

Advance Report

FARM INCOME & PRODUCTION COSTS *for* 2017



Commercial Farms

- *Production Costs*
- *Income*
- *Investments*

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Farm Income and Production Costs

for 2017:

Advance Report

This publication is prepared in the Department of Agricultural and Consumer Economics, College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign by Dwight D. Raab, CEO; Brandy M. Krapf, Professional Development Coordinator; and Bradley L. Zwilling, Farm Business Analyst, Illinois FBFM Association, for use by FBFM field staff at meetings held in March 2018. All data is based on Illinois Farm Business Records kept in cooperation with the Illinois Farm Business Farm Management (FBFM) Association and this department. An update of this report will be published in the *92nd Annual Summary of Illinois Farm Business Records for 2017*.

The Illinois Farm Business Farm Management Association, in cooperation with University of Illinois Extension and the Department of Agricultural and Consumer Economics, has been providing farm recordkeeping and business analysis services to Illinois farm operators for over 90 years.

Urbana, Illinois

April 2018

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DEFINITIONS

Crop Returns—The sum of grain, seed, and feed sales; the value of homegrown seed used; the value of all feed fed (except milk) and pasture; government farm program crop subsidy payments received and accrued; crop insurance proceeds received and accrued; and the change in feed and grain inventories less value of purchased feed.

Return above Feed Cost—The sum of livestock and livestock products sold, change in inventories less value of livestock purchased, and market value (opportunity cost) for all feeds fed.

Operator(s)—If months of operator labor are 12 or less, then there is one operator for the farm. If months of operator labor are more than 12, then the number of operators is determined by taking months of operator labor divided by 12.

Operators' Share Net Farm Income—The sum of all operator's share of gross sales plus net change in inventory and capital accounts less all expenses for items purchased, including interest paid and annual depreciation. This is the accrual earnings available to pay living expenses, pay income and social security taxes, and make principal payments on term debt.

Operators' Share Labor and Management Income—The wage (salary or residual return) for all operators of this farm, whether tenant-, part-owner-, or owner-operated, earned for labor and management efforts. It is determined by:

1. Total net farm income,
2. Less the value of family labor (non-operators),
3. Minus interest on equity capital.

Interest on Equity Capital—4.5 percent interest on non-land inventory plus 1.95 percent interest on current indexed value of bare land (to reflect a normalized annual net rent) minus the accrual interest expense.

Return per \$1.00 of All Cost—The overall farm efficiency ratio (profit margin) showing total value of all farm production per \$1.00 of all non-feed cost on the total farm.

Grain Farms—Farms on which the value of the feed fed to livestock was *less* than 40 percent of the crop returns.

Hog or Beef Farms—Farms on which the value of feed fed was *more* than 40 percent of the crop returns and either hog or beef cattle enterprises received *more* than half of the value of the feed fed.

Dairy Farms—Farms on which the value of feed fed was *more* than 40 percent of the crop returns and where dairy enterprises received *more* than a third of the value of feed fed.

HIGHLIGHTS FOR 2017

Average farm operator returns for labor and management on 2,335 Illinois farms were lower for all geographic areas in the state in 2017 compared to 2016, except for western and far southern areas of Illinois. The average return to the sum of all operator's labor and management income in 2017 was a *negative* \$16,530. The 2017 returns were \$44,227 below the 2016 average of \$27,697 and \$25,794 below the average for the last five years. A reasonable charge for the farm's debt-free capital invested in machinery, equipment, land, and inventory averaged \$61,229. Combining this amount with the return to operators' labor and management (sum of all operators) and unpaid family labor resulted in average operators' net farm income of \$45,142. Lower corn prices and lower new crop soybean prices were the main reasons for lower incomes this year. Returns above feed cost for all livestock enterprises were higher than the year before, mainly due to higher prices received. Most counties in Illinois received farm program payments in 2017 due to the county's crop returns in 2016 being lower than their Olympic five-year average. With lower corn returns for 2017 in the south central part of the state, estimates show many of these counties will receive a farm payment in 2018 for the 2017 crop year. Farm earnings were highest in the most southern part of the state. All regions had net farm incomes that were positive this year. Earnings were lowest in the northern part of the state.

Corn yields were the same as the 2016 yield and above the five-year average. Corn yields were 10 bushels per acre above the five-year average. 2017 soybean yields were below 2016. The average corn yield on the 2,335 farms was 215 bushels per acre. Soybean yields averaged 62 bushels per acre. Corn yields were generally highest in the western parts of the state. Soybean yields were highest

in the central area of the state. The growing season temperature was close to normal temperatures. However, the precipitation received was variable. For the entire state, April was three inches wetter than normal, while August and September were drier. The drier beginning to fall allowed the crops to mature and harvest progressed normally.

