2013 Economic Impacts of Iowa's Regional Food Systems Working Group

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Regional Food Systems Working Group

This evaluation documents the statewide impact of the local foods sector on Iowa's economy based on two years of economic data collected by local food coordinators in the Regional Food Systems Working Group (RFSWG). The network is strengthening local food systems in 91 of Iowa's 99 counties.

Additional funding to convene RFSWG in 2013-2014 was provided by Iowa State University Extension and Outreach. This document was prepared by the Leopold Center for Sustainable Agriculture: Arlene Enderton, Program Assistant, and Corry Bregendahl, Associate Scientist. Production, design and communications support by Stefanie Trout, Communications Research Assistant, and Laura Miller, Communications Specialist.

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Front page photos (clockwise from top left):

The Fairfield Community School District purchased fruit from Apple Tree Orchard near Lockridge, among the many foods offered in the school lunch program. Healthy Harvest of North Iowa helped the district set up its farm-to-school program.

More than 30 refugee farmers are supplementing their income as part of Global Greens Farm in Des Moines, an incubator farm operated by Lutheran Services in Iowa. The farmers hosted a field day in 2014, showing how they start with small plots of land, moving to a quarter-acre parcel while learning business development and marketing.

Virginia and Earl Erikson have been gardening together for 46 years. During the last 20, they have sold an impressive selection of vegetables at the Estherville Farmers' Market in Emmet County as a way to supplement their income after retirement.

Michael Stewart makes ice cream at Hansen's Farm Fresh Dairy in Hudson.

The Quad Cities Food Hub operates its own Veggie Mobile, providing fresh produce several days each week to neighborhoods that are "food deserts" in the region, thanks to support from the Wellmark Foundation, Riverboat Development Authority and Genesis Health Care System.

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Acknowledgements

The authors wish to extend a heartfelt thank you to the Iowa local food coordinators who not only leveraged their social capital to recruit farmers and local food buyers to provide data for the analysis contained herein, but on a daily basis do the truly heavy lifting of building the relationships critical for success in this work. Without their grit, skill and ingenuity, Iowa would not be enjoying the significant impacts we can associate with the work of the local food coordinators. To them, as well as all the local food producers and buyers who took the time to provide the data described in this report, we are grateful. A sincere thank you also goes out to the former coordinator of the Regional Food Systems Working Group, Jessica Burtt Fogarty, and current coordinator, Lynn Heuss (Leopold Center), for creating space for dialogue with the larger group about the data collection process. Craig Chase (Leopold Center and ISU EO) offered an invaluable review of an early draft and Mary Adams (Leopold Center) edited the copy to make it more readable. Leopold Center Communications Specialist Laura Miller and graduate student Stefanie Trout waited patiently for the report after several delays but were still willing to give the content a much-needed design makeover. Thanks for sticking with us two years in a row. Finally, the authors would like to acknowledge the key role funders have played in this work. They include the W. K. Kellogg Foundation, the Wallace Center at Winrock International, Iowa State University Extension and Outreach, the USDA Sustainable Agriculture Research and Education program, and the USDA's Rural Development Office.

Introduction

Agriculture plays a central role in Iowa's economy. This report documents two years of economic impacts of Iowa's Regional Food Systems Working Group (RFSWG). The RFSWG is a network of people from across Iowa working to advance local and regional food systems. The network (led by a coordinator) is comprised of 15 regional food groups that together cover 91 of Iowa's 99 counties. In 2013, the Leopold Center released a report of results based on 2012 data. This year's report summarizes 2013 data. Regional food coordinators once again contacted local farmers and food buyers involved in their network to provide data on local food sales, purchasing, and job creation. In addition, coordinators themselves completed a survey regarding the funds they leveraged to support their work. In 2013 and 2014, we analyzed four indicators of economic change. They include:

» Local food sales by farmers;
» Local food purchases by institutions and intermediated markets (IIMs) such as schools, hospitals, grocery stores, restaurants, and others;
» Job creation as the result of local food production, processing or utilization; and
» Funds leveraged by regional food coordinators to support their work to develop regional food systems.

Last year's report documented, for the first time in a comprehensive way, the economic impact that locally grown food is having on Iowa's economy. For example, it showed that if ONLY the 74 local food buyers who participated in last year's data collection increased their purchases of local foods from an average of 9 percent to an average of 30 percent of their total food budget, they would return $21.5 million to Iowa's economy in one year.

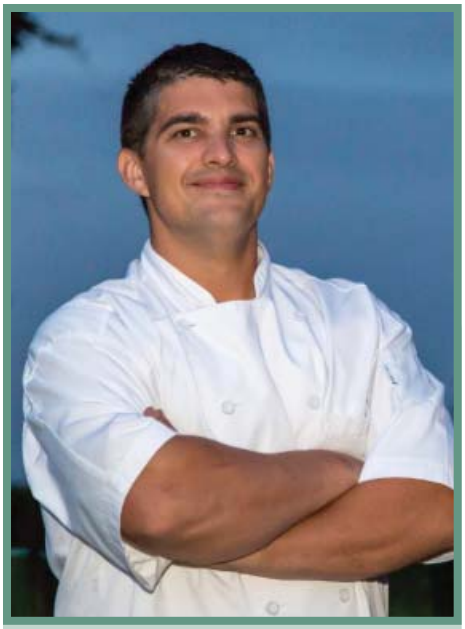
The evaluation was repeated this year, using data from the 2013 calendar year. This report shares the findings of that evaluation and compares and contrasts them with the first-year results.

Strength in sharing

Pictured are members of the Regional Food Systems Working Group at the June 2014 quarterly meeting. Active participants include farmers, educators, lenders, business owners and local food practitioners throughout Iowa, as well as coordinators of these regional food groups:

» Flavors of Northwest Iowa
» Healthy Harvest of North Iowa
» Northeast Iowa Food & Farm Coalition
» Northern Iowa Food & Farm Partnership
» Field to Family Food Coalition
» Dubuque Eats Well
» Quad Cities Food Hub
» Hometown Harvest of Southeast Iowa
» South Central Iowa Area Partnership
» Southern Iowa Local Foods Initiative
» Southwest Iowa Food & Farm Initiative
» Central Iowa RFSWG
» Greene County Local Foods Working Group
» Harvest from the Heart
» Eat Greater Des Moines

Find contact information for your region's RFSWG group on page 17.



