

FarmLab Study
Phase 1 - Needs Assessment
Appendix A – Elkhart County Ag Overview

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Prepared for the Elkhart County Redevelopment Commission

by Phil Metzler and Mark Seeley

1.0 COMMUNITY

1.1 Earnings

201,971 Elkhart County residents earned \$7.5 billion in 2014, with per capita personal income of \$37,344 and per capita net earnings of \$24,762. Manufacturing accounted for \$3.7 billion of all earnings, while farm earnings amounted to \$110 million.¹ Despite \$7.1 billion of earnings in 2012, Ken Meter estimated a change in net assets (assets minus liabilities) of \$422 million for all county households combined for that year.²

1.2 Consumer Spending

Total food purchases by Elkhart County residents amount to \$532 million annually, of which \$325 million is consumed at home.³ Table 1 summarizes consumer spending in Elkhart County and compares it with the broader region.

Vegetable sales by Elkhart County farmers amounted to \$3.2 million in 2012, compared to average annual food commodity sales of \$195 million. Overall direct sales between farmers and consumers were \$2.4 million.⁴ Based on state-level data, Ken Meter estimates that 90% of the food consumed by Elkhart County consumers is imported from outside the immediate region.⁵

Based on 2013 Esri data for Elkhart County, total food purchases amount to approximately \$7,100 per household (12.1% of total expenditures), of which \$4,400 is consumed at home. In comparison, Elkhart County households apply 30.6% of their total expenditures to housing, 14.5% to transportation, 6.7% on health care, and 4.9% on entertainment and recreation.⁶

Table 1: Regional Consumer Spending

	Total Consumer Spending (\$millions)				
	Elkhart County ^(a)	St Joseph County (IN) ^(a)	Elkhart County Region ^(a)	NE Indiana Region ^(b)	Indiana ^(b)
Total Food Purchases	\$532	\$709	\$2,000	\$2,100	\$17,000
Total Home Food Purchases	\$325	\$433	\$1,300	\$1,300	\$11,000
Meats, poultry, fish, & eggs	\$66	\$88	\$262	\$279	\$2,200
Fruits & vegetables	\$61	\$81	\$239	\$248	\$1,900
Cereals & bakery products	\$46	\$62	\$183	\$182	\$1,500
Dairy products	\$35	\$47	\$138	\$144	\$1,100
"Other," incl. Sweets, fats, & oils	\$117	\$156	\$462	\$472	\$3,800

- (a) Elkhart County Region includes Elkhart County and the immediately adjacent counties: Kosciusko, LaGrange, Marshall, Noble, and St. Joseph Counties in Indiana, and Cass and St. Joseph Counties in Michigan. Food consumption estimates from Bureau of Labor Statistics Consumer Expenditure Survey by Meter, 2015.⁷
- (b) NE Indiana Region includes Adams, Allen, Dekalb, Huntington, Kosciusko, LaGrange, Noble, Steuben, Wabash, Wells, and Whitley Counties. Food consumption estimates from Bureau of Labor Statistics Consumer Expenditure Survey by Meter, 2016⁸

1.3 Food Insecurity

25,370 (12.7%) Elkhart County residents were classified as food insecure in 2014⁹ which Feeding America characterizes as follows:

"Food insecurity refers to the USDA's measure of lack of access, at times, to enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods. Food insecure households are not necessarily food insecure all the time. Food insecurity may reflect a household's need to make trade-offs between important basic needs, such as housing or medical bills, and purchasing nutritionally adequate foods."¹⁰

Food insecurity is not a function of poverty alone. Nationally, more than half of all households at or below the poverty level are not actually classified as food insecure. Approximately 28,000 Elkhart County residents lived in poverty in 2014 with income levels below their corresponding threshold (\$23,850 for a family of 4).¹¹ Among food insecure Elkhart County residents, 19% had income levels greater than 185% poverty (the level at which people are eligible for Federal nutrition programs) and 40% had income levels above their 130% poverty threshold, making them ineligible for SNAP benefits. 11,200 Elkhart County children (19.9%) were food insecure, of which 19% were nonetheless ineligible for federal nutrition programs. Approximately 20,000 students participated in free and reduced lunch programs in Elkhart County in 2014.¹²

Overall, 30,390 Elkhart County residents participated in the SNAP program in 2010, spending more than \$48 million of benefits at eligible stores. Approximately 4,700 residents participated

in WIC (2.35%) in 2014. WIC participants spent \$4.6 million between October 1, 2013 and September 30, 2014.¹³

1.4 Health and Wellness

In Indiana, 66% of residents are overweight (36%) or obese (30%). The adult obesity rate in Elkhart County was 29.5% in 2010¹⁴ compared to 25.1% in 2004.¹⁵ According to an Elkhart County Health Assessment performed by Purdue University in 2011:

