. As noted in the Local Markets section, 8.2 percent of farms in our region engage in direct sales.

Figure D1: Tiers of Food System

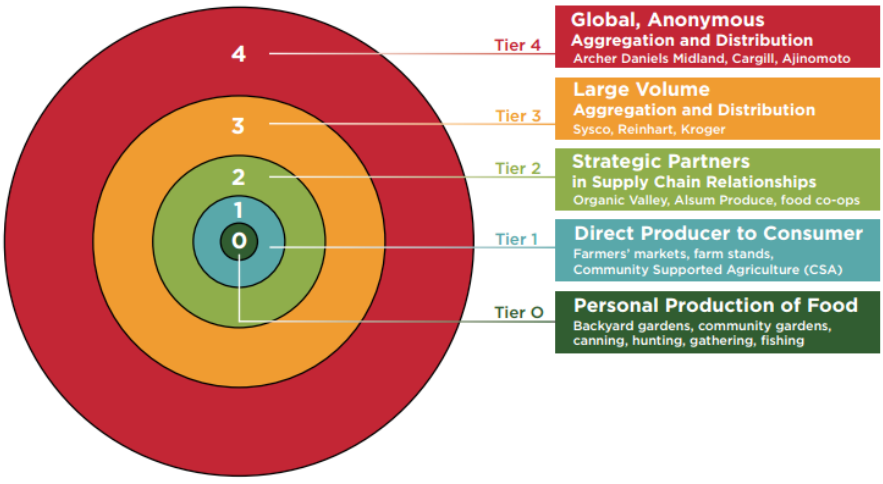


Figure courtesy of UW-Madison CIAS. 2010. Tiers of the Food System.

1Michelle Miller. 2015. Wisconsin Local Food Network presentation and personal communication.

2 CIAS (Day-Farnsworth, Lindsey, and Michelle Miller). 2015. Networking Across the Supply Chain: Transportation Innovations In Local and Regional Food Systems.

The remaining tiers address intermediated sales to processors, retailers, restaurants, institutions and others.

Strategic Partners: In tier 2, food producers may develop relationships with strategic partners with similar values, e.g. supporting local farms. Food producers may transport product directly to the business or work with a delivery service such as Spee-Dee Delivery Service. For example, Nami Moon Farm in Portage County uses these methods to deliver products to restaurants in several cities. However, they are unrefrigerated trucks and require special packaging. As noted in the Local Markets section, 2.1 percent of farms reported that they sell directly to retailers. Data for other markets is unavailable.

In most cases, food producers deliver product to a food processor, aggregator or distributor who then transports the product to its final destination. There appears to be a lack of distributors specifically serving local markets.[3] Two examples of businesses in our area include Auburndale Food Cooperative (AFC) and the Wisconsin Food Hub Cooperative (WFHC). AFC gathers product from 10 local farms to fulfill orders, and members volunteer to deliver them to drop sites in Central Wisconsin. WFHC members deliver product to the WFHC warehouse in Waupaca or Fox Lake. At the warehouse, the product is aggregated and delivered to businesses by a contracted trucking company. Parrfection Produce is a private business outside of our region that aggregates product from Wisconsin producers and distributes it to businesses and schools within our region.

Large Volume Aggregation and Distribution: Tier 3 businesses include national processors, distributors, and grocery stores. These businesses purchase large volumes of product, and typically do not maintain local brands. However, some distributors are developing innovative ways of providing local products within their regular distribution models to serve increased demand. Roundy's partners with the WFHC to provide local produce in its grocery stores. The WFHC delivers food to the Roundy's Distribution Center in Oconomowoc. They also deliver to Central Grocers distribution centers in Northern Illinois. Reinhart has worked extensively with Fifth Season Cooperative in southwestern Wisconsin to develop a local product line, but we're unaware of relationships with producers in our region. It appears that the amount of product distributed locally through these channels is low.

Global, Anonymous: In tier 4, food is distributed through national channels. For example, regional farms may sell their product to Del Monte in Stevens Point, Ocean Spray in Wisconsin Rapids or Equity Livestock in Stratford, and then the product is broadly sold. While the vast majority of these products are for national or global distribution, a small portion may be sold regionally.

Community Policies

Food distribution can be impacted by local policies. Communities may develop goals for distribution in community plans, include distribution sites in the zoning code, and help businesses build relationships and find appropriate infrastructure and other resources. Beyond infrastructure, food producers and businesses may need assistance with market analysis, forming food hubs to aggregate product, accessing trucking and meeting other needs. The Institutional Food Market Coalition provides a useful factsheet on working with distributors.[4]

Summary

In summary, food distribution in our four-county region is characterized as follows:

1. On a national level, most food is distributed throughout the US via markets in Chicago. Most food grown or raised in Central Wisconsin for intermediated markets is likely distributed in a similar fashion.
2. Local distribution occurs primarily through direct producer to consumer sales and through strategic partnerships emphasizing local food distribution. Anecdotal data suggests there may be a lack of distributors specifically serving local markets in our region.
3. Communities could support development of local food distribution through relationship building, market analysis and connecting food businesses to infrastructure and resources.

Discussion questions:

- What are the strengths of distribution in our region? What are the weaknesses?
- Are producers in our region easily able to access distribution options that fit their needs?
- What are ways we can increase the amount of local products that are distributed within our region?

3 CIAS. 2015. Networking Across the Supply Chain: Transportation Innovations In Local and Regional Food Systems.
4 IFM Coalition. Working with Distributors - Fact Sheet.

Local Markets

Another aspect of a community food system is its impact on the local economy. Some communities try to capture economic benefits that may otherwise leave the community by supporting local businesses and the local production of goods and services, a strategy referred to as economic localization.[1] The economic impacts of the food system include the associated income and employment from food system activities in the community, as well as lost income and employment from food system activities that are conducted outside the community. Some of the food consumed in communities is produced, processed, or disposed within the region. In other cases, those activities may occur outside of the region. Few communities expect to meet all their needs locally, but there may be opportunity to capture more of the economic benefits.

Food producers and businesses sell to a variety of markets. Some businesses prioritize selling to local markets as part of their value proposition.[2] They recognize the growing demand for local foods.[3] Local food consumers are diverse, and the literature suggests that attitudes, preferences, and distance to local food markets are more important than demographics.[4] Demand for organic products is also growing. In this section, we explore the economic impact of the community food system on our region, including the direct and intermediated sale of foods to local markets.

Economic Impact

The recent Impact of Agriculture 2012 report concludes that Wisconsin agriculture (on farm production and food processing) remains a strength in Wisconsin's economy, but that growth is modest compared to the overall Wisconsin economy.[5] Agriculture provides a significant portion of total jobs and economic activity.[6] See Table LM1.These numbers primarily reflect agricultural production and processing. Some activity captured in the report is focused on commodity markets, and a portion is related to local markets.

Table LM1: Impact of Agriculture		
County	% Jobs	% Economic Activity
Marathon	14%	19%
Portage	12%	17%
Waupaca	20%	31.6%
Wood	8%	11.6%
Source: 2014 UW-Extension County Impact Reports		

The total annual food expenditure per household is $6,599 in the US and $5,592 in the Midwest region.[7] There currently is no comprehensive study of how much of those expenditures are regionally produced, but it is a fraction of total expenditures. The USDA Economic Research Service estimates that there were $6.1 billion in local food sales in the US in 2012, and 7.8 percent of US farms were local food farms.[8] It is estimated that 70 percent of local food farms marketed direct to consumer, 16 percent marketed through direct to consumer and intermediated channels, and 14 percent marketed exclusively through intermediated markets.

Direct Sales

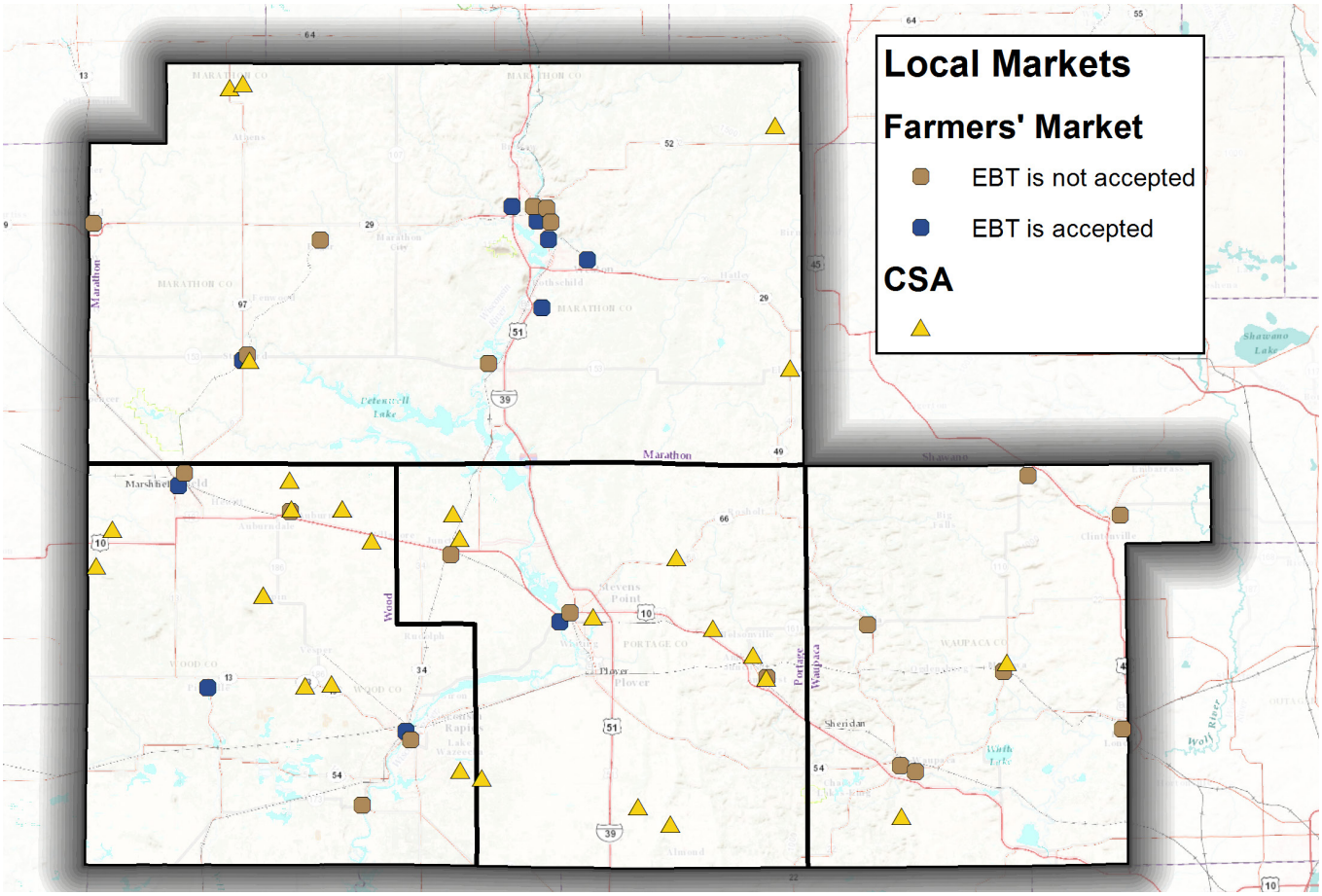
Traditionally, the USDA Census of Agriculture has included questions about direct sales but not intermediated sales. Therefore, direct sales have been the most reliable indicator of local food sales. Direct sales are those from producer to consumer at venues such as farmers markets or public markets, or through arrangements such as u-pick, farm stands, or community supported agriculture (CSA) shares.

1 UW-Extension. 2013. Toward a Sustainable Community: A Toolkit for Local Government, Volume 2.
2 USDA AMS. May 2014. Food Value Chains.
3 USDA (Tropp, Debra). 2014. Why Local Food Matters: The Rising Importance of Locally Grown Food in the US Food System.
4 USDA ERS (Vow, Sarah et al.). January 2015. Trends in US Local and Regional Food Systems: A Report to Congress.
5 Deller, Steve.2012. Contribution of Agriculture to the Wisconsin Economy.
6 Find the 2014 UW-Extension county impact reports at www.uwex.edu/ces/ag/wisag/. Economic impact is a measure of employment, sales, and income.
7 Bureau of Labor Statistics. 2014. Consumer Expenditures in 2012. Of this, 3,921 is food at home and 2,678 is food away from home. Available at www.bls.gov/cex/#tables.
8 USDA AMS. (Low et al.) January 2015.

Figure LM1 includes some of the direct market venues in our area. Our four-county region has at least 19 CSAs.[9] Many farms allow pick up at their farm, as well as in nearby cities. There are at least 28 farmers markets in the region, including 12 in Marathon County, 3 in Portage County, 9 in Waupaca County and 4 in Wood County. (See Appendix D for a full listing of farmers markets.) This includes three winter markets: Wausau, Wisconsin Rapids, and Waupaca. Retailers such as the producer-owned Market on Strongs retail store in Stevens Point sell products from several vendors year-round similar to a public market.[10]

Direct-to-consumer food sales in our region represent 0.3 percent of total sales, which is comparable to state and national levels.[11] Wisconsin had $46.9 million direct to consumer sales, which is the sixth highest in the nation.[12] Organic farms engage in direct marketing at higher rates than conventional farms.[13] On a national level local food sales increased slightly, but the USDA Economic Research Service (ERS) found that the value of direct to consumer sales did not grow from 2007 to 2012 when adjusted for inflation.[14] ERS suggests this could be due to plateauing consumer interest, growth in intermediated market sales of local food, and/or factors such as the economic downturn.

Figure LM1: Farmers Markets and CSA Farms

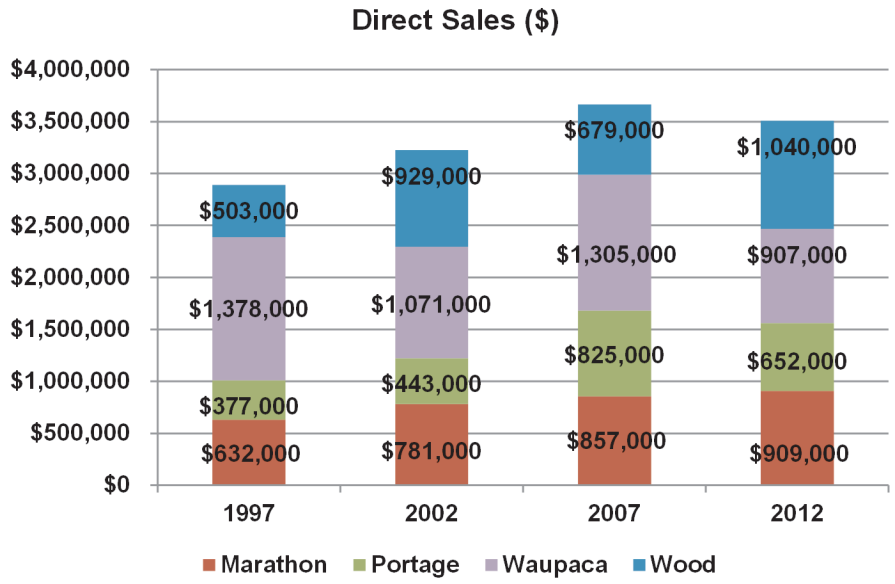


Source: Data obtained from Central Wisconsin Farm Fresh Atlas, CLUE, and project partners. 2015.