Face of a Local Food Champion: Miles Breed

When Miles Breed became Director of Dining Services at Clarke University in Dubuque just over two years ago, one of his first stops was to meet vendors at the farmers market. His goal was to form relationships with farmers so he could include more local food in meals served to students.

The dining service is self-operated, which provides more flexibility, according to Executive Chef Steve Neese. "We have the freedom to make our food more flavorful and personalized to the students," Breed says, explaining that such freedom allows him to decide where he will buy food. He prefers local farmers, which supports the local economy and ensures a fresh product, like the apples from Buffalo Ridge Orchards in Central City.

"When you bite into one of their apples, you can taste the difference," Breed says. "It's tangible."

The college also supports two interns each summer in the campus garden, which happens to be visible from the dining hall. They've been able to use pumpkins and squash from the campus garden in menus, and feature a local foods lunch and farmers market in the main dining hall to celebrate World Food Day.

Local partner:
Dubuque Eats Well

Methods

A complete explanation of the methods used in this evaluation are available in the 2013 report.[1]

Data collection methods used in both years relied on the same methodology. The same three surveys were distributed each year. The surveys included one for local food farmers, one for local food buyers, and one for local food coordinators.

We relied once again on regional food coordinators in the RFSWG network to invite local food producers and local food buyers within their respective regions to complete the appropriate survey. Criteria for inclusion were twofold:

1. Farmers and buyers were to be associated with the work of the regional food coordinators AND
2. Farmers and buyers were either producing or purchasing locally grown foods, as defined by coordinators and the reporting farmers or buyers.

Thus, we did not collect data from producers and buyers who are known to be involved in local foods commerce but are not associated with the work of their respective regional food coordinator or network.

Table 1 summarizes the responses we received.

The most notable difference from last year is the increase in the number of farmer respondents, as well as the number of *repeat* respondents. In any industry, people come and people go, with the local foods industry being no exception. Regional food coordinators tried to maintain consistency by asking respondents from last year to also respond this year, but there were respondents this year who did not respond last year. Likewise, there were respondents last year who did not participate this year. Repeat respondents are those who participated both in 2013 and 2014. The survey participation attrition rate was about 50 percent for both farmers and buyers.

Table 1: Survey respondents

	2012	2013
Total number of farmer respondents	103	120
Number of repeat farmer respondents	N/A	57 (55%)
Number of buyer respondents	74	73
Number of repeat buyer respondents	N/A	37 (50%)
Number of local food coordinator respondents (total = 15)	11 (73%)	13 (87%)
Total number of respondents	188	206

Local Food Sales

This year, we saw an increase in the number of farmers participating in the farmer survey (120 versus 103 last year) as well an increase in the value of sales, even among repeat respondents. Furthermore, when comparing our 2013 data with the most recent Census of Agriculture statistics, we were surprised to find we *captured 74 percent of Iowa local food sales reported by the 2012 Census of Agriculture with only 4 percent of the sample size*. This reflects differences in methodology but also suggests that the Census of Agriculture is not a wholly reliable source of information for measuring local foods commerce in Iowa.

What Are "Local" Food Sales?

Nine (7.5 percent) of the farmer respondents were from a neighboring state (Illinois, Minnesota, Nebraska, South Dakota or Wisconsin). Our regional food coordinators truly are operating regionally; those serving border counties are working across state lines.

The geographic radius in which respondents sell the majority of their food (n=120) ranged from 1 to 400 miles from the farm, compared to 1 to 1,000 miles in 2012 (see Table 2). Although the range was narrower in 2013, the median distance from the farm where respondents sell the majority of their food changed only slightly from 45 miles in 2012 to 50 miles in 2013.

What Farm Sales Were Tracked?

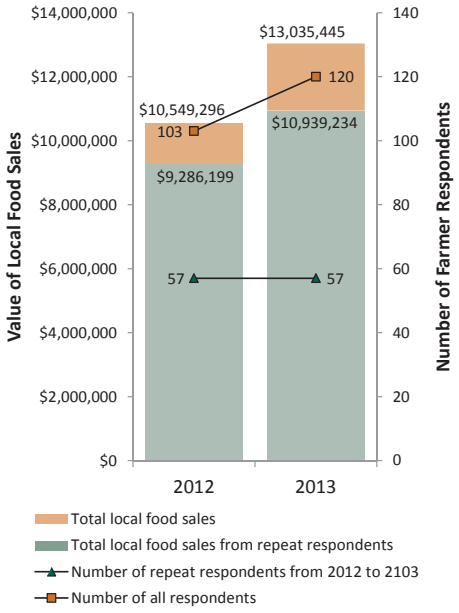
Farmers reported the total value of food sold to local markets, including:

- Sales direct to consumers (e.g., farmers markets, Community Supported Agriculture [CSAs] or farm stands),
- Sales to institutions (including schools, hospitals, nursing homes, etc.), and
- Sales to intermediated markets (grocers, restaurants and food hubs).

Total 2013 local food sales by farmers (n=120) were $13,035,445, up from $10,549,296 in 2012 (see Figure 1). Average farm sales were up slightly from $102,420 in 2012 to $108,620 in 2013.

To better understand whether farmer sales of local foods from 2012 to 2013 rose due to a change in the composition of respondents or changes in demand, production or both, it is useful to compare the data only from those farmers who participated in the survey during both years. Fifty-seven were repeat respondents; note their sales comprise the majority of all local food sales reported in both years as Figure 1 shows. Total sales from repeat farmer respondents increased over a million dollars, from $9.3 million in 2012 to $10.9 million in 2013.

Figure 1. Local food sales by farmers

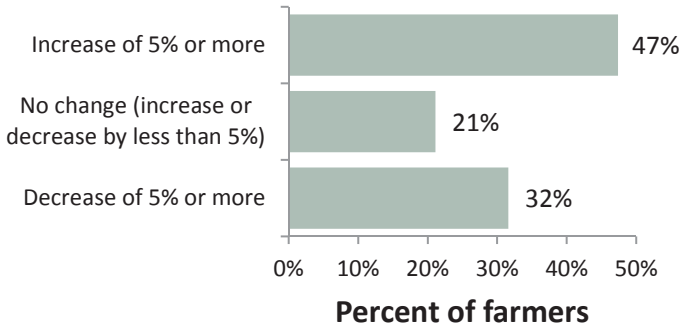


We captured 74% of Iowa local food sales reported by the 2012 Census of Agriculture with only 4% of the sample size.

