

# The Economic Impacts of Community & Regional Food Systems



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Some slides adapted from Laura Brown "The Economic Impact of Food Systems," Laura Brown and Colette Hershey "Wisconsin Food Systems Indicators" 2012, Matt Kures WEDA Conference, Sept 13, 2011, and Steve Deller, Laura Brown, and Amber Canto "Local Foods and Community Health: An Exploratory Analysis" 44<sup>th</sup> Annual Conference of the Mid Continent Regional Science Association, May 29-31 2013 Kansas City

What is a food system?  
Why do food systems matter?  
What we know about  
economic impacts of food systems  
What we don't know  
Data and Resources

# What is a community food system

## Shared Principles of ADA, AMA, ANA, APA, APHA

A food system includes everything from farm to table. A community food system is a food system in which **food production, processing, distribution and consumption are integrated** to enhance the environmental, economic, social and nutritional health of a particular place. A community food system can refer to a relatively small area, such as a neighborhood, or progressively larger areas – towns, cities, counties, regions, or bioregions. We support socially, economically and ecologically sustainable food **systems that promote health** – the current and future health of individuals, communities and the natural environment. A healthy, sustainable food system emphasizes, strengthens, and makes visible the interdependent and inseparable **relationships between individual sectors** (from production to waste disposal) and characteristics (health-promoting, sustainable, resilient, diverse, fair, economically balanced and transparent) of the system.”

For more definitions of food systems

<http://fyi.uwex.edu/cfsi/files/2012/10/CFS-definitions-5-21-13.pdf>



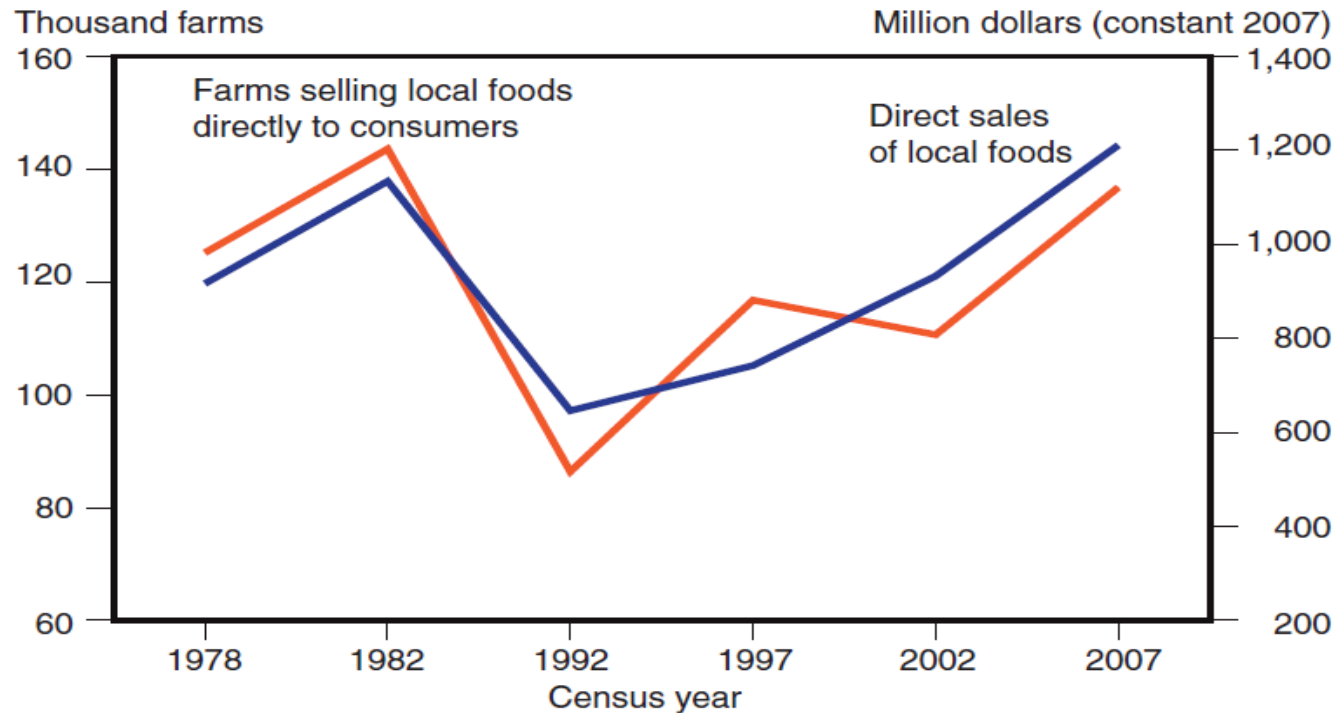
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# Trends in Local Foods Activity

Low and Vogel 2011 (USDA ERS)

Figure 1

## Direct-sales farms and direct sales of local foods, 1978-2007



Note: Inflation adjusted sales were calculated based on the gross domestic product implicit price deflator published by the Bureau of Economic Analysis, U.S. Department of Commerce and calibrated to 2007=100.