9 CLUE. 2015. Community Supported Agriculture in Central Wisconsin. According to the Census of Agriculture, Wisconsin had 392 farms that sold through CSAs in 2012, down from 437 in 2007.
10 Due to the infrastructure costs, public markets often exist in regions where higher populations may translate into higher sales, such as Milwaukee. Another option is a local food business district where food businesses occur in multiple, existing buildings in close proximity, rather than housed under one roof.
11 Direct to consumer sales were 0.3 percent of total US farm sales and 0.4 percent of WI farm sales.
12 USDA. August 2014. 2012 Census of Agriculture Highlights. Farmers Marketings.
13 CIAS and DATCP. 2015. Organic Agriculture in Wisconsin 2015 Status Report. 34 percent of Wisconsin organic farms.
14 USDA ERS (Vow, Sarah et al.). January 2015. Trends in US Local and Regional Food Systems: A Report to Congress. In this report, local food is defined as direct sales to consumer or intermediated markets (not geography based).

The picture varies by county. From 2007 to 2012, Marathon and Wood counties saw increases in direct sales (6.1 percent and 53.2 percent respectively), whereas Portage and Waupaca counties saw declines (-21.0 percent and -30.5 percent).[15] See Figure LM2 below.

Figure LM2

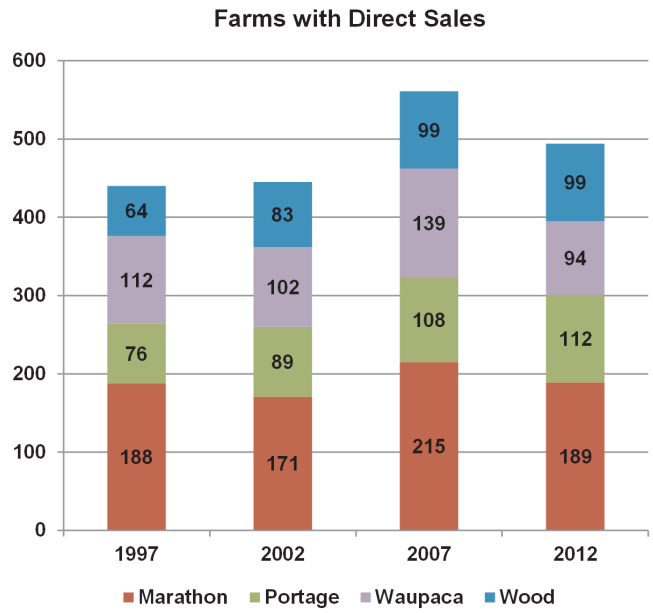


Source: USDA. 2012 Census of Agriculture.

In our region, the number of farms that engage in direct marketing has decreased by 12 percent overall, and represent 8.2 percent of total farms in our region. This is comparable to Wisconsin (8 percent) and higher than the national average (6.9 percent).[16,17]

The results vary by county. From 2007 to 2012, the number of farms engaged in direct marketing is up 3.7 percent in Portage County, down in Marathon and Waupaca (-12.1 and -32.4 percent respectively), and no change for Wood County. See Figure LM3. This does not correspond to the number of local food sales. For example, Portage County saw decreases in direct-to-consumer sales but increases in local food farms. This may be linked to local food farms selling to intermediated markets instead. On the other hand, Marathon County saw increases in direct-to-consumer sales but decreases in local food farms.

Figure LM3



Source: USDA. 2012 Census of Agriculture.

15 AAE. 2014. Wisconsin Direct Sales to Consumers 2007 to 2012.

16 In Wisconsin, the number of farms with direct sales decreased by 6.3 percent from 2007 to 2012, but remained around 8 percent of total farms given the decrease in the number of farms in the same time period.

17 Nationally, the ERS found that farms with direct to consumer sales were more likely to survive (2007-2012) than other similarly sized farms, but they had fewer sales. Thirty-two (32) percent of farms with direct to consumer sales were operated by a beginning farmers.

Intermediated Sales

The local food market has traditionally focused on direct sales, but intermediated sales of food to retailers, institutions and restaurants may account for a larger portion of local food sales. Direct to consumer farms are likely to be smaller scale local food farms, whereas larger local food farms are more likely to sell to intermediated markets. When including intermediated sales (e.g. to grocery stores), local foods "grossed $4.8 billion in 2008--about four times higher than estimates based solely on direct-to-consumer sales."[18] The ERS estimates that local food was $6.1 billion in 2012, of which 80 percent were through intermediated marketing channels.[19] Some businesses, government units and institutions have policies regarding the purchase of local food.[20]

Estimates of local food sales — when including intermediated sales — are four times higher than estimates based solely on direct to consumer sales.

One indicator of intermediated sales is the number of farms that sell to restaurants, grocery stores, schools and hospitals. For the first time, the 2012 Census of Agriculture asked farms to indicate if they marketed products directly to retailers. In our region 113 farms, or 2.1 percent of farms, reported marketing products directly to retail outlets (41 in Marathon County, 23 in Portage County, 31 in Waupaca County and 18 in Wood County).[21] This is slightly lower than state and national percentages.[22] We do not know the value of those sales as that question was not included. Wisconsin's organic farms sell to retail outlets and grocery stores at a higher rate than non-organic.[23]

Anecdotally we know that businesses are responding to consumer demand for local foods, but we often do not know to what extent it has impacted their purchases. An overview of several business sectors is included below.

Grocers: The 2014 National Grocers Association Consumer Survey found that 87.2 percent of respondents call the presence of local foods "very/somewhat important" to store choice, up from 79 percent in 2009.[24] Most grocery stores work with distributors; however, some stores may have one-on-one relationships with growers.

There are 57 grocery stores in our four-county region, including supermarkets and other grocery stores, convenience stores and specialty stores (27 in Marathon County, 9 in Portage County, 9 in Waupaca County and 12 in Wood County). We do not have a comprehensive understanding of the amount or types of local food that grocery stores in our region purchase.[25] There were five grocery stores that chose to list in the 2015 Central Wisconsin Farm Fresh Atlas, indicating that they use local ingredients as part of their approach. Anecdotally we know that many grocers do not specifically track local food purchases as a portion of their budget.

One grocery store in Central Wisconsin that sells local foods is The Market on Strongs, a producer-owned store in Stevens Point. There are more than 100 Wisconsin producers represented on store shelves. Many of these producers are from the Central Wisconsin region.

Restaurants: Locally sourced meats, seafood, and produce top the list of chef trends in the United States.[26] There are 530 restaurants and other eating places in our four-county region (202 in Marathon County, 128 in Portage County, 94 in Waupaca County and 106 in Wood County).[27] Like grocery stores, many restaurants do not track local food purchases as a portion of their budget. There are 10 restaurants from our four-county region who chose to list in the 2015 Central Wisconsin Farm Fresh Atlas, indicating that they sell local food as part of their approach.

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18 Low, Sarah, and Stephen Vogel. 2011. Direct and intermediated Marketing of Local Foods in the US.
19 USDA ERS (Vow, Sarah et al.). Jan. 2015. Trends in US Local and Regional Food Systems: A Report to Congress. As farm size increases, direct to consumer sales decrease and intermediated sales increase. This is likely because direct to consumer sales are labor intensive and more likely to be done on a small scale.
20 The Michigan Good Food Charter calls for 20 percent. See www.michiganfood.org.
21 USDA NASS. Quick Stats 2.0 Data Base.
22 USDA. August 2014. 2012 Census of Agriculture Highlights. Farmers marketing. In the US, 2.3 percent of farms sold their products directly to retailers. In Wisconsin 2.5 percent of farms marketed directly to retailers.
23 CIAS and DATCP. 2015. Organic Agriculture in Wisconsin 2015 Status Report. 20 percent of Wisconsin organic farms.
24 USDA (Tropp, Debra). 2014. Why Local Food Matters: The Rising Importance of Locally Grown Food in the US Food System.
25 The Wisconsin Grocers Association created the Grocers Buy Local website with a listing by county of grocers who purchase local food, but there are currently no listing for Portage, Wood, Waupaca, and Marathon Counties. The website is available at www.grocersbuylocal.com.
26 See www.restaurant.org/Downloads/PDFs/News-Research/WhatsHot/What-s-Hot-2014.pdf.
27 US Census County Business Patterns. 2012. Wisconsin.

A survey of restaurants in nearby Eau Claire, Wis., a community of 67,000, found that 71 percent of respondents 'sometimes' purchased local food.[28] The most popular method for purchasing local foods was through a distributor, and they rarely purchased direct from farmers or through a farmers' market. Respondents' indicated that seasonality and price were two main limitations.

Great Expectations Catering and Eatery restaurant in Wisconsin Rapids is an example of a restaurant that tracks local food purchases. Owners Ryan and Amy Scheide define local food as grown, packaged and distributed within 100 miles of Wisconsin Rapids.[29] In 2014, Great Expectations worked with more than 40 local suppliers (e.g. Vespertine Gardens, Lowland Bison Ranch, and Dairy State Cheese Company), and 53 percent of overall food purchases were local food purchases. Great Expectations also grows and cans some of their own products to help meet their local food needs.

Schools: Many schools are interested in purchasing local food.[30] As of 2012, 80 percent of the schools participating in Farm to School in Wisconsin were buying local fruits and vegetables as part of their budget.[31] In addition, 32 percent were purchasing milk and 22 percent were purchasing other dairy products (e.g. cheese) from local sources. Some barriers are as follows: (1) hard to find year-round availability of key items, (2) local items not available from primary vendors, (3) hard to find new suppliers/growers or distributors, (4) higher prices, and (5) vendors for local items don't offer a broad range of products.[32]

Marathon, Portage, Waupaca and Wood counties all participate in the Wisconsin Farm to School program. The Marathon County program, operated by the Marathon County Health Department, works with 8 school districts. The Portage County program, operated by Central Rivers Farmshed, works with 12 schools. The Waupaca County program, operated by Waupaca County UW-Extension, works with 7 schools. The Wood County program, operated by the Wood County Health Department, works with 27 schools. The schools vary in their activities, but may engage in student education (e.g. taste tests, school gardens, etc.) and/or food procurement for student meals.[33] Wood County has found that having a Farm to School coordinator and option to purchasing fresh cut produce (versus frozen or canned) has helped increase local food purchases. A case study about Wood County's program is included in Appendix D.

UW-Stevens Point University Dining Services spent 28 percent of its budget on food produced within 100 miles.

There are also five technical college campuses, three two-year campuses, and one public university in our region.[34] One example of a campus engaging in the community food system is UW-Stevens Point, which has more than 9,600 students. Students have indicated that local food is important to them. In 2014, Dining and Summer Conferences added two new local vendors (Parrfection Produce and Ney's Big Sky), and also participated in the Local Food Summit Farm to School Days. According to the 2013-2014 University Dining Services report, UW-Stevens Point spent more than $939,000 that year on "local" food purchases (defined as within 100 miles), which represents 28 percent of the total budget.[35] The goal for 2014-2015 is 30 percent.

Hospitals: Hospitals have expressed their support of a healthier food system including local and sustainable foods.[36] A recent survey in neighboring Minnesota found that healthcare institutions represent a larger

28 Chippewa Valley Center for Economic Research and Development. 2009. A Survey of Local Food Purchasing by Eau Claire Restaurants. Most respondents were moderately priced or upscale sit-down restaurant.

29 Incourage Community Foundation. 2014. Vital Signs. P. 25. Available at https://incouragecf.org/wp-content/uploads/2014/11/vital-signs.pdf

30 In 2010, the WI Dept. of Public Instruction conducted a statewide survey of school Nutrition Program Directors, and 88 percent of respondents reported interest in purchasing local product in the future. Findings from this survey showed that the trend in local purchasing continues to move upward.

31 See http://host.madison.com/news/state-and-regional/state-s-schools-buy-local-fruit-vegetables-dairy-lagging/article_d7f3de45-b635-5bae-92f7-a250a7735c22.html#ixzz3QhSRRfQV

32 USDA AMS. (Low et al.) January 2015.

33 See 2012 Farm to School Census for a listing of activities by school district. Note: Not all schools provided information.

34 Technical colleges include Midstate Technical College in Stevens Point and Wisconsin Rapids, Northcentral Technical College in Wausau, and Fox Valley Technical Colleges in Waupun and Clintonville. Two year campuses include UW-Marathon County and UW-Marshfield/Wood County.

35 Personal correspondence with UDS, February 27, 2015. See report at www.uwsp.edu/dining/Pages/default.aspx.

36 Many hospitals in the US have signed the Health Food in Health Care pledge, including Riverview Medical Center: https://noharm-uscanada.org/documents/healthy-food-health-care-pledge-fresh-local-sustainable-food.

potential market for local foods than educational institutions.[37] They purchase a broader array of products and have more flexibility to purchase unprocessed fruits and vegetables. However, hospital management structures are complex, and they may need to modify their menus and/or procurement policies in order to purchase local food from individual farmers or food hubs. A survey of growers in Wisconsin and Minnesota found that producers may lack relationships with healthcare facilities, have difficulty guaranteeing a specific quantity on a specific date, and need to partner with other farmers to meet volume needs.[38]

There are 8 hospitals in our region.[39] At this time, we are not aware of any hospitals in our region with a formal local purchasing program. In 2015, Central Rivers Farmshed will begin helping hospitals procure specialty crops as part of the Wisconsin Local Food Network's new statewide Farm to Hospital program.

Community Policies

Community policies can impact the development of markets for locally produced food. Community food system partners can work with local government staff and UW-Extension to build relationships, conduct market analysis and identify opportunities and barriers. Communities may want to develop goals for local food sales in community plans. Some businesses, institutions, and local governments create local food purchasing policies and/or track total food purchases.[40]

Communities may also be able to support local food marketing efforts, such as the Central Wisconsin Farm Fresh Atlas. The publication includes 11 counties and includes farms, restaurants and businesses that produce or use local foods. Central Rivers Farmshed distributes 30,000 copies of the 'Atlas' on an annual basis to individuals, businesses, farmers markets and other sites throughout the region to promote the sale of local foods.

Connecting producers with intermediated markets can be difficult and may require technical support. Central Rivers Farmshed offers assistance to businesses renting their building who want assistance sourcing local foods. Farm to School Programs in each of the four counties help schools source local food. Models may also be found outside of region. For example, Dane County provides funding for the Institutional Food Market Coalition, which helps connect producers with institutional buyers.

Summary

In summary, local markets in our four-county region are characterized as follows:

1. Agriculture remains a significant portion of jobs and economic activity within our region.
2. Sales in our region represent a small portion of total farm sales. The percent of local food sales to intermediated markets is unknown. National data suggests that intermediated sales to restaurants, retailers and institutions account for a larger portion of local food sales.
3. Communities could support development of local markets through relationship building, local food purchasing policies, marketing efforts and connecting food businesses to resources.

Discussion questions:

- What are the strengths in our local markets for food? What are the weaknesses?
- What are some opportunities to increase direct sales from producer to consumer in our region?
- What are some opportunities to increase intermediated sales in our region?
- What are some barriers to increasing markets for local food in our region, and how do we overcome them?

37 University of Minnesota (Pesch, Ryan). July 2014. Assessing the Potential Farm-to-Institution Market in Central and Northeast Minnesota. They survey also found that 59 percent of healthcare institutions were interested in purchasing local foods directly from farms, and 21 percent had done so in the past fiscal year.