Table 2: Distance from the farm where farmers sell most of their products

	2012	2013
Average distance (in miles) from farm where farmers sell most of their farm products	76	64
Median distance (in miles)	45	50
Range (in miles)	1 to 1,000	1 to 400
Number of farmers reporting	82	112

Figure 2. Change in local food sales from 2012 to 2013 by repeat farmer respondents (n = 57)



Local food sales are no longer confined to the realm of relatively small-scale farmers markets and instead have evolved to serve larger markets.

A student in New Hampton harvests a tomato from her school's garden.

Similarly, Figure 2 shows that 2 out of 3 (68 percent) of repeat farmer respondents increased or maintained local food sales from 2012 to 2013. Increases in sales could be due to a number of factors, including farm growth (such as increased acreage planted or acquisition of larger herds or flocks), increased demand for local foods, more favorable weather conditions in 2013 resulting in larger yields, or higher premiums received, among others.

To put our data in perspective, we examined the most recent information released from the 2012 Census of Agriculture.[2] Like the 2007 survey, the most recent Census of Agriculture tracked food sales sold directly to consumers for human consumption (it did not measure sales to intermediated markets or to institutions). In Iowa, 2,964 farms reported total direct-to-consumer sales of $17.5 million, for an average of $5,912 per farm.[2] In our 2012 data collection (the first year of our evaluation), we *captured approximately 60 percent of those sales with only 3.5 percent of the sample size*. Comparing our 2013 data, we *captured 74 percent of those sales with only 4 percent of the sample size*. This suggests that the question on direct-to-consumer sales found in the Census of Agriculture is not adequately measuring local foods commerce at the farm gate. *If* our results were representative (although we are not suggesting they are), we would estimate that Iowa local food sales are closer to $322 million annually as opposed to $17.5 million reported by the Census.

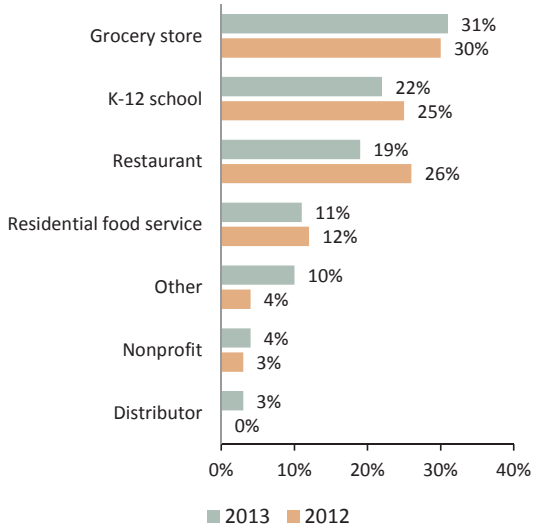
The differences between our data and the most recent Census of Agriculture data likely are due to several factors. Among them:

» The Census of Agriculture only asked about direct-to-consumer sales, whereas our evaluation included direct sales *as well as* sales to institutions and intermediated markets, and the latter tend to be high-volume buyers. Local food sales are no longer confined to the realm of relatively small-scale farmers markets and instead have evolved to serve larger markets; unfortunately, our primary national measurement tool for tracking such growth has failed to keep pace with these changes.

» The Census of Agriculture contacts all farmers, whereas our evaluation included farmers for whom local food sales comprise a primary portion of their business and who are actively involved with their local RFSWG group. These farmers tend to operate their farms as businesses, emphasize local food sales, and understand community relationships are critical to their financial success. In contrast, the Census of Agriculture may include many farmers for whom direct sales are only a small portion of their sales, such as a livestock producer who markets primarily through commodity channels but also happens to sell a few animals to a neighbor.

In another comparative study, Low and Vogel[3] reported on sales through direct channels as well as intermediated markets (excluding institutions) collected by the 2008 Agricultural Resource Management Survey (ARMS) which had a one-time focus on local foods. They found that local food producers had an average of $56,240 in annual sales, about half of our average in both 2012 and 2013 (see Table 3). When one compares the average sales of farms broken down into three categories (small, medium and large), our 2013 averages are close to double those of the ARMS survey in all farm size categories. Had the ARMS survey asked about all local food sales (including sales to institutions), their sales numbers would have been higher.

Figure 3. Percent of food buyer respondents, by type



Impact of Local Food on Buyers

Local food buyers range from individuals spending $30 a month on local food purchases to large markets such as grocery stores, restaurants or school food service, some of whom are easily spending $30,000 a month on local produce, meat, grain and dairy products. In Iowa, large volume buyers—particularly grocery stores and restaurants—are ramping up local food purchases. They represent growing markets of local food consumption that have remained largely unnoticed until now.

Who are the Local Food Buyers?

In 2013, 73 local food buyers participated in our evaluation, nearly the same number reporting in 2012 (74). The most common type of buyer responding to our survey was grocery stores (like last year), followed by K-12 schools, restaurants, and residential food service (Figure 3). This year, we also had representation from food distributors. The "other" category included produce auctions, caterers, CSAs and farm stands.

Potential markets for local food

Farmers markets and CSAs represent only a small portion of markets for local food sales. In addition to more than 900 grocery/food stores and more than 6,000 restaurants, Iowa has 36 natural food stores and co-ops, 1,881 convenience stores and nearly 600 caterers. Food also is served in K-12 public schools (1,409), state government buildings (39), state prisons (9), community hospitals (123) and certified nursing homes (444); and may be available at museums (261), child care programs (9,963), and post-secondary institutions (67). The total number of large-scale markets for buying local produce in Iowa is estimated at 22,189.

See Table 1, "Potential institutional and intermediated markets for local foods in Iowa," on page 5 of our *2012 Economic Impacts of Iowa's Regional Food Systems Working Group* report.

