

Growing Economies

Connecting Local Farmers and Large-Scale Food Buyers to Create Jobs and Revitalize America's Heartland

HIGHLIGHTS

Even as midsize family farms in Iowa and across America are disappearing, increasing demand for fresh, sustainably grown, local foods can open new opportunities for farmers and rural communities. Smart public policies that provide incentives to diversified midsize farms and connect them with large food buyers—including supermarkets, restaurants, hospitals, and school districts—could help bring back these farms and create tens of thousands of jobs. We should rework our nation's food and agriculture policy system to emphasize the goals of improved public health, an enhanced environment, and renewed rural economies. Policies that return midsize farms to the land and connect them with markets will move us closer to those goals.

Midsize family farms have long formed the backbone of rural economies. But these farms have been disappearing for almost two decades. The “Agriculture of the Middle” initiative—convened and administered by researchers at Iowa State University (ISU) and the University of Wisconsin–Madison—first called attention to the “disappearing middle” of American agriculture. These researchers defined midsize farms as those too small to compete in globalized commodity markets but too large and specialized to sell directly to consumers (Kirschenmann et al. 2004). Typically, these farms have gross annual sales of \$50,000 to \$250,000, and farming is the primary occupation of the owner(s). Generally, the United States Department of Agriculture (USDA) considers farms operating on 50 to 999 acres to be midsize farms. Based on USDA data, we estimate that nearly 56,000 midsize farms were lost nationally between 2007 and 2012, while large farms (more than 1,000 acres) increased by more than 400 (USDA 2012a). Some agricultural states were hit particularly hard; Iowa, for example, lost some 6,000 midsize farms, accounting for nearly 10 percent of all those lost nationally (USDA 2012b).

The demise of midsize family farms has had serious consequences in rural communities. These farms employ more people per acre than large, industrialized farms; when they disappear, many farming jobs evaporate with them, along with farm-related jobs in the community. Already, many rural areas across the country have been steadily losing population—the population across 1,300 rural counties dropped by half a million people between 2010 and 2014 (ERS 2015). Once-vibrant rural communities are at continued risk as the loss of job and business opportunities represented by midsize farms continues.



Increasing demand for local, sustainable, healthy food means new opportunities for midsize farms, but smart public policies are needed to provide incentives and help farmers develop relationships with large buyers.



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Supporting midsize farms in turn supports their communities. Connecting them with local buyers keeps funds local and creates jobs, and could lead to the revitalization of rural towns.

Rural Communities Get Greater Benefits from Midsize Farms

Generally, small and midsize farms are more likely than large farms to purchase inputs locally—in particular, livestock feed and equipment—keeping more money in their local economies.¹

In addition, research has shown that areas having more moderate-size farms and a stronger middle class have lower poverty and unemployment rates, higher average household incomes, and greater socioeconomic stability (Lyson, Torres,

and Welsh 2001; Labao 1990). In contrast, larger farms are associated with lower household incomes, more poverty and economic inequality, less active “Main Streets” with fewer retail businesses, and less money spent in the community (Pew Commission n.d.). Agribusiness concentration leads to a decline in the value of local businesses and the overall local economy (Food and Water Watch 2012).²

In addition to their socioeconomic benefits, midsize farms tend to be good for the environment and the long-term sustainability of farming. Having fewer acres to manage, farmers are more in tune with subtleties of soil type, climate, and pest populations. Moreover, when farms are passed from generation to generation, there is a transfer not just of land, but also of location-specific knowledge. This intimate knowledge of the land often allows the production and rotation of diverse crops in systems integrated with the raising of livestock; as a result, midsize farms are often quite biodiverse (Martilla-Losure 2012). Large farms instead tend to simplify operations for ease of management as farm size increases; they restrict crop production to one or two crops and livestock production to a few breeds, thus decreasing biodiversity, and they adversely affect soil and water quality and increase global warming emissions (Martilla-Losure 2012; Killebrew and Wolff 2010).

Midsize farms improve a community’s socioeconomic stability, and tend to be good for both the environment and the long-term sustainability of farming.