“Physical activity and proper nutrition are essential to maintaining healthy weight and preventing disease. Physical inactivity and poor nutrition present significant risk for development of many chronic diseases such as heart disease, obesity, diabetes and cancer. ... In 2008, one quarter of Elkhart County residents (25.6%) did not engage in any leisurely physical activity and were considered to have a sedentary lifestyle. ... According to the U.S. Department of Health and Human Services, 77% of Elkhart County residents consume fewer than the recommended amount of daily fruits and vegetables in their diets.”¹⁶

In 2007, major cardiovascular disease was the leading cause of death in Elkhart County (529 deaths). Diabetes was 5th with 41 deaths.¹⁷ The adult diabetes rate in Elkhart County in 2008 was 9.3%.¹⁸ According to the Elkhart County Health Assessment:

“The percentage of Elkhart County residents with diabetes is similar to the overall percentage for all Hoosiers. County-level CDC estimates of diagnosed diabetes among adults 20 years of age or older in Elkhart County, using an age-adjusted%, are 8.9 - 10.5%. This rate is similar to the state rate. However, an increasing trend of diagnosed diabetes is noted in Elkhart County from 2004 to 2008. While Elkhart County currently has a significantly lower mortality rate for diabetes than Indiana overall, this trend may change in subsequent years with an increasing prevalence of diabetes mellitus in the County.”¹⁹

As Ken Meter notes, “The medical costs for diabetes-related health conditions are estimated at \$3.7 billion for the state of Indiana - an amount that rivals the value of the annual corn crop.” Foodborne illness is also a major concern to our economy as well as our health, costing Indiana \$3 billion each year.²⁰

2.0 AG INDUSTRY

The agricultural landscape in Elkhart County includes a diverse array of farms, ranging from small acreage retirement farms to very large commercial farms. This diversity stands out from the national context because of specific local contributing factors such as zoning, good opportunities for off-farm income, and a high concentration of Amish and Conservative Mennonite farming populations. These factors, and others described below, continue to shape the ag industry in Elkhart County in ways that present unique advantages and challenges.

Note: This section generally relies on data from the 2012 USDA Ag Census. Data in this section is typically not otherwise cited unless it references a different source.²¹

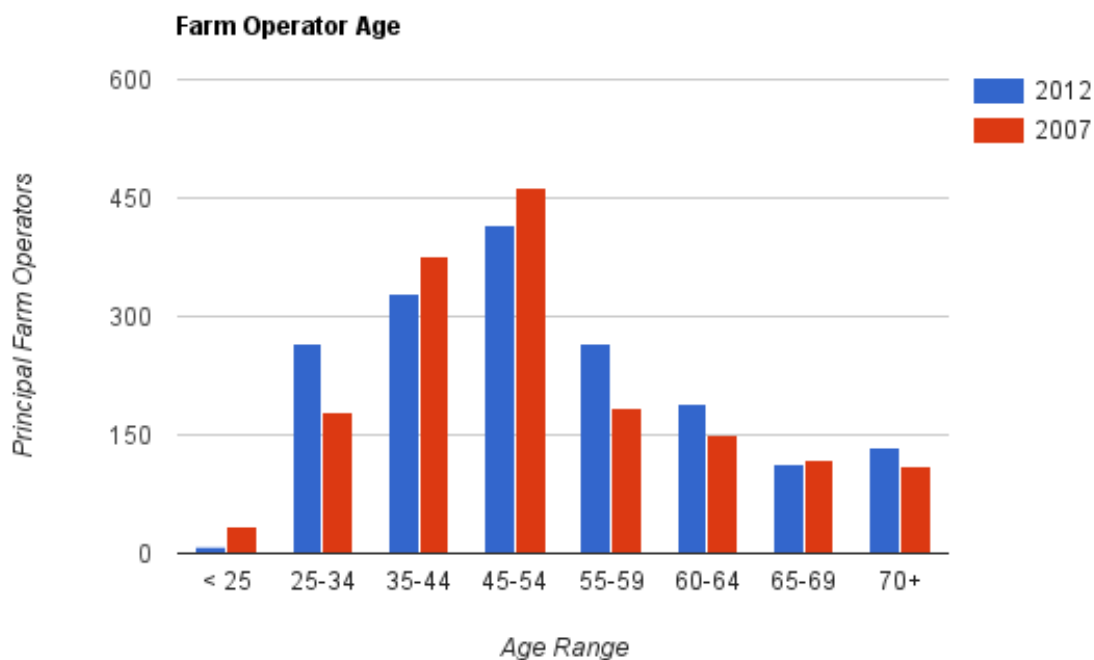
2.1 Operator age

According to the USDA 2012 Census of Agriculture, Elkhart County has 1,724 farms. Management practices, tenure, and livelihood vary significantly among these farms:

- 37% of principal farm operators in Elkhart County worked off the farm less than 50 days per year, compared to 52% who worked at least 200 days per year off the farm.
- 1,063 operators (62%) did not identify farming as their primary occupation.
- 348 farms hired 1,131 workers with a payroll of \$7.3 million.
- 782 of these workers (69%) worked less than 150 days on the farm.

