

87th ANNUAL

SUMMARY OF
ILLINOIS
FARM BUSINESS
RECORDS
2011

Commercial Farms
Production Costs
Income
Investments



UNIVERSITY OF ILLINOIS
EXTENSION

COLLEGE OF AGRICULTURAL, CONSUMER
AND ENVIRONMENTAL SCIENCES

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Summary of Illinois Farm Business Records for 2011
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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 --- 5,692 cooperating farmers and 59 member field staff*
 July 1, 2012, distribution of cooperators by counties and associations

Associations and Field Staff

Associations and Field Staff

BLACKHAWK

596
 Jeffery L. Johnson
 Alan A. Petersohn
 Rodney B. Gieseke
 David A. Goodell
 Tonya M. Wiersema
 Adam W. Drinkall
 John D. Jones

WESTERN

752
 Roberta Boarmark
 Robert Rhea
 Miriam M. Mock
 Mike R. Shepherd
 Nathan P. Edlefson
 Adam J. Kestner
 Jeffrey R. Reed
 Ruth Ann McGrew
 Brett W. Goodwin

SANGAMON VALLEY

569
 Todd F. Behrends
 James E. Phelan
 Kevin E. Coultas
 John Kloppenburg
 Kent D. Leesman

LINCOLN

725
 Michael E. Schmitz
 Thomas J. Nolte
 Dathel W. Davidson
 Daniel A. Doan
 Randall J. Harmon
 Mitchel W. Fickling
 Amy A. Cope
 Michael P. Bruns

NORTHEASTERN

65

ILLINOIS VALLEY

626
 Danny L. Stetson
 John A. Hudson
 Bradley G. Lenschow
 James P. McCabe
 Scott M. Newport
 Daniel Entile

PIONEER

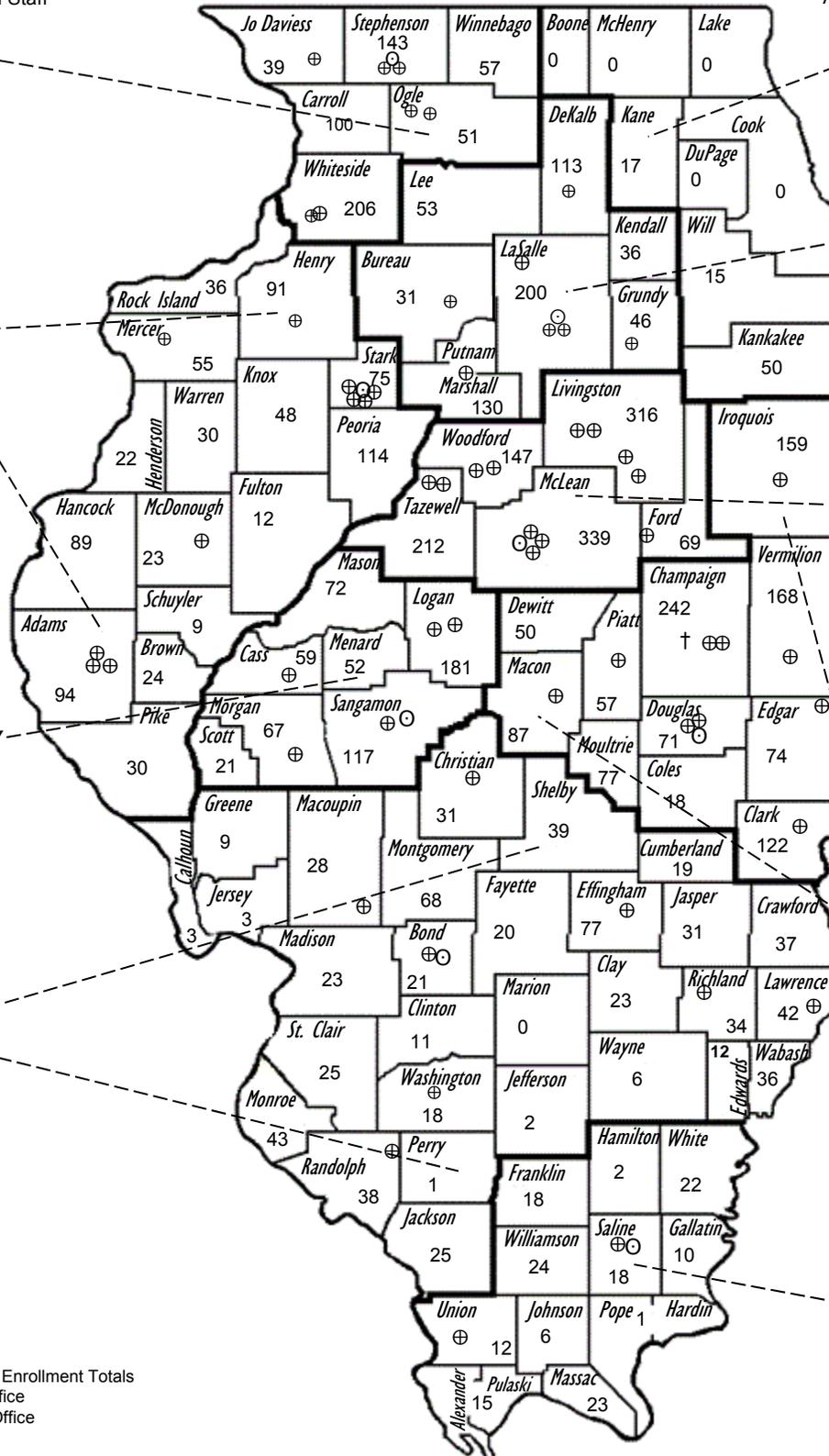
1,083
 Michael C. Heiser
 Kent V. Meister
 Darren L. Bray
 Brian J. Pulley
 Nathan A. Waibel
 Jeffrey A. Marquis
 Lowell J. Stoller
 Jacob M. Springer
 Blair H. Nelson
 Carla S. Doubet
 Jedediah D. Metzger
 Brandon M. Tate

