

# Crossroads Resource Center

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## **Tools for Community Self-determination**

### **Marshall County (Iowa) Farm & Food Economy**

*Highlights of a data compilation*

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for

#### **Prairie Rivers RC&D**

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#### **Marshall County: (Bureau of Economic Analysis)**

39,214 residents receive \$1.3 billion of income annually (2007). Real personal income has increased fairly steadily, from just under \$1 billion, in 1969. Manufacturing jobs rank first, accounting for \$248 million of personal income. Interest, rent and dividend payments totaling \$230 million are the second most important source of personal income. Transfer payments (public payments such as pensions or other benefits) total \$190 million. Personal income from the service industry ranks fourth, at \$126 million.

In the food sector, food manufacturing generates over \$60 million in personal income, while retail food workers earn \$10 million, and dining service workers earn \$13 million, of income.

Although population has risen since 1969, there has been only limited public planning to assure a secure and stable food supply.

#### **Issues affecting low-income residents of Marshall County:**

Over 9,824 residents (26%) earn less than 185% of federal poverty guidelines. At this level of income, children qualify for free or reduced-price lunch at school. These lower-income residents spend about \$19 million each year buying food, including \$5 million of SNAP benefits (formerly known as food stamps) in addition to WIC coupons (this means federal nutrition aid amounts to at least 25% of low-income food expenditures). 745 (80%) of the county's 928 farmers receive a combined total of \$18 million in subsidies (29-year average, 1979-2006), mostly to raise crops such as corn or soybeans that are sold as commodities, not to feed county residents. *Data from Federal Census of 2000, Bureau of Labor Statistics, & Bureau of Economic Analysis.*

1,278 county households (nearly 3,300 residents) earn less than \$10,000 per year. *Source: Federal Census of 2000.*

#### **Food-related health conditions in Iowa:**

11% of Iowa adults aged 18-64 have no health insurance. *Source: Centers for Disease Control.*

Food has become a leading cause of death in the U.S, rivaling tobacco. A high-calorie diet,

combined with a lack of exercise, accounts for one-fifth of the annual deaths in the U.S.<sup>1</sup> Six of the fifteen leading causes of death are related to poor diet and low physical activity.<sup>2</sup>

64% of Iowa residents are overweight (38%) or obese (27%). Four of every five state residents (80%) eat fewer fruits and vegetables than nutritionists recommend (five servings per day), and 75% report they have less than 20 minutes of physical activity three times each week. 7% of state residents have been diagnosed with diabetes. *Source: Centers for Disease Control.*

### **The county's farms (Agricultural Census, 2007)**

*Agriculture Census data for 2007 were released February 4, 2009*

#### *Land:*

- 928 farms. This is a 9% increase over 848 farms in 2002.
- Marshall County has 1% of Iowa farms.
- 94 (10%) of these are 1,000 acres or more.
- 290 (31%) farms are less than 50 acres.
- The most prevalent farm size is 180-499 acres, with a total of 218 farms (23% of farms).
- Average farm size is 349 acres, just above Iowa's average.
- The county has 324,270 acres of land in farms, a decrease of 3% since 2002.
- This amounts to 1% of the state's farmland.
- 91% of farmland is cropland, and 9% is devoted to other uses.
- County farms have 276,000 acres of harvested cropland.
- Only three farm operators in Marshall County are non-white; no Latinos are listed as farm operators.
- 10 farms have a total of 762 acres of irrigated land.
- Average value of land and buildings per farm is \$1.3 million. This is 116% of the state average.

#### *Sales (Note that there may be discrepancies between Ag Census data and Bureau of Economic Analysis data, below):*

- \$190 million of crops and livestock sold (2007), 0.xx% of state ag sales.
- This is a 44% increase in sales over 2002 sales of \$132 million, though the number of acres farmed decreased 3%.
- Total farm production expenses were \$138 million, for an increase of \$22 million (19%) in production costs since 2002.
- The single largest expense item involved in farm production was the cost of cash rent for land and buildings and grazing fees, which totaled \$23 million. Purchased feed ranked second, at \$17 million. Next were the costs of fertilizers and soil conditioners, totaling \$16 million. Depreciation ranked fourth at \$15 million. Livestock purchases totaled \$13 million, and seed purchases totaled \$12 million.
- \$140 million of crops were sold (74% of sales), \$55 million (64%) more than in 2002.

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<sup>1</sup> McGinnis, J.M. & W.H. Foege (1993). "Actual causes of death in the United States." *JAMA* 270(18):2207-12; and Mokdad, A.H, J.S. Marks, D.F. Stroup, & J.I. Gerberding (2000). "Actual causes of death in the United States." *JAMA* 291(10):1238-45 [with published corrections in *JAMA* (2005), 293(3), 293-294.]