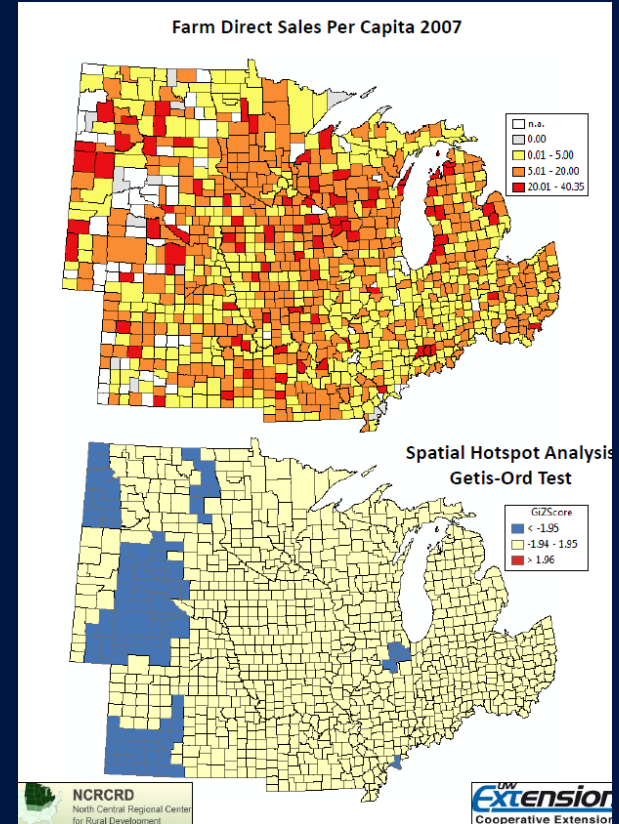
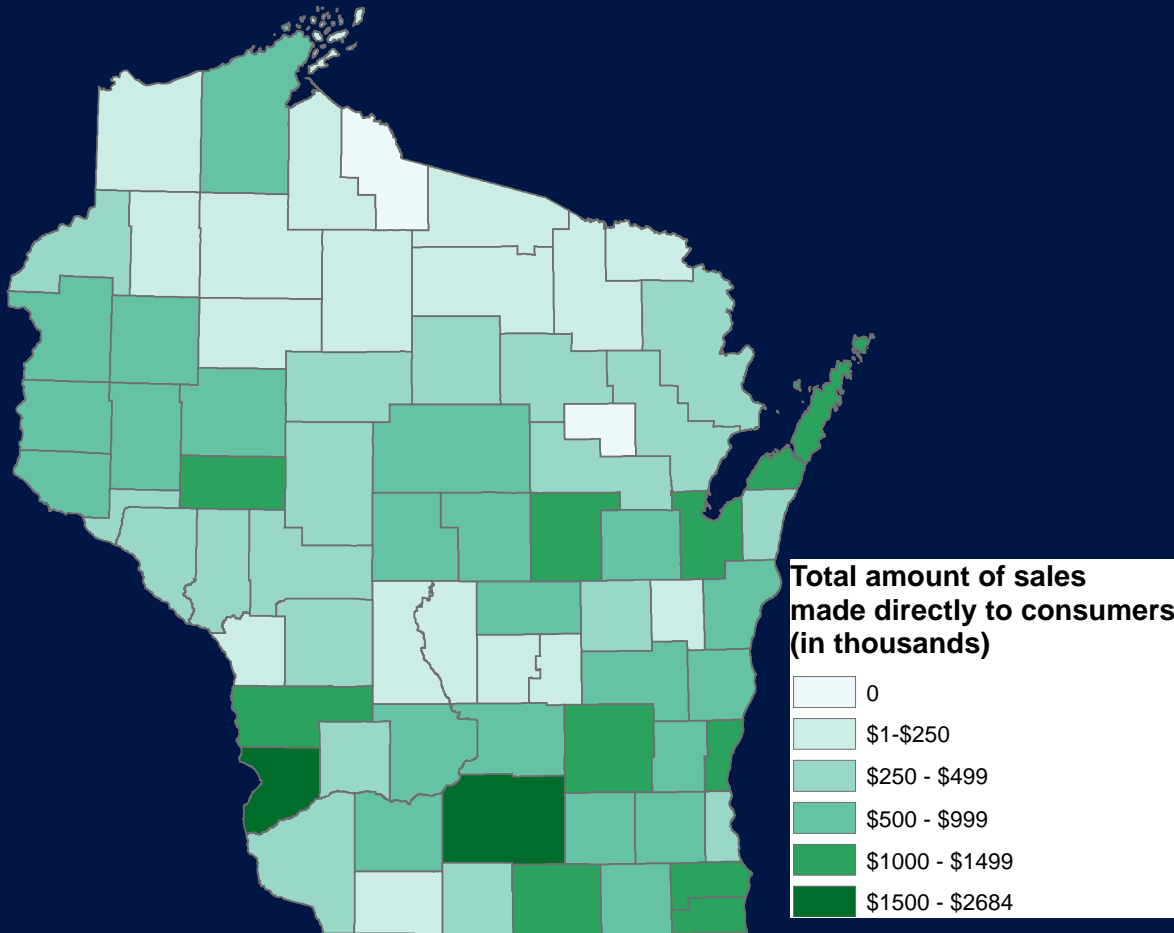
Source: 1978, 1982, 1992, 1997, 2002, and 2007 U.S. Censuses of Agriculture.