5% of principal farm operators in Elkhart County have been on their present farm for less than 2 years, while 75% have been on their farm for at least 10 years. Figure 1 and Table 2 describe the age distributions of principal farm operators in Elkhart County. 25% of principal operators are at least 60 years of age, while only 9 farmers are younger than 25 years. The average age of Elkhart County principal farm operators increased from 49.8 years in 2007 to 50.2 years in 2012. This is significantly younger than the average operator age in Indiana (55.8 years) and the United States (58.3 years).

Figure 1: Farm Operator Age Distribution



Source: compiled from 2012 USDA Census of Agriculture

Table 2: Farm Operator Age Distribution and Change

Age	2012 Operators		Change in Operators from 2007 to 2012	
	Total	%	Increase	%
<35	276	16%	63	30%
35-54	747	43%	-94	-11%
55+	701	41%	138	25%
Total	1,724		107	7%

Source: compiled from 2012 USDA Census of Agriculture

2.2 Farm Size

Elkhart County farms cover 172,847 acres of farmland. 134,319 acres are harvested cropland, managed by 1,140 farms. Half (862) of Elkhart County's farms are 27 acres or less. The average farm size is 100 acres, compared to a statewide average of 251 acres. The average Elkhart County farm value is \$807,763.

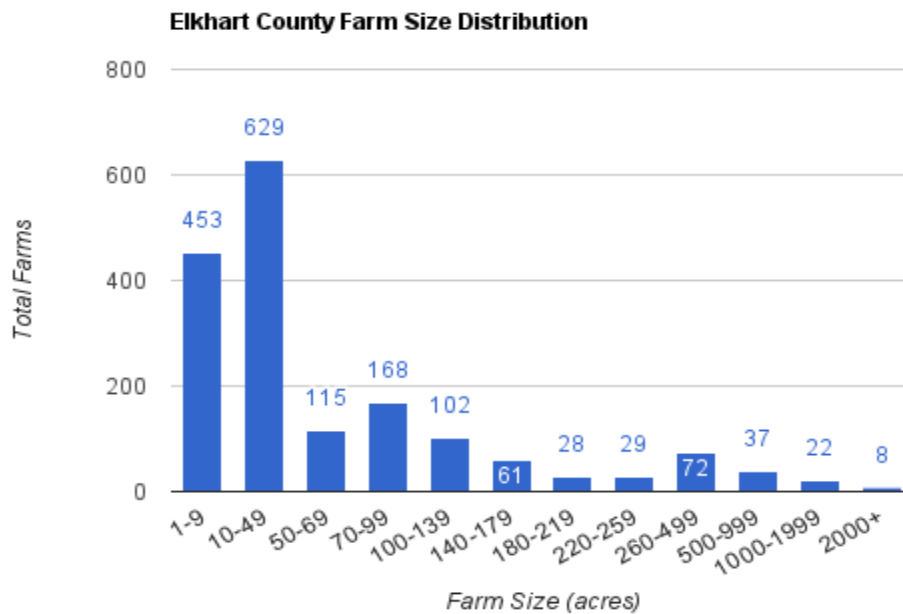
Until recently, the USDA generally defined 'small' farms as having gross cash farm income (GCFI - the total revenue received by the farm business in a year, including fees from production contracts and other farm-related payments and income)²² less than \$250,000 per year. At least 80% of Elkhart County farms fit this classification in 2012. The USDA typically does not classify farms according to acreage because of variable conditions and practices. However, the USDA does define 'small-acreage' farms as operating on 10 acres or less.²³ Elkhart County has the highest number of small-acreage farms in the Midwest, at 453 farms (26%). It also has the 4th largest total of farms less than 180 acres (1,528 farms) in Kentucky, Illinois, Indiana, Michigan, and Ohio (LaGrange County has the highest total of 2,308 farms, followed by Holmes and Wayne counties in Ohio).

As shown in Figure 2 below, 63% of Elkhart County's 1,724 farms are less than 50 acres; 89% are less than 180 acres; and only 2% are more than 1,000 acres. All but 44 farms and less than 1% of total acreage are owned as family farms (1,532 farms), partnerships (94 farms), or family-held corporations (54 farms).

Figure 3 charts the distribution of acreage by farm size and highlights the shifts between 2007 and 2012.