Table 3: Local food sales by size of farm

	2012	2013	Comparative data[2, 3]
Small farms (sales less than $50,000)	$13,466	$12,278	$7,856
Medium farms (sales $50,000-$249,999)	$93,813	$102,420	$69,985
Large farms (sales $250,000 or more)	$1,286,088	$1,518,633	$711,965
Average sales per farm	$102,420	$108,629	$5,912[2] $56,240[3]
Median sales per farm	$15,000	$15,500	N/A
Total local food sales by farmers	$10,549,296	$13,035,445	$17,522,000
Number of farmers reporting	103	120	2,964

Figure 4. Local food purchases in institutional and intermediated markets

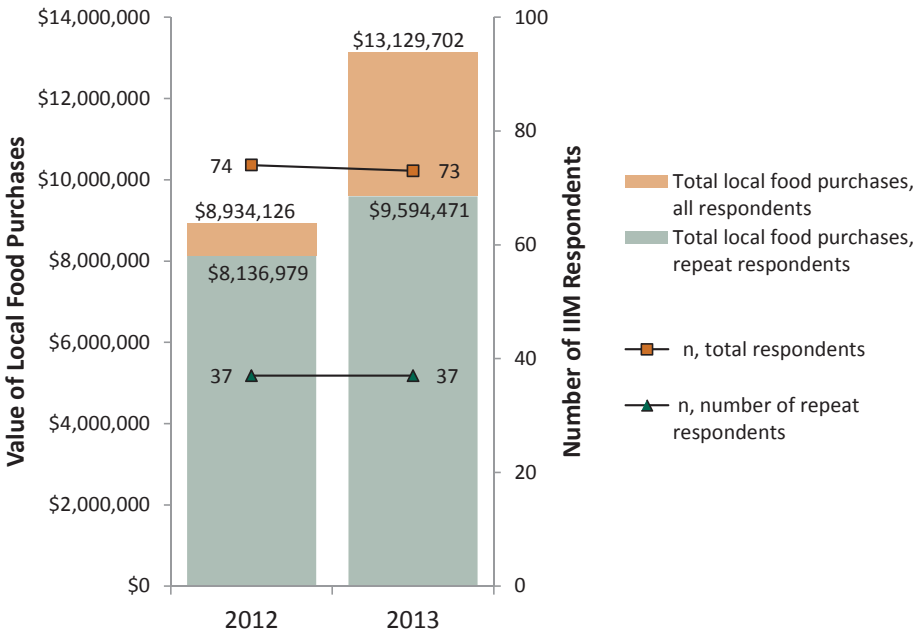
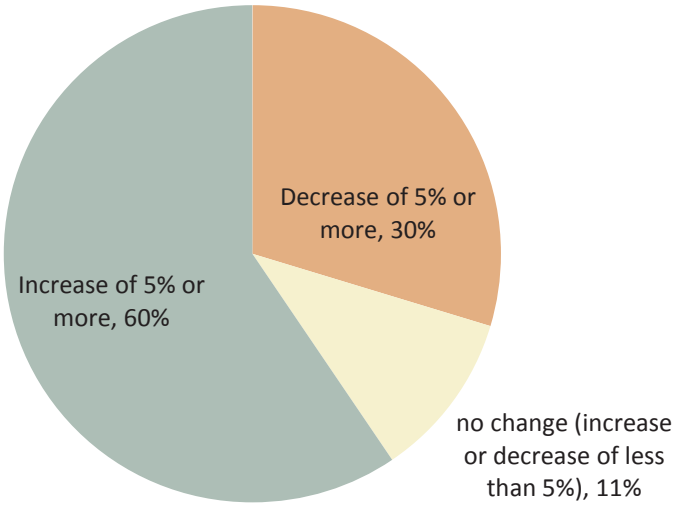


Figure 5. Change in value of local food purchases by repeat institutional and intermediated market respondents (n = 37)



* Percentages do not add to 100% due to rounding.

Local Food Purchases

As shown in Figure 4, total local food purchases by institutions and intermediated markets were up by over $4 million from $8.9 million in 2012 to $13.1 million in 2013.

Average purchases increased by nearly $60,000, from $120,731 in 2012 to $179,845 in 2013 and median purchases more than doubled from $7,265 to $15,000 (Table 4). Table 4 also shows that the percent of total food budget spent on local foods rose noticeably from 2012 to 2013, going from 8.7 to 18.0 percent. These statistics bring up the question of whether local food buyers really are increasing their purchases of local foods, or those who answered the question in 2013 were different than those who answered the question in 2012.

To answer that question, we analyzed data from repeat respondents. Local food purchases of repeat respondents (n=37) rose by $1.5 million, from $8.1 million in 2012 to $9.6 million in 2013. In addition, among repeat respondents, 60 percent (22) increased the value of their local food purchases by 5 percent or more from 2012 to 2013, indicating that participating local food buyers are utilizing more local food, as is shown in Figure 5.

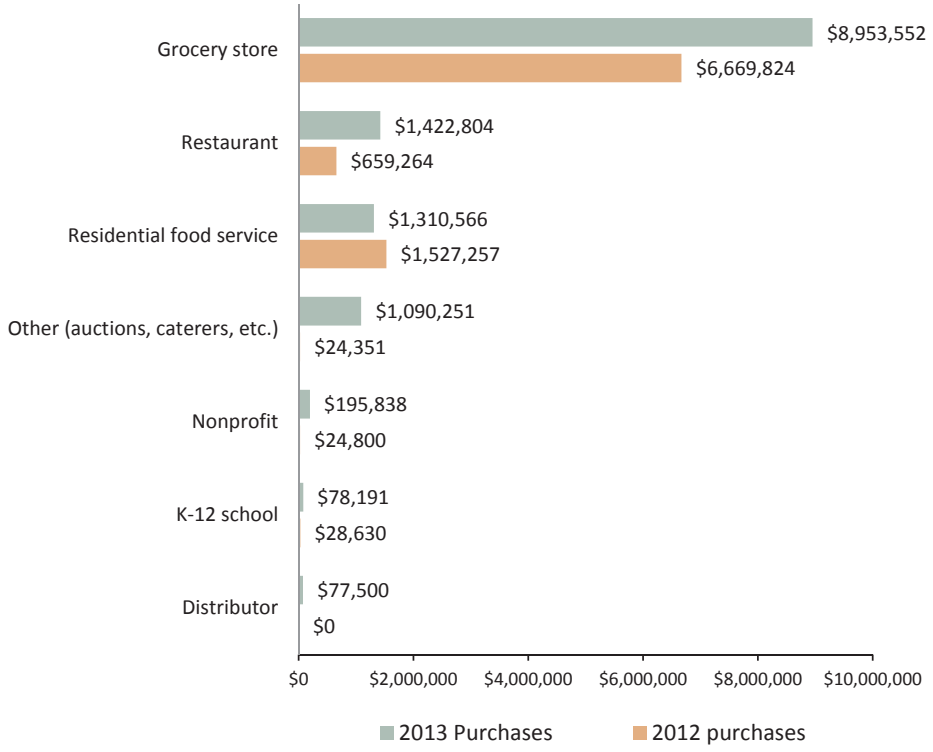
Table 4: Total local food purchases by institutional and intermediated markets (IIMs)