# Direct Sales for Human Consumption

Value of Products Sold Direct to Consumers (\$1000)					
	2002 (adj)	% Total Sales	2007	% Total Sales	Overall % Change
Wisconsin	33,433	0.52	43,491	0.48	30%
United States	934,035	0.40	1,211,270	0.40	30%

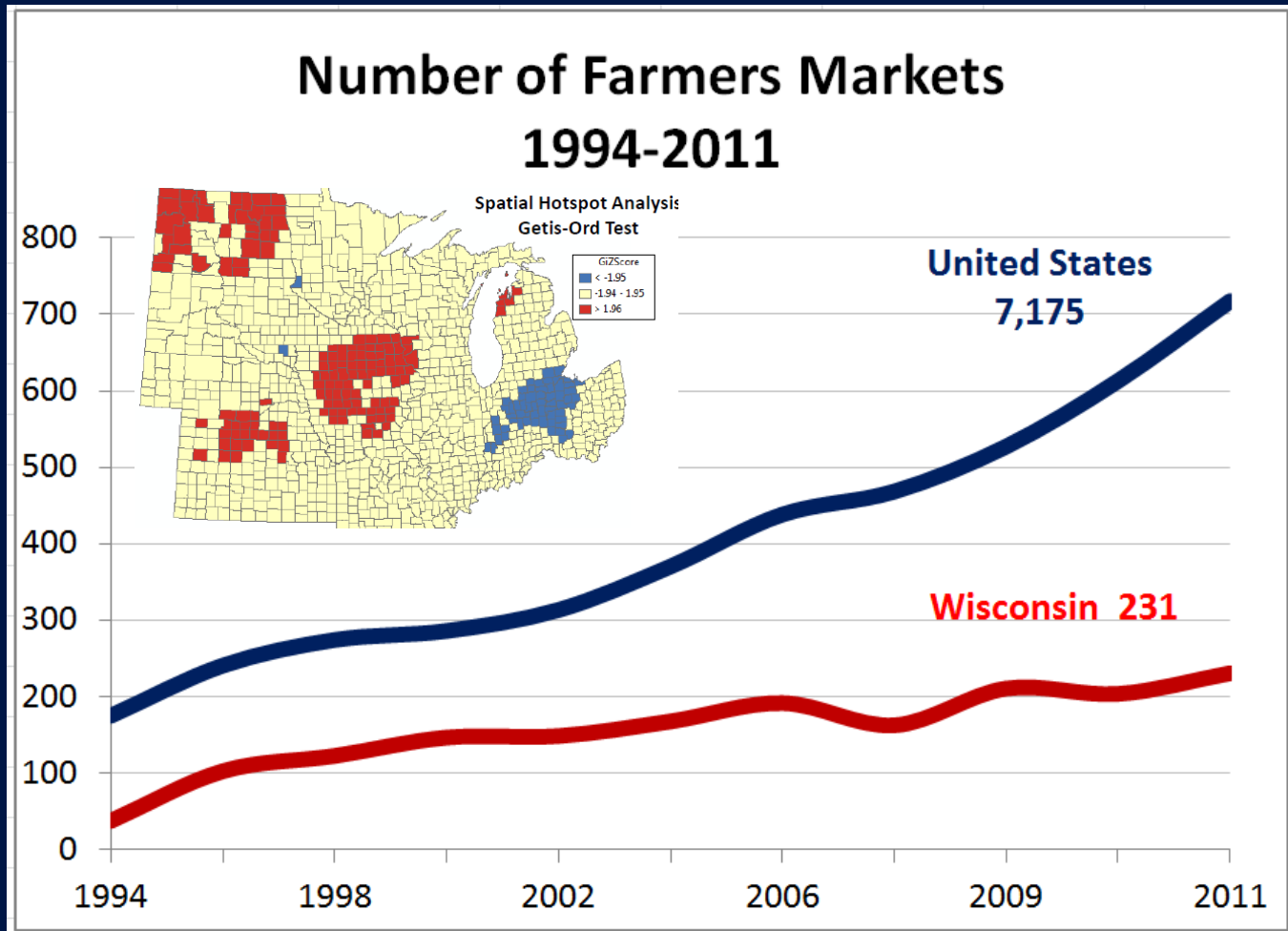
Number of Farms Selling Direct to Consumers					
	2002	% Total	2007	% Total	% Increase
Wisconsin	4,918	6.4%	6,243	7.9%	26.0%
United States	116,733	5.5%	136,817	6.2%	17.0%