<sup>2</sup> Heron M., D.L. Hoyert, J. Xu, C. Scott, & B. Tejada (2008). *Deaths: preliminary data for 2006*. National Vital Statistics Report 56:16. [http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56\\_16.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_16.pdf).

- \$50 million of livestock and products were sold (26% of sales). This is \$3 million (7%) more sales than in 2002.
- 346 (37%) of the county's farms sold less than \$10,000 of products in 2007. Their aggregate sales of \$634,000 amounted to less than 1% of the county's farm product sales.
- 342 farms (37%) sold more than \$100,000 of products, an aggregate total of \$176 million, 93% of county farm product sales.
- 745 (80%) farms received \$7.6 million of federal subsidies in 2007, 33% more than in 2002. *[Note that Agriculture Census data differ from Bureau of Economic Analysis data; see below.]*
- 25% (234) of county's farms reported net losses in 2007 after subsidies are taken into account. This is similar to the Iowa average of 26%.

*Grains, Dry Edible Beans, Oil Crops, and others:*

- Marshall County farms sold \$133 million of grains, oil crops and edible beans.
- 537 Marshall County farms sold \$89 million (29 million bushels) of corn on 161,542 acres in 2007.
- This was an average price of \$3.07 per bushel.
- 458 Marshall County farms sold \$44 million (5.8 million bushels) of soybeans from 106,481 acres in 2007.
- This is an average sale price of \$7.58 per bushel.
- 22 farms raise 42,713 bushels of oats on 598 acres.

*Cattle & Dairy:*

- 214 farms hold an inventory of 25,000 cattle and calves.
- 18,260 Cattle worth \$16 million were sold from 200 farms in 2007.
- 2 farms were reported as selling milk or dairy products.
- Milk sales figures were not released by USDA, to protect confidentiality.
- 188 farms produced 22,075 dry tons of forage crops (hay, etc.) on 6,004 acres of cropland.
- In addition, 22 farms produced 50,000 tons of corn silage on 2,031 acres.

*Other livestock & animal products:*

- 58 farms sold 279,835 hogs and pigs for a total of \$27 million. This is a decrease of 26 farms (-31%), and a decrease of \$2.2 million (-8%) in sales, over the past five years.
- 56 farms hold an inventory of 140,135 hogs and pigs.
- Xx farms sold a total of \$xx,000 of horses. This means xx xx (xx%) farms sold \$xx,000 (xx%) xx than in 2002.
- 25 farms raise laying hens, holding an inventory of 1,594.
- Marshall County had 11 broiler chicken producers, with an inventory of 2,350.
- 37 farms sold \$226,000 of poultry and products in 2007., up from 13 farms selling \$15,000 in 2002.
- 59 farms held an inventory of 3,262 sheep, lambs, and goats. Sales figures were not released by USDA, to protect confidentiality.

*Nursery, Landscape and Ornamental Crops:*

- 2 farms sold ornamental and nursery crops. Sales figures were not released by USDA, to protect confidentiality.

*Vegetables & Melons (some farmers state that Ag Census data does not fully represent vegetable production):*

- 13 farms produced vegetables on 43 acres of land, one more farm than in 2002.

- Vegetable and potato sales were \$79,000 in 2007, down 67% from the 2002 level of \$236,000.
- 1 farm raised potatoes.

*Fruits (some farmers state that Ag Census data does not fully represent fruit production):*

- The county has 13 fruit farms with 25 acres of orchard, compared to 4 fruit farms in 2002.
- Ten of these farms sold \$81,000 of fruit and nuts, \$46,000 more than 2002 sales, which were made by 4 farms.

*Direct & organic sales:*

- 46 farms sell \$228,000 of food directly to consumers. This is a 35% increase in the number of farms selling direct (34 in 2002), and a 16% increase in direct sales, over \$196,000 in 2002. Direct sales account for 0.1% of county farm sales, one-fourth the national average.
- County farmers make up 1.5% of the farms selling direct, and account for 1.4% of Iowa's direct sales (\$16.5 million of direct sales in Iowa in 2007, up from \$11.6 million in 2002).
- 8 county farms sold \$67,000 of organic crops from 8 acres, over \$8,000 sales per acre.
- This is 1.5% of Iowa farms (542) selling organic, and 0.2% of state sales (\$34 million).
- 3 farms market through community supported agriculture (CSA).
- 28 farms produce added-value products on the farm.

*Conservation practices:*

- 87 farms use rotational management or intensive grazing.
- 507 farms use conservation practices.
- 12 farms generate some electricity on the farm.