	2012	2013
Average purchases per buyer	$120,731	$179,845
Median purchases per buyer	$7,265	$15,000
Average percent of local food purchases of total food budget (n = 35)	8.7%	18.0%
Total local food purchases by IIMs	$8,934,126	$13,129,702
Total local food purchases by repeat IIM respondents (n = 37)	$8,136,979	$9,594,471
Number of IIMs reporting	74	73

When we compared the two years of data on which type of buyers are purchasing the local food we tracked, grocery stores still emerged on top as the major purchaser of local foods among the buyer respondents. They bought 68 percent of the local food purchases we tracked in 2013, worth nearly $9 million. Restaurants purchases also were up by $763,000 among our respondents although residential food service purchases decreased by $217,000. The "other" category purchased more than $1 million in local foods; this category included produce auctions, caterers, CSAs and farm stands. Non-profit, K-12 schools and distributor purchases also increased when compared to data reported last year.

Taking the analysis one step further, if all of Iowa's estimated 914 grocery stores were to purchase local foods at the same level ($407,000) as our 22 responding grocery stores, they would generate $371 million annually in local food sales alone. Add restaurants (an estimated 6,000 in Iowa spending an average of $101,628 each) to the mix and Iowa could generate an additional $610 million in sales annually. The combined grocery store and restaurant total of nearly $1 billion in local food sales is a projection that does not include additional jobs required for those sales.

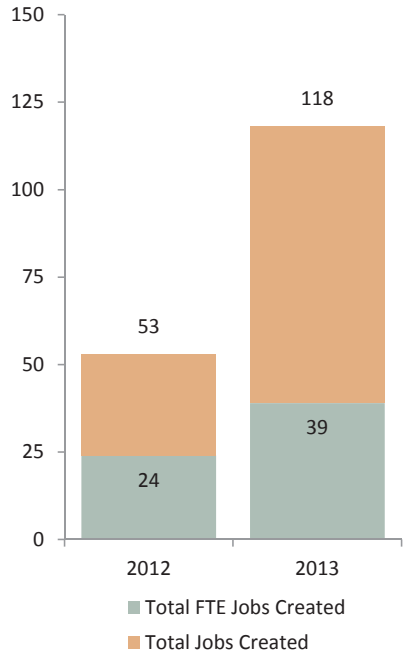
Figure 6. Percent of reported local food purchases, by type of buyer



At a regional youth 4-H leadership event in northeast Iowa, teens prepared a meal using local foods (and without recipes).

If all of Iowa's estimated 914 grocery stores were to purchase local foods at the same level ($407,000) as our 22 responding grocery stores, they would generate $371 million annually in local food sales alone.

Figure 7. Jobs created by local food producers and local food buyers



In 2013 a total of 118 new jobs were created on farms and by local food producers. Combined with the 53 new jobs we tracked in 2012, the two-year total is 171 new jobs.

Job Creation

Little is known about job creation associated with local food commerce although many credit it with creating employment opportunities. Is such credit warranted? As we mentioned in our report last year, the USDA claims that for every full-time job created related to local foods, another half-time job is created in other sectors of the Iowa economy.[4] Other studies show that for every $1 million in local food sales, 13 FTE jobs are created.[3]

We asked local food producers to share information about existing jobs on their farms as well as any new jobs created as a result of local food production. Similarly, local food buyers were asked if any new jobs had been created in their businesses as a result of local food purchasing.

In 2013 a total of 118 new jobs were created on farms and by local food purchasers. Combined with the 53 new jobs we tracked in 2012, the two-year total is **171 new jobs**. Figure 7 shows the number of new FTE jobs that were created over both years (63 total). The new jobs include farmers, sales managers, greenhouse and food educators, marketing staff, cider makers, delivery drivers, chefs/cooks and more. Of those new jobs, 33 percent (39) were full-time, year-round jobs in 2013, compared with 45 percent (24) in 2012, for a two-year average of 37 percent. These data show that while some local food jobs involve part-time and seasonal work, they also include high-quality FTE jobs.

By collecting data from farmers on existing jobs and not just new jobs, we also set out to determine what kind of labor inputs local food farms have and how that contributes to the jobs economy. Does $1 million in local food sales really require 13 FTE jobs to maintain, or does it require less, or even more?[3] In 2012, farmers reported employing 103 people for every $1 million in sales, 25 of which were full-time, year-round (FTE) jobs, as shown in Table 5. (These figures have been updated since the report was released to maintain consistent calculation methods across the two years.) In 2013, farmers reported employing 110 people for every $1 million in sales, 34.1 of which were FTE jobs.

Table 5: Farm jobs and farm sales

	2012*	2013	Two-year average	Comparative data
Average number of *all* jobs per $1 million in farm sales	103	110	106.5	N/A
Average number of FTE farm jobs per $1 million in sales	25	34.1	29.6	13[2]
Number of farmers reporting	45	39	84	N/A

*These figures have been updated since the 2012 report to maintain consistent analytical methods.

