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By

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Local Food Cluster Formation: Intentional or Organic?

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Food, in general, is a local land use issue whether the focus is on production or some other aspect - processing, distribution, consumption or waste (Harvard 2012). These aspects of food can be examined at a community level. It appears that some places have more local food production/processing, etc. than other places and form a local food cluster. The purpose of this research is to learn how local food clusters formed (if they exist at all) and their contributions to community.

This paper represents one part of a larger research agenda that is focusing on the impact of local food systems on communities, both economic and non-economic. For this paper, our primary research questions include: Why do these clusters exist? Are these clusters the result of an intentional strategy? How do these clusters contribute to community? The research method is largely qualitative using focus groups and document analysis to uncover cluster formation and maintenance. Each focus group brought together ten participants that included farmers, local food business owners, and non-profits from two counties in Wisconsin. The two counties of interest are Vernon County in the Driftless Region and Bayfield County far to the north along the shores of Lake Superior. The analysis includes one other county that does not appear to have a local food cluster to act as a comparison. Information gathered during these focus groups will help inform local food system efforts that are addressing the challenges of increasing and scaling-up local food. In addition, the results will help community practitioners and academics understand the role agriculture and local food systems have in rural community and economic development policy.

Literature Review

The rapid growth in “civic agriculture” or local food systems has been discussed in both the sociology literature (Lyson 2004) as well as the planning literature (Caton Campbell 2004; Lapping 2004; Mendes, W. et al 2011; Thibert 2012). Lyson (2004) defines civic agriculture as “a locally

organized system of agriculture and food production characterized by networks of producers who are bound together by place” (p.63). This concept is similar to an industrial cluster except focused on agriculture and food. Brasier et al. (2007) examined small farm clusters in the Northeast using Porter’s definition of industry clusters. They identified agricultural clusters through discussions with key individuals and found a number of ways that these clusters can be supported and nurtured. Although agricultural clusters were identified in the northeast, we don’t know if they developed intentionally or not. In addition, these clusters are focused on producers only, not on the range of local food infrastructure that is possible.

There appears to be a growing pool of evidence that this “push back” on industrial agriculture may be sufficient to open new and meaningful markets for local food systems and small and medium scale agriculture (Lyson and Guptill 2004; King, et al. 2010). Brown and Miller (2008) point to the rapid growth in the number of farmers markets, perhaps the “historical flagship of local food systems” (p.1296) over the past ten years, while Hardesty (2008) notes the growth in the number of local institutions such as hospitals, schools and even prisons expressing strong interest in purchasing from local farmers.

The role of agriculture in economic growth and community development remains a contentious issue in both academic research and policy discussions. While there is a widening acceptance among academics that agriculture is no longer a major source of employment and income growth in most of nonmetropolitan America, there is significant interest in the promotion of small and medium scale agriculture and local food systems as a new form of community and economic development policy.

Method

The method was accomplished in three phases: Identifying local food clusters, conducting focus groups, and analyzing the data.

Identifying local food clusters

First, we needed to identify local food clusters. Data available at the county level includes County Business Patterns, Economic Census, and Agriculture Census. The data is easily accessed at the county level.

In examining the data available and with an understanding of local food, we established three indices. Index 1 is associated with production most closely and was created from three variables:

- direct sales to consumers (\$),
- farm type (# of family-owned), and
- farm size (# of farms between 1-49 acres).

Direct sales to consumers are closely associated with local food. People stop at a farm stand or u-pick operation, for examples, to collect fresh fruit or vegetables.

Farm type may or may not be associated with local food directly but we reasoned that family-owned farms are more likely to serve a local population.

Farm size was a variable we considered and we reasoned that small farms (1-49 acres) were more likely to serve a local population than larger farms. Small farms are more likely to be located close to urban areas, have high value crops (strawberries, peas, etc.), or be community-supported agriculture farms.

Because food systems are more complex than the production aspect, we expanded the number of variables for index 2. Index 2 includes the three variables from Index 1 and adds four variables focused on processing:

- animal,
- grain/oilseed,
- dairy, and
- fruit/vegetable.

We only focused on businesses with one to nine employees. We reasoned that small operations are more likely to serve a more local population due to smaller marketing budgets. We considered one to four employees but the number of establishments was too small for almost all the counties.

We added one group of variables to our analysis to add a tertiary food sector. Index 3 includes all the variables from indexes 1 and 2 and adds in businesses with one to nine employees:

- bakeries,
- beverages, and

- other. The other category includes coffee and tea manufacturing and perishable prepared food manufacturing.