38 IATP. 2013. Connecting Sustainable Farmers to Emerging Health Care Markets.

39 Hospitals include Ministry St. Joe's in Marshfield, Ministry Saint Michael's Hospital in Stevens Point, Aspirus Clinic in Stevens Point, Riverside Medical Center in Waupaca, Aspirus Wausau Hospital, Ministry Saint Clare's Hospital in Weston, Riverview Hospital Association in Wisconsin Rapids, and Marshfield Clinic in Marshfield. See www.wha.org/wisconsin-hospitals.aspx.

40 Learn more at www.planning.org/policy/guides/adopted/food.htm.

Health and Access

Health is influenced by the communities where people live, work, play and learn. This section explores how the community food system relates to individual and community health.

A number of factors influence health, including personal eating choices, attitudes and family histories. In addition, social and cultural factors have significant impacts on health, including income level, age, race and social networks.[1] Healthy people also require healthy physical environments, neighborhoods, workplaces, schools, childcare centers and senior centers. People need environments in which they are able to easily access healthy foods.

Health is intricately linked to food security. The World Food Summit of 1996 defined food security as a status "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life."[2] For this to occur, community members need economic, social and geographic access to health-promoting foods,[3] and sufficient knowledge of how to use those foods.

Wisconsin's food insecurity rate is 11.6 percent.[4] Feeding America, a network of food banks, estimates that the food insecurity rate is 11 percent for Marathon and Wood counties, 11.8 percent for Portage County and 10.9 percent for Waupaca County. Research suggests that food insecurity is higher in rural and low-income areas.[5]

Health

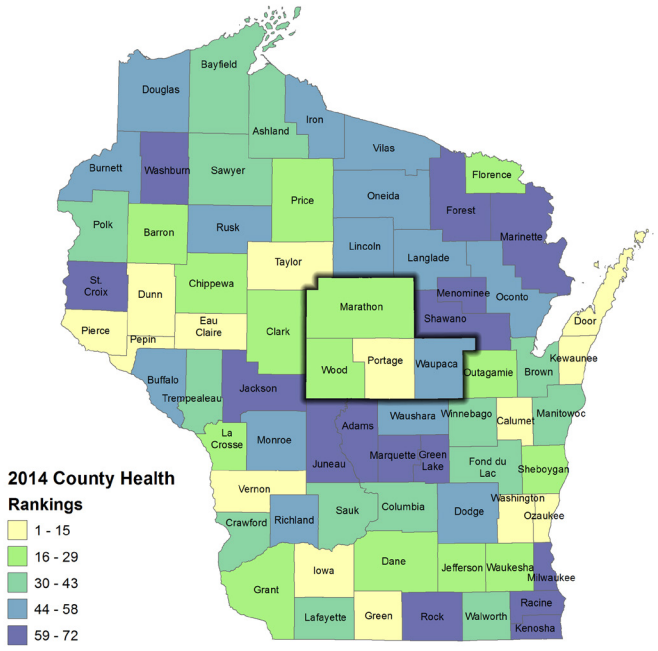
This section includes community indicators of health that are related to food.

The University of Wisconsin Population Health Center ranks the health of Wisconsin's counties annually. Figure A1 includes the results for 2014.The rankings are based on physical environment, social and economic factors, clinical care and health behaviors.[6] In 2014, Marathon County ranked 23, Portage County ranked 13, Waupaca County ranked 37, and Wood County ranked 8 in health factors, which include diet and exercise among other factors.

In general, the average rate of people over age 20 reporting their general health status as "poor or fair" from 2006-2012 was 15 percent for Marathon County, 9.1 percent for Portage County, 12.3 percent for Waupaca County and 11 percent for Wood County.[7]

The rate of food-related illnesses such as obesity and diabetes in adults varies by county. See Figures A2 and A3. The adult obesity rate is 28.4 percent for Marathon County, 28.8 for Portage County, 30.2 for Waupaca County and 27.5 for Wood County.[8] The state obesity rate is around 29 percent. The adult diabetes rate is 8.9 for Marathon County, 7.6 for Portage County, 9.4 for Waupaca County and 9.7 for Wood County. Waupaca County has the highest rate of obesity and adult diabetes in our region.

Figure A1: County Health Rankings



Source: County Health Rankings 2014

1 Robert Wood Johnson Foundation. February 2008. Overcoming Obstacles to Health.
2 See the World Health Organization website.
3 The American Planning Association, American Dietetic Association, Public Health Association, and others included health promoting in the "Principles of Health, Sustainable Food System". See www.planning.org/research/foodaccess/.
4 USDA. 2014 (Coleman-Jensen, Alicia et al. Household Food Insecurity in The United States in 2013.
5 Leadership for Healthy Communities. 2014. Rural Childhood Obesity Prevention Toolkit.
6 Learn more at http://uwphi.pophealth.wisc.edu/programs/match/wchr/index.htm.
7 From County Health Ranking website: www.countyhealthrankings.org.
8 2010 data. See http://foodsecurity.wisc.edu/mapping.php

Figure A2: Adult Diabetes

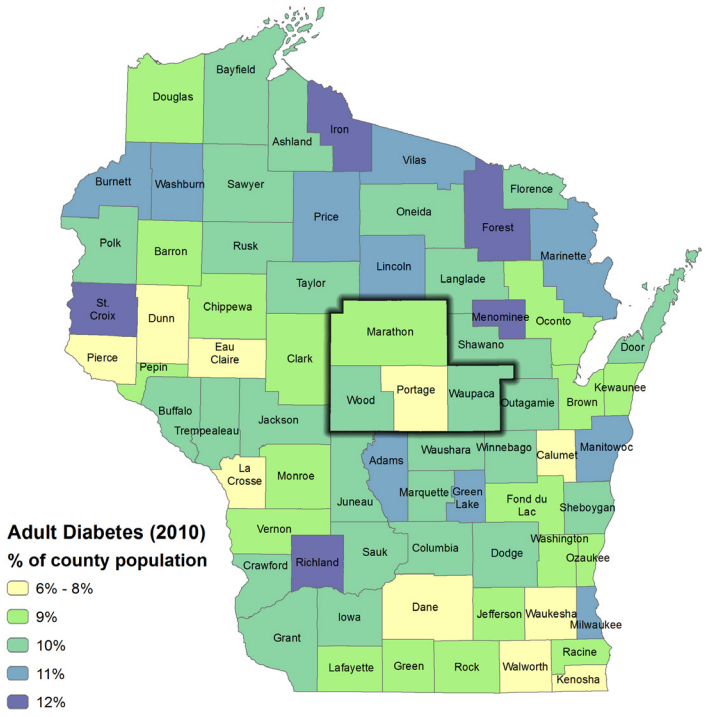
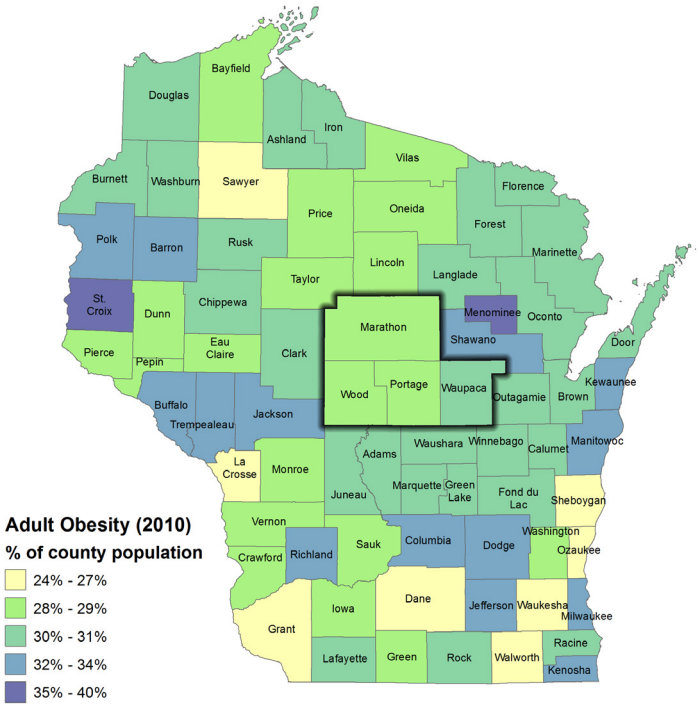


Figure A3: Adult Obesity



Source: USDA Food Atlas 2010

Food Use

How households prepare and use food impacts health. The USDA notes that current concerns related to diet include overconsumption of calories, sugars and saturated fats, and underconsumption of fruits and vegetables and whole grains.[9] Figure A4 illustrates the average versus the recommended household expenditures on healthy food items during a period of 1998-2006 in the United States.

Food choices are impacted by factors such as price, income, family structure, culture, time and nutrition information. In addition, households may have varying levels of knowledge about how to purchase and prepare healthy meals. Nationally, households have continued to eat more food away from home, seeking convenience foods rather than preparing food. See Figure A5. Household expenditures for food away from home are now half of food expenditures. These foods are often not health promoting. In addition, UW-Extension nutrition educators have created lessons demonstrating that preparing a healthy meal at home can cost less than purchasing fast food.[10]

Figure A4: Food Expenditures

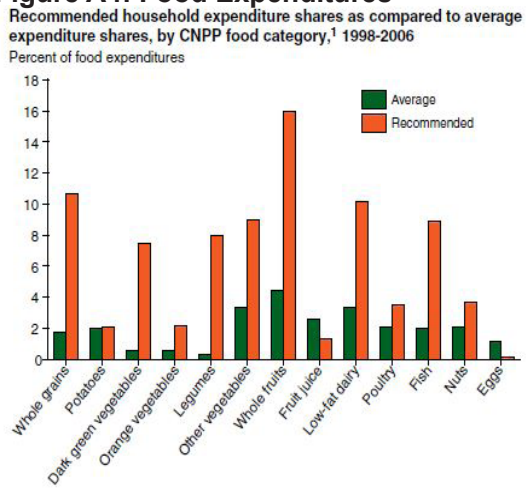


Figure created by USDA Economic Research Service

Figure A5: Food-at-home and away-from-home expenditures in the United States 1960-2013

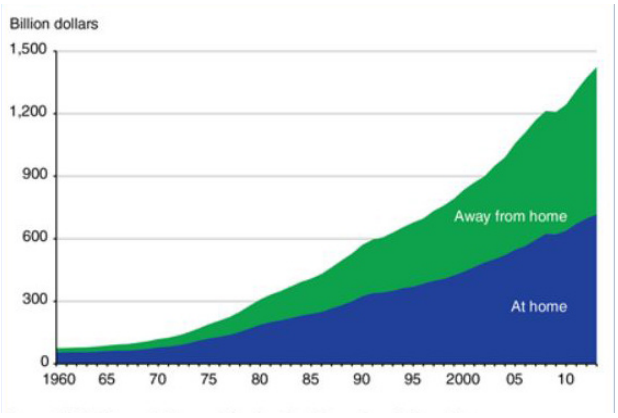


Figure created by USDA Economic Research Service

9 USDA website. Diet quality and nutrition.

10 Find an example on the Wisconsin Nutrition Education Program website: www.uwex.edu/ces/wnep/teach/mff/mffles12.pdf.

Food Access

Food access includes multiple components, including food availability and geographic, cultural and economic access to food. Food availability addresses the local supply of food for households. As reported in the local markets section, there are approximately 57 grocery stores and 28 farmers markets in our region, of which half accept EBT FoodShare benefits.[11] In addition, farm stands, CSAs, community and home gardens, and food pantries can provide access to fresh produce and other health-promoting products.

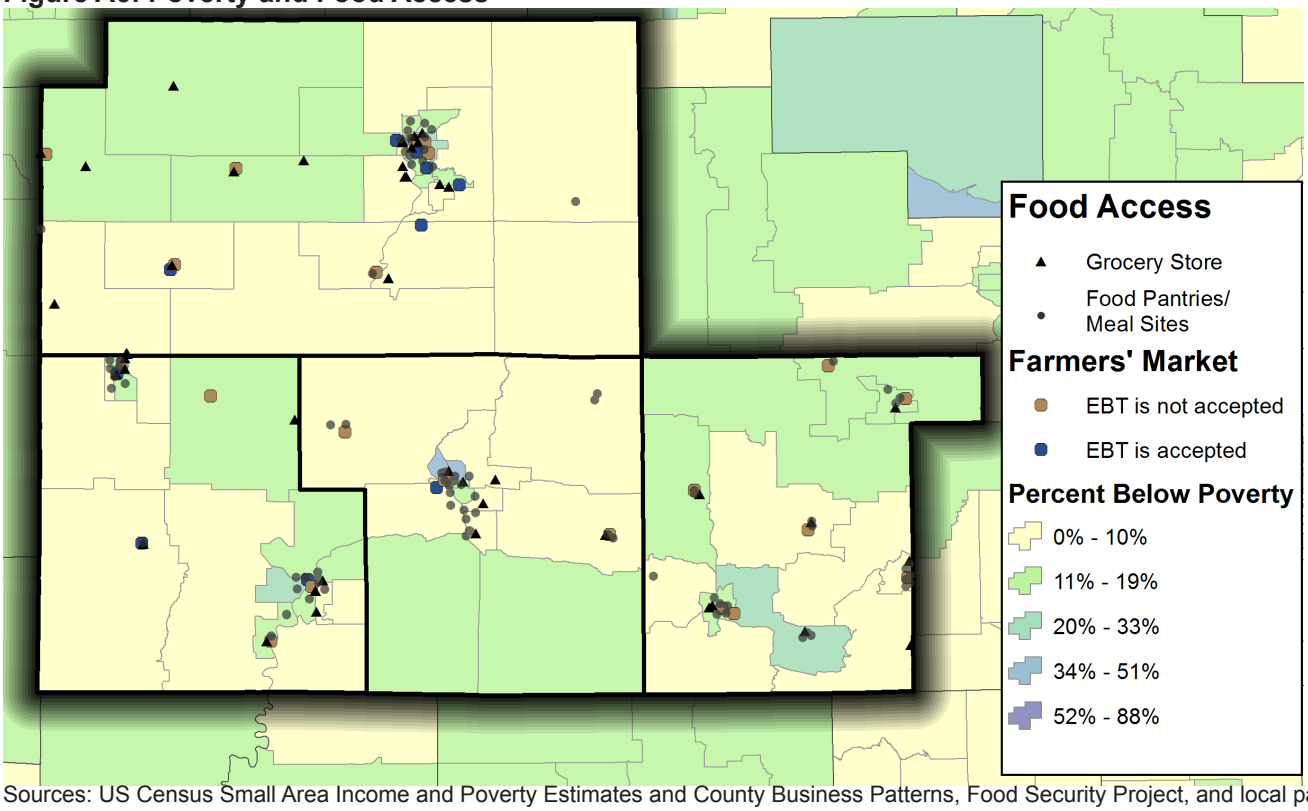
Access to health-promoting food is impacted by social, geographic and economic factors.

Geographic access to health-promoting food varies by community. The USDA food desert mapping tool identified food deserts in parts of the urban areas of the region: Wausau, Wisconsin Rapids, Stevens Point, Waupaca and Clintonville.[12] Figure A6 provides a more indepth overview for the region, and shows the geographic dispersement of grocery stores, food pantries, and farmers markets, overlayed on poverty by census track. It appears that some rural areas may have minimal access to grocery stores. Within these areas, the access to health-promoting foods may vary. See Appendix E for a full table of map sites.) Transportation options impact geographic access to food. Roughly 5 percent of households in our region do not have vehicles. Bus transportation is limited to the Stevens Point and Wausau areas, with limited taxi and paratransit options.