Based on our two-year average, FTE jobs per $1 million in sales figures are more than double that cited by Low and Vogel,[3] who reported that fruit and vegetable farms with direct-to-consumer sales require 13 FTE jobs per $1 million in sales. We found that 30 FTE jobs support $1 million in local food sales, comprising 28 percent of all farm jobs needed to support that level of food sales. One explanation for this discrepancy is that the local food farms participating in our evaluation are not all produce farms (some are livestock producers and dairies). As a result, our sample farms may be more labor-intensive than those participating in the ARMS survey. In addition, the farmers we surveyed are generating more sales than those in the Low and Vogel study. Our average farm sales statistics were nearly double those reported by Low and Vogel for all farm sizes (see Table 3). Hence, the farmers we surveyed likely are operating farms at (somewhat larger) scales that require more labor, but are not large enough to generate efficiencies of scale that make it worthwhile to replace people with machinery.

Does $1 million in local food sales really require 13 FTE jobs to maintain, or does it require less, or even more?

Our findings from two years show more than double that number of FTE jobs are required.

Face of a Local Food Champion: Pam Oldham

Seven core farmers supply most of the local food served by Mercy Medical Center in Cedar Rapids, a leader in the region and among healthcare providers in offering local food to patients, their families and employees. For Pam Oldham, co-director of Food and Nutrition Services at the hospital, it was a gradual process that began by finding several key farmers.

As many fruits and vegetables as possible are sourced locally, as well as yogurt, beef and pork. From 2011 through 2013, she purchased an average of 20,000 pounds of local produce each year and spent an average of $45,000. She had hoped to double purchases by the end of 2014.

The connection between food and healing is key in the patient-centered care model used by Planetree, the healthcare network with which Mercy Medical Center is affiliated. "It's an integral part of healthcare and of the health of everyone," Oldham says.

Local partner:
Field to Family Food Coalition

More than 350 people came out for the Cedar Valley Local Food Fair at the Grout Museum in Waterloo in March 2014. It was the first event of its kind in the region. Twelve farmers also participated.

Face of a Local Food Champion: Jim Zaffiro

Jim Zaffiro, a political science professor at Central College in Pella, is Marion County's self-appointed local food coordinator. He got involved after attending a Regional Food System Working Group (RFSWG) meeting, only to discover that Marion County was not represented by the network. He spent a year-long sabbatical, ending in August, to learn about and deepen connections with his local food system. That included finding farms in the area to list on the local food directory, start the process of bringing farm-to-school programs to Pella and Knoxville, and help set up a mobile food pantry for families in small rural communities in his county. He also volunteers at the Pella Farmers Market, co-manages the student organic farm on campus, and teaches a new senior seminar course on food justice.

Local partner:
Eat Greater Des Moines

Financial Leverage: Another Significant Economic Impact

Jobs and food sales are not the only economic impacts worthy of attention. Iowa's regional food coordinators also are leveraging money to support their work, to the tune of $1.6 million over the last two years, half of which originated from sources outside the state.

RFSWG coordinators were asked to share the value of all financial resources used in 2013 for their work in local food systems, including grants, membership fees, fundraisers, donations, etc. Total leverage was up by over $100,000 from $766,020 in 2012, to $882,842 in 2013 (Table 6). However, the number of groups reporting also rose, from eight in 2012 to 10 in 2013. The average amount of funds spent each year per regional food group was down slightly, from $95,753 in 2012 to $88,284 in 2013. The 2013 median was even lower at $64,602. That means that half of the regional food groups are struggling financially, given that most RFSWG groups employ at least one coordinator and often several others to provide a wide range of services to enhance the local food system. Some of these services include developing local food hubs; coordinating stakeholder meetings; maintaining websites; leading strategic planning sessions; creating local foods promotional materials; conducting research; coordinating school and community gardens, farm crawls, art walks, and other community food events; collecting and analyzing data; and more (for a complete list of responsibilities, go to www.leopold.iastate.edu/local-food-coordinators).

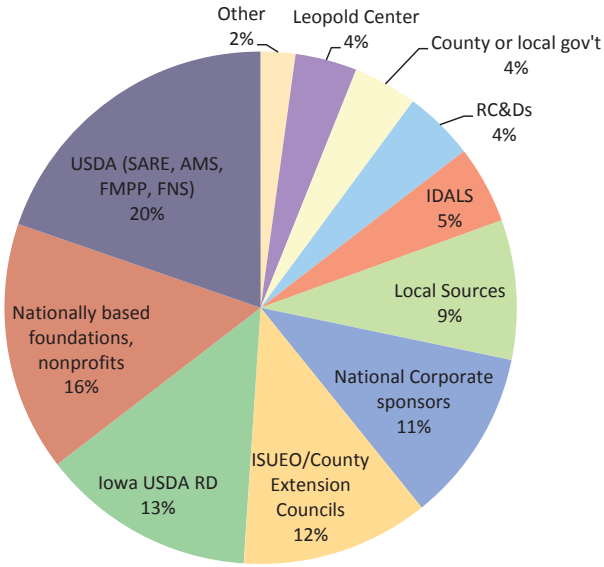
Overall, regional food groups in the RFSWG network received funding from 47 unique funders in 2013, demonstrating the breadth of partners interested in advancing local food systems. Forty-six percent of leverage came from Iowa sources or sources for which funding decisions were made in Iowa, slightly lower than 2012 when 55 percent of funds came from Iowa sources, as shown in Table 6. In 2013, more than half of the funding (54 percent) was sourced from partners and supporters outside of Iowa, illustrating that new money is entering the state as a result of the regional food work.

Table 6: Financial leverage used to support regional food coordination

	2012	2013
Within Iowa source (including federal pass through funds, such as RBEG funds and federal specialty crop block grants where the decision is made by Iowa agencies/entities)	$423,919 (55%)	$408,568 (46%)
State level source (IDALS, RD, Leopold Center, etc.)	$281,127 (37%)	$225,479 (26%)
Local level source of funding (County Extension, donors, community foundations, patrons, producer fees, etc.)	$141,675 (18%)	$183,088 (21%)
Non-Iowa source (funding decision made outside of Iowa)	$341,933 (45%)	$474,274 (54%)
Average funds used per year per RFSWG group	$95,753	$88,284
Median funds used per year per RFSWG group	$38,091	$64,602
Total funds leveraged by regional food groups for use in calendar year	$766,020	$882,842
Number of RFSWG coordinators reporting	8	10

Figure 8 shows that the USDA was the largest funder of the regional food groups in 2013, with 20 percent of all leverage coming from federal USDA programs. Another 13 percent of funding came from USDA Rural Development at the state level, meaning that one-third of all RFSWG funding came from USDA either at the federal or state level. Other major sources of local foods funding in Iowa included nationally based foundations and nonprofits (16 percent), Iowa State University Extension and Outreach and local Extension councils (12 percent), and national corporate sponsors (11 percent).