EAST CENTRAL

1125
 James E. Cullison
 Bruce E. Burk
 Donald E. Becker
 Mitchell A. Fruhling
 Jeffrey D. Lewis
 Robert Daggett
 Richard Thomas
 Gary L. Knoblett
 Christopher A. Leman
 Michael L. Clark

SHAWNEE

151
 Douglas E. Hileman
 Robert D. Kieseccoms



SOURCE OF DATA

This report is based on data obtained from farm business records on 5,692 Illinois farms. It is the 87th annual summary of such records obtained from farmers cooperating with the University of Illinois Extension, the Department of Agricultural and Consumer Economics, and the Illinois Farm Business Farm Management (FBFM) Association.

At present, about one out of every five Illinois commercial farms with over 500 acres or total farm sales over \$100,000 is enrolled in this service, which grew steadily until 1982. Except for 1988 and 2000, enrollment has declined slightly each year since 1982. One factor contributing to this decline has been the continued decline in the number of farms in the state. In 2011, 9 associations in 102 counties were being served by 59 full-time field staff specialists and two half-time field staff specialists. Participation in this farm business analysis program is voluntary; cooperating farmers pay a fee for the educational services. The program's development since 1940 is shown below.

Year	Associa- tions	Counties involved	Field staff employed	Farmers involved
1940.....	3	23	3	680
1950.....	8	59	15	2,760
1960.....	10	100	33	5,494
1970.....	10	102	42	6,553
1980.....	10	102	67	8,205
1990.....	10	102	70	7,192
2000.....	9	102	66	6,647
2010.....	9	102	61	5,775

Estimates for 2011 indicate that over 90 percent of the 5,692 farms covered in this report have total sales over \$100,000. In the 2007 Census of Agriculture, farms selling \$100,000 or more accounted for 94 percent of all sales from Illinois farms.

The segment of Illinois agriculture that includes farms with more than \$100,000 in total sales is often referred to as "commercial farming." In 2007, there were 23,290 farms in Illinois with sales of \$100,000 or more. The figures that follow, taken from the 2007 Census of Agriculture, show that these farms represented about 57 percent of the 40,826 farms with more than \$10,000 in sales. These farms produced more almost 94 percent of the agricultural products sold from Illinois farms.

Total farm sales (\$)	% of all farms, \$10,000+ sales	% of census farms enrolled	No. of farms enrolled
10,000–99,999	43.0	1.9	329
100,000–249,999	22.1	8.4	758
250,000–499,900	17.4	16.6	1,179
500,000+	17.5	32.3	2,316

Most of the 2011 recordkeeping farms covered in this report are within the larger groups. There were 14,261 farms identified by the census with more than \$250,000 total sales

in 2007. About a fourth of these farms (24.5 percent) were enrolled in the Illinois FBFM Association. Of the 9,029 farms in the group having from \$100,000 to \$249,999 in total sales, only 8.4 percent participated in the farm record program. Only about 2 percent of the farms enrolled in FBFM had less than \$100,000 in sales. The average acreage size of all farms larger than 180 acres enrolled in FBFM in 2011 was 1,141 acres, compared with an average of 833 acres for all Illinois farms sorted similarly.