# Direct Sales for Human Consumption, 2007



US Agricultural Census 2002 and 2007  
[www.agcensus.usda.gov](http://www.agcensus.usda.gov) Accessed 11-2011  
 Maps from [www.foodsystems.wisc.edu](http://www.foodsystems.wisc.edu)

# Farmers Markets, 1994-2011 US, Wisconsin



USDA Agricultural Marketing Services Division- Farmers Market Database <http://search.ams.usda.gov/farmersmarkets/>  
Maps from [www.foodsystems.wisc.edu](http://www.foodsystems.wisc.edu)

# Trends are driving community interest





# Goals of Food Systems Initiatives

Improved nutrition-health and diet related disease

Environmental sustainability

Transparency and food safety

Food quality

Social justice

Social capital or relationship building

**Community or rural economic growth and development**

(Ross et al 1999, Marsden et al 2000, Ikerd 2005)

# Rationales supporting food systems initiatives for economic development

- Import substitution - capture more local dollars and that will multiply in the economy
- Farmers will get more of the food dollar (Zapeda and Li 2006, Darby et al 2008, Lawless et al 1999, Starr et al 2003)
- Producers can charge higher prices
- Region has appropriate assets i.e. existing demand, small producers
- Address an identified challenge, i.e. distribution or training

# Strategies for Promoting Local Foods as Economic Development



# Do local foods contribute to economic development?

## WHAT WE KNOW

### Lots of studies about impact of local foods

(Henneberry, Witacre, and Augustini, 2009; Hughes et al, 2008; Sandler, Clark Gilliland and Arku, 2013; Goodman, 2004; Barnham, et al 2012)

If # people and # institutions in X region increase local food purchasing to X% this will mean \$\$ more dollars spent in the local community

market studies

If # purchases and # institutions in X region increase locally and purchasing to X% mean \$\$ more dollars spent in the local community

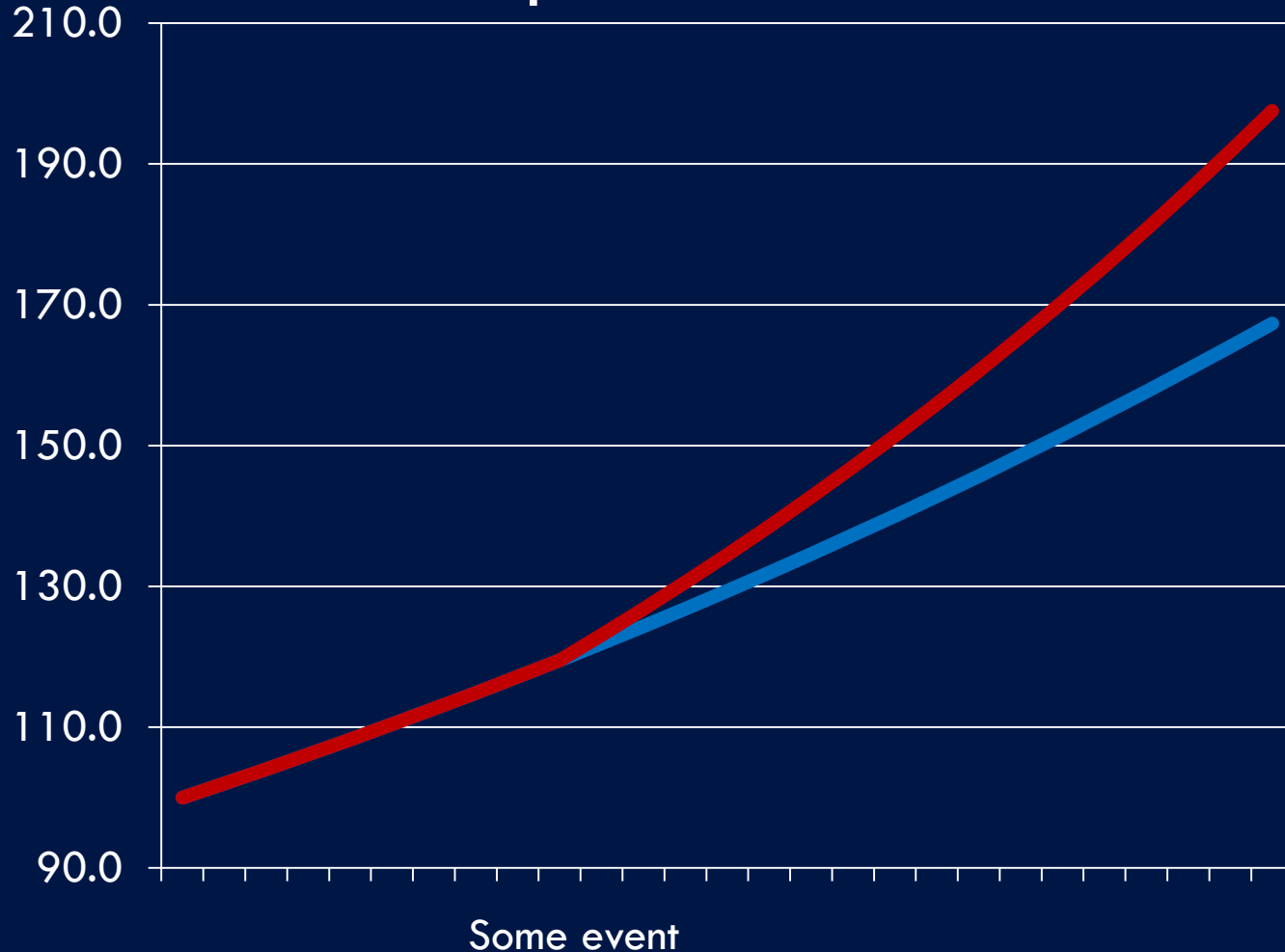
Are people going to eat more, or replace existing purchases?