Year-end inventory price for the 2017 corn crop of \$3.20 per bushel was 10 cents lower than a year earlier. \$9.10 per bushel was the new crop soybeans inventory price, 70 cents less than December 31, 2016. The average sales price received for the 2016 corn crop sold in 2017 was above their inventory price resulting in a positive marketing margin. The 2016 soybean crop sold in 2017 sold above their inventory price as well, resulting in a positive marketing margin. Crop returns averaged \$688 per tillable acre, \$57 per acre lower than the 2016 crop returns.

Returns above feed costs for all livestock enterprises were higher than the year before. All of the livestock enterprises experienced lower feed costs and higher returns. Returns above feed for farrow-to-finish hog producers were estimated to be about \$1.00 per hundredweight above the breakeven level in covering total economic costs in 2017. Dairy producers experienced \$2,283 returns above feed per cow in 2017 compared to \$1,936 in 2016. Milk prices were thirteen percent higher compared to the year before. Returns above feed to feeder cattle enterprises increased from \$16.70 in 2016 to \$43.56 in 2017. Prices paid and received for market cattle were lower than the year before. Returns above feed per cow increased to \$345 for all cow-calf herds. When this enterprise is separated into groups based on pounds produced per cow all groups showed an increase as well.

Estimates in net worth change can be made by adjusting net farm income for nonfarm income, withdrawals for family living, and income and social security tax paid. This amount would be a modified-cost-basis change in net worth, which excludes changes due to inflation. As seen on page 5, estimated changes in net worth showed increases nearly statewide, with the largest increase being in the central part of the state. The most northern and southern tips of the state saw a decrease in estimated net worth. Changes in net worth among individual farm operators will vary greatly due to differences in farm and nonfarm income and family living withdrawals.

Pages 3 and 6 have the average amount of interest paid per farm. Average farm interest paid in 2017 was \$30,137, up \$559 from 2016. Over the last ten years, interest paid on a per-acre basis was the lowest at \$20.39 in 2009 and the highest at \$25.96 in 2017. In 2017, it increased from \$25.79 to \$25.96 per acre. Interest paid as a percentage of gross farm returns was 4.2 percent in 2017 compared to 3.9 percent in 2016.

Some key financial factors, such as the current, debt-to-asset, and debt-to-equity ratios, can be found on pages 10 to 13 by type of farm. This type of information is useful in providing some benchmarks when evaluating the financial efficiency of a farm operation.

Pages 22 to 36 report returns and costs for crops and livestock enterprises. Total returns to farrow-to-finish hog producers averaged \$51.41 per hundredweight in 2017 compared to \$45.18 the year before. Feed costs decreased, averaging \$30.43 per hundredweight produced. The average price received per hundredweight for slaughter cattle was \$117.25, and the price paid for replacement feeder cattle was \$143.93. Dairy returns included the average price received for milk of \$18.43 compared to \$16.27 in 2016.

Total economic costs per acre to produce corn and soybeans in 2017 were variable as compared to 2016. Common among all areas of the state was lower fertility and land costs while nonland interest charge increased. Costs per bushel to produce corn and soybeans increased in most areas of the state due to lower yields. Total economic costs per acre to raise corn and soybeans on these farms averaged \$857 and \$635, respectively.

From a sample of pure grain farms in the state, the total economic cost per bushel of corn produced was \$3.99 with an average yield of 215 bushels per acre. The total cost per bushel of soybeans was \$10.24 with an average yield of 62 bushels per acre. The 2016 costs per bushel were \$4.00 and \$9.74 for corn and soybeans, respectively. The total costs for 2012 were the highest cost per bushel to grow corn and soybeans since this study began due to lower yields from the drought. The variation in yields and costs during the past few years makes it important to analyze these costs over more than one year. The 2013-2017 five-year average to produce corn and soybeans on these farms is \$4.38 per bushel for corn and \$10.68 per bushel for soybeans.

In summary, farm earnings in 2017 were lower than the 2016 earnings and the average for the last five years. Lower crop returns, because of lower end of year prices and lower soybean yields were the main reason for the lower incomes. Most livestock returns were higher due to higher price received. Even with similar yields and prices, margins are still low. The variability in incomes in the last five years show the importance of good records and financial management.