This report presents only the operator's share of income and expenses for the farm business. The group averages are identified by size of business, type of farm, and quality of soil found on the farm. Where segments of Illinois agriculture are identified by these criteria, the data from recordkeeping farms may be used with reasonable confidence, even though the recordkeeping farms as a group do not represent a cross section of all commercial farms in the state.

USES FOR THIS REPORT

The management of a modern commercial farm involves decision making in the application of technology, choosing a proper combination of crop and livestock enterprises, and effective business administration of the farming operations. A basic analysis of a farm business involves a careful study of past performance to detect problems and strengths in the farming operation. Also involved is the process of planning and developing future operations to realize the full potential of the land, labor, and capital resources available and to improve the economic efficiency of the farm business.

The farm business summaries contained in this report are used by individual farmers to analyze their business operations and to develop plans for future farming operations. This report summarizes the information so that specialists involved in agricultural extension, research, teaching, and agribusiness activities may use the data to help them perform their duties effectively. The definition of terms and accounting measures on the following pages will be of assistance in using the data.

The first part of the report (Tables 1 to 8) summarizes selected recent changes in farm income on Illinois farms. It also identifies economic forces and factors that contribute to these changing trends. Some of the data used in the text are drawn from previous issues of this report.

The second section (Tables 9 to 18) presents data on livestock enterprises. This information is the total of operator and landlord data. Beginning in 1995, the cost of production information presented in Tables 12, 14, and 16 excludes those enterprises with an operator-landlord live-stock lease, because landlord cost data are not available. The comprehensive and detailed information contained in this section is a valuable resource for anyone interested in livestock production. Because part of the feed grains and roughages produced on Illinois farms is marketed through

livestock, the margins of income from livestock enterprises are important in interpreting the economic results of some farming operations.

The third section (Tables 19 to 23a) discusses costs, returns, financial summaries, land use, and crop yields for different sizes and types of farms in northern, central, and southern Illinois. This section contains only the operator data. It reports on the 33 percent of grain farms that received the highest return to management per dollar of cost and the 33 percent that received the lowest return. It also reports on hog farms with over and under 6,000 hundredweight of pork produced.

TERMS AND ACCOUNTING METHODS

Soil productivity rating

This rating is an average index representing the inherent productivity of all tillable land on the farm. Individual soil types on each farm are assigned an index ranging downward from 100. All ratings were revised in 1971 to reflect a basic level of management as outlined in University of Illinois Extension Circular 1156, *Soil Productivity in Illinois*. New land values were assigned in 1980. The adjustment of land values brings them to current market levels.

Hay equivalents, tons

To get the equivalents, we took the total of 1.0 multiplied by the pounds of hay, 0.45 multiplied by the pounds of hay silage, 0.33 multiplied by the pounds of corn silage, and 24 multiplied by the pasture days per feed unit (which are also multiplied by the total feed units per cow). This total was then divided by 2,000.

Sampling technique

Data from all records certified usable for analysis by field staff were aggregated by size (acres or number of cows), type of farm, value of feed fed, and soil productivity rating.

Type of farm

Grain farms are farms where the value of the feed fed was less than 40 percent of the crop returns and where the value of feed fed to dairy or poultry was not more than one-sixth of the crop returns. Since 1973, farms with livestock have been essentially excluded from the sample of grain farms in northern and central Illinois in Table 19; since 1978, from the grain farm sample in Table 20; and since 1982, from the grain farm sample in Table 6.

Hog or beef farms are farms where the value of feed fed was more than 40 percent of crop returns and where either the hog or beef-cattle enterprise received more than one-half the value of feed fed.

Dairy farms are farms where the value of feed fed was more than 40 percent of crop returns and where the dairy enterprise received more than one-third the value of feed fed.

Cost items

The *value of feed fed* includes on-the-farm grains with the following average prices per bushel: corn, \$6.15; oats, \$3.45; and wheat, \$6.80. Commercial feeds were priced at actual cost, hay and silage at farm values, and pasture at 40 cents per animal unit per pasture day. A “pasture day” represents an intake of about 20 to 25 pounds of dry matter, defined as 16 pounds of total digestible nutrients (TDN) from the pasture used.