Cultural Access

Community members look for culturally appropriate food. The predominant population is white, many with German and Polish heritage. There are also Amish populations in select areas of the region. More recent arrivals include Hmong refugees and Latino immigrants. There is little data available at this time about issues of cultural access affecting these populations. There are several Asian and Hispanic groceries in the region. Mainstream grocery stores may also carry some products. The Hmong community, particularly the older population, may grow a portion of their own food.

Figure A6: Poverty and Food Access



Sources: US Census Small Area Income and Poverty Estimates and County Business Patterns, Food Security Project, and local partners.

11 EBT is electronic benefits transfer. EBT is used to administer FoodShare in place of paper food stamps or checks. FoodShare provides montly financial benefits for people with limited includes to help them purchase food.

12 The USDA defines food deserts as "urban neighborhoods and rural towns without ready access to fresh, healthy, and affordable food." These communities may be served by fast food restaurants or covenience stores. Map our region's food deserts at www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas.aspx.

Economic Access

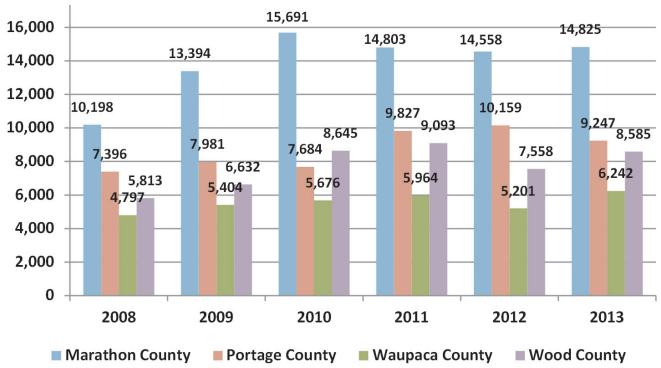
Community food security is impacted by the amount of economic resources families have to purchase health-promoting food. The price of food per month for a family of two adults and two children is estimated to be $713 in the US.[13] Households in our region spend an estimated 12.1 percent of their budget on food, which is the largest cost after housing.[14] When people experience poverty, the most immediate effects include inadequate access to food.[15] Research suggests that lower income individuals value nutrition as much as higher income individuals, but have significant time and money constraints that can impact their ability to make healthy food choices.[16]

In Wisconsin, the poverty rate hovers around 13 percent. In our region, 11.1 percent of households are in poverty in 2013 in Marathon County, 13.8 percent in Portage County, 12.3 percent in Waupaca County and 11.7 in Wood County.[17] See Figure A7. Portage County had the highest poverty rate. Students at the UW-Stevens Point may have an impact on the poverty rate.[18] Marathon County has the largest population and highest number of people experiencing poverty.

Participation in FoodShare and the Women, Infants and Children (WIC) program is one indicator of economic access to food.[19] FoodShare participation for all ages is 17.6 percent for Marathon County, 14.7 percent for Portage County, 16.9 percent for Waupaca County and 24.6 percent for Wood County.[20] FoodShare participation has increased since 2008, and Wood County has the highest percent of the population utilizing FoodShare. See Figure A8. The number of children age 0 to 4 receiving nutritional assistance through WIC is shown in Figure A9. The USDA estimates that 89 percent of the Wisconsin households that qualified for FoodShare assistance in 2011 participated.[21]

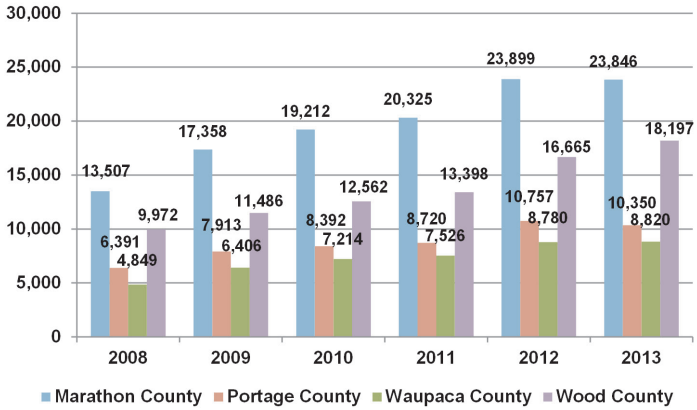
Individuals and families obtain food from a variety of sources, including supermarkets, corner stores, farmers markets, personal or community gardens and so forth. Food at farmers markets is fresh and may at times be less expensive than food at conventional grocery stores (e.g. when it's in season).[22]

Figure A7: Poverty Level (All Ages)



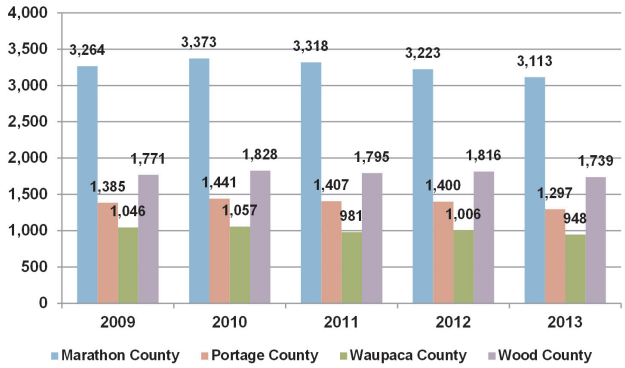
Source: US Census SAIPES data

Figure A8: Participation in FoodShare



Source: Wisconsin Department of Health Services, Unduplicated Recipients Served by Agency Per Calendar Year

Figure A9: Children Receiving WIC



Source: Wisconsin Department of Health Services

13 MIT Living Wage Calculator available at http://livingwage.mit.edu/.In reality the price of food varies geographically. Feeding America estimates the average cost per meal in our region from $2.30 to $2.53.

14 ESRI forecast data provided by Portage County UW-Extension.

15 Curtis, Katherine, and Heather O'Connell. 2010. Historic Trends in Wisconsin Poverty, 1900-2000.

16 Mancino, Lisa and Joanne Guthie. Nov. 2014. SNAP Households Must Balance Multiple Priorities To Achieve a Healthful Diet.

17 US Census. 2013. Small Area Income and Poverty Estimates.

18 The poverty rate for individuals under age 18 is 2013 was lower in Portage County (12.9 percent), and higher in the other three counties: 15.3 percent in Marathon County, 17.8 percent in Waupaca County and 16.3 percent in Wood County.

19 WIC provides health-promoting food and nutrition and breastfeeding education to at-risk mothers, infants and children.

20 See the Wisconsin Food Security Project website. http://foodsecurity.wisc.edu/mapping.php

21 USDA. Reaching Those in Need: State Supplemental Nutrition Assistance Program Participation Rates in 2011.

22 See Pirog, Rich and Nick McCann. 2009. Is Local Food More Expensive? A Consumer Price Perspective on Local and Non-Local

From 2011 to 2014, EBT use grew from 118 to 170 participants at the Wood County Farmers Market and 50 to 173 participants at the Stevens Point Farmers Market. See Figure A10 and A11.[23] There are now 10 markets that accept EBT.[24]

Figure A10: EBT at Wisconsin Rapids Farmers Market

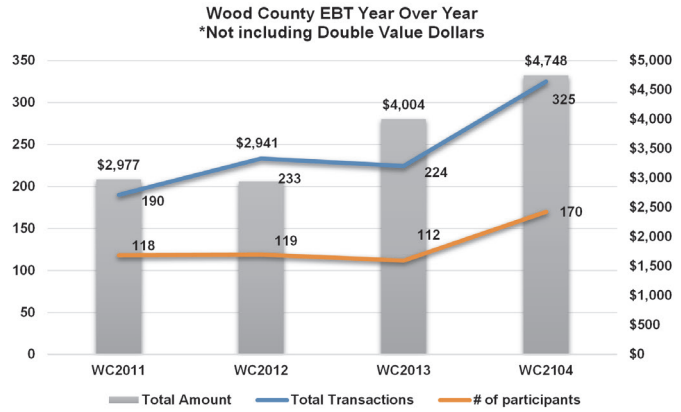


Figure created by Central Rivers Farmshed, 2015

Figure A11: EBT at Stevens Point Farmers Market

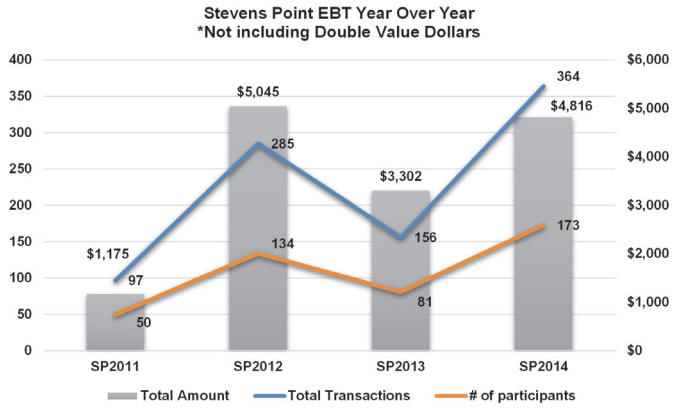


Figure created by Central Rivers Farmshed, 2015

Seniors are another population affected by food insecurity as they are often on fixed incomes. The Wisconsin Elderly Nutrition Program provides senior dining sites and home-delivered meals in Wisconsin, and there is one dining site in Marathon County, one in Portage County, 7 in Waupaca County and three in Wood County (see Appendix E for a full listing). In 2014, Portage and Wood counties participated in the senior farmers market voucher program, but Marathon and Waupaca counties did not.[25]

Food pantries distribute food to people experiencing poverty. UW-Extension Poverty and Food Security Specialist Amber Canto that fresh fruits and vegetables are among the top-requested items at food pantries in Wisconsin. Some food pantries provide fresh produce, and others may not. Comprehensive data is not available for our region, but a 2013 UW-Extension phone survey of Portage County food pantries found that eight out of nine respondents provided fresh produce to clients. Five pantries indicated they had enough fresh produce to meet their needs, and three did not have enough to meet their needs. Sources of fresh produce may include product purchased by the pantries, or donations from Plant A Row for the Hungry, farm donations through programs such as Field to FoodBank, gleaning programs, or other sources.[26]

Figure A12: Poverty Rate by Race/Ethnicity

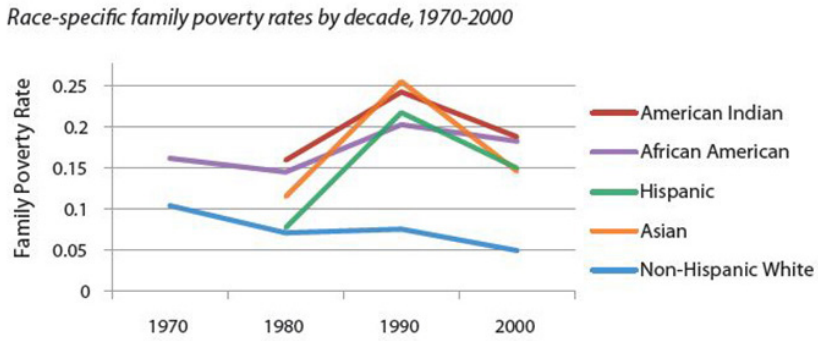


Figure created by Katherine Curtis 2010

Figure A13: Income and Health

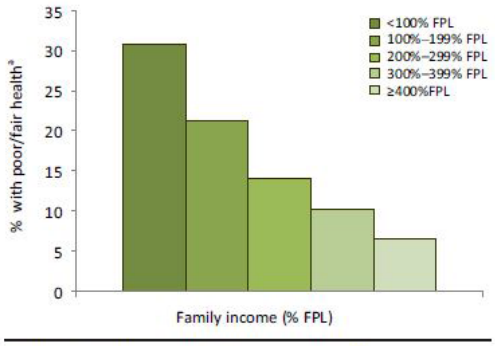


Figure 4. Health status, by income level[28]
[a]At age ≥25 years; age-adjusted
FPL, federal poverty level

Figure created by Paula A Bravemen, MD, MPH et al. 2011

Foods Purchased in Iowa. and Claro, Jake. 2011. Vermont Farmers' Markets and Grocery Stores: A Price Comparison.

23 Figures courtesy of Central Rivers Farmshed.

24 States issue food benefits on EBT (electronic benefits transfer) cards in place of paper food stamps.

25 See Wisconsin DHS website: www.dhs.wisconsin.gov/wic/fmnp/senior.htm

26 Personal communication with Danielle Lawson, Second Harvest, April 2015. Field to FoodBank is a statewide program that obtains donations from farmers and distributes the fresh and canned produce to pantries. In 2014, ~450,000 pounds of first-run produce was donated from Del Monte growers in Portage and Waupaca Counties for distribution through Second Harvest Foodbank of Southern Wisconsin and Feeding America Eastern Wisconsin (which distributes to counties in southern and

Income and Race

Health is also impacted by income and race. Figure A12 shows the poverty rate by race/ethnicity for Wisconsin.[27] More white families are in poverty than non-white families, but the rate of poverty for African American, American Indian, Hispanics and Latinos is at a higher rate than for white families.[28] As shown in Figure A13, national research indicates that Americans who have lower incomes have worse health than those who are not.[29]

Community Policies

Community policies can impact the community's health and access to food. Communities may want to develop goals for community health and food access in their comprehensive plan and other community plans. For example, Wood County included food system issues in *Healthy People Wood County 2013-2018: A Partnership Plan to Improvement the Health of the Public.* Plan objectives include developing healthy food donation lists, providing nutrition education, supporting the EBT program at the farmers market, operating the Farm to School program, and more.

Other community goals may include retaining or attracting grocery stores, healthy food venues and farmers markets to underserved areas; and supporting efforts to help grocery stores, institutions, restaurants, food pantries and other food venues provide fresh, healthy food options that are appealing to households. The Wood County Smart Meal labeling program helps restaurant customers easily identify healthy choices, and some Marshfield restaurants use a label to indicate foods sources within 50 miles. Communities may also support programs that can increase access to fresh produce, such as community and home gardens and CSAs. Programs that make fruits and vegetables more affordable, or incentivize their purchase, can also be effective. A list of organizations working with health and access is included in the community initiatives section.

Summary

In summary, community health and food access in our four-county region are characterized as follows:

1. Health indicators in our region suggest that improvements could be made in our community food system. For example, the adult obesity rate in our region is close to 30 percent.
2. National trends include an underconsumption of eating recommended foods such as fruits and vegetables. At the same time, many are consuming more calories, sugars and saturated fats than recommended. This may be linked in part to an increasing trend toward eating foods away from home.
3. Some portions of urban and rural communities appear to have limited access to health-promoting foods.
4. A significant portion of the population is experiencing poverty, and the number of participants using FoodShare is rising.
5. Communities could support community health and food access and availability through community-wide goals and policies that support access to health-promoting foods.

Discussion questions:

- What are some of the strengths related to health and food access in our region? What are some weaknesses?
- What are some opportunities to improve community health related to food?
- What are some opportunities to improve food access in our region for households of all ages, ethnicities, and income levels?
- What are some barriers to improving community health and food access in our region, and how do we overcome them?