Intermediate and Institutional Demand for Local, Sustainable Food Could Bring Back Midsize Farms and Promote Rural Economic Development—A Case Study from Iowa

At the same time midsize farms are disappearing, consumer attitudes about food are changing. More consumers are interested in healthy eating and want to know how their food is produced and by whom. This has led to the rapid growth of farmers markets,³ community supported agriculture (CSA)⁴ programs, local grocery stores, and “farm-to-fork” initiatives at restaurants, schools, and other institutions, a phenomenon not restricted to large cities or the coasts. Recent research in Iowa, for example, suggests that consumers there are often willing to pay more for local food (Krouse and Galluzzo 2007; DeCarlo, Franck, and Pirog 2005). Between 2007 and 2012, direct-to-consumer farm sales in Iowa increased by 6 percent (from \$16.5 million to \$17.5 million), even though the number of farms reporting direct sales during that period remained essentially flat (USDA 2012b). While Iowans spend more than \$8 billion for food each year, only 10 percent of that food is produced locally⁵ (Tagtow 2008), so there is great potential for further growth in the local-food market. One study revealed that farmers markets in the state generated total sales of \$38.4 million and supported 374 direct jobs and 200 indirect

TABLE 1. Potential Intermediate and Institutional Markets for Local Foods in Iowa

Market/Institution	Number	Year
Grocery and Food Stores	914	2013
Convenience Stores	1,881	2013
Meat and Poultry Sales	138	2013
Restaurants	>6,000	2013
Natural Food Stores and Co-ops	36	2011
State Government Buildings	39	2013
Museums	261	2013
Community Hospitals (Iowa Hospital Association)	123	2013
Certified Nursing Homes	444	2013
Child Care Programs	9,963	2012
Food Pantries and Meal Sites	317	2004
State Prisons	9	2013
K-12 Public School Buildings	1,409	2011-2012
Postsecondary Institutions (Degree Granting)	67	2011-2012
Caterers	588	2011
Total Potential Markets	22,189	

In Iowa, there are more than 22,000 institutions and intermediate markets that could benefit from purchasing local food, representing huge growth potential for midsize Iowa farms.

SOURCE: BREGENDAHL AND ENDERTON 2013.

jobs in 2009 (Otto 2010). Another study found that if Iowans each ate five daily servings of fruits and vegetables produced in the state, this dietary change would add \$331 million in economic output to the local economy, \$123.3 million in labor income, and 4,484 jobs (Swenson 2006).

More of Iowans’ food dollars could remain in state if more institutions (such as schools and hospitals) and so-called intermediate markets (such as grocery stores and restaurants) purchased food from Iowa farms. There is already evidence that local-food purchases by Iowa institutions are growing. A 2008 study of eight counties in Iowa found that local purchases had increased from just three institutions purchasing \$111,000 worth of local food in 1998 to 25 stores and institutions purchasing \$1.8 million worth a decade later (Sharma et al. 2012). Other studies in Iowa have also shown increased demand for local food from intermediate markets (Gregoire, Arendt, and Strohbahn 2005; Strohbahn and Gregoire 2003). But there is tremendous room for further growth, as the total number of institutional and intermediate food purchasers in the state has been estimated at more than 22,000 (see Table 1).



SARE Outreach/Creative Commons (Flickr)

Farmers Steve and Jean Moseley sell vegetables directly to local restaurants, nursing homes, and hospitals as part of a federally funded project at the University of Northern Iowa that links growers to these buyers. Increased funding for such programs would benefit midsize farms and rural communities.



Left: © Whole Foods Market; right: © Monkey Business Images/Shutterstock.com

Supermarkets and hospitals represent important untapped markets for diversified, midsize farms. Connecting these farms and large-scale buyers can also increase a community's access to healthy, sustainable food.

These potential local-food buyers could provide a much-needed opportunity to keep midsize farms in or return them to rural communities in Iowa and elsewhere. Intermediate and institutional buyers require both large volumes and a diversity of foods, and neither small farms (because of their lack of capacity) nor large farms (because of their lack of flexibility)⁶ in places like Iowa can meet this demand.⁷ This leaves midsize farms as untapped resources in the local-food movement, with a “comparative advantage in producing unique, highly differentiated products” (Kirschenmann et al. 2004).

Analysis: Estimated Impacts If Midsize Local Farms Supplied Iowa’s Food-Buying Intermediate and Institutional Markets

In 2012 and 2013, ISU’s Leopold Center coordinated a series of statewide surveys⁸ to gather data on total local-food sales by farmers, intermediate and institutional food purchases,⁹ associated job creation, and financial resources available to regional food coordinators, who work to promote local-food systems and connect farmers and buyers. The same three surveys were distributed to farmers, buyers, and regional food coordinators each year. A total of 103 farmers and 74 intermediate buyers participated in the survey in 2012; in 2013, 120 farmers and 73 intermediate buyers participated. Over the two-year period, buyers reported purchases of more than \$11 million and farmers reported sales of \$11.8 million.¹⁰ The surveys also found that these markets created 171 new jobs, including 63 full-time, year-round jobs.