Scores

For each direct measurement, raw scores were normalized at the county level between 0 and 10 in order to create a comparable scale using the following formula:

$$\frac{(Feature\ value) - (Minimum\ value)}{(Maximum\ value) - (Minimum\ value)} \times 10$$

Factor	Minimum	Maximum	Weight	Maximum possible score
Direct sales (\$)	0	2,684,000	5	10
No. of family owned farms (No.)	2	2,786	5	10
Farm size (No. of 1-49 ac)	3	1,539	5	10
Animal processing (No. of businesses with 1-9 employees)	0	14	5	10
Grain/oilseed (No. of businesses with 1-9 employees)	0	3	5	10
Dairy processing (No. of businesses with 1-9 employees)	0	18	5	10
Fruit/vegetable processing (No. of businesses with 1-9 employees)	0	84	5	10
Bakeries (No. of businesses with 1-9 employees)	0	37	5	10
Beverages (No. of businesses with 1-9 employees)	0	11	5	10
Other (No. of businesses with 1-9 employees)	0	26	5	10

- Each factor was weighted equally so that no one factor was deemed more important than others
- Using spatial overlay analysis, each factor was added together to produce a cumulative score, ranging from 0-100.

We created two sets of maps. One based on the analysis above and another set based on the above score and normalized by population. The advantage of normalizing is that a region with a small population can emerge more significantly than it otherwise would. Not taking population into account, we are left with food clusters emerging only in or adjacent to metropolitan counties. By observation it seemed reasonable that counties without large populations are engaged also in local

food systems. By ignoring population, we would not capture rural areas that engage in local food systems.

Conducting the Focus Groups

The focus groups were conducted to understand local food clusters in Wisconsin. We identified the clusters through the initial cluster analysis explained above. Information gathered during these focus groups will help inform local food system efforts that are addressing the challenges to increasing and scaling-up local food. Each focus group brought together ten farmers or other local food business owners from two counties in Wisconsin to participate in a group interview to discuss the local food system. Each participant attended one focus group lasting approximately three hours. During the session, we asked the questions outlined in Table 1.

Table 1: Focus Group Questions:

- Research question 1: Why do these clusters exist?
 - What is the history of local food in this county?
 - Do you think a local food cluster exists? What is evidence of that?
 - Do you think there was a catalyst for local food here?
 - Have you seen either growth or decline of local food businesses (farms, restaurants, grocery, other) and other organizations (associations, cooperatives, etc.) over time? Explain.
- Research question 2: Are these clusters the result of an intentional strategy?
 - Was there any effort to assist local food businesses by state, county, or local organizations or government over time?
 - To what would you attribute the growth (or decline) of local food businesses?
 - Do any organizations or local businesses help local food businesses remain viable or scale-up? What are they? Does mentoring happen?
 - How have local producers or others worked together (if at all)?
 - What assets/assistance exist that helps local food businesses?
- Research question 3: How do these clusters contribute to community?
 - How do local food businesses contribute to this community?
 - Economically?
 - Environmentally?
 - Socially?
 - And in what other ways if any?
 - As representatives of local food businesses, how do you participate in your community (state, county, city, village, town, organization/association)? Do others in the local food community participate in the community?
 - What challenges/obstacles/hindrances exist to local food businesses? Are there any next steps to address these challenges?
 - Are there any synergies/efforts that have occurred because of a cluster of local food businesses?