Figure 8. Local foods financial leverage by regional food coordinators, 2013



Regional Food Coordinators Are Helping Create Jobs

The regional food groups within the RFSWG network are helping maintain and create new jobs on local food farms and among large-scale local food buyers. While a number of other factors also led to the creation of those jobs, the key role of regional food coordinators in increasing local foods commerce is clear.

In 2012, we found that very modest investments in the work of the regional food coordinators contributed to creating jobs, costing the public $17,874 per FTE job (Table 7). In 2013 that number decreased to $14,300 per FTE job, with the total cost per FTE jobs over the two years of $15,661. These numbers demonstrate the low public investment cost of creating quality employment opportunities for Iowans within the local foods sector.

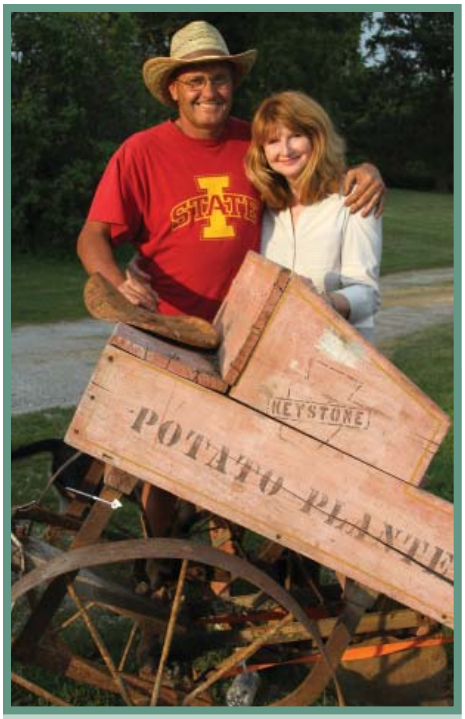
These numbers can be compared to more costly efforts to create jobs in Iowa, as noted in last year's report.[1] Iowa taxpayers spent $17 million in incentives to bring six new Wal-Mart stores to Iowa, despite the fact that Wal-Mart jobs are known to pay an average of 31 percent less than what all retail workers receive, forcing many Wal-Mart employees to seek public assistance.[5] Similarly, Iowans spent an estimated $66,666 per job through incentives to bring Bass Pro to Council Bluffs in 2004, again creating low-paying, part-time jobs.[1, 6] In contrast, the public cost of creating higher quality *full-time* jobs in the local foods sector was *one-quarter the cost of the mostly part-time* Bass Pro jobs created in 2004. These data strongly suggest a wiser investment approach to creating jobs in Iowa is to grow our own in the local foods sector at a mere fraction of the cost compared to retail jobs recruited from outside the state.

Overall, regional food groups in the RFSWG network received funding from 47 unique funders in 2013. New money is entering the state as a result of the regional food work.

Table 7: Financial leverage and public cost of new local food sector jobs

	2012	2013	Total
Investment cost of creating 1 new job (regardless of FTE)	$14,453	$7,482	$9,642*
Public cost of 1 new job	$8,094	$4,726	$5,770*
Investment cost of creating 1 new FTE job	$31,918	$22,637	$26,172*
Public cost of creating 1 new FTE job	$17,874	$14,300	$15,661*
Total funds leveraged for use in calendar year	$766,022	$882,842	$1,648,863
Number of jobs created	53	118	171

*These figures are two-year averages from 2012-2013.



Face of a Local Food Champion: Dennis and Patty Wimmer

Wimmer Farms has been in the family for nearly a century but is taking on new life with Dennis Wimmer at the helm. He grew up there but lived in Chicago for 29 years before returning to buy the land from his father. Just ending his third growing season, he tends vegetables, alfalfa, lettuce in high tunnels and most recently, aronia bushes, which are not yet in production. He sells most of his produce at farmers markets, the Creston Hy-Vee and the Iowa Food Cooperative in Des Moines and operates a new Community Supported Agriculture (CSA) enterprise this year.

"Just starting out, we've grown relatively quickly," he says. "We exceeded our goal for members." He credits other local business owners who buy from him, and the Southern Iowa Local Foods Initiative Council, of which he is a member, for some of his early success.

Local partner:
Southern Iowa Local Foods Initiative

Conclusions and Implications

Collecting two years of data on the economic impact of the Regional Food Systems Working Group offers important information and new understanding about the effects of this industry in Iowa.

» **Our data show that local/regional food commerce is growing although federal efforts to measure this increase are falling short.** The 2007 Census of Agriculture statistics showed that 3,000 farms reported $16.5 million in direct sales to Iowa consumers. The 2012 Census of Agriculture statistics found that 2,964 farms reported $17.5 million in direct sales. While growth is apparent from these figures, it pales in comparison to what might actually be happening. When 22 grocery stores alone report buying $9 million of local foods in Iowa, we know that the Census of Agriculture is not adequately measuring local foods commerce by focusing only on direct-to-consumer sales.

Comparing our 2013 data, we *captured 74 percent of the 2012 Census of Agriculture local food sales with only 4 percent of the sample size*. **This suggests that sales of local food to grocery stores, restaurants, residential food service operations, food hubs and food auctions, among other high-volume markets, are rapidly eclipsing direct-to-consumer sales.** If our results were at all representative (although we are not suggesting they are), we would estimate that Iowa local food sales are closer to $322 million annually as opposed to $17.5 million reported by the Census. Furthermore, if all of Iowa's estimated 914 grocery stores would purchase local foods at the level ($407,000) our 22 responding grocery stores did, this would generate $371 million annually in local food sales alone. Add restaurants to the mix (an estimated 6,000 in Iowa spending an average of $101,628 each) and Iowa could generate an additional $610 million in sales annually, for a combined grocery store and restaurant total of nearly $1 billion in local food sales.

School food service directors attended a hands-on workshop at Decorah Middle School to learn how to quickly prepare vegetables and stir-fry dishes for school meals.