Where are they buying food now?

# Economic Impact vs. Growth vs. Development

- Economic impact is a static concept (with and without)
- Growth and Development are dynamic concepts

# Economic Impact vs. Growth vs. Development



The growth rate is 2% prior to the event and is then 3% after the event.

The “impact” of the event is said to be 1%.

# Do local foods contribute to economic development?

## WHAT WE KNOW

Lots of articles advocating for growth of local foods through particular types of markets or channels like CSA, food hubs, farmers markets

(Matson and Thayer 2013; Matson and Sullins 2013; Stagl 2002; Brown and Miller 2008; Brsier et al 2007; Taylor and Miller 2010)



# Do local foods contribute to economic development?

## WHAT WE KNOW

“As community development practitioners and planners play an important role in food systems design, organization, and policy, it is important for practitioners to distinguish between objective, research-based information and speculative advocacy-oriented analysis.”

- Stickel and Deller, *Local Foods and Community Development Annotated Bibliography*

# Do local foods contribute to economic development?

## WHAT WE KNOW

- We know a lot about direct markets
- Some evidence that farmers markets have positive impacts on local economies (Otto and Varner 2005, Hennebery et al 2009, Feenstra et al 2003, Lev et al 2003).
- Some evidence of minimal positive impact from important substitution (Swenson 2008, Hughes 2008)
- Our research suggests that local foods have minimal to no impact on overall economic growth (Deller, Brown, Haines, and Fortenbery 2014)

# Do local foods contribute to economic development?

## WHAT WE DON'T KNOW

- Know very little about inter-mediated markets (restaurants, hospitals, schools) “which may account for significantly more local food sales than direct to consumer sales alone.” (Low and Vogel, 2011)

**Direct Sales (2007):**

**\$1.2 billion**

**Intermediated Sales (2008):**

**\$4.8 billion**

# Do local foods contribute to economic development?

## WHAT WE DON'T KNOW

**There is no universally accepted definition for “local”**

consumer or intermediated consumer perspective (Dunne, 2010, Zapeda, 2006).

proximity- distance, drive time, food-miles  
(Dunne, 2010, Darby 2008, King, 2010, Zapeda, 2006)

geo-political boundaries- states (Darby, 2008)

local ownership of farm (Low, 2011)

relationship to place (Marsden, 2000)

production techniques used

marketing channels used (Low, 2011)

size/scale (Low, 2011)

products (commodity versus non commodity crops)

quality relationships /supply chain (Marsden, 2000, King, 2010)

Integration of supply chain (Marsden, 2000)

# Where to Find Data

## Wisconsin Food Security Portal

*Your source for visualizing and downloading data on food access and the food security infrastructure in Wisconsin*



**WISCONSIN FOOD SECURITY PROJECT**

[Home](#) | [Background](#) | [Mapping](#) | [Charts](#) | [Profiles](#) | [Download Data](#) | [Help](#) | [Email Us](#)

[www.foodsecurity.wisc.edu](http://www.foodsecurity.wisc.edu)

### Project Description

The Wisconsin Food Security Project provides localized information about the food security infrastructure in Wisconsin. The project promotes food security by helping planners and policymakers identify strengths and gaps in their communities, and by helping service providers and individuals and families to locate food-related resources. Community planners can use this website to learn about the components of food security--including economic security, the food environment, federal food assistance programs, and emergency food programs. Individuals, families, and service providers can use this website to learn about where food programs are located--including summer meal programs for children, farmers markets, food pantries, and more.

### Getting Started

To create custom maps, click on the [mapping](#) tab. More information on creating and saving maps is available on the [help](#) tab.

To create a custom profile for a county, municipality, or school district, click on the [profiles](#) tab.