Results

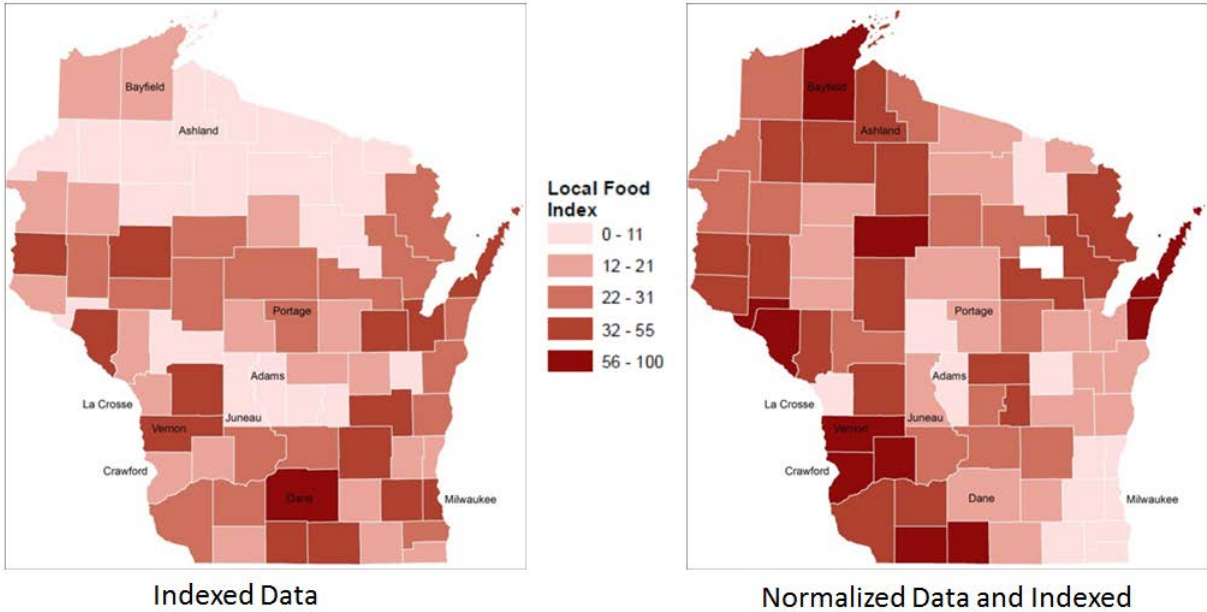
Identification of Local Food Clusters

Table 2 lists the scores for both indexes for all Wisconsin counties. Figure 1 contains two maps. The indexed data map shows the counties with low to high scores. A dark color means a high score. A high score means that there is a high amount of small farms, for example. This map shows Dane County (100) as the darkest, which is one of the most populous counties and is the location of the capital. The adjacent map shows the food data but it has been normalized with population data. Due to normalization, the map looks very different. It shows clusters of counties of which Vernon (100), Richland (57) and Crawford (69) is one. Bayfield County in the north has a high normalized score (59). Two counties with some of the lowest scores in both indexes (normalized by population and not normalized) include Adams (3.1) and Juneau (6.6). These scores were those not normalized by population.

Table 2: Raw and Normalized Scores

County	Raw Index	Index Normalized by Population	County	Raw Index	Index Normalized by Population
Adams	10.49	3.16	Marathon	13.87	28.03
Ashland	35.53	10.30	Marinette	43.96	25.93
Barron	23.88	19.32	Marquette	26.84	5.80
Bayfield	58.79	13.32	Menominee	0.00	0.00
Brown	13.12	50.95	Milwaukee	3.39	52.61
Buffalo	67.44	33.40	Monroe	50.07	32.63
Burnett	24.81	5.77	Oconto	45.80	29.65
Calumet	13.19	10.52	Oneida	16.50	6.23
Chippewa	17.47	32.13	Outagamie	12.72	31.58
Clark	39.45	21.11	Ozaukee	10.92	18.53
Columbia	27.32	30.28	Pepin	67.36	6.78
Crawford	68.63	17.91	Pierce	31.71	20.66
Dane	12.16	100.00	Polk	24.45	15.69
Dodge	23.31	33.54	Portage	19.68	23.87
Door	63.62	38.36	Price	46.12	6.52
Douglas	22.93	20.30	Racine	9.01	28.59
Dunn	33.89	24.72	Richland	56.63	17.14
Eau Claire	15.25	25.83	Rock	14.47	39.45
Florence	14.49	0.88	Rusk	20.24	4.34
Fond du Lac	11.78	31.76	Sauk	28.37	21.60
Forest	11.17	1.49	Sawyer	31.55	4.74
Grant	36.20	29.44	Shawano	45.51	29.79
Green	57.25	40.12	Sheboygan	15.86	23.94
Green Lake	37.73	11.16	St Croix	34.24	38.91
Iowa	51.31	23.29	Taylor	64.21	20.96
Iron	29.67	7.16	Trempealeau	41.90	19.49
Jackson	26.81	11.07	Vernon	100.00	46.35
Jefferson	14.06	20.44	Vilas	19.95	5.60
Juneau	17.23	6.60	Walworth	7.70	19.21
Kenosha	4.77	17.58	Washburn	43.38	6.93
Kewaunee	57.54	21.58	Washington	6.02	14.93
La Crosse	10.50	14.83	Waukesha	6.93	50.26
Lafayette	76.88	14.09	Waupaca	23.23	20.07
Langlade	22.64	8.12	Waushara	31.41	12.60
Lincoln	30.92	12.72	Winnebago	4.08	12.75
Manitowoc	13.03	29.85	Wood	9.70	11.47

Figure 1: Local Food Clusters in Wisconsin



We chose to conduct the focus groups in two counties: Vernon and Bayfield. Bayfield was expanded to include Ashland County because the two counties and its residents often work together and it’s known as the Chequamegon Bay region. We chose another county as a counter point to these two counties, Portage County, although no focus groups were conducted there.

Why do these clusters exist?

A combination of attributes is evidence for why local food clusters exist in Bayfield and Vernon County in comparison to Portage County. The first attribute is topography. The area in which Vernon County is situated is called the Driftless region. The name comes from the fact that the region was not glaciated during the most recent glacial period (see Figure 2). Because of no glaciation the region maintained its ancient hilly topography (coulees, valleys, steep slopes). The topography in Bayfield County influences the micro-climate in the area which allows for growing apples and berries. This region is the northern most area of Wisconsin and borders Lake Superior.