**Other Marshall County highlights (Agriculture Census 2007):**

- Ranks 2<sup>nd</sup> in Iowa for inventory of quail.
- Ranks 5<sup>th</sup> in state for inventory of pheasants.

**Iowa highlights (Agriculture Census 2007):**

- Ranks 1<sup>st</sup> in nation for acreage devoted to corn (8.6 million acres).
- Ranks 1<sup>st</sup> in nation for acreage devoted to soybeans (13.8 million acres).
- Ranks 1<sup>st</sup> in U.S. for sales of hogs and pigs (\$4.8 billion) and inventory held (19 million).
- Ranks 1<sup>st</sup> in nation for inventory of laying hens (54 million).
- Ranks 1<sup>st</sup> in nation for inventory of pullets for replacing laying hens (11 million).
- Ranks 2<sup>nd</sup> in nation for sales of grains and oilseeds, at \$10 billion.
- Ranks 3<sup>rd</sup> in the nation in farm commodity sales, with \$20 billion.
- Ranks 3<sup>rd</sup> in U.S. for sales of crops, with \$10 billion.
- Ranks 3<sup>rd</sup> in nation for sales of livestock, with \$10 billion.
- Ranks 4<sup>th</sup> in nation for sales of cattle and calves (\$3.6 billion).
- Ranks 4<sup>th</sup> in nation for sales of sheep and goats (\$40 million).
- Ranks 7<sup>th</sup> in nation for inventory of cattle and calves (3.9 million).
- Ranks 7<sup>th</sup> in nation for acreage devoted to oats for grain (66,651 acres).
- Ranks 8<sup>th</sup> in nation for acreage devoted to corn for silage (220,646 acres).
- Ranks 9<sup>th</sup> in U.S. for inventory of turkeys (4 million).
- 2,987 state farms earned \$16.5 million selling products directly to consumers, \$4.9 million (44%) more than in 2002, when 2,455 farms sold \$11.6 million of products directly.
- Direct food sales from farms account for more sales than the state's 11<sup>th</sup>-largest crop, oats.
- 542 farms devoted 566 acres to organic production.
- These organic farms sold \$34 million of organic products, including \$19 million of crops (this may include ornamental and greenhouse crops), and \$15 million of livestock and poultry, and related products.
- 487 farms market through community supported agriculture (CSA).
- 2,246 state farms produce value-added products.
- 41,350 farms use conservation methods.
- 10,267 farms practice rotational management or intensive grazing.
- 539 farms generate energy or electricity on the farm.

**Iowa's top farm commodities in 2007 (Economic Research Service)**

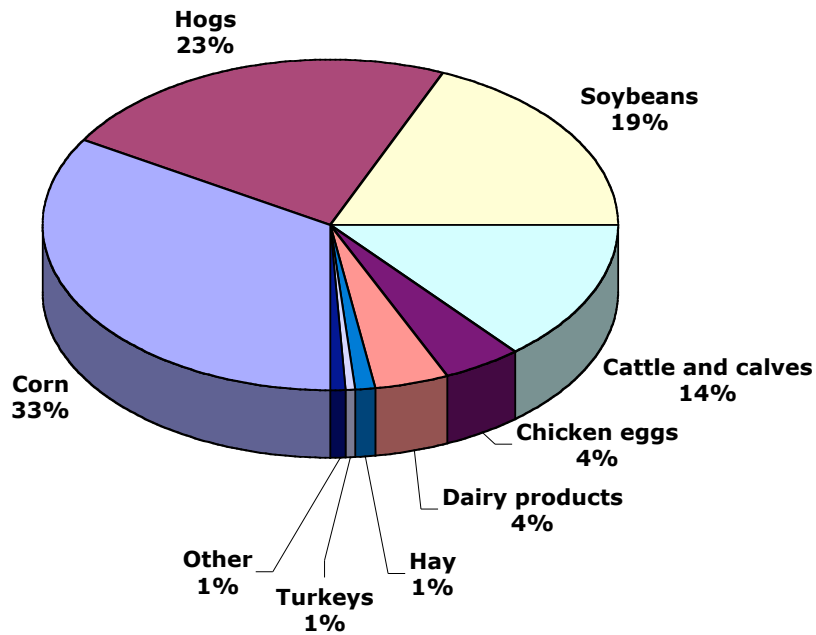
See chart on next page

	\$ millions
Corn	6,351
Hogs	4,327
Soybeans	3,510
Cattle and calves	2,676
Chicken eggs	825
Dairy products	810
Hay	163
Turkeys	137
Other	147

Note: Broilers and Sweet Corn were also listed among Iowa's top 18 products, but sales figures for these products were not released by ERS.

Note also that at \$16 million, direct sales from farmers to consumers amount to more than the value of the 11<sup>th</sup> ranking product, oats.