To understand the potential economic impacts on Iowa’s economy if midsize farms in Iowa met demand from more of Iowa’s intermediate and institutional markets, the Union of Concerned Scientists (UCS) conducted further analysis of the Leopold Center’s survey data. We estimated the impact

If just 25 percent of intermediate and institutional markets in Iowa purchased local food at the same level as survey respondents, it would generate more than \$800 million annually for the state’s economy.

if 25 percent, 50 percent, and 100 percent of the potential intermediate and institutional markets in Iowa made purchases at the same level as the respondents in the survey (Table 2). We found the following:

- If just 25 percent of intermediate and institutional markets in Iowa purchased local food at the same level as survey respondents, it would generate more than \$800 million annually for the state’s economy. At 50 percent, the impact would be \$1.67 billion. And if all of Iowa’s intermediate and institutional markets purchased food locally, the impact would increase to more than \$3 billion.
- If, in the 25 percent, 50 percent, and 100 percent cases, Iowa’s intermediate and institutional markets sourced half of their local-food demand from midsize¹¹ farms, between 4,249 and 16,997 such farms could be supported. These figures represent 5 to 19 percent of all farms currently operating in Iowa. Even the low figure would translate to the return of nearly 75 percent of all midsize farms lost by the state between 2007 and 2012.

TABLE 2. Economic Impacts If More Large-Scale Iowa Buyers Purchased Local Food

Total Potential Intermediate and Institutional Markets in Iowa		22,189	
Percent of Total Potential Markets Purchasing Local Food	25%	50%	100%
Number of Intermediate and Institutional Markets Purchasing Local Food	5,547	11,095	22,189
Revenue to Economy			
Total Purchases by Intermediate and Institutional Markets (in Billions) ¹	\$0.834	\$1.67	\$3.34
Revenue to Economy from Midsize Farms (in Billions) ²	\$0.417	\$0.834	\$1.67
Farm Jobs Supported			
Total Number of Farm Jobs Supported ³	88,804	177,608	355,215
Total Number of Full-Time Farm Jobs Supported ⁴	24,640	49,280	98,560
Total Number of Farm Jobs Supported by Midsize Farms ⁵	44,402	88,804	177,608
Total Number of Full-Time Farm Jobs Supported by Midsize Farms ⁶	12,320	24,640	49,280
Buyer-based Jobs Supported			
Total Buyer-based Jobs Created ⁷	2,747	5,494	10,988
Total Buyer-based Jobs Created by Midsize Farms ⁸	1,373	2,747	5,494
Number of Midsize Farms Supported⁹	4,249	8,498	16,997

A UCS study shows that Iowa institutions and intermediate markets purchasing more local foods would lead to a dramatic increase in local farm jobs and bolster the state's economy.

NOTES:

- 1 Assuming local-food purchases of \$150,316, the estimated 2012–2013 average local-food purchases by buyers in the ISU survey.
- 2 Assuming that midsize farms can meet half the demand (purchases) by intermediate and institutional markets.
- 3 Based on ISU survey data indicating that every \$1 million in farm sales supported an average of 106.5 jobs (average for 2012 and 2013).
- 4 Based on ISU survey data indicating that every \$1 million in farm sales supported an average of 29.55 full-time farm jobs (average for 2012 and 2013).
- 5 See Notes 2 and 3.
- 6 See Notes 2 and 4.
- 7 These are jobs created as a result of the purchases made by intermediate and institutional markets. Calculations based on the 2012 ISU survey, which indicated that average spending of \$303,555 on local-food purchases by intermediate and institutional markets creates at least one new full-time local-food-related job.
- 8 See Notes 2 and 7.
- 9 Assuming average sales of local food by midsize farms were \$98,117 (average of 2012–2013 ISU surveys). Assuming that midsize farms can meet half the demand (purchases) by intermediate and institutional markets.

- Such sales by midsize farms could support between 44,000 and 178,000 total jobs¹² in Iowa.
- The number of full-time farm jobs supported by midsize farms would range from 12,000 to nearly 49,000.
- Full-time buyer-based jobs, such as those associated with procuring, preparing, marketing, and educating about local foods, could range from 1,400 to 5,500.