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eastern Wisconsin, including our four-county region).

27 Curtis, Katherine. 2010. Trends in Racial Distribution of Wisconsin Poverty, 1970-2000.

28 See http://fyi.uwex.edu/news/2012/09/25/new-american-community-survey-shows-stable-but-high-poverty-in-wisconsin/ and http://dces.wisc.edu/wp-content/uploads/sites/30/2013/08/WisPovertyBriefing-2.pdf.

29 Braveman, Paula, et al. 2011. Broadening the Focus: The Need to Address the Social Determinants of Health. American Journal of Preventative Medicine. 2011;40(1S1):S4-S18

Food Residuals

Another aspect of the community food system is food residuals, that is, food that is leftover during different phases of the food system.[1] It's estimated that up to 40 percent of food is currently wasted throughout the food system, equivalent to 20 pounds of food per person per month.[2] Food losses occur during production; postharvest, handling and storage; processing and packaging; distribution and retail; and at the consumer level. In each stage, food loss results in the misuse of other inputs, including land, water, fuel, and more.

In this section, we explore food residuals in our food system, and efforts to redirect food residuals to other uses. Most information about food residuals is available at the state and national level, rather than the community level. Some businesses, institutions and households may conduct waste audits to understand their waste use.

Food Losses

Food losses occur at every stage in the food system. See Figure FR1. In production, food residuals include food that was never harvested and food that is lost between harvest and sale.[3] The greatest losses are for fresh produce. Product may be left in the field due to damage, low prices, labor shortages and more. In addition, processing and packaging incurs waste in preparation, and food may be lost during distribution due to improper refrigeration, handling errors, refused shipments or other factors. In the retail phase, most of the loss is in perishable food due to overstocking, removal of imperfect products, expired product, damage, not enough preparation staff and more. Food service and households also incur food waste in kitchen loss, uneaten food, and other factors. On average, diners leave 17 percent of their meals uneaten, and households throw out around 25 percent of their food purchases.

Waste Management

The European Commission created the waste framework directive in Figure FR2 to communicate the most to least preferred methods to reduce food waste.[4] An overview of each is provided below.

Prevention: The most preferred method of addressing food residuals is prevention, that is reducing the source of food waste. Businesses, institutions and households have different means by which they can avoid waste and direct food residuals to other uses. This can also be conceptualized as "prevention" of food waste or "non-waste".[5] Education can help businesses and households reduce food waste. In 2014, Recycling Connections Corporation created a "Save the Food!" campaign and developed educational materials about meal planning, shelf life, labeling, food storage, composting and more.[6]

At the production level, farms often incur food residuals. Tracking where food waste occurs is one step in identifying points at which solutions are needed. Processors, distributors, restaurants and grocery stores may have individual programs to reduce food waste in their operations. The Del Monte corporate website indicates that their food processing activities generate a "considerable amount of organic waste," which they are working to reduce.[7] They report that less than 3 percent of the company's total waste (including food) from their sites went to a landfill, and the remainder was used for feedstock or other uses. The Plover site does not currently have a waste-to-energy program.

Preventing food waste may require creative solutions. UW-Stevens Point's University Dining Services (UDS) conducted a waste audit at one of the dining halls that served approximately 425,000 meals per year.[8] There

1 Some refer to food residuals as food waste. However, food residuals communicates that the food is a resource that could be used in different ways.

2 NRDC. August 2012. Wasted: How America Is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill. It's estimated that the food system accounts for 10 percent of the total energy budget, 50 percent of land use, and 80 percent of freshwater consumption in the United States.

3 NRDC.

4 This figure was chosen as it emphasizes prevention. The EPA also has a waste management hierarchy that begins with source reduction and reuse.

5 The European framework emphasizes prevention. See http://ec.europa.eu/environment/waste/framework.

6 Information and educational handouts are available at www.recyclingconnections.org.

7 Learn more at www.delmontefoods.com.

8 The Pointer (Luedtke, Brian). What is Waste at UWSP? Available at www.uwsp.edu/pointeronline/

Figure FR1

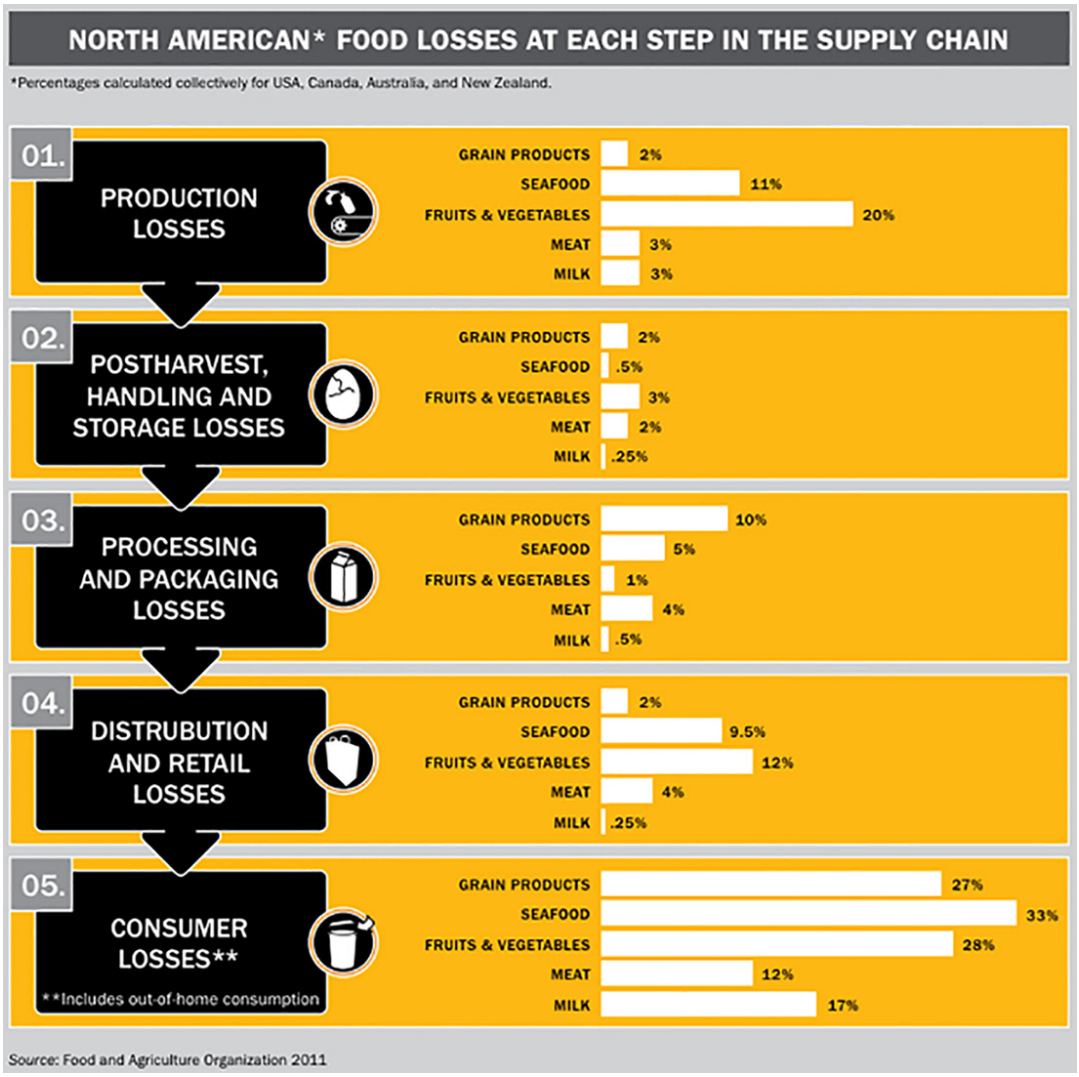
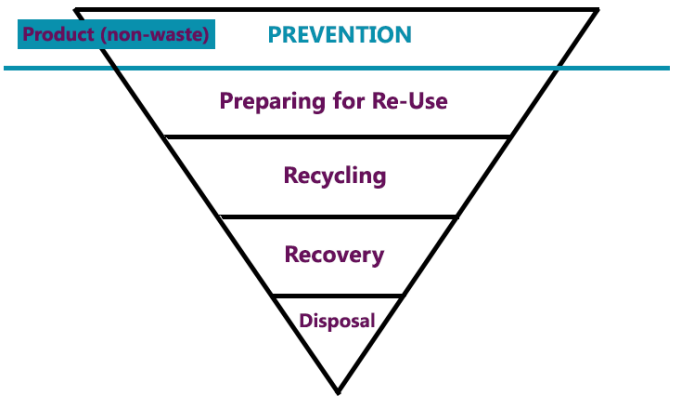


Figure provided courtesy of Natural Resources Defense Council, with permission from the Food and Agriculture Organization.

Figure FR2: Waste Framework Directive



Source: European Commission

were about three ounces of food waste left on trays by students, which would be the equivalent of 195 pounds a day or 80,000 pounds per academic year. UDS transitioned to a tray-free meal service. The result was a 35 percent drop in usable food waste.[9]

Preparing for Re-Use: Redirecting potential food waste into appropriate uses can create new resources. For example, some gleaning programs will use volunteers to recover excess product from farm fields, farmers markets or businesses for distribution to food pantries or meal sites. Glean Central Wisconsin, a volunteer organization started in 2014, asks farmers for voluntary donations of edible food at the end of each Saturday farmers market in Stevens Point and distributes it to local food pantries. UW-Stevens Point students are currently in the process of developing a chapter of the Food Recovery Network.

Gleaning can also occur in farm fields.[10]There are no known programs in our region that glean from farm fields. Wisconsin Field to Food Bank obtains product from participating farms for distribution to food pantries, but at this time it's all first-run, planned production rather than cosmetically imperfect "seconds" or "surplus" product that's gleaned from the field.[11] St. Andrew's Society, a national program, gleans in farm fields but does not have a volunteer coordinator in Wisconsin.[12] They also run a Potato and Produce Project throughout the continental US in which they work with companies to salvage tractor-trailer loads of potatoes and other produce that are rejected by commercial markets due to cosmetic imperfections or other needs, and would otherwise go to the landfill. Since the program began, it has distributed 522,050 pounds of produce in Wisconsin. Last year this included a truckload of cranberries and a truckload of potatoes from Central Wisconsin.

Composting: Food residuals from businesses, institutions and households can be composted to reduce landfill waste. There are 29 state-licensed composting sites in our four-county region (12 in Marathon County, 7 in Portage County, 7 in Waupaca County and 3 in Wood County).[13] Most of these sites accept yard waste, and a few accept bark/brush and wood matter. A source-separated compostable material (SSCM) composting facilities license is required to accept food scraps. The UW-Stevens Point compost facillity is the only site in our region that is licensed to accept food waste. In most cases, farm sites do not need a license for on-farm composting of farm materials. No communities in Central Wisconsin offer curbside composting, as it can be cost-prohibitive, but many municipalities allow home composting in residential districts.[14]

Energy Recovery: Food residuals can be converted to energy using anaerobic biogas systems. We are not aware of any systems within our region, but one solid waste company collects food residuals from our region and transports it to the UW-Oshkosh site.[15] Digester sites are often viewed as cost-prohibitive.

Disposal: The least preferred method of managing food waste is disposing food waste in a landfill. In 1993, Wisconsin banned the disposal of yard materials. However, food waste can still be disposed in landfills. There are 11 landfills in our four-county region, but most of the landfills are industrial waste sites or monofills, that is, dedicated for only one type of waste. Only two of the landfills in our region accept municipal solid waste (MSW): the county-run Marathon County Landfill and the privately run Cranberry Creek Landfill in Wood County.

Marathon County Solid Waste Director Meleesa Johnson points out that solid waste often travels a long way. She notes that landfills can accept waste from other counties. For example, the Marathon County landfill receives waste from customers in 11 counties. In addition, solid waste companies serving our region can send waste to other regions. For example, one solid waste provider in our area has landfills in Green Lake County and in Michigan where they may send waste. Therefore it is hard to identify the amount of food waste in our region that is disposed of at landfills.

According to the most recent waste characterization study for Wisconsin, 23.2 percent of waste (from all sources) is organics, which includes yard materials, food scraps and other items.[16] From 2002 to 2009, the amount of organics in our waste stream increased from 854,000 tons to 996,000 tons. Food waste accounted for 10.2 percent of the waste stream in 2002 and 10.6 percent in 2009.

9 UW-Stevens Point Dining and Summer Conferences website. Waste Not. Available at www.uwsp.edu/dining/.

10 Gleaning is the practice of recovering edible product that is left in the field due to imperfections or other reasons.

11 Personal communication with Danielle Lawson, Second Harvest, April 2015.

12 Personal communication with Liz Sheahan. 2/19/15. Learn more at endhunger.org.

13 DNR. 2014. Solid Waste Composting Sites Licensed in Wisconsin for Year 2015. OF these sites, only one – Orchard Ridge RDF Organics Recycling Facility in Washington County – is listed as accepting food waste.

14 The city of Madison ended its popular curbside composting program for financial reasons.

15 Personal communication with Meleesa Johnson. February 2015. Learn more about the UW-Oshkosh site at www.uwosh.edu/biodigester.

16 DNR (Recycling Connections, MSW Consultants). June 30, 2010. 2009 Wisconsin State-Wide Waste Characterization Study

The waste characterization study also found that half (50.9 percent) of food waste is generated by the residential sector, 48.5 percent is generated by the industrial/commercial/institutional sector, and 0.7 percent is generated by the construction and demolition sector.

Community Policies

Policies related to food residuals may be included in community plans or other documents. This could include developing community measures for food waste, and creating goals and strategies for decreasing food waste.

Communities may support initiatives that emphasize prevention, through education on avoiding food losses, developing markets for seconds and excess produce, and so forth. The Bill Emerson Food Donation Act protects donors from food-safety liability when they donate to a nonprofit. Educational programs on food labeling (including the difference between sell by dates and expiration dates), gleaning and composting are typically run by nonprofit organizations such as Recycling Connections.

Some communities in the US, none of which are in Wisconsin, have banned food waste from landfills.[17] Other communities adopt "pay-as-you-throw" programs to discourage waste. Some municipalities outline goals for composting. Solid Waste Departments may have strategic plans that include goals related to food waste. For example, the Marathon County Solid Waste Management Board's strategic plan has a goal to "Maximize productive use of food resources".[18] Goal 4 in the city of Stevens Point's Eco-Municipality Path to a Sustainable Point is to "increase composting participation". The document also includes objectives for reaching that goal.

Communities could assess opportunities and barriers for municipal, industrial and home composting. Industrial composting is state regulated and may be allowed as a conditional use in some districts. Municipalities may regulate home composting for location and odor. Wisconsin Rapids' zoning ordinance specifically notes that "home composting is encouraged by the city" and indicates bins should be kept in a rear yard or screen from the view of neighbors (see section 7.11). The city of Wausau does not mention composting in their zoning code. In 2013, the village of Weston changed their ordinance to include regulations for home composting. A full listing of organizations, including those working with food residuals, is listing in the Community Initiatives section.

Summary

In summary, food residuals in our four-county region are characterized as follows:

1. Food losses occur at every stage of the food system.
2. About a quarter of residential and industrial/commercial/institutional waste in the state is organics, which includes food waste. Disposal of food waste can be expensive. Data by county and region is unavailable at this time.
3. Some individual businesses and organizations are engaged in efforts to prevent food losses, but there is no coordinated effort throughout our region to quantify or reduce food losses.
4. Communities could support efforts to use food residuals through education, research and planning.