» **Over the two years of our evaluation, 171 new jobs were created on farms and by local food buyers in the local foods sector**; 37 percent of these were full-time, year-round jobs. We also found that 30 FTE jobs support $1 million in local food sales in Iowa, comprising 28 percent of *all* farm jobs (106.5) needed to support that level of food sales. This is more than double previous estimates. The farmers we surveyed likely are operating farms at scales ideal for job creation; in other words, those that require more labor but are not large enough to generate efficiencies of scale that make it worthwhile to replace people with machinery.

» **Very modest public investment in the work of regional food coordinators contributes to job creation in Iowa.** Over the past two years, it cost the public $15,661 to create one full-time job in the local foods sector in Iowa. Compared to the cost of recruiting low-paying retail jobs from outside the state, a wiser investment approach to creating jobs in Iowa is to grow our own in the local foods sector.

» **This model is working but needs more support.** Networked local food coordinators already have demonstrated they are effective at helping create jobs in Iowa on shoestring budgets pieced together from various sources of funding from government agencies, nonprofits, and the private sector. Providing a robust and consistent source of funding for local food coordinators promises to generate even greater economic returns to the state of Iowa.

Face of a Local Food Champion: Clint Brown

Clint Brown is only 23, but he is already an experienced farmer. He first planted green beans and tomatoes when he was four. By the time he was about 12, he was giving away so many green beans, he asked his mom if he could take them to the farmers market. Today he operates C. Brown Gardens, growing mostly heirloom tomatoes and peppers in four high tunnels. Brown estimates he sold five tons of tomatoes in 2013, the majority at the Sioux City Farmers Market. His first high tunnel was constructed when he was 14 years old and high tunnels were uncommon. Now he is able to support himself on a very small amount of land and his family joins him at the farmers market stand. His mother makes jellies and baked goods and his father sells natural beef.

Local partner:
Flavors of Northwest Iowa

Community members visit Bluebird Springs Orchard and Aronia Berry Farm on the Plymouth County Farm-to-Fork tour in August 2014. Organized by Flavors of Northwest Iowa, the event gives community members an opportunity to see where and how local foods are grown.

Endnotes

1. Bregendahl, C., and A. Enderton. *2012 Economic Impacts of Iowa's Regional Food Systems Working Group*. Ames, Iowa: Leopold Center for Sustainable Agriculture. 2013. Available at www.leopold.iastate.edu/2012-economic-impacts-iowa-rfswg.

2. 2012 Census of Agriculture United States Summary and State Data. United States Department of Agriculture. 2012. Available at www.agcensus.usda.gov.

3. Low, S. A., and S. Vogel. *Direct and Intermediated Marketing of Local Foods in the United States*. USDA Economic Research Service. 2011. Available at http://www.ers.usda.gov/media/138324/err128_2_.pdf.

4. Martinez, S., et al. *Local Food Systems: Concepts, Impacts, and Issues*. USDA Economic Research Service. 2010. Available at www.ers.usda.gov/media/122868/err97_1_.pdf.

5. Dube, A., and K. Jacobs. *Hidden Cost of Wal-Mart Jobs: Use of Safety Net Programs by Wal-Mart Workers in California*. Berkely, CA: University of California. 2004. Available at http://laborcenter.berkeley.edu/retail/walmart.pdf.

6. Stecker, A. and K. Connor. *Fishing for Taxpayer Cash: Bass Pro's Record of Big-League Subsidies, Failed Promises, and the Consequences for Cities Across America*. (Public Accountability Initiative, 2011). Available at http://public-accountability.org/wp-content/uploads/2011/09/fishing_for_taxpayer_cash.pdf.

Marlene Boernsen of Ocheyedan was hooked after she completed a beekeeping class in 2004. Now her family runs an apiary at eight sites in Osceola County and Marlene sells honey and beeswax products at the Lakes Area Farmers' Market in Dickinson County.

Photo Credits:

Jan Swinton (school on p. 1), Luke Elzinga/Des Moines Area Religious Council/Eat Greater Des Moines (Global Greens on p. 1), Kelcy Schroder/Flavors of Northwest Iowa (pumpkins on p. 1 & p. 16), Rachel Wobeter (creamery on p. 1 & fair on p. 11), Carla Jaquet (Veggie Mobile on p. 1), Arlene Enderton (p. 3), Ron and Jennifer Tigges/Digital Dubuque (p. 4), Northeast Iowa Food and Fitness Initiative (p. 6 & p. 9), Marcus Johnson (Oldham on p. 11), Liz Vande Kieft (p. 12), Brenda Strauss (Wimmers on p. 14), Northeast Iowa Food and Fitness Initiative (school on p. 14), Woodbury County Extension (Brown on p. 15), Laurie Taylor (Farm-to-Fork on p. 15)

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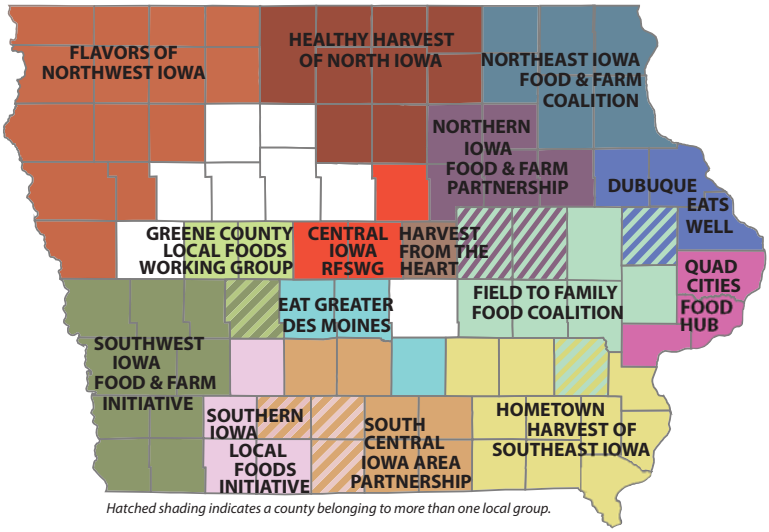
Fifteen regional food groups cover 91 of Iowa's 99 counties



Hatched shading indicates a county belonging to more than one local group.

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Find this report, a two-page summary and related information on the Leopold Center website: www.leopold.iastate.edu/local-food

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