Figure 2: Driftless Region

Source: Wisconsin Geological and Natural History Survey. Ice Age Deposits of Wisconsin (1964). <http://wisconsin Geological Survey.org/iceage.htm>

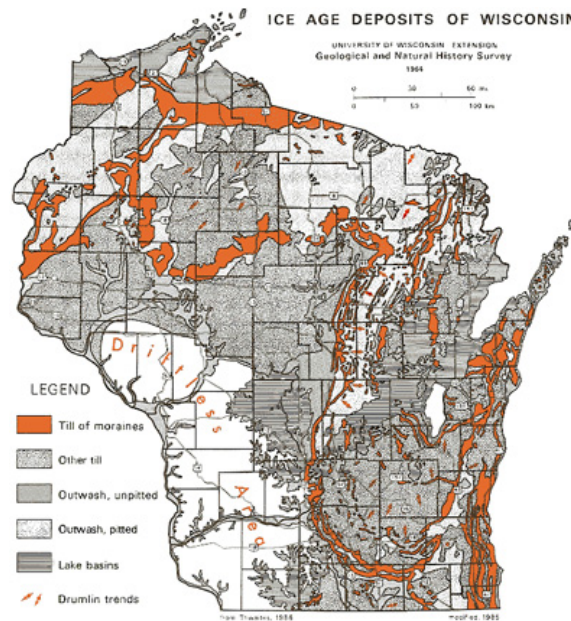


Figure 3 shows Wisconsin's topography from high to low elevation. The two case study counties are outlined and show a great deal of variation in elevation within their boundaries in contrast to many other parts of the state including Portage (see Figures 3). The individual county maps provide a more detailed view of topography. In Vernon County in particular the ridges and valleys are dramatic. A detailed view of Portage is not included because of its lack of variation.

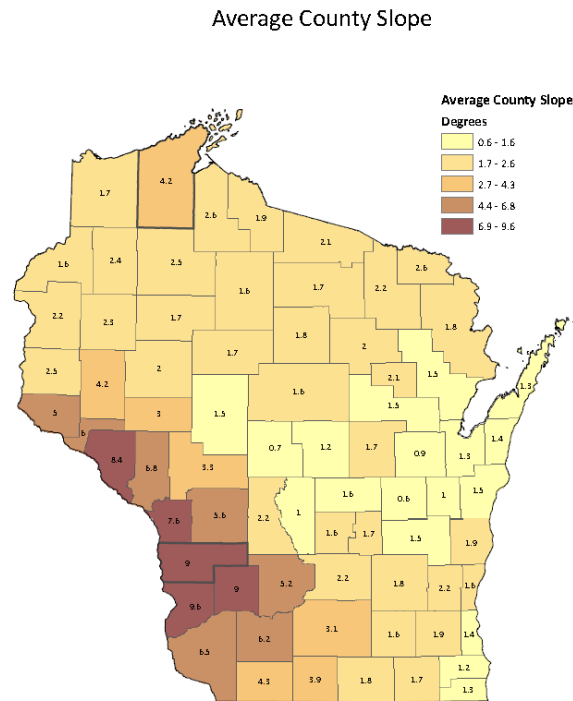
Figure 3: Topography of Wisconsin, Vernon and Bayfield



Another measure to see the differences between counties is to measure average slope in degrees (Figure 4). In the Average County Slope Map, Vernon County has a very steep average, 9 degrees, Bayfield County has a moderate average, 4.2 degrees, and Portage County has a flat average,

1.2 degrees. Portage County is part of the Central Sands, an outwash plain from the glacial period and once part of Glacial Lake Wisconsin.

Figure 4: Average County Slope



Focus groups and researchers observed that due to these topographical features, Vernon and Bayfield with their hilly topography, are more suited to small-scale agriculture than large-scale agriculture. A hilly landscape may preclude large farms because of the inconvenience and challenges of using farm equipment and machinery on steep slopes. The hilly landscape may induce more diversity of crops and induce farmers to grow crops that are of high value. Vernon County, for example, historically, grew tobacco which was a cash crop up through the late 1990's. With the assistance of UW-Extension, tobacco farmers turned toward growing wine grapes which now total about 20 growers and over 75 acres.¹

Portage County has a history too of agriculture but it's quite different than the other two counties. In contrast to these hilly counties is Portage County's flatness which is suited to large-scale agriculture including irrigation. Parts of the county were heavily settled by Polish immigrants and it soon became and remains a high producing potato region. Early on the southern part of the county was tilled to drain wetlands for crop production. Over 50% of the farmland is irrigated and high value

¹ Grape Production Expands in Vernon County Wisconsin. 2012. June 6. (<http://midwestwinepress.com/2012/06/06/wisconsin-grape-growers/>) accessed Feb. 4, 2014.