Discussion questions:

- What are some of the strengths related to food residuals in our region? What are some weaknesses?
- What are some opportunities to decrease food waste in Central Wisconsin?
- What are some barriers to decreasing food waste in our region, and how do we overcome them?

17 Solid waste facilities do not often have the infrastructure to manage large quantities of food waste. Personal communication with Meleesa Johnson. February 2015.

18 Find the plan on the city of Wausau website: www.ci.wausau.wi.us/

Community Initiatives

Local government, businesses, organizations and individuals are engaged in the food system in different ways. Appendix F includes a listing of community initiatives in our four-county area as well as select statewide organizations. The table includes contact information, mission statement and summary, counties in which they operate, and the food system categories in which they work. Below is an overview of each category.

“Food production” includes education and production planning. DATCP, the Midwest Organic and Sustainable Education Service (MOSES), the Michael Fields Agricultural Institute and others offer statewide workshops and technical assistance. In our region, county UW-Extension offices provide information to producers through the agriculture educators. In addition, organizations such as Golden Sands Resource Conservation and Development, Inc. and Central Wisconsin River Grazers offer technical assistance to farmers interested in grazing. Sometimes existing farms help new or aspiring farmers through internships. Statewide associations such as the Wisconsin Farmers Union, FairShare CSA Coalition, and Wisconsin Farm Bureau provide producers with policy updates and opportunities for education and networking. Several organizations offer opportunities to engage in off-farm production through community gardens. Central Rivers Farmshed’s new buying club coordinates produce orders to assist farms in planning.

“Food processing” includes educational organizations or facilities related to processing. The Organic Processing Institute offers information and technical assistance. Other organizations, such as county UW-Extension offices, and community kitchens offer workshops on food preservation. The Midwest Food Processors Association is an association of processors in the Midwest.

“Distribution” includes coordination, infrastructure, and education related to distribution. Distribution is often handled by individual businesses. The USDA provides information and resources for food hub and cooperative development, which are means by which product can be aggregated for distribution.

“Health and Access” includes education, food security and access. Each county health department provides educational information in regards to nutrition and food assistance programs. Our region has several hunger groups and efforts to provide EBT at farmers markets. Some programs, such as the Giving Gardens and Plant a Row for the Hungry, grow produce for local shelters and food pantries.

The “Local Markets” section includes marketing and market development. DATCP’s Buy Local Buy Wisconsin and Something Special from Wisconsin programs assist local food businesses with resources and marketing assistance. Central Rivers Farmshed coordinates the Central Wisconsin Farm Fresh Atlas, which promotes local farmers and businesses in our region. Area Farm to School programs connect food producers with schools.

“Food Residuals” includes education. For example, Recycling Connections provides education on reducing food waste, composting and more. The newly formed Glean Central Wisconsin gleans from the Stevens Point farmers market and will be expanding to the Wisconsin Rapids farmers market in 2015.

“Collaboration” includes networking and planning efforts. Municipal and county planning and zoning office facilitate the creation of community plans, such comprehensive plans and other efforts. This can be a point through which to articulate food system goals for the community. The Hunger and Poverty Prevention Partnership of Portage County and Healthy People Wood County are examples of collaborations with multiple partners that work together to reduce hunger. There are no food policy councils or comprehensive food system coalitions in our region. Some funding opportunities are included, such as through the USDA, Incourage and Incredible Edibles Investment Club.

Summary

There are many organizations working in the community food system. Many are geared at food production and health and access. Few are geared at food processing, distribution, local markets or food residuals.

1. What are some of the strengths in how our community initiatives address community food system issues?
2. What are some of the weaknesses and/or gaps in available programs and services?
3. Are there any aspects of the community food system that aren’t currently being addressed in our region, or that need to be strengthened?
4. Are there ways that these initiatives could collaborate across the region?

Conclusion

This report is a preliminary assessment of the Central Wisconsin food system, focusing on Marathon, Portage, Waupaca and Wood counties, and includes an overview of each component of the food system. As noted in the report, our region is predominantly agricultural. Following state and national trends, the size of farms is increasing and the number of food producers in our region is decreasing as the population ages. Food producers continue to produce a variety of products, with an emphasis on dairy and produce. In addition, many residents engage in gardening, fishing, hunting and foraging to meet some of their food needs.

Processing drives many production and distribution decisions. The region has a high number of dairy processing plants, and access to fruit and vegetable processing (particularly canned and dried). There is little to no frozen or fresh cut food processing available, and the number of animal processors is in decline.

Distribution of products that are produced in our region are minimally focused on local markets, with potential for expansion. Some producers sell through direct markets, such as farmers markets and CSAs. However, there appears to be only a few restaurants, institutions and grocers that feature local products. Farmers and food businesses with shared social or environmental standards may need to form additional relationships among supply chain partners in the food value chain to maintain these distinctions from production through distribution.

Community residents' access to health-promoting food impacts community health. Following state and national trends, many residents suffer from obesity and diabetes. Some residents face barriers to obtaining health-promoting food, including geographic, cultural and economic factors in both urban and rural communities.

There are food losses throughout the food system, a portion of which could be used to meet other needs if reduced or diverted from the waste stream. Almost a quarter of landfill waste in the state is organics, which includes food residuals.

Many of the community initiatives in the regional food system are focused on food production, community health and food access. Few initiatives focus on food processing, distribution, local markets or food residuals. In addition, there may be additional investment strategies and opportunities related to local food value chains.

Future Assessment Activities

CLUE and the advisory committee identified areas for further assessment. This may include obtaining primary data through surveys, interviews and focus groups. Research questions could include:

1. How much of the food that is currently produced in the region is consumed in the region? Future assessment could attempt to answer this question, or ask a future-oriented question, how much of the region's food needs could be grown locally? This could include analyzing the amount and types of production that could be supported in the region, and the regional demand for those products.
2. What are the barriers and opportunities for processors, institutions, restaurants and grocers in our region to source product from the region? A feasibility study could also be conducted for a fresh cut and fresh frozen processing facility.
3. What are the barriers and opportunities for local distribution of products produced in our region? Aggregation and transportation can be costly barriers. How do we overcome them? This could include a feasibility study for regional distribution services.
4. How can we improve access to health-promoting foods in both urban and rural areas of the region for people of all ages, cultures and income levels? Could we redirect any food residuals to meet community needs such as hunger?
5. What are the top social, environmental and economic challenges impacting producers and food-related businesses in the region? Are there policies and initiatives that would help partners address these issues?

Summary

There are opportunities to work across county lines to address food system issues, identify goals, develop resources and take action. Community partners and policymakers can use this assessment to engage in discussions about the regional food system. Forums for discussion could be provided through local government, regional planning commissions, a coalition of food system partners or local food policy council.

Appendix A: Region

The figures below show race, population, and educational attainment for our four-county region.

Figure AA1: Race by Percent of Population

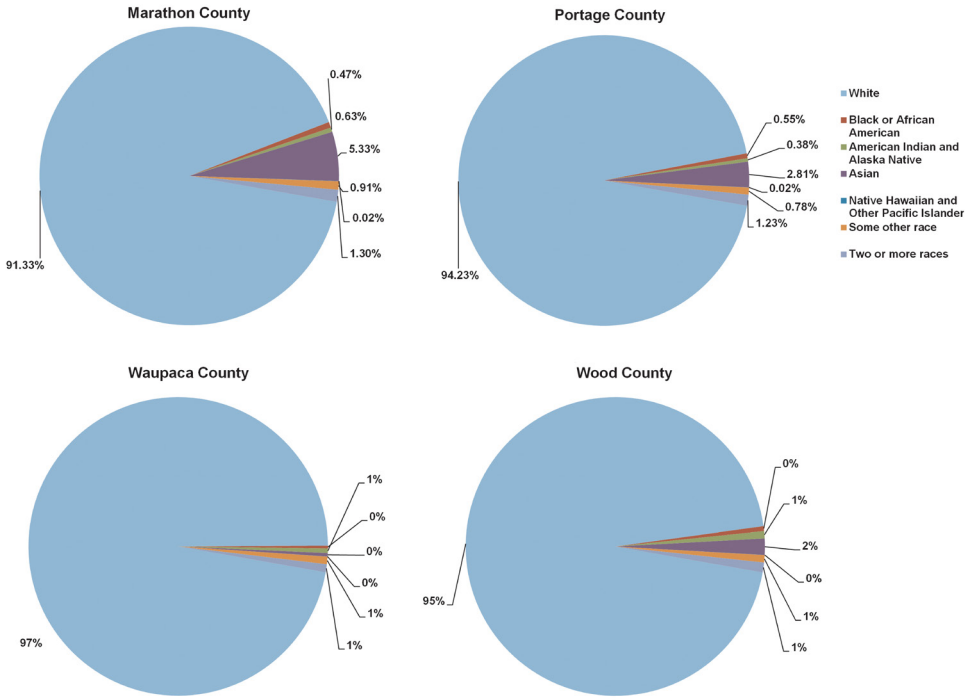


Figure AA2

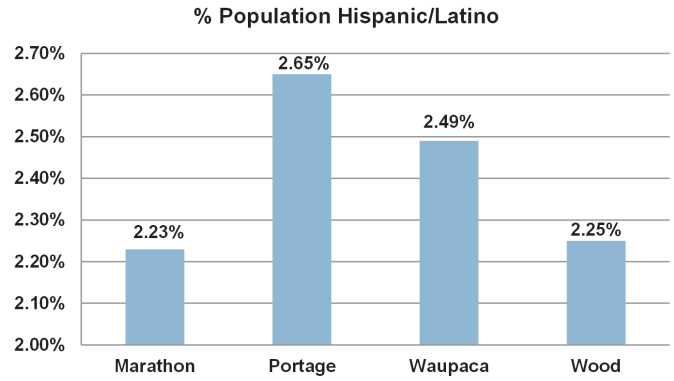


Figure AA3

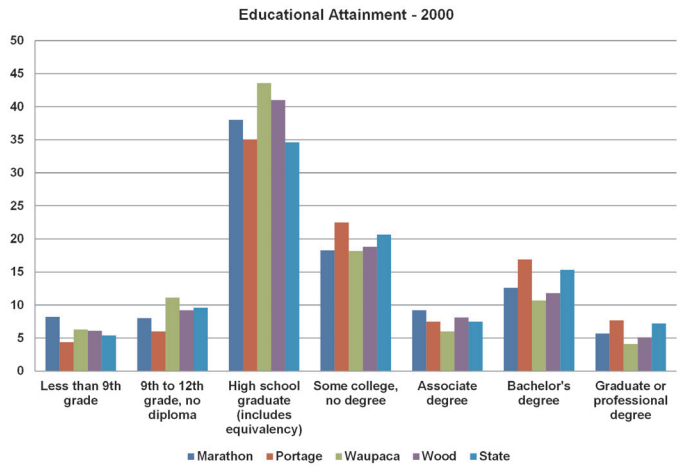
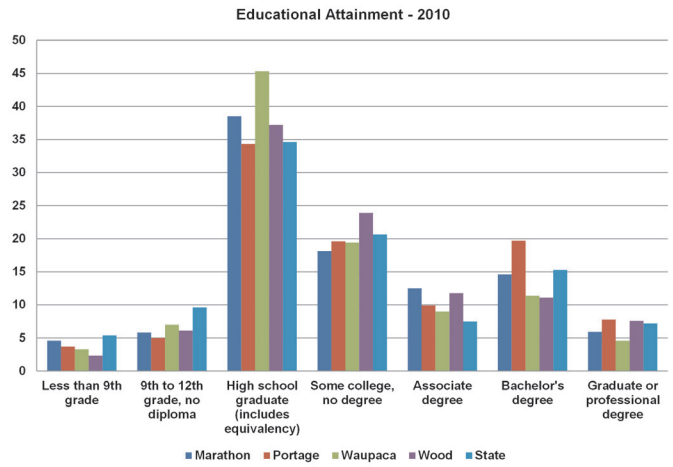


Figure AA4



Appendix B: Production

Tables AB1 and AB2 relate to Figures FP10 and FP11 on page 11.

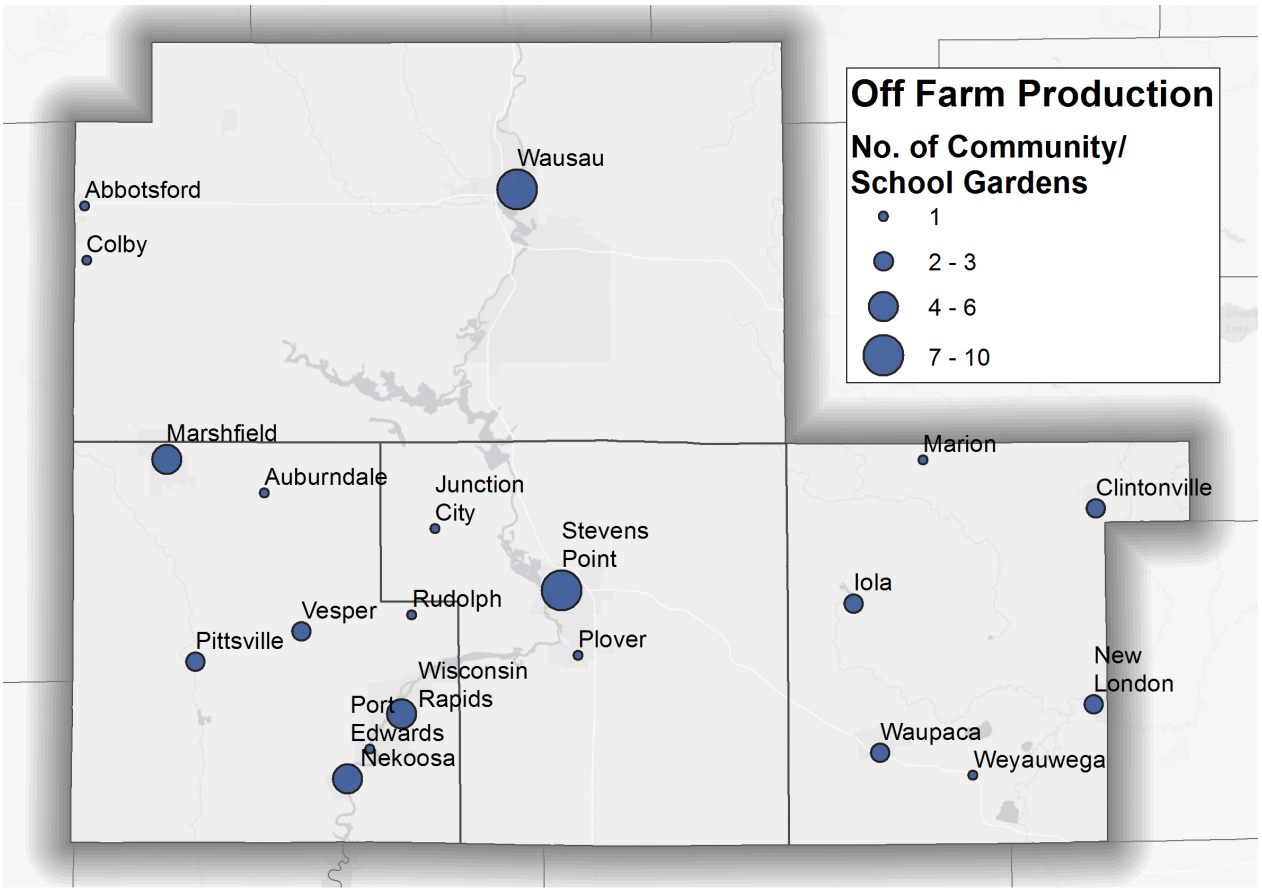
Table AB1: Agricultural Land Values: Average Value Per Acre, Wisconsin, 2009-2013			
Year	Farm Real Estate	Cropland	Pasture
2009	3,750	3,650	2,050
2010	3,750	3,650	2,050
2011	4,050	3,950	2,090
2012	4,350	4,230	2,130
2013	4,400	4,300	2,150
Source: Original table in 2013 Wisconsin Agricultural Statistics, page 4.			