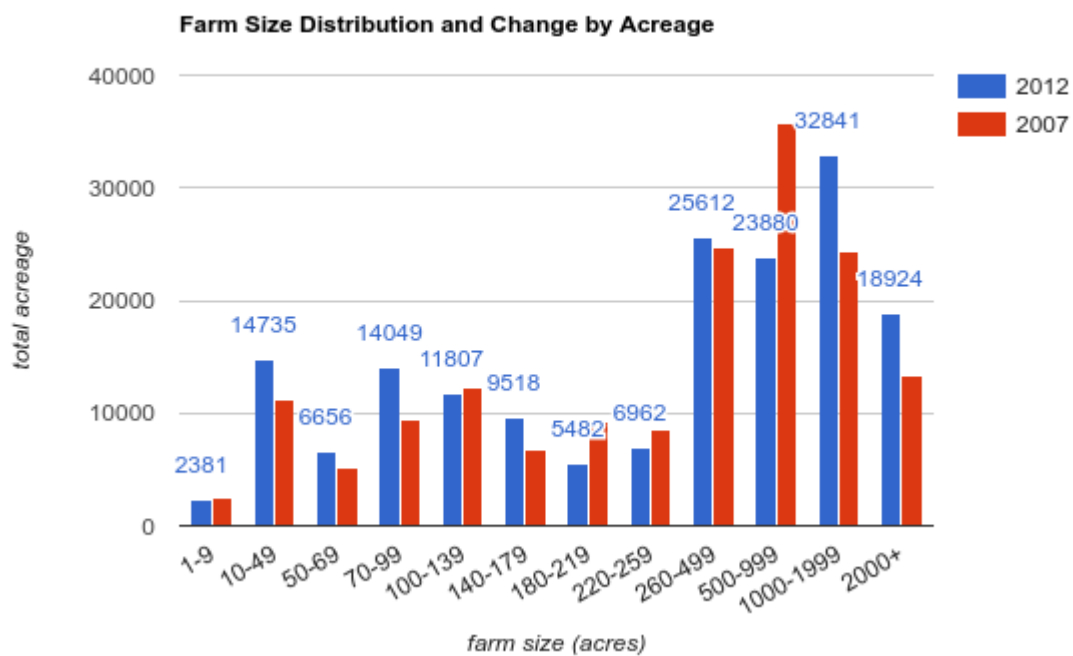
Table 3 compares the size and quantity of Elkhart County farms with the surrounding region.

Figure 2: Elkhart County Farm Size Distribution



Source: compiled from 2012 USDA Census of Agriculture

Figure 3: Farm Size Distribution and Change by Acreage



Source: compiled from 2012 USDA Census of Agriculture

Table 3: Regional Farm Acreage Comparisons

	Elkhart County^(a)	St Joseph County (IN)^(a)	LaGrange County^(a)	Elkhart County Region^(b)	NE Indiana Region^(c)
Farms	1,724	691	2,419	9,887	12,302
% change since 2007	7%	-3%	61%	-7%	4%
Total farmland (thousand acres)	173	152	204	1,600	2,100
Harvested cropland (thousand acres)	134	133	130	1,200	1,800
Average Farm Size (acres)	100	220	84	160	172
Farms less than 50 acres	63%	55%	59%	54%	54%

(a) Source: Compiled from 2012 USDA Census of Agriculture²⁴

(b) Elkhart County Region includes Elkhart County and the immediately adjacent counties: Kosciusko, LaGrange, Marshall, Noble, and St. Joseph Counties in Indiana, and Cass and St. Joseph Counties in Michigan. Data compiled from 2012 USDA Census of Agriculture by Meter, 2015²⁵

(c) NE Indiana Region includes Adams, Allen, Dekalb, Huntington, Kosciusko, LaGrange, Noble, Steuben, Wabash, Wells, and Whitley Counties. Data compiled from 2012 USDA Census of Agriculture by Meter, 2016²⁶

Variations in production practices, land use, land quality, and various land characteristics make it difficult to compare farm performance based on acreage alone. The general consensus is that the largest acreage farms are generating the most income and growth, driving the apparent consolidation of mid-size farms. However, farms less than 180 acres are also increasing in quantity and acreage, despite the loss of some small-acreage farms. It's unclear whether the total growth in acreage is due to the parceling out of mid-sized farms or due to new acreage coming into production or being reclassified.

Table 4: Changes in Farmland Distribution in Elkhart County

	Increase from 2007 to 2012	
	farms	acres
1-9	-70	-156
10-49	115	3,483
50-179	90	8,434
180-499	-22	-4,421
500-999	-15	-11,880
1000+	9	14,092
total	107	9,552

Source: compiled from 2012 USDA Census of Agriculture

These farmland changes stand out significantly from neighboring counties, as shown in Table 5. Kosciusko and LaGrange counties saw much higher increases in acreages among farms smaller than 180 acres than farms greater than 180 acres. Marshall and Noble counties saw significant growth in acreage in farms larger than 1,000 acres and much smaller changes in acreage among smaller farms. In contrast, St. Joseph County lost more than 26,000 acres overall, most of which were in farms larger than 1,000 acres. An overall consolidation marked by loss of farms and increasing size was much more apparent at the state level.