**Top farm commodities in Iowa, 2007**



Source: USDA Economic Research Service

**Balance of Cash Receipts and Production Costs (Bureau of Economic Analysis):**

*Note: Bureau of Economic Analysis farm income data differ from Agriculture Census data.*

Marshall County farmers sell \$175 million of commodities per year (1979-2009 average), spending \$171 million to raise them, for an average gain of \$4 million each year.

However, county farmers lost \$103 million from 1998 to 2004, an average of \$15 million per year, on average sales of \$135 million. Moreover, 25% of the county's farms and ranches reported a net loss in 2007 (Agriculture Census), even after subsidies are taken into account.

Marshall County farmers and ranchers earned \$37 million less by selling commodities in 1969 than they earned in 2007 (in 2007 dollars). Sales of livestock and related products fell 65%, from \$138 million in 1979 to \$40 million in 1999, while crop income stayed fairly constant. The single largest farm expense, and the one rising the fastest, is chemical and fertilizer costs at \$26 million.

Farmers and ranchers earn another \$10.6 million per year of farm-related income — primarily rental income for land and insurance payments (29-year average for 1979-2007). Federal farm support payments average \$17.7 million per year for all county farms over the same years.

**Marshall County consumers (2007):**

Marshall County consumers spend \$104 million buying food each year, including \$58 million for home use. Most of this food is produced outside the county. \$228,000 of food products (0.1% of farm cash receipts, and 0.2% of local consumer needs) are sold by 46 farms directly to consumers — but not always to Marshall County consumers, since these figures include internet sales.

Estimated change in net assets for all county households was a combined loss of \$55 million in 2007 alone (BLS). This places additional pressure on Marshall County residents as they pay for food.

**Farm and food economy summary:**

Farmers gain \$4 million each year producing food commodities, spending \$80 million buying inputs from external suppliers, for a total outflow of \$76 million from the county economy.

Meanwhile, consumers spend more than \$90 million buying food from outside. Thus, total loss to the county is \$166 million of potential wealth *each year*. This loss amounts to 87% of the value of all commodities raised in the county.

**Marshall County: markets for food eaten at home (2007):**

*Source: Bureau of Labor Statistics*

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 13
Fruits & vegetables	11
Cereals and bakery products	7
Dairy products	6
“Other,” incl. sweets, fats, & oils	21

If Marshall County consumers purchased only 7% of the food they need for home use directly from county farmers, this would produce \$4 million of new farm income in Marshall County — an amount equivalent to the farm production surplus for each of the 29 years from 1979-2007.

**State of Iowa: markets for food eaten at home (2007):**

*Source: Bureau of Labor Statistics*

Iowans purchase \$8.3 billion of food per year, \$4.6 billion of this to eat at home. Home food purchases break down in the following way:

	<i>millions</i>
Meats, poultry, fish, and eggs	\$ 1,007
Fruits & vegetables	840
Cereals and bakery products	582
Dairy products	512
“Other,” incl. sweets, fats, & oils	1,693



**Key data sources:**

**Bureau of Economic Analysis data on farm production balance**

<http://www.bea.doc.gov/bea/regional/reis/>

**Food consumption estimates from Bureau of Labor Statistics Consumer Expenditure Survey**

<http://www.bls.gov/cex/home.htm>

**U.S. Census of Agriculture**

<http://www.nass.usda.gov/census/>

**USDA/Economic Research Service food consumption data:**

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

**USDA/ Economic Research Service farm income data:**

<http://ers.usda.gov/Data/FarmIncome/finfidmu.htm>

**Centers for Disease Control: Behavior Risk Factors Surveillance System**

BRFSS <http://apps.nccd.cdc.gov/brfss-smart/>

**National Association of County and City Health Officials (NACCHO)**

Big Cities Health Inventory <http://www.naccho.org/>

**For more information:**

To see results from *Finding Food in Farm Country* studies in other counties of the U.S.:

<http://www.crcworks.org/locales.html>

To read the original *Finding Food in Farm Country* study from Southeast Minnesota (written by Ken Meter and Jon Rosales for the Community Design Center and the Southeast Minnesota Experiment in Rural Cooperation): <http://www.crcworks.org/ff.pdf>

To view a PowerPoint presented in March, 2008, by Ken Meter at Rep. Collin Peterson's (D-MN) Minnesota agricultural forum, called the "Home Grown Economy":

<http://www.crcworks.org/crcppts/petersonKM08.pdf>

To get a brief list of essential food facts, many of which are cited in the presentation above,

<http://www.crcworks.org/foodmarkets.pdf>

To link to further analysis of farm and food economies in the U.S.:

<http://www.crcworks.org/econ.html>

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