Table AB2: Agricultural Land Continuing in Agricultural Use, 2012			
County	# of Transactions	Acres Sold	$ per Acre
Marathon	54	2,727	3,017
Portage	10	680	3,568
Waupaca	22	1,166	3,799
Wood	15	589	3,044
Wisconsin			
Source: 2013 Wisconsin Agricultural Statistics			

Table AB3 below provides the data for the number of farms growing fruit.

Table AB3: Number of Farms Growing Fruits (2012)							
	Apples	Cherries	Grapes	Peaches	Pears	Plums	Berries
Marathon	39	6	5	2	6	4	26
Portage	20	7	9	1	6	5	46
Waupaca	16	2	4	1	2	2	10
Wood	11	1	1	1	3	4	96
Wisconsin	1,012	287	412	93	208	156	1,509
Percent Total	8.50%	5.57%	4.61%	5.38%	8.17%	9.62%	11.80%
Source: USDA. 2012 Census of Agriculture							

Figure AB1: Community and School Gardens



City	Community	School
Abbotsford	0	1
Auburndale	0	1
Clintonville	1	1
Colby	0	1
Iola	2	0
Junction City	1	0
Marion	1	0
Marshfield	3	1
Nekoosa	2	2
New London	2	0

City	Community	School
Pittsville	0	2
Plover	1	0
Port Edwards	0	1
Rudolph	0	1
Stevens Point	7	1
Vesper	1	1
Waupaca	2	1
Wausau	7	3
Weyauwega	1	0
Wisconsin Rapids	2	4

Source: Wisconsin School and Garden Initiative 2015

Table AB6 on the next page includes the map data. Tables 4 and 5 below include maple syrup and honey.

Table AB4: Maple Syrup Production				
	2012		2007	
	Farms	Gallons	Farms	Gallons
Marathon	107	7,776	148	15,972
Portage	18	116	22	359
Waupaca	8	311	19	422
Wood	20	454	27	550
Total	153	8,657	216	17,303
Source: USDA. 2007 and 2012 Census of Agriculture.				

Table AB5: Honey Collected				
	2012		2007	
	Farms	Pounds	Farms	Pounds
Marathon	24	(D)	11	(D)
Portage	11	(D)	16	45,933
Waupaca	11	9,837	11	15,290
Wood	11	(D)	11	(D)
Total	57	-	49	-
Source: USDA 2007 and 2012 Census of Agriculture.				

Table AB6: Community and School Gardens				
#	Type	Garden	City	County
1	School	Abbotsford High School	Abbotsford	Marathon
2	School	Colby Elementary School	Colby	Marathon
3	School	Hatley Elementary School	Hatley	Marathon
4	School	D.C. Everest Middle School	Schofield	Marathon
5	School	Stratford High School	Stratford	Marathon
6	Community	2nd Street Garden	Wausau	Marathon
7	Community	East Towne Garden	Wausau	Marathon
8	Community	First American Center	Wausau	Marathon
9	Community	The Neighbors Place Garden 1	Wausau	Marathon
10	Community	The Neighbors Place Garden 2	Wausau	Marathon
11	School	Lincoln Elementary School	Wausau	Marathon
12	School	Thomas Jefferson Elementary School	Wausau	Marathon
13	School	Wausau West High School	Wausau	Marathon
14	Community	Junction City Boys and Girls Club	Junction City	Portage
15	Community	Plover Boys and Girls Club	Plover	Portage
16	Community	Cap Services Our Enchanted Garden	Stevens Point	Portage
17	Community	Frame Presbyterian Garden	Stevens Point	Portage
18	Community	Gilfry Garden	Stevens Point	Portage
19	Community	Jackson Garden	Stevens Point	Portage
20	Communtiy	Stevens Point Boys and Girls Club	Stevens Point	Portage
21	Community	Victory Garden	Stevens Point	Portage
22	Community	Youth Garden	Stevens Point	Portage
23	School	UW-Stevens Point Campus Garden	Stevens Point	Portage
24	School/Community	Rexford Longfellow Garden	Clintonville	Waupaca
25	Community	Iola Children's Garden	Iola	Waupaca
26	Community	River Road Community Garden	Iola	Waupaca
27	Community	Marion Community Garden	Marion	Waupaca
28	Community	Trinity Evangelical Lutheran Garden	New London	Waupaca
29	Community	United Methodist Church Garden	New London	Waupaca
30	Community	Waupaca Children's and Seniors' Garden	Waupaca	Waupaca
31	School/Community	Waupaca School Community Garden	Waupaca	Waupaca
32	Community	Weyauwega Community Garden	Weyauwega	Waupaca
33	School	Auburndale High School	Auburndale	Wood
34	Community	First Presbyterian Church	Marshfield	Wood
35	Community	Good Shepherd Church	Marshfield	Wood
36	Community	St. Alban's Church	Marshfield	Wood
37	School	Marshfield High School	Marshfield	Wood
38	Community	Nekoosa Community Garden	Nekoosa	Wood
39	School	Humke Elementary School	Nekoosa	Wood
40	School/Community	Alexander Middle School	Nekoosa	Wood
41	School	Pittsville Elementary School	Pittsville	Wood
42	School	Pittsville High School	Pittsville	Wood
43	School	John Edwards Middle and High School	Port Edwards	Wood
44	School	Rudolph Elementary (THINK academy)	Rudolph	Wood
45	School/Community	Vesper Community Garden	Vesper	Wood
46	Community	Growing Friends Community Garden	Wisconsin Rapids	Wood
47	School	Howe Elementary School	Wisconsin Rapids	Wood
48	School	Lincoln High School	Wisconsin Rapids	Wood
49	School	Mead Elementary School	Wisconsin Rapids	Wood
50	School/Community	Washington Elementary School	Wisconsin Rapids	Wood
Sources: Wisconsin School and Community Garden Initiative 2015 and regional partners.				

Examples of off-farm planning and zoning affecting food production are provided in the table below.

Table AB7: Examples of Off-Farm Planning and Zoning

Document	Community Gardens	Non-Farm Livestock
Marathon Co. Comprehensive Plan	Community gardens are not mentioned.	Non-farm livestock such as chickens are not mentioned.
Marathon Co. Zoning Code	Community gardens not mentioned.	RR, RR/M and RE, RE/M districts (small to medium lot residential) can have 1 large pet / hobby animal unit per 2.5 acres (up to 10 chickens).
City of Wausau Comprehensive Plan	Under Parks and Recreation, the city includes exploring opportunities to convert undeveloped properties to community gardens.	Non-farm livestock such as chickens are not mentioned.
City of Wausau Zoning Code	Community gardens are not mentioned.	The city expressly forbids farm animals (including chickens) in Chapter 8.08: Animals – Care and Control. Section 8.08.010.
Portage County Comprehensive Plan	Community gardens are not mentioned	Non-farm livestock such as chickens are not mentioned.
Portage County Zoning Code	Community gardens are not mentioned.	The Portage County Zoning Ordinance includes specific provisions for keeping chickens under Section VI; 7.1.6.1 Buildings, Area, Height, Yards, and Parking; (A) Buildings and Uses; item 19, a through h. Up to 12 chickens are allowed in the R1, R2, and R5 residential zoning districts. Roosters are prohibited and no slaughtering or butchering is allowed on site. The chicken coop must be 50 feet from the property line and 100 feet from a neighboring residence.
City of Stevens Point Comprehensive Plan	Community gardens are not mentioned.	Non-farm livestock such as chickens are not mentioned.
City of Stevens Point Municipal Code	Community gardens are a conditional use in R1 and R2.	The ordinance regulating chickens is found under Chapter 21: Building and Premises Maintenance and Occupancy, Section 21.03: Responsibilities of Owners and Occupants, item 16: Keeping Animals. Individuals are not allowed to have a farm animal without requesting a special permit from the Public Protection Committee of the city council, which reviews the requests on a case-by-case basis.
Waupaca County Comprehensive Plan	Community gardens not mentioned.	Non-farm livestock such as chickens are not mentioned.
Waupaca County Zoning Code	Community gardens not mentioned.	Animal Husbandry in AE, AR, AWT and PVRF is 1 animal unit per acre. RR is CUP.
Wood County Comprehensive Plan	Community gardens not mentioned.	Non-farm livestock such as chickens are not mentioned.
Wood County Zoning Code	Community gardens not mentioned.	Non-farm livestock such as chickens are not mentioned.
City of Wisconsin Rapids Comprehensive Plan	Goal 9 in Chapter 7, Land Use, is to establish an urban agricultural community (e.g. strategically placed, active community garden plots).	Non-farm livestock such as chickens are not mentioned.
City of Wisconsin Rapids Zoning Code	Community gardens not mentioned.	Chickens allowed in R1 and R2? (approved but didn't find in ordinances)

Source: City and county websites and planning and zoning offices.

Appendix C: Food Processing

The table below includes the data mapped in Figure P1 on page 18.

Table AC1: Meat and Produce Processors and Shared Use Kitchens				
#	Name	Type	City	County
1	Headings Family Meats	Meat	Spencer	Marathon
2	Northern Meat Processing LLC	Meat	Marshfield	Marathon
3	Zillmans Meat Market	Meat	Wausau	Marathon
4	Abbyland Foods Plant 3	Meat	Abbotsford	Marathon
5	Mekong Meats	Meat	Mosinee	Marathon
6	Country Fresh Meats Inc.	Meat	Weston	Marathon
50	Downtown Grocery.Com	Shared Use Kitchen	Wausau	Marathon
51	Wausau Business Development Center	Shared Use Kitchen	Wausau	Marathon
7	Adams Sausage & Meat Co.	Meat	Amherst	Portage
8	Linwood Meats	Meat	Stevens Point	Portage
9	People's Meat Market	Meat	Stevens Point	Portage
10	Ski's Meat Market	Meat	Stevens Point	Portage
30	Del Monte Corporation	Produce, Canned	Plover	Portage
31	McCain Foods USA Inc.	Produce, Frozen	Plover	Portage
32	Golden County Foods	Produce, Frozen	Plover	Portage
33	Intevation Foods	Produce, Frozen	Plover	Portage
34	Paragon Potatoes	Produce, Other	Bancroft	Portage
52	The New Village Bakery (Village Hive)	Shared Use Kitchen	Amherst	Portage
11	Little River Meats	Meat	Weyauwega	Waupaca
12	Pine Grove Meats LLC	Meat	Ogdensburg	Waupaca
13	Venneford Farm County Meats	Meat	Clintonville	Waupaca
14	Northwoods Sausage, Inc.	Meat	New London	Waupaca
15	Sonday Produce	Meat	Waupaca	Waupaca
24	Niemuth's Steak and Chop Shop	Meat	Waupaca	Waupaca
16	Hewitt's Meat Processing Inc.	Meat	Marshfield	Wood
17	Konrardy Butcher Shop, LLC	Meat	Marshfield	Wood
18	Pittsville Meats	Meat	Pittsville	Wood
19	A & B Butchering	Meat	Rudolph	Wood
20	Pete's Meats	Meat	Rudolph	Wood
21	Wenzel Farm Sausage	Meat	Marshfield	Wood
22	Biery Cheese	Meat	Sherry	Wood
23	Figis	Meat	Marshfield	Wood
39	Mariani Packing Co., Inc	Produce, Dried	Wisconsin Rapids	Wood
40	Badger State Fruit Processing #1 and #2	Produce, Dried and Frozen	Pittsville	Wood
41	Ocean Spray Cranberries	Produce, Dried and Frozen	Wisconsin Rapids	Wood
36	Glacial Lake Cranberries	Produce, Frozen	Wisconsin Rapids	Wood
37	Searles	Produce, Fresh	Wisconsin Rapids	Wood
35	Ocean Spray Cranberries	Produce, Frozen	Babcock	Wood
38	Gardner	Produce, Frozen	Pittsville	Wood
42	Simply Incredible Foods, LLC	Produce, Other	Port Edwards	Wood
Sources: DATCP_Food_Processing File Geodatabase (2014), CLUE and UW-Extension				

Appendix D: Local Markets

The table below includes the list of farmers markets mapped in Figure LM1 on page 23.

Table AD1: Farmers Markets				
#	Farmers Market	City	County	EBT
1	Abbotsford Farmers Market	Abbotsford	Marathon	no
2	Edgard Farmers Market	Edgar	Marathon	no
3	Kronenwetter Farmers Market	Kronenwetter	Marathon	yes
4	Farmers' Fresh Market	Mosinee	Marathon	no
5	Community Corner Market	Stratford	Marathon	no
6	Stratford Farmers Market	Stratford	Marathon	yes
7	Big Bull Falls Farm Market	Wausau	Marathon	no
8	Farmers Market of Wausau	Wausau	Marathon	yes
9	Market Place Thursdays	Wausau	Marathon	no
10	Marshfield Clinic and Aspirus Farmer's Market	Wausau	Marathon	yes
11	Wausau Winter Market	Wausau	Marathon	yes
12	Weston Farmers Market	Weston	Marathon	yes
13	Amherst Farmers Market	Amherst	Portage	no
14	Stevens Point Farmers Market	Stevens Point	Portage	yes
15	The Market on Strongs	Stevens Point	Portage	no
16	Clintonville Weekly Market - Senior Center	Clintonville	Waupaca	no
17	Iola Farmers Market	Iola	Waupaca	no
18	Manawa Weekly Market at Triangle	Manawa	Waupaca	no
19	Marion Weekly Market at Marion Shell Plaza	Marion	Waupaca	no
20	Wolf River Marketplace on Shawano Street	New London	Waupaca	no
21	Waupaca Saturday Farm Market	Waupaca	Waupaca	no
22	Winter Saturday Market in Waupaca	Waupaca	Waupaca	no
23	Festival Foods Farmers Market	Marshfield	Waupaca	no
24	Main Street Marshfield Farmers Market	Marshfield	Waupaca	no
25	Nekoosa Farmers Market	Nekoosa	Wood	no
26	Pittsville Farmers Market	Pittsville	Wood	yes
27	Wood County Farmers Market	Wisconsin Rapids	Wood	yes
28	Wood County Winter Farmers Market	Wisconsin Rapids	Wood	no
Source: Food Security Project and project partners				

Wood County Farm to School Case Study

Farm to School coordinator Sue Anderson provided the below case study about the Wood County Farm to School program to demonstrate the schools' purchasing potential:

Wood County schools, consisting of 6 school districts and approximately 11,000 students, consistently increased their local food purchases during a four-year period from 2010 to 2014. Two factors relating to this increase were having a dedicated Farm to School coordinator in the county and the option of purchasing fresh cut products that are ready to use for the school lunch programs.