vegetable crops dominate production.² While there are small family farms operating CSA's, there are also large farms with over 8,000 acres in production³

The statistics for average size of farms in the three counties bears out this observation of the suitability of small versus large scale agriculture (see Table 3). In particular Vernon County's

Table 3: Population and Agricultural Indicators⁴

Indicator	Portage	Vernon	Bayfield	Ashland	State
Total Population (2013)	70,380	30,329	15,156	16,016	5,742,713
% Person 65 years and over 2013	14.2	18.3	23.1	17.2	14.8
% Persons 25-34 years	11.9	9.8	8.2	10.9	12.7
Number of farms	1,066	2492	383	203	1090
Land in farms (acres)	281,575	357,090	89,284	55,370	210,983
Avg size of farm (acres)	264	143	233	273	193
% of farms owned by individuals or families	84.8	90.9	84.9	93.6	87
Number of farms with organic production	14	206	18	4	18
Number of jobs from agriculture	5,551	5,371	537	531	353,991
Percent of jobs from agriculture	13	37	9	5	10
Number of farms selling directly through CSA	3	26	3	2	6.07
Number of farms selling value-added products	43	74	33	6	40
Number of farms with direct sales per 10K population	15.76	66.23	48.60	11.70	22.12
Number of farms with direct sales	108	192	73	19	6,243
Farm direct sales per capita (\$)	12.04	47.91	61.05	1.85	14.25
Number of food processors	14	10	4	3	13.17

average size is 50 acres smaller than the State farm size average and “offers a mix of farming styles – from Amish farmers still milking by hand to grain farmers using their GPS units...Small farms still make up the core of the county's agriculture” (UWEX 2011). In contrast, Portage County's average farm size is approximately 60 acres larger than the State farm size average.

Another observation was that these two counties in part because of topography produce a wide variety of foods. Bayfield County is described as having its “agricultural strength in its diversity” (UWEX 2011), which includes dairy farms, beef cattle, sheep, pork, fish, and apples and many types of berry varieties.

The second attribute is culture in combination with recent settlement history. According to our focus groups, in the 60's and 70's “back to the landers” had a profound effect. In Vernon County,

² UW Extension. 2011. Portage County Agriculture: Value and Economic Impact.

<http://portage.uwex.edu/files/2010/12/ag-impact-portage-2011.pdf> Accessed September 24, 2014.

³ Drotleff, Laura. 2008. Wysocki Produce Farm. <http://www.growingproduce.com/vegetables/wysocki-produce-farm/> Accessed September 24, 2014.

⁴ Unless otherwise noted data is 2007 Agriculture Census.

the back to the landers started Pleasant Ridge Waldorf School and the Viroqua Food Cooperative. CROPP Cooperative (Organic Valley) was started by a small group of family farmers. At the time the prices for land were inexpensive, it was considered beautiful, and it was commuting distance, albeit a long one to Madison, WI (70 miles) and Rochester, MN (90 miles), and a short commute to La Crosse, WI (30 miles). Bayfield County had a similar settlement history by the late 1960s and early 1970s with “back to the landers” finding affordable land. This movement “was a social movement based around the idea of living a self-sufficient life close to nature. It was characterized by the idea that everyday life is methodically practiced and based on a set of moral values or choices. For many people homesteading became a spiritual practice, giving meaning to daily life through adhering to values of simplicity and anti-consumerism.”^{5 6}

Another aspect of culture emphasized in the focus groups was cooperation. Wisconsin has a long history of cooperatives – a form of ownership of a company. A definition of a cooperative is: “*a user-owned, user-controlled business that distributes benefits on the basis of use.* Member users, or patrons, own and democratically elect the board of directors, which provides oversight of the Cooperative. Net earnings are distributed on the basis of proportional use, or patronage, rather than on investment.”⁷ Chart 1 shows the number of cooperatives by county that are not related to insurance.

Bayfield County which was settled by people from Scandinavian countries, Finland in particular, had a tradition of cooperatives. Land O’Lakes grew out of a cooperative that had been established by Finnish settlers in Superior, Wisconsin. The Iron River Cooperative remains in Bayfield County. Other cooperatives also exist but are more recently established. Bayfield Regional Food Producers Cooperative has 22 members and was established in 2010. The Chequamegon Food Cooperative started as a buying club and became a formal cooperative in 1976. As of 2014 the Cooperative is undertaking an expansion because of its growth.

Vernon County area had a history of cooperative organizations. The cooperatives in the area are diverse and include credit unions, electricity service, a telephone service, a grocery, arts-related, and the largest numbers of them are related to agriculture. The largest cooperative in the area is

⁵ How do you define the Back-to-the-Land Movement?