Table 5: Change in total farms and farm acreage from 2007 to 2012

County:	Elkhart	St Joseph	Marshall	Kosciusko	Noble	LaGrange	Indiana
Increase in number of farms							
All farms	107	-21	12	12	-33	912	-2,243
Farms <180 acres	135	6	-6	14	-53	925	-1,473
Increase in acreage							
All farms	9,552	-26,699	27,290	3,507	21,631	42,383	-52,788
Farms <180 acres	11,761	1,928	-2,452	1,357	455	42,924	34,968
Farms >1000 acres	14,092	-23,855	26,586	-222	14,665	9,400	278,655

Source: compiled from 2012 USDA Census of Agriculture

2.3 Cost of Land

The changes in the distribution of agricultural land from 2007 to 2012 coincided with steep increases in the average market values of farmland per acre throughout the region. Elkhart County continued to exhibit the highest average farmland values in Indiana (\$8,067), increasing 45% in value. LaGrange County had the 2nd highest average farmland value (\$7,448). Despite a 46% rise in land value, LaGrange County added 925 farms smaller than 180 acres.

Table 6: Average Market Value of Land in Farms

	2012	2007	Increase	
Elkhart County, IN	\$8,067	\$5,548	\$2,519	45%
LaGrange County, IN	\$7,448	\$5,093	\$2,355	46%
St Joseph County, IN	\$6,140	\$3,650	\$2,490	68%
Kosciusko County, IN	\$5,866	\$3,730	\$2,136	57%
Marshall County, IN	\$5,202	\$3,556	\$1,646	46%
Noble County, IN	\$4,834	\$3,696	\$1,138	31%
St Joseph County, MI	\$4,754	\$3,382	\$1,372	41%
Cass County, MI	\$3,960	\$3,504	\$456	13%
Indiana	\$5,354	\$3,583	\$1,771	49%

Source: compiled from 2012 USDA Census of Agriculture

2.4 Sales

Elkhart County has seen significant growth in agricultural output in recent years and continues to be one of the top-performing ag counties in Indiana. Elkhart County farms sold \$297 million in farm products in 2012, of which \$83 million (28%) were crops and \$214 million (72%) were livestock.²⁷ Tables 7 and 8 compare farm product sales in Elkhart County with the broader region. Note that ‘commodities’ refers here to crops and livestock that require further processing and are sold through wholesale channels; and ‘farm products’ includes commodity sales as well as all direct and other sales.²⁸

Table 7: Regional Farm Sales

Farm Product Sales	Elkhart County^(a)	St Joseph County (IN)^(a)	LaGrange County^(a)	Elkhart County Region^(b)	NE Indiana Region^(c)
Total farms	1,724	691	2419	9,887	12,302
Total sales (\$millions)	\$297	\$124	\$263	\$1.68B	\$2.0B
Sales increase (2007-2012)	44%	47%	53%	56%	55%
Farms with net losses	53%	44%	55%	51%	45%

Table 8: Top Regional Farm Product Sales

Farm Products	Elkhart County^(a)	St Joseph County (IN)^(a)	LaGrange County^(a)	Elkhart County Region^(b)	NE Indiana Region^(c)
Corn	44	72	40	554	555
Poultry and Eggs	91	1	62	^(d) 263	278
Soybeans	29	27	20	246	487
Milk	65	6	45	198	146
Hogs and Pigs	23	7	d	^(d) 154	220
Cattle and Calves	31	2	70	142	194
Vegetables	3.2	^(d)	4.0	^(d) 51	6.3

(a) Source: Compiled from 2012 USDA Census of Agriculture²⁹

(b) Elkhart County Region includes Elkhart County and the immediately adjacent counties: Kosciusko, LaGrange, Marshall, Noble, and St. Joseph Counties in Indiana, and Cass and St. Joseph Counties in Michigan. Data compiled from 2012 USDA Census of Agriculture by Meter, 2015³⁰

(c) NE Indiana Region includes Adams, Allen, Dekalb, Huntington, Kosciusko, LaGrange, Noble, Steuben, Wabash, Wells, and Whitley Counties. Data compiled from 2012 USDA Census of Agriculture by Meter, 2016³¹

(d) Denotes some sales data suppressed by the USDA in an effort to protect confidentiality.