ILLINOIS FARM BUSINESS FARM MANAGEMENT ASSOCIATION

cooperating with nine local farm management associations and the
Department of Agricultural and Consumer Economics, College of Agricultural, Consumer and Environmental Sciences,
University of Illinois at Urbana-Champaign

STATE TOTAL --- 5,691 cooperating farmers and 69 member field staff*
July 1, 2017, distribution of cooperators by counties and associations

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593

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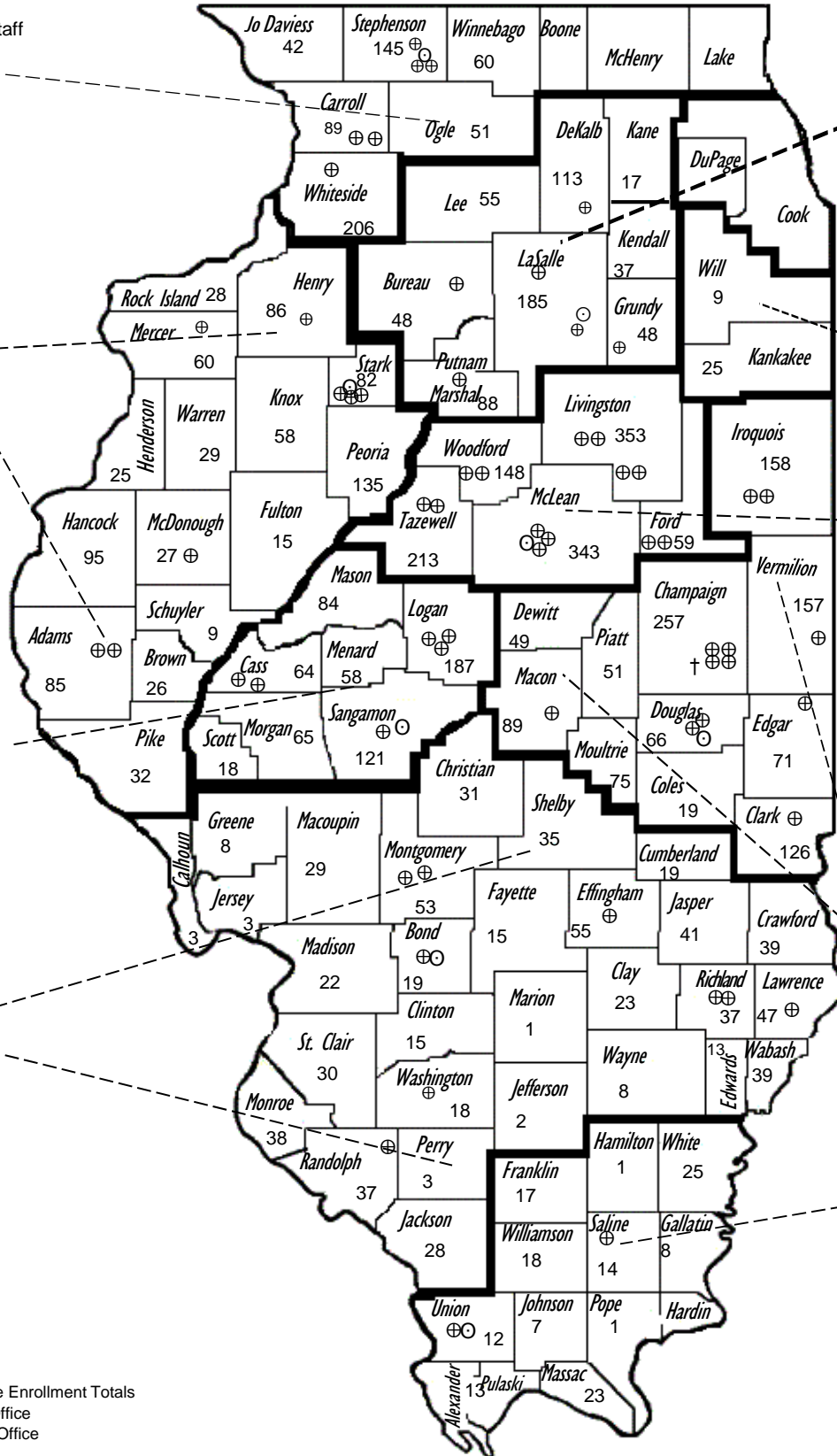
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711

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* Numbers are Enrollment Totals

69 ⊕ Field Staff Office
8 ○ Association Office
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1118

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Klayton M. Finley
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139

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Illinois Farm Business Farm Management Association

FBFM is a cooperative educational-service program designed to assist farmers with management decision making. It is available to all farm operators in Illinois. There are nine local not-for-profit associations organized to provide services throughout the state. The FBFM program provides:

- Financial and production business analysis reports.
- Experienced Farm Analysis Specialist to help interpret analysis reports and counsel on management problems.
- Computer-assisted record-processing options—on-farm or service center.
- Assistance with business and family records.
- Assistance with income tax management.

To find out more about FBFM, contact the Illinois FBFM Association state office or a regional operations manager listed below.

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Visit our Web site at

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For U of I farm management information see

[**http://www.farmdoc.illinois.edu**](http://www.farmdoc.illinois.edu)

[**http://www.farmdocdaily.illinois.edu**](http://www.farmdocdaily.illinois.edu)