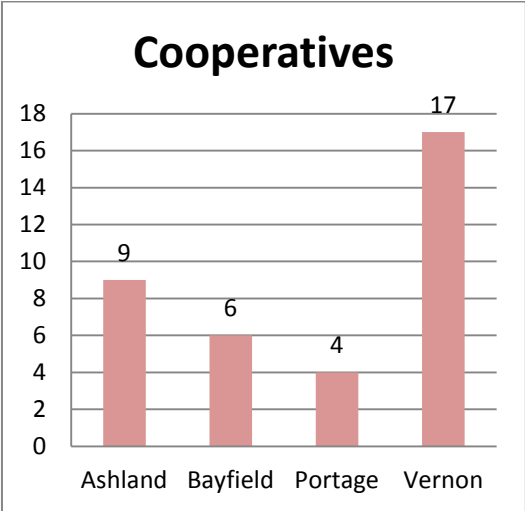
<http://cr.middlebury.edu/es/altenergylife/definition.htm> accessed Feb. 4, 2014.

⁶ Brown, Dona. 2011. Back to the land: the enduring dream of self-sufficiency in modern America. Madison, WI: University of Wisconsin Press.

⁷ What is a Coop? Definition. 2012. <http://www.uwcc.wisc.edu/whatisacoop/> accessed Feb. 4, 2014.

CROPP Cooperative/Organic Valley, a dairy cooperative, which also sells produce and meat. Other dairy cooperatives also exist in the area such as Westby Cooperative Creamery. A new cooperative was established in 2010, called Fifth Season, which focuses on connecting food producers with food distributors and processors to serve institutional foodservice markets.

Chart 1: Number of Cooperatives



Portage County has seven cooperatives, although a number of cooperatives are in name only and not counted in the chart. One is Sentry Insurance which is a large mutual insurance company. It has a credit union for its employees. In addition, there is a printing company which is considered employee-owned and it also has a credit union for its employees. There is one cooperative connected to agriculture but it is the county’s Farm Bureau and throughout the state is focused on promoting farming and advocating for farm policy at the state level. Other cooperatives include yet another credit union, a grocery, and an arts-cooperative.

The third attribute is the role of institutions/organizations. CROPP Cooperative/Organic Valley seems to have played a key role not only in keeping local and organic production going but spurring other growth as well within Vernon County. Northland College has played a key role in establishing a culture of sustainability and local food within the Bayfield area. Northland’s mission is an environmental college and they both hire faculty and staff that are attracted to the mission but also can teach an environmentally-focused curriculum. Their buildings have become more sustainable with addition of wind and solar power; the campus is moving to 80% local food with current sourcing at 25%. It is a source of environmentally-oriented students who want to stay in the

area. Its sustainability programs include food systems, composting, renewable energy and efficiency, recycling, bikes and transportation, native landscaping, green buildings and sustainable community. Other organizations include the local grocery cooperatives in both Ashland and Viroqua, and the Driftless Folk School, which “was founded in 2006 by residents who wanted to open an art school.”⁸ Another organization that has pulled together people is the Alliance for Sustainability (Alliance) in the Chequamegon Bay area. They have worked on sustainability issues for about two decades, including on local food.

Portage County also has a local grocery cooperative but for many years was not interested in local food.⁹ While a four-year campus is located in the county, it too has only recently become more interested in sourcing local foods in one of its café’s and in its food service. Finally, a non-profit organization, the Central Rivers Farmshed, was established about ten years ago, which is focused on growing the local food community.

The fourth attribute is education. Both in formal and informal settings, organizations in Vernon County and the driftless region in general have educated children and consumers, and producers about local and organic food. In Chequamegon Bay, school gardens, the Alliance, and Northland College play an important role. In Portage County, educational efforts are quite recent and related to the institutions discussed.

The fifth attribute is what I will term a local food threshold. This concept is basically a positive feedback loop as it appears that success breeds success. In Vernon County in the 1960s and 1970s, businesses such as the local Pleasant Ridge Waldorf School, the Viroqua Food Cooperative, and CROPP Cooperative (Organic Valley) were started. Later, like-minded people started to move to Vernon County to start community-supported agriculture farms, Fifth Season, Farm to School Program, the Driftless Folk School, and influenced Vernon Economic Development Association. It appears that there were enough farms, organizations, and jobs that their existence and success started to breed success. It appears that in Chequamegon Bay, something similar has taken root. The various organizations and their efforts have been successful and it has encouraged additional efforts

⁸ Rotenberg, Lori. c.2013. Back to the land again: Folk schools teach skills for modern-day survival. Grist. <http://grist.org/living/back-to-the-land-again-folk-schools-teach-skills-for-modern-day-survival/> accessed Feb. 4, 2014.