Relative to other Indiana counties, Elkhart County ranks:

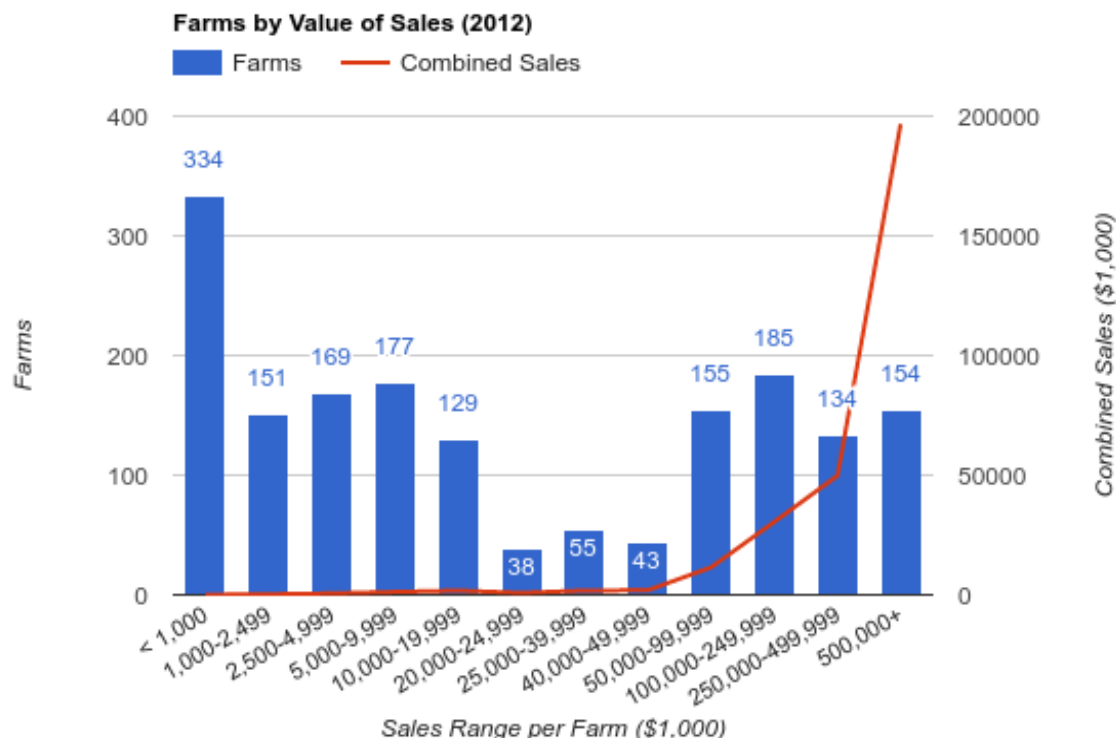
- 3rd for sales of agricultural products, with \$297 million;
- 1st for sales of livestock and poultry, with \$214 million;
- 1st for sales of sheep and goats, with \$730,000;
- 2nd for sales of cattle and calves, with \$31 million
- 2nd for sales of milk, with \$65 million;
- 4th for sales of poultry and eggs, with \$91 million;
- 7th for sales of vegetables, with \$3.2 million;
- 1st for acreage of corn for silage, with 15,000 acres;
- 2nd for acreage of forage crops (hay, etc.), with 18,000 acres.³²

Elkhart County ranks 1st in the United States for inventory of ducks, with 1.1 million.³³

Based on the distribution of these sales for Elkhart County shown in Figure 4 below:

- 485 farms (28%) sold less than \$2,500 in farm products - less than \$0.3 million collectively;
- 831 farms (48%) sold less than \$10,000 in farm products - less than \$2.2 million collectively;
- 628 farms (37%) sold more than \$50,000 in farm products, accounting for 97% of total farm product sales;
- 154 farms (9%) sold more than \$500,000 in farm products, accounting for 66% of total farm product sales;

Figure 4: Elkhart County Farm Size Distribution by Value of Farm Product Sales



Source: compiled from 2012 USDA Census of Agriculture

While total farm product sales in Elkhart County increased by \$91 million (44%) from 2007 to 2012, the 154 farms with sales greater than \$500,000 per year accounted for 97% of this growth.

917 Elkhart County farms (53%) reported net losses (compared to 51% in the Elkhart region and 47% in Indiana), totaling \$14 million. 807 farms reported \$97 million in net gains.