A large percentage of the food was purchased from Parrfection Produce, a local food aggregator from Monroe, WI. Parrfection Produce aggregates food grown from more than 100 Wisconsin farmers and delivers them to institutions in 3 states. Other local food vendors included farmers markets, Wood and Portage County farmers, DoD Fresh (a government program), school gardens and greenhouses, and school prime vendors.

For three years, food trials were conducted at a Wood County restaurant, where local foods were processed on site (carrot to sticks, cabbage to shreds, watermelon sliced) and delivered to the schools. This was a popular option because the "ready to serve" food is the current status quo in schools. All of the types of local food purchased are currently grown in Central Wisconsin, but criteria such as delivery, price and volume were barriers to having all of it produced in our region for the schools.

Table AD2: Local Food Purchases in Wood County Schools During a 4-Year Period

Year	Amount in $	Amount in #	Number of Growers
2010/2011	$650.00	750	10
2011/2012	$6,250.00	16,500	19
2012/2013	$21,419.00	28,961	26
2013/2014	$27,433.00	35,385	45
Source: Wood County Farm to School Program, 2015			

Appendix E: Food Access and Health

The table below includes the food pantries mapped in Figure A1 on page 30.

Table AE1: Food Pantries and Meal Sites			
#	Pantry/Meal Site	City	County
1	Saint Florian's Parish	Hatley	Marathon
2	Community Center of Hope	Mosinee	Marathon
3	AIDS Resource Center of Wisconsin - Wausau Office	Schofield	Marathon
4	Covenant Community Presbyterian Church	Schofield	Marathon
5	Saint Agnes Catholic Parish	Schofield	Marathon
6	Spencer King's Pantry	Spencer	Marathon
7	Trinity Lutheran Church	Unity	Marathon
8	ADRC Senior Meal Site	Wausau	Marathon
9	Catholic Charities of the Diocese of La Crosse	Wausau	Marathon
10	Church of the Resurrection	Wausau	Marathon
11	First Presbyterian Church	Wausau	Marathon
12	Jubilee House	Wausau	Marathon
13	Saint John the Baptist Episcopal Church	Wausau	Marathon
14	The Neighbors' Place	Wausau	Marathon
15	The Salvation Army	Wausau	Marathon
16	Trinity Lutheran Church	Wausau	Marathon
17	Wausau Area Hmong Mutual Association	Wausau	Marathon
18	Wesley United Methodist Church	Wausau	Marathon
19	Jensen Center Senior Meal Site	Amherst	Portage
20	Track Tomorrow River Area Communities Kitchen	Amherst	Portage
21	Junction City Park Lodge Senior Meal Site	Junction City	Portage
22	New Hope Community Church	Junction City	Portage
23	Interfaith Food Pantry of Portage County	Plover	Portage
24	Plover Municipal Center Senior Meal Site	Plover	Portage
25	Faith Lutheran Church Senior Meal Site	Plover	Portage
26	Rosholt Food Pantry	Rosholt	Portage
27	CAP Services	Stevens Point	Portage
28	Emergency Services	Stevens Point	Portage
29	Evergreen Church	Stevens Point	Portage
30	Family Crisis Center	Stevens Point	Portage
31	Hi-Rise Manor Senior Meal Site	Stevens Point	Portage
32	Lincoln Center Senior Meal Site	Stevens Point	Portage
33	Mobile Pantry	Stevens Point	Portage
34	Operation Bootstrap	Stevens Point	Portage
35	Portage County Health and Human Services	Stevens Point	Portage
36	Saint Paul Lutheran Church	Stevens Point	Portage
37	Salvation Army of Stevens Point	Stevens Point	Portage
38	St. Brons Community Meal	Stevens Point	Portage
39	St. Vincent de Paul	Stevens Point	Portage
40	UW-Stevens Point - The Cupboard	Stevens Point	Portage

Table continued on next page

Table AE1 Continued			
41	Christ Congregational UCC Community Meal	Clintonville	Waupaca
42	Clintonville Area Food Pantry	Clintonville	Waupaca
43	Clintonville Senior Center	Clintonville	Waupaca
44	Iola Area Food Pantry	Iola	Waupaca
45	Iola Senior Center	Iola	Waupaca
46	Manawa Area Communities Food Pantry	Manawa	Waupaca
47	Manawa Senior Center	Manawa	Waupaca
48	Marion Senior Center	Marion	Waupaca
49	New London Community Cupboard	New London	Waupaca
50	New London Senior Center	New London	Waupaca
51	Salvation Army	New London	Waupaca
52	St. John's Food Pantry	New London	Waupaca
53	United Methodist Community Meal	New London	Waupaca
54	Bread Basket Community Meal	Waupaca	Waupaca
55	Cries of the Heart Outreach Ministries	Waupaca	Waupaca
56	Ruby's Pantry	Waupaca	Waupaca
57	Waupaca Area Food Pantry	Waupaca	Waupaca
58	Waupaca Nutrition Center	Waupaca	Waupaca
59	First Presbyterian Community Meal	Weyauwega	Waupaca
60	Weyauwega Nutrition Center	Weyauwega	Waupaca
61	Weymont Food Pantry, Inc.	Weyauwega	Waupaca
62	Cedar Rail Meal Site	Marshfield	Wood
63	Columbus Catholic High School	Marshfield	Wood
64	East Gate Alliance Church Parent Time Out	Marshfield	Wood
65	North Ridge Church	Marshfield	Wood
66	Parkview Apartments Meal Site	Marshfield	Wood
67	Saint Vincent de Paul Outreach Center	Marshfield	Wood
68	Soup or Socks, Inc.	Marshfield	Wood
69	Nekoosa Area Senior Community Center	Nekoosa	Wood
70	Pittsville Area Neighbors Shelf (PANS)	Pittsville	Wood
71	The United Church of Christ - Pittsville	Pittsville	Wood
72	Christian Life Fellowship	Port Edwards	Wood
73	10th Avenue Meal Site	Wisconsin Rapids	Wood
74	Centralia Center	Wisconsin Rapids	Wood
75	Family Center	Wisconsin Rapids	Wood
76	Huntington House Meal Site	Wisconsin Rapids	Wood
77	Neighborhood Table Meal Site	Wisconsin Rapids	Wood
78	Opportunity Development Centers, Inc.	Wisconsin Rapids	Wood
79	Saint Johns Episcopal Church	Wisconsin Rapids	Wood
80	South Wood Emergency Pantry Shelf	Wisconsin Rapids	Wood
Source: Food Security Project, CLUE, and Project Partners			

Appendix F: Community Initiatives

Marathon	Portage	Waupaca	Wood	Organization	Office Location	Main Contact	Phone	Email
X		X	X	Aging and Disability Resource Center of Central Wisconsin	Various	Linda Weitz	715-261-6070	Linda.Weitz@adrc-cw.com
X	X	X	X	Central Rivers Farmshed	Stevens Point	Layne Cozzolino	715-544-6154	layne@farmshed.org
X	X	X	X	FairShare CSA Coalition	Madison	Erika Jones	608-226-0300	erika@csacoalition.org
X	X	X	X	Field to Foodbank	Madison	Danielle Lawson	608-216-7241	daniellel@shfbmadison.org
X	X	X	X	Golden Sands Resource Conservation and Development Council, Inc. (RC&D)	Stevens Point	Amy Thorstenson	715-343-6215	Amy.Thorstenson@goldensandsrcd.org
			X	Healthy Lifestyles Marshfield Area Coalition	Marshfield	Darcy Vanden Elzen	800-782-8581	vandenelzen.darcy@marshfieldclinic.org
			X	Incourage Community Foundation	Wisconsin Rapids	Kelly Ryan	715-423-3863	kryan@incouragecf.org
	X		X	Incredible Edibles Investment Club	None	Mary Maller		Namaste@wi-net.com
X	X	X	X	Institutional Food Market Coalition	Madison	Carrie Edgar	608-224-3706	edgar@countyofdane.com
X				Marathon County	various	various		
X				Marathon County Hunger Coalition	Wausau	Joanne Kelley	715-848-2927	jkelly@unitedwaymc.org
X				Marathon County UW-Extension	Wausau	Janette Baumann	715-261-1232	janette.baumann@co.marathon.wi.us
X	X	X	X	Michael Fields Agricultural Institute	East Troy	David Andrews	262-642-3303	dandrews@michaelfields.org
X	X	X	X	Midwest Food Processors Association	Madison	Nick George	608-255-9946	nick.george@mwfpa.org
X	X	X	X	Midwest Organic and Sustainable Ed. Service	Spring Valley	Faye Jones	715-778-5775	faye@mosesorganic.org
		X		NuAct (Waupaca County Nutrition and Activity Coalition)	Waupaca	Bev Hall		Bev.hall@co.waupaca.wi.us
X	X		X	North Central Wisconsin Regional Planning Commission	Wausau	Dennis Lawrence	715-849-5510 x. 304	dlawrence@ncwrpc.org
X	X	X	X	Organic Processing Institute	Middleton	Carla Wright	608-833-5370	carla@organicprocessinginstitute.org
	X			Portage County	various	various		
	X			Portage County Hunger Poverty and Prevention Partnership	Stevens Point	Jill Hicks		jill.hicks@ces.uwex.edu
	X			Portage County UW-Extension	Stevens Point	Connie Creighton	715-346-1316	connie.creighton@ces.uwex.edu
X	X	X	X	Recycling Connections	Stevens Point	Karin Sieg	715-343-0722	karin@recyclingconnections.org
X				Slow Food Marathon County	Wausau	Lisa Macco		slowfoodwausau@yahoo.com
			X	South Wood County Hunger Coalition	Wisconsin Rapids	Tari Johns	715-421-0390	tari@uwiw.org
X	X	X	X	St. Andrews Society	Big Island, VA.	Marian Kelly	800-333-4597	Marian@EndHunger.org
X	X	X	X	UMOS	Wautoma	Juan Jose Lopez	920-787-4617	
X	X	X	X	USDA (Farm Service Agencies, NRCS, and Rural Development)	Stevens Point	various		
	X			UW-Stevens Point Office of Sustainability	Stevens Point	Dave Barbier	715-346-2416	Dave.Barbier@uwsp.edu
		X		Waupaca County	Waupaca	various		
		X		Waupaca County UW-Extension	Waupaca	Connie Abert	715-258-6230	connie.abert@ces.uwex.edu
X				Wausau Urban Community Gardens	Wausau	Laura Scudiere	715-848-4884	info@bridgeclinic.org
X	X	X	X	Wisconsin Department of Agriculture, Trade and Consumer Protection	Madison	various		
X	X	X	X	Wisconsin Farmers Union	various	Tom Quinn	715-723-5561	tquinn@wisconsinfarmersunion.com
			X	Wood County	Wisconsin Rapids	Kristie Rauter		krauter@co.wood.wi.us
			X	Wood County UW-Extension	Wisconsin Rapids	Peter Manley	715-421-8440	peter.manley@ces.uwex.edu
X	X	X	X	WI Local Food Network - Central Region	None	Kristy SeBlonka		seblonka@gmail.com

Summary/Mission	Food Production	Processing / Distribution	Access and Health	Local Markets	Food Residuals	Collaboration
A program that reduces hunger and food insecurity, and promotes socialization and the health and well-being of older individuals			Elderly nutrition			
A nonprofit expanding the connection between residents and their food and supporting a local food economy	Growing collective to start seedlings	Community kitchen; food buying club	EBT at markets, Farm to School	Farm Fresh Atlas		Networking
A coalition that works towards connecting the community with local CSA farms	Networking		Partner Shares			Coalition
Program linking food producer donations with food banks			Food donations			
A nonprofit that works across county lines on conservation issues	Grazing assistance; community gardens					Collaboration
Work with schools. businesses and the community to promote healthy eating and active living as part of a healthy lifestyle	Community gardens		Education/nutrition			Coalition
A community foundation that provide grants and facilitating citizen-led plan for Tribune Building						Planning, funding
An investment club that makes loans to producers, processors and retailers that contribute to a sustainable food economy	Loans	Loans		Loans		
A program to facilitate local food sales by connecting large volume buyers, distributors, farmers and local food businesses				Education		Networking
Several departments work with food, including Health Department, Planning and Zoning, and Land and Water Conservation	Conservation and grazing		Nutrition education; Farm to School	Farm to School		Planning and zoning
A coalition that works to develop long-term solutions to hunger			Education			Coalition
Deliver education programs in agriculture, community development, family living and 4H / youth development	Ag and horticulture education	Food safety and preservation				
A nonprofit providing food and farming education	Ag education					
Association that represents food processors in the Midwest			Advocacy			
Nonprofit promoting organic and sustainable agriculture	Ag education					
Coalition to enhance the health of children, families and communities through improved nutritional choices and increased physical activities			Nutrition education			Coalition
Providing professional planning services to member local governments						Planning and assessment
Educate and encourage organic processing in Upper Midwest		Education				
Several departments work with food, including Health, Planning and Zoning, Land and Water Conservation, ADRC	Resources inventory and conservation		Nutrition education / elderly nutrition			Planning and zoning
Coalition addressing hunger and poverty issues in Portage County	Giving Gardens		Policy, funding		Glean Central Wisconsin	Networking
Deliver education programs in agriculture, community development, family living and 4H / youth development	Ag and horticulture education	Food safety and preservation	Nutrition education		Master Composters	
Nonprofit focused on waste reduction, reuse, and recycling					Education	
Grassroots organization promoting sustainable, healthy food						Networking
A coalition working together to reduce hunger			Education			Coalition
National food recovery organization with farm gleaning and potato and produce recovery projects					Gleaning/ Recovery	
Nonprofit focused on employment, education, health and housing for migrants	Farmworker education					
Provides leadership, technical assistance, and funding for agriculture, e.g. land, equipment, kitchen facilities and more.	Funding	Funding	Funding	Funding	Funding	
Move toward a zero-waste campus. Other programs provide health, planning, soils, and environmental education related to food systems.	Campus garden		Campus food pantry		Dining services	
Several departments work with food, including Health Department, Planning and Zoning, and Land and Water Conservation	Resource inventory and conservation		Nutrition education/ elderly nutrition			Planning and zoning
Deliver education programs in agriculture, community development, family living and 4H / youth development	Ag and horticulture education	Food safety and preservation	Farm to School			
Increase awareness of health and nutrition through gardening	Garden sites					
Provide support agriculture and food-related businesses through Farm Center, Buy Local Buy Wisconsin, and other programs	Ag education	Food safety, workshops		Marketing, funding		
Membership organization providing education, resources and policy	Education, policy		WI Food Hub Coop.			
Several departments work with food, including the Health Department (which coordinates the Healthy People Wood County initative), Planning and Zoning, and Land and Water Conservation	Conservation, gardens		Nutrition education, Farm to School	Farm to School		Networking, planning and zoning
Deliver education programs in agriculture, community development, family living and 4H / youth development	Ag and horticulture education	Food safety and preservation			Master Composters	
Networking meetings for food system organizations/businesses						Networking

Full citation: SeBlonka and Haines. 2015. Central Wisconsin Food System Assessment. Center for Land Use Education, University of Wisconsin-Stevens Point and University of Wisconsin-Extension. Recommended citation for figures: SeBlonka and Haines. 2015. Central Wisconsin Food System Assessment [insert figure number and page].

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