⁹ Personal communication with board members and frequent shopper.

whether influenced through Northland College, the Alliance or other means. It appears that the rootedness of local food is deep enough that individuals within organizations don't matter. In Portage County, it may be too early to tell if a "local food threshold" has been reached. The efforts are newer than the other two counties and possibly dependent on particular individuals.

Research question 2: Are these clusters the result of an intentional strategy?

Our second question asked if the clusters revealed in the data was the result of an intentional strategy. All the focus group participants responded that there was no intentional strategy, especially in the decades prior to 2000. Since then, however, both areas, through a variety of organizations are intentional in promoting the local food system.

In Vernon County from about the late 1990s began to provide support for and promote small farms and sustainable and organic agriculture. The organizations involved included the Driftless Bioregional group, Valley Stewardship Network (VSN), the Viroqua Food Cooperative, CROPP Cooperative/Organic Valley and Westby Cooperative Creamery. Then in the mid-2000s, the non-profit economic development organization, VEDA, had a food system assessment completed and then a strategic plan. The work of VEDA is financially supported by the county (\$1,200 per year). VEDA's strategic plan recognized the local food cluster and set out to enhance it. Efforts to enhance the local food cluster include VEDA's work to acquire a large abandoned manufacturing plant and develop it into the Food Enterprise Center. This facility provides the infrastructure for food related businesses to start up or expand. As of 2014, it housed 12 aggregation, processing and distribution tenants with plenty of room for expansion. Specialty businesses include a coffee roaster, craft-brewed soda maker, fermented vegetable producer, dehydrated raw vegetable chips, body care products made from organic food ingredients, and the Fifth Season Cooperative.

In the Chequamegon Bay area, efforts at supporting local food first arose from tourism. The Apple Festival in Bayfield, berry-picking, and more recently, Wisconsin's Travel Green program have attracted tourism based on local food. In addition, many organizations are involved in supporting local food. A key organization is Northland College. As discussed previously, the College's goal is to source 80% of its food locally. Another key organization is the Alliance for Sustainability. It has worked for many years on sustainability initiatives in the area. A strategic plan

from 2006-2011 focused one of its goals on local food – “Strong, sustainable, and local food systems that ensure access to affordable and nutritious food for people in the region have been established.”¹⁰ Other organizations focused on local food efforts include the food cooperative. The Chequamegon Food Cooperative has had consistently increasing sales from community support which has led to them increasing the size of their store and being able to serve more people. The Food Cooperative also supplies restaurants, and Northland College and supports farmers by holding down margins on local food, doing winter planning with farmers, plus having a micro-loan program and small grants. Other efforts include the farm to school program and the Bayfield Food Producers Cooperative (Harvest Trail Dinner, annual CSA shares).

It does not appear that an intentional strategy has ever existed to create a local food cluster. The cluster seems to be developing organically on a community level. Not a formal strategy that’s written down. But increasing numbers of farmers growing food for locals and tourists has led to them working together to aggregate, market and distribute. Also, nonprofits and other organizations (e.g., Alliance for Sustainability and VEDA’s support for the growth of local food businesses) have a more intentional strategy for local food on a community level.

In terms of planning specifically, the Ashland County Comprehensive Plan did not discuss local food. It included one goal and four objectives focused on the agricultural lands. The plan said¹¹:

“Goal #4 – Agriculture: Preserve the County’s agricultural land base to protect the County’s aesthetics, rural character, and agricultural heritage for future generations.

Objectives:

1. Maintain the operation of existing farms.
2. Encourage the preservation and protection of agriculturally productive soils.
3. Decrease non-point water pollution.
4. Increase the number of acres of agricultural land that is voluntarily protected through conservation easements.”

¹⁰ Sustainable Chequamegon Bay Initiative Strategic Plan 2006-2011.
<http://www.allianceforsustainability.org/sustainable-chequamegon-initiative.html>

¹¹ Ashland County Comprehensive Plan: 2006-2025.
http://counties.uwex.edu/burnett/files/2010/09/A76_Ashland_Co_CompPlan.pdf

Bayfield County created an update to their plan in 2010 and recognized agriculture as a major land use; however, local food and its role are not discussed.¹²

Vernon County has a draft comprehensive plan which until adopted is not an official plan. In the economic development chapter, the goals and objectives recognize the importance of agriculture and local food. For example, it states¹³:

Goal 6.2.4.3: Cultivate More Value-Added, Processed Food Products to Create Jobs and Agriculture Growth.

Objective 6.2.4.3.a: Establish channels for food processing.

Action

i. Encourage creation of infrastructure to support value-added processing, marketing and the following specific project ideas.³

Objective 6.2.4.3.b: Encourage and Incent Local Food Purchasing.

Actions

i. Encourage departments that have food purchasing power to study the cost benefits of purchasing local food for these program areas.

ii. Support grants that develop the capacity of local food purchasing and existing efforts like the Farm to School and Farm to Institution program.