Table 9: Elkhart County Farm Gains and Losses

	2012	2007
Average net cash farm income	\$48,081	\$31,298
Farms with net gains	807	816
Average per farm	\$120,306	\$81,940
Farms with net losses	917	801
Average per farm	\$15,479	\$20,292

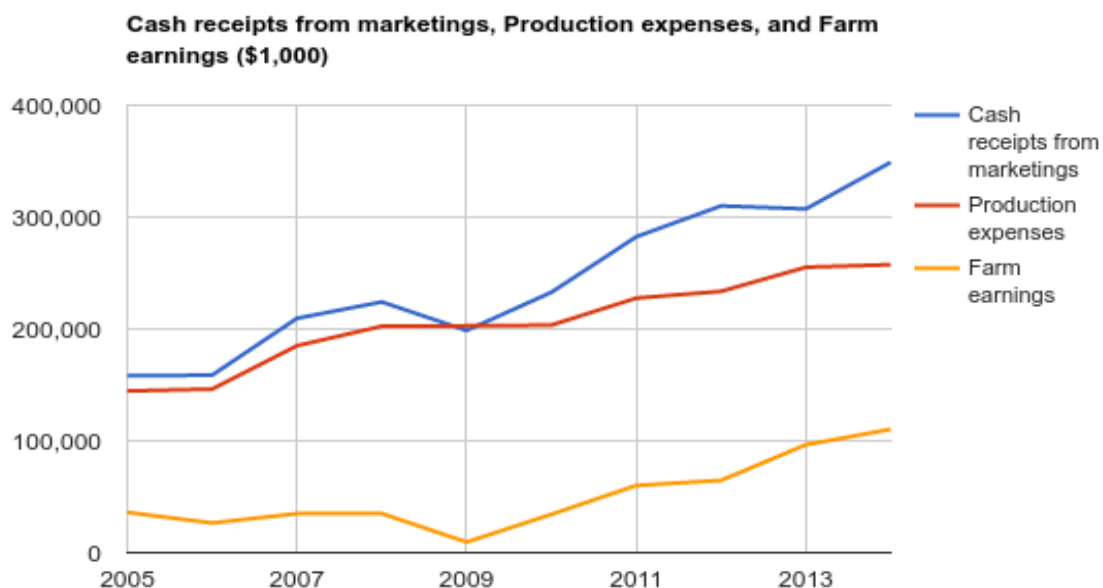
Source: compiled from 2012 USDA Census of Agriculture

Ken Meter analyzed BEA sales figures for Elkhart County from 1989 to 2012, adjusting incomes and expenses to 2012 dollars to provide a broad view of farm production over time:

- Elkhart County farmers sell \$195 million of food commodities per year (1989-2012 average), spending \$177 million to raise them, for an average gain of \$18 million each year (*based on BEA sales figures*). This is an average net cash income of \$10,847 per farm.
- Farmers and ranchers earn another \$7 million per year of farm-related income — primarily custom work, and rental income (24-year average for 1989-2012). Federal farm support payments averaged \$5 million per year for the County for the same years.
- Overall, farm producers earned a surplus of \$400 million by selling crops and livestock over the years 1989 to 2012.
- Farmers spend at least \$120 million each year buying inputs sourced outside of the county.³⁴

The data for farm product sales, production expenses, and farm earnings from 2005 to 2014 (unadjusted) highlight more recent trends, demonstrating a sharp increase in farm earnings, from a low of \$9.5 million in 2009 to \$110 million in 2015.