To create custom charts showing how local characteristics change over time, or illustrating relationships among local characteristics, click on the [charts](#) tab

To download data for multiple locations into a spreadsheet, click on the [download data](#) tab. A description of the variables available for downloading is available on the [help](#) tab

# Farmers market access and availability for people with limited incomes

Create Map

Legend

## Persons below 185% poverty, % 2006-10

0 to 14.4

14.5 to 20.7

20.8 to 28.0

28.1 to 38.3

38.4 to 102.0



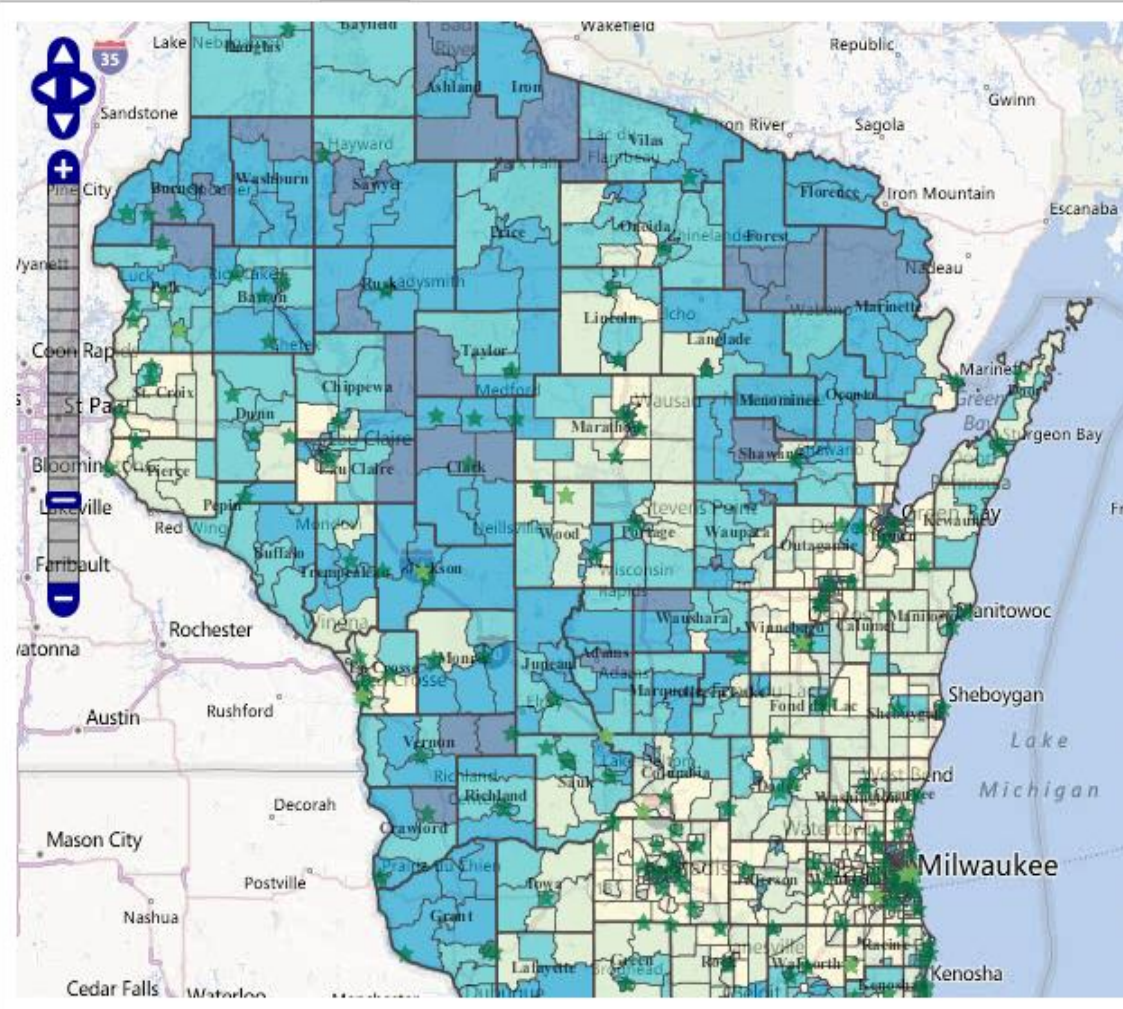
Farmers Market



Accepting FoodShare



WISCONSIN FOOD  
SECURITY PROJECT



# Where to Find Data



## North Central Region County Food Systems Profiles Portal

[Home](#) | [How To Use Your Profile](#) | [Food Systems Resources](#) | [Data Definitions & Sources](#) | [About This Project](#)