Portage County's comprehensive plan has nothing about local food.

Thus, planning does not appear to play an important role in the creation and maintenance of the local food cluster.

Research question 3: How do these clusters contribute to community?

The third questions driving this research were to understand how these clusters contributed to community. The focus group participants in both areas immediately recognized the economic contribution of a local food cluster. They recognized the jobs associated with the farms and organizations like the food cooperative, and indirectly associated with agricultural as there are jobs

¹² Bayfield County Comprehensive Plan Update 2010. <https://wi-bayfieldcounty.civicplus.com/DocumentCenter/Home/View/129>

¹³ Comprehensive Plan of the County of Vernon Wisconsin: Phase II Goals, Objectives and Actions for Vision 2030: Recommended Draft: September 2009. <http://www.vernoncounty.org/vccp/documents/PhaseII-Final.pdf>

and businesses supporting agriculture and associated with the processing, aggregation, distribution and marketing of local foods. The local food cluster also acts as a tourist draw, which helps a much broader set of businesses and people. This is an indirect but critical component of local foods. The participants also believe that the local food cluster is drawing young people (post-college) and retirees into the community (at least more than they otherwise would attract). Table 1 shows that in terms of retirees, the case study counties have a higher percentage of retirees; however, a lower percentage of 25-34 year olds than the state average. Adams County, which has a very low score for a local food cluster, has 10.4% of its population in 25-34 year olds, which is very similar to the case study counties. Adams has a whopping 26.3% of its population 65 years and over. A deeper study is needed to understand how population might be impacted by local foods cluster if at all.

They recognized the many social contributions of the local food clusters. One social contribution is the draw of new people – young and retired – into the community. Another contribution is the development and maintenance of community around food – the farmer’s market, as members or new farmers of a CSA, as members of organizations like the Alliance for Sustainability.

Farm-to-school, the whole plate curriculum and school gardens are three examples of educational efforts with a social impact. The participants believe that these sorts of efforts can help students discover the value of local and sustainably grown food. Finally, the cooperatives are a critical set of organizations that are helping to build leadership in these communities, and offer a different way to think about business.

Participants mentioned an environmental contribution in passing but it was not a focused discussion. They talked as if it should be obvious that local food production and perhaps other aspects of the food system had a smaller and lighter footprint and impact on the surrounding environment.

Discussion and Conclusion

This paper attempted to identify rural counties that had a clustering of local food production. There are a number of limitations with the method we used to identify counties that had high levels of local food production. First, we used a set of secondary data that is readily available but is only a

proxy for local food. For example, small farm size does not necessarily equate to producing food for the local market nor does businesses with 1-9 employees. Second, we did not use statistically-based cluster analysis to define our county clusters. Instead we used a simple indexing method and GIS to display the results. Because this method was used as a means to identify case study communities, we deemed it sufficient. One of the findings showed the differences among non-metropolitan or rural counties in terms of local food production. Some counties barely show up in our cluster results even though the land base is highly agricultural.

Question 1 posed “Why do these clusters exist?” Through focus group discussions and analysis, we identified five factors that explain the existence of these clusters. The five factors are: topography, culture, institutions/organizations, education, and a local food threshold. In future research in other states it would be useful to test these factors and identify if there are other factors that explain local food clusters. It would also be useful to test these factors in counties with low scores to see the degree to which these factors exist.

Question 2 posed “Are these cluster the result of an intentional strategy?” In our analysis, we found that local governments are not intentional about local food but local organizations and businesses are focused and intentional. Local government plays virtually no role in establishing a local food cluster. In contrast, in Vernon County, the economic development organization, a non-profit, played a catalyzing, coordinating and strategic role in organizing and pushing for a local food cluster with much support from other organizations and businesses. In Chequamegon Bay area, there are multiple organizations that are working on local food but unlike in Vernon County, there is no central organization operating to pull in, strategize and push forward, a local food cluster. In Chequamegon Bay, while intentional, it is a multi-faceted effort. In Portage County, Farmshed is taking a lead role, but at this point it is not clear if, by itself, it can make it to and over a local food threshold.

Question 3 posed “how do these clusters contribute to community?” The answer to this question provides leads to more detailed studies around the following set of hypotheses: a social capital hypothesis – a local food cluster develops and maintains a sense of community; a demographic hypothesis – a local food cluster attracts new people (young adults and retirees) into the community;

and an environmental hypothesis – a local food cluster has a lighter environmental footprint because it involves local food production rather than conventional agricultural production.

This research effort focused on local food identified particular counties that we identified as clusters. From that identification, we were able to identify factors that are similar among the two cluster counties and the intentionality of creating a local food cluster. We identified a number of directions for additional research to examine local food.

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