Figure 5: Elkhart County Farm Earnings

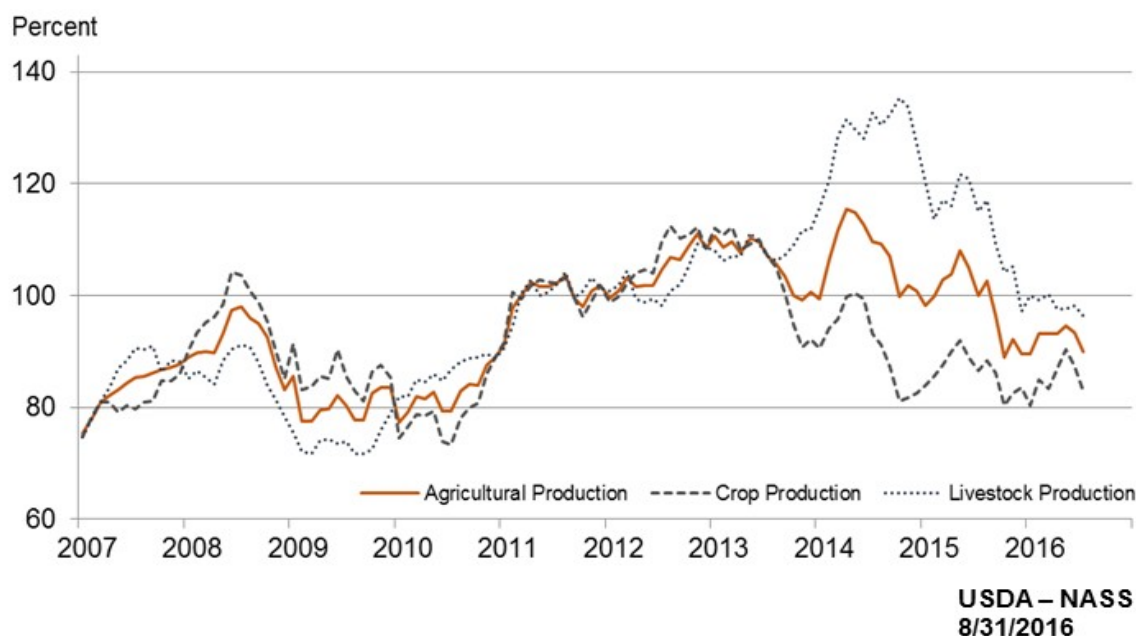


Source: Bureau of Economic Analysis, Farm Income and Expenses³⁵

The increased sales and farm earnings coincided with lower fuel and energy costs and increasing commodity prices. However, the prices received by farmers for commodities have more recently declined, as shown by the prices received indices charted in Figure 6.

Figure 6: Prices Received Indices for Crop and Livestock Production

**Received Indexes by Month,
Agricultural, Crop, and Livestock Production –
United States: 2011=100**



Source: USDA National Agricultural Statistics Service, “Prices Received: Indexes for Agricultural, Crop, and Livestock Production by Month, US.”³⁶

Table 10 highlights corresponding increases in overall product sales for the primary commodities produced in Elkhart County, based on the 2012 USDA Ag Census. These commodities accounted for 73% of total farm product sales; milk sales (\$65 million) accounted for 22%; other products and specialty crops comprised the remaining 5% of sales.

Table 10: Elkhart County Farm Product Sales Increases

Farm Products	Product Sales (\$millions)		Increase
	2012	2007	
Corn	\$44	\$28	57%
Soybeans	\$29	\$16	81%
Poultry and Eggs	\$91	\$39	133%
Hogs and Pigs	\$23	\$18	28%
Cattle and Calves	\$31	\$28	11%
Total Sales	\$297	\$206	44%

Source: compiled from 2012 USDA Census of Agriculture

Economies of scale associated with most commodities generally give larger acreage farms competitive advantages over smaller farms. The commodity production generating most of the farm income and expenses in Elkhart County is no exception. However, the exceptionally large quantity of small farms operating with less acreage and (presumably) smaller profits continues to impact the overall economy and landscape. As discussed in Appendix B, “Amish Influence,” the high concentrations of Amish farms in Elkhart and LaGrange Counties correlate with high levels of specialty and diversified production. This is particularly evident with local dairy farms, for which high production levels are more broadly distributed than usual.

Table 11: Regional Milk Sales

	Dairy Farms	Milk Sales (\$millions)	State Rank
Jasper County	7	\$98	1
Elkhart County	232	\$65	2
LaGrange County	507	\$45	3
Marshall County	72	\$27	4
Kosciusko County	36	\$16	5

Source: compiled from 2012 USDA Census of Agriculture

Most of the Amish in Elkhart and LaGrange Counties are part of the same settlement, so farming practices and activities are closely linked. Elkhart and LaGrange counties had:

- the highest land values in Indiana in 2012;
- the highest total numbers of farms in Indiana in 2012;
- the highest increases in number of farms in Indiana from 2007 to 2012;

Table 12 and Table 13 highlight additional sales and production practices that typically add value to smaller operations, including direct sales, specialty crops, and organic production.

Table 12: Regional Direct and Value-Added Sales

Farm Product Sales	Elkhart County^(a)	St Joseph County (IN)^(a)	LaGrange County^(a)	Elkhart County Region^(b)	NE Indiana Region^(c)
Farms with direct sales	191	69	191	846	741
Direct sales to consumers (\$millions)	\$2.4	\$1.1	\$1.1	\$7.3	\$3.8
% increase in direct sales since 2007	95%	29%	172%	61%	13%
Direct sale percentage of total farm product sales	0.8%	0.9%	0.4%	0.4%	0.2%
farms produce and sell value-added products	98	24	78	362	
farms marketed products directly to retail outlets	71	9	56	236	

Table 13: Regional Specialty Crop and Organic Sales

Farm Product Sales	Elkhart County^(a)	St Joseph County (IN)^(a)	LaGrange County^(a)	Elkhart County Region^(b)	NE Indiana Region^(c)
Farms selling vegetables	80	81	81	333	238
Organic product sales (\$millions)	\$2.2	\$1.0	\$10	\$16	>\$11
Farms selling organic products	20	4	123	^(d) 200	181
farms had on-farm packing facilities	34	5	35	128	

(a) Source: Compiled from 2012 USDA Census of Agriculture³⁷

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(d) Denotes some sales data suppressed by the USDA in an effort to protect confidentiality.

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