### View a Profile:

--Select a County--

### Regional Maps by Indicator [\(Maps Explanation\)](#)

--Select a Map--

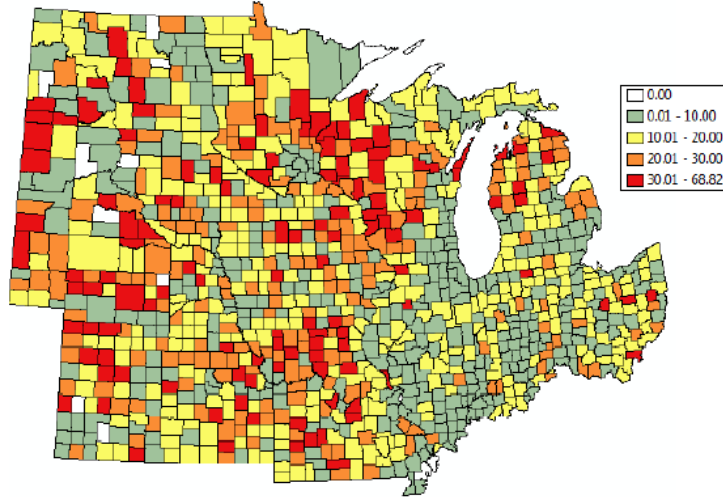
[www.foodsystems.wisc.edu](http://www.foodsystems.wisc.edu)

The production, consumption, distribution, and disposal of food are critical to public health in the Midwest. This Food Systems Profile provides an overview of existing data across a broad scope of food systems activities, documents how key indicators are changing over time, and serves as a baseline for community leaders and educators to identify opportunities for growth or expansion in regional food systems. Data for this profile was accessed from existing secondary data sources including the US Census of Agriculture and the United State Department of Agriculture. The regional average includes: Indiana, Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota and Wisconsin.

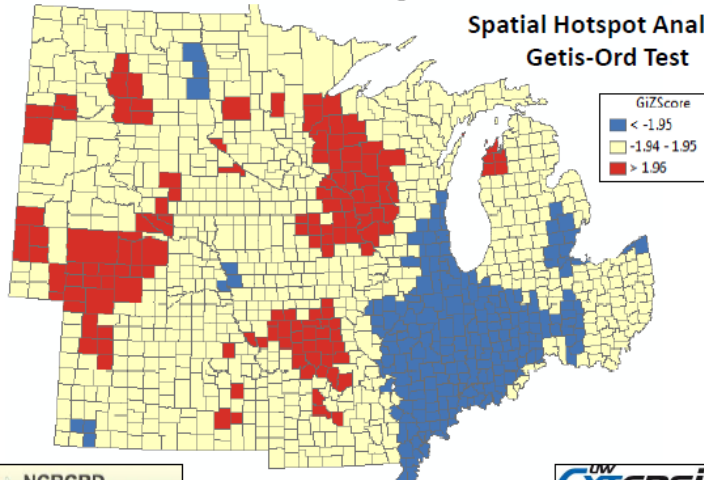
Site Created by: The Applied Population Laboratory 

# What does this mean for our community?

Number of Farms with Direct Sales per 10K  
Population 2007



Spatial Hotspot Analysis  
Getis-Ord Test



**Are local foods a driver of your local or regional economy?**

- **SWOT**
- **What are our assets?**
- **What physical food related infrastructure exists?**
- **Who are our major employers?**
- **What demographic or other trends are affecting our community?**

## Sources

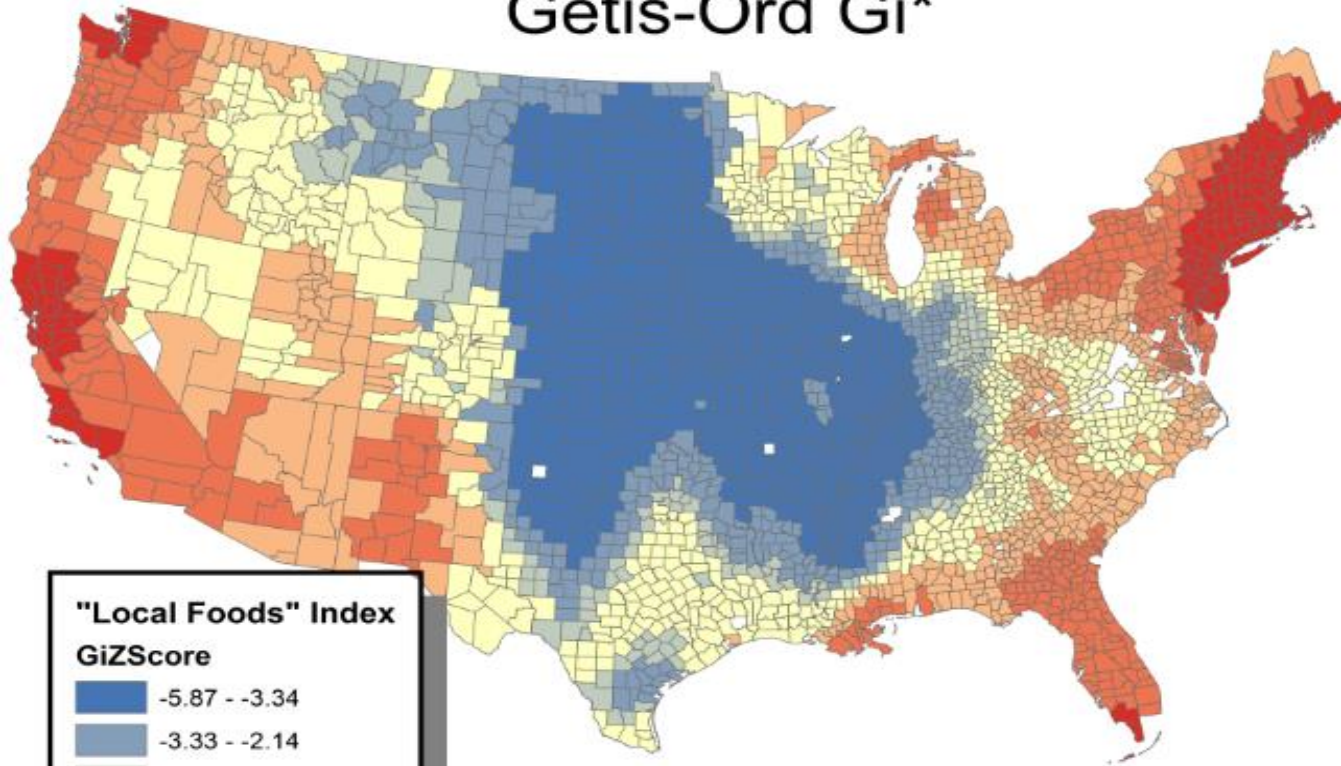
- **USDA Food Environment Atlas**
- **Know your farmer know your food Compass Map**
- **USDA Agricultural Census**