Conclusions and Policy Recommendations

Despite the increased demand for sustainably and locally grown food and these potential new markets, the path is not yet cleared for farmers to establish new midsize farms that will grow diverse products or for existing commodity farms to transition to this kind of farming. High land and equipment costs make it difficult for young people to begin farming—new

farmers cite access to capital as one of the most significant barriers to starting a farm (Mailfert 2006). And existing operators of large and midsize farms are hesitant to venture into new enterprises due to the opportunity costs involved.¹³ Diversified farms often require more attention, time, and labor than do commodity crops; also, different farm equipment is required (Krouse and Galluzzo 2007). Lack of adequate insurance is another obstacle. The Whole Farm Revenue Protection (WFRP) program, created by the 2014 farm bill, offered new crop insurance policies to specialty crop (fruit and vegetable), organic, and diversified farms in Iowa and most of the Midwest for the first time in 2015.¹⁴ These farms were previously uninsured in most regions, including Iowa. However, WFRP has several limitations and is not available to beginning farmers¹⁵ or rapidly expanding operations.

Recognizing the benefits that could be achieved with a major shift to local-food production and sale, as well as the

Smart public policies that help midsize farms connect with markets will improve public health, renew rural economies, and enhance our environment.

potential economic and resource challenges farmers must overcome in order to realize that shift, UCS recommends that future federal food and agriculture policies incorporate and emphasize the following:

- **Financial incentives to help beginning and transitioning farmers grow the foods intermediate and institutional buyers want.** Support for farmers as they begin a new farming operation or as they transition from commodity production to a more economically beneficial business model is critical to the success of midsize farms. Maintaining and strengthening federal programs that offer financial, training, and business¹⁶ assistance to farmers making these transitions should be a high priority, and funding for these programs must remain consistent in order to provide a reliable financial resource.
- **Research and technical assistance to help farmers adopt midsize, diversified farming systems.** There is a tremendous need to understand more fully which approaches work best for midsize farms. Investing in research examining the successes and failures of midsize farms can lead to the establishment of successful policy and program funding levels. Research and technical assistance must recognize that no two midsize farms are the same—even small differences in location, crops, management, and financial resources can have large impacts on the ultimate success and longevity of a farm.
- **Investments in infrastructure and coordination to get healthy food from farm to market.** Midsize farms are often of a size and scale that make it difficult to serve markets. Intermediaries can help farmers overcome this problem. Food aggregators (sometimes referred to as food hubs or national distributors) play an important role in delivering the goods produced by midsize farms to local and regional food networks. Local food coordinators may support food aggregation by helping to establish food hubs,¹⁷ and research has shown that a modest public investment in the work of local food coordinators¹⁸ has contributed to job creation in Iowa (Enderton and

Bregendahl 2014; Bregendahl and Enderton 2013). Successful food aggregators serving the Midwest, Northeast, and West received initial funding through state and federal grants and are now maintained by state and federal resources. Policies that provide increased and consistent funding to local food coordinators, aggregators, and food hubs can generate even greater economic returns. Additionally, increased policy incentives for institutions to purchase food from local or regional farms would reinforce the connections these buyers have with local farms and in turn strengthen the economic fabric of rural communities.

- **A comprehensive national food and farm policy that incorporates the above recommendations.** In recent years, federal farm policy has taken some steps toward making our food and farm system more economically vibrant and our food more healthful.¹⁹ But current programs, such as the USDA's Beginning Farmer and Rancher Development Program (BFRDP), are too small²⁰ to create the shift needed to bring farmers back to the land in Iowa and elsewhere and to revitalize rural economies across America. A more holistic and intentional policy approach is needed. The next president should commit to creating a comprehensive national food policy that would streamline and coordinate existing food, health, environmental, and economic objectives—which are currently under the purview of at least 10 federal agencies—as a first step toward transforming the nation's food system. By committing to take such a policy approach, the next president can support farmers, ensure that the food and farm sectors create new jobs and pay fair wages to the millions of people they employ, and enable Americans at all income levels to access affordable, healthful food. For more information, visit www.ucsusa.org/plateoftheunion.

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ENDNOTES

- 1 *Crop farms regardless of size purchase more locally (Chism and Levins, 1994), but it is different for livestock farms. According to a 1990 study of Michigan hog operations, larger hog farms spent less locally than smaller farms. The average amount spent locally by a 500-head farm was \$67 per head, while a 5,000-head farm spent only \$47. Thus, the large farm would spend \$235,000 locally, compared with \$33,550 spent by the smaller farm. But 10 500-head farms would spend over \$100,000 more locally than one 5,000-head farm (Abeles-Alison and Conner 1990). Comparative results were found by Gomez and Zhang (2000) for livestock farms.*
- 2 *A study by Food and Water Watch (2012) that examined Iowa's hog sector from 1982 to 2007 found that the counties that had the most hog sales and the largest farms showed decreasing income, a decreasing number of local businesses, and slow growth in median household income. The study also found that while Iowa farm sales of hogs doubled between 1987 and 2007,*

- the real value of the hog sales was 12 percent lower in 2007. Consolidated pork packaging operations and an increase in both the size of hog farms in Iowa and their integration with pork processing companies led to a decrease in the value of hogs to the local economy.
- 3 Farmers markets nearly doubled from 3,706 in 2004 to 8,284 in 2014 (ERS 2014).
 - 4 The majority of the literature on the motivation for joining CSAs cites consumers' desire for environmentally sustainable food production as the major reason (Brehm and Eisenhauer 2008; Goland 2002; Cone and Myhre 2000).
 - 5 Enderton and Bregendahl (2014) estimate Iowa's local-food sales to be \$322 million.
 - 6 In the past, farmers who grow federally subsidized crops such as field corn, soybeans, wheat, and cotton were restricted from converting their land to fruit or vegetable production, even for just one year, unless they were permanently willing to give up their right to collect federal payments on that acreage. Thus, reduction in payment began on the first acre of fruit and vegetable planted on base acres. The new farm bill now allows farms with commodity base acres to plant fruits and vegetables on 15 to 35 percent (depending on the commodity program chosen by farmers, either Price Loss Coverage or Agriculture Risk Coverage, to provide income support in response to adverse price or yield conditions) of base acres without any penalty. Planting fruits and vegetables on base acres above those limits requires a one-to-one reduction in payment acres. For details, see Shields 2014.
 - 7 In a 2009 survey of institutional buyers conducted by the Northern Iowa Food and Farm Partnership, 86 percent of respondents stated that lack of reliable supply was the main reason they were not buying more local food. See Tiernan 2013 for details.
 - 8 See Bregendahl and Enderton 2013 for more details.
 - 9 The 2007 Census of Agriculture (USDA 2007) data reported only direct-to-consumer sales. A 2008 Agricultural Resource Management Survey (ARMS) (reported by Low and Vogel 2011) was the only survey to track local-food sales to individual and intermediate markets. However, it did not track sales to institutions.
 - 10 The 2012 Census of Agriculture (USDA 2012b) reported that there were 2,964 farms in Iowa, with \$17.5 million in direct sales, while the ISU 2012 survey reported only \$10.5 million in local sales with only 103 farmers reporting. As pointed out by Enderton and Bregendahl 2014, this discrepancy is most likely due to the lack of measurement of sales by farmers to intermediate and institutional markets.
 - 11 The Leopold Center's survey defined midsize farms as farms with sales of \$50,000 to \$249,000.
 - 12 Alternatively, Low and Vogel (2011) estimate that for every \$1 million in sales, 13 full-time jobs are supported. Using the average of the Low and Vogel estimate and the ISU estimate, total full-time jobs supported range from 17,740 to 70,960, and half of these would be supported by midsize farms.
 - 13 In the past, these costs have included taking current crops out of commodity production, thereby reducing the base crop acreage making farms eligible for federal crop programs and the inability to recover their program payments if a new venture fails. The current farm bill has eliminated these issues.
 - 14 The new policy was created as part of the 2014 farm bill's safety-net programs for farmers. For more details about WFRP, see National Center for Appropriate Technology 2015.
 - 15 It requires tax history as far back as 2009 for a 2015 policy. Other drawbacks include extensive recordkeeping for application and claims, particularly for farmers producing 10 or more crop and livestock products; lack of coverage for catastrophic risk; and difficulty calculating premiums that accurately reflect the risks of growing specialized crops and/or livestock in states where the commodity list is short.
 - 16 Business assistance, not just financial and training assistance, is crucial. Business planning, management, and marketing all determine whether a farm will be profitable. Few land-grant colleges or small-business development centers currently offer sufficient farm business management training.
 - 17 A few broker relationships may culminate in food aggregation efforts.
 - 18 Most local food coordinators in Iowa are building the local-food system through value chain support work that includes support for farm-to-school programs, improving healthy food access, food rescue, providing technical assistance to farmers markets to help them grow, and developing local-food networks and collaborations.
 - 19 For example, the new Know Your Farmer, Know Your Food Initiative and the Value Added Producer Grant Program can be used to fund food aggregators.

- 20 The BFRDP was awarded \$100 million under the 2014 farm bill to be spread over five years. The USDA has announced the availability of \$18 million in grants for 2016 (USDA 2015).

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