# LOCAL FOODS AND COMMUNITY ECONOMIC GROWTH AND DEVELOPMENT

## Index of "Local Foods" Getis-Ord $G_i^*$



# Where to Find Data

## USDA Food Environment Atlas

The screenshot shows the USDA Economic Research Service website. The main content area displays the 'Food Environment Atlas' interface. At the top, there is a navigation bar with 'Topics', 'Data', 'Publications', 'Newsroom', and 'Calendar'. Below this, a breadcrumb trail reads 'You are here: Home / Data Products / Food Environment Atlas / Go to the Atlas'. The main heading is 'Food Environment Atlas' with sub-links for 'Overview', 'About the Atlas', and 'Data Access and Documentation Downloads'. The current map is titled 'Population, low access to store, 2010'. A map of the United States is shown with a color-coded legend for population density. A popup window for Adams, WI (County FIPS Code: 55001) is open, showing a current value of 3389.67 Count. The popup includes a table of variables and values, and a legend for the count ranges.

Category: Access and Proximity to Grocery Store  
Current Map: Population, low access to store, 2010  
Display a different map

Click map for county info

Adams, WI  
County FIPS Code: 55001  
Current value: 3389.67 Count

Variable	Value
Children, low access to store (%), 2010	2.71
Children, low access to store, 2010	563.68
Households, no car & low access to store (%), 2010	2.46

Export data

Count

- 0 - 2,500
- 2,501 - 5,000
- 5,001 - 10,000
- > 10,000
- No data

Last updated: Tuesday, December 11, 2012  
For more information contact: [Vince Breneman](#) and [Paula Dutko](#)

<http://www.ers.usda.gov>

# List of Data References for Public Use

**Ag Census:** <http://www.agcensus.usda.gov/>

## **2013 Status of Wisconsin Agriculture**

<http://www.aae.wisc.edu/pubs/status/docs/status2013.pdf>

**Economic Impact of Wisconsin Agriculture:**

<http://www.uwex.edu/ces/ag/wisag/>

## **USDA Farmer's Market:**

<http://search.ams.usda.gov/farmersmarkets/>

## **Local Harvest**

[www.localharvest.org](http://www.localharvest.org)

## **USDA Food Environment Atlas**

<http://www.ers.usda.gov/data-products/food-environment-atlas.aspx>

## **County Health Rankings**

<http://www.countyhealthrankings.org/>

# Food Systems Resources for Planners

American Planning Association Food Systems Resources & Food Interest Group- lots of resources!

<http://www.planning.org/nationalcenters/health/food.htm>

Planning and Zoning for Local food Systems- Food Production

<http://www.uwsp.edu/cnr-ap/clue/Documents/Ag/FoodSystemProductionFinal.pdf>

Urban Agriculture in Practice

<http://fyi.uwex.edu/cfsi/files/2012/10/Urban-Agriculture-in-Practice-Riverview-Gardens.pdf>

Addressing Food Systems Through Comprehensive Plans

<http://www.uwsp.edu/cnr-ap/clue/Documents/Tracker/TrackerWinter2012.pdf>

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[http://www.tierramiguelfarm.org/files/20081126\\_Eating%20Local.pdf](http://www.tierramiguelfarm.org/files/20081126_Eating%20Local.pdf)

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# THANK YOU!

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