Cash operating expenses include the annual cash outlays for the following nondepreciable items:

- Fertilizer
- Pesticides
- Seeds (including homegrown seeds)
- Machinery repairs
- Machine hire and lease
- Fuel and oil
- Farm share of electricity, telephone, and light vehicle expenses
- Building repairs and rents
- Drying and storage
- Hired labor
- Livestock expenses
- Taxes
- Insurance
- Miscellaneous expenses

Purchased feed, grain, and livestock are not included because they have been deducted from gross receipts in computing the value of farm production. The interest paid is not included because an interest charge is made on the operator’s total farm investment. But the total interest paid by the operator on all debt—operating debt plus longer-term debt—is listed separately in Tables 19 to 23a under “Selected returns and costs per operator tillable acre.”

Power and equipment includes depreciation, repairs, machine hire and lease, fuel and oil, and the farm share of expenses for electricity, telephone, and light vehicles.

Labor includes hired labor plus family and operator’s labor, charged in 2011 at \$3,300 per month.

A change in the method of calculating the **depreciation deduction** for machinery and buildings was adapted in 2003 and continued to be used in 2011. Until 2003, the depreciation deduction was based on Internal Revenue Service guidelines; the depreciation expense used for analysis purposes was the same as that used for completing the tax return. As changes in tax law allowed larger and larger write-offs in the year machinery and buildings were purchased, the depreciation method used for analysis was changed to more closely reflect the actual decline in value of machinery and buildings. The new method does not use the additional bonus depreciation or expense election write-off in the year of purchase; it uses instead a slightly longer life and a lower rate than the IRS-allowed methods for tax depreciation. The change in methods does not increase or decrease the total amount of depreciation that can be claimed on an item; it is simply an issue of timing as to when the depreciation is deducted.

Interest on nonland capital covers the interest charged at 4.5 percent on the sum of one-half the average of the

January 1 and December 31 inventory values of grain, plus the average of the January 1 and December 31 inventories of remaining capital investment in livestock, machinery and light vehicles, buildings, and soil fertility, plus one-half the cash operating expense, exclusive of interest paid. In Tables 6 and 9, this charge is combined with the land charge or net rent and labeled “interest charge on capital.” The average cash interest paid per farm by all farm operators was \$23,571.

Land charge or net rent is the bare land priced at current land values multiplied by 2.45 percent to reflect net rents received by the landlord.

Total nonfeed costs include cash operating expenses, adjustments for accrued expenses and farm produced inputs, depreciation, and charges for unpaid labor and interest including land charge. Purchased feeds and livestock are omitted.

The **basic value of land** (the **current basis**) is adjusted each year according to the index of land prices in Illinois as reported by the United States Department of Agriculture (USDA). The land value index for 2011, using a base earning value of 1979 = 100, was 254.

The **capital account adjustment** includes the gain or loss on capital items sold, less amortization deduction.

Return items

Crop returns are the sum of grain, seed, and feed sales; the value of homegrown seed used; the value of all feed fed (except milk); government farm program payments received and accrued, including marketing loan gains, countercyclical payments, and loan deficiency payments (LDPs); crop insurance payments received and accrued; and the change in value for feed and grain inventories, less the value of feed and grain purchased.

The **total value of farm production** is the cash and accrued value of sales of products and services, less the cost of purchased feed, grain, and livestock, plus the change in inventory values for grain and livestock, plus the value of farm products used.

Net farm income is the value of farm production, less total operating expenses and depreciation, plus gain or loss on machinery or buildings sold. Net farm income includes the return to the farm and family for unpaid labor, the interest on all invested capital, and the returns to management.

Labor and management income per operator is total net farm income, less the value of family labor and the interest—including net rent—charged on all capital invested. This figure, as the residual return to all unpaid operators’ labor and management efforts, is divided by the months of unpaid operator labor and multiplied by 12 to reflect income for one operator on multiple-operator farms.

Capital and management earnings are net farm income, less a charge for all unpaid labor. **Management return** is the residual surplus after a charge for unpaid labor and the interest or land charge on capital are deducted from net farm income.

FARM BUSINESS TRENDS IN 2011

Illinois agriculture is based largely on crop production, especially corn and soybeans. In 2011, Illinois ranked second in the nation in soybean and corn production. The total value of corn produced on Illinois farms was 16 percent of total U.S. production, while the total value of soybeans produced on Illinois farms was 14 percent of total U.S. production.

Crop production

Year-to-year variations in net income are related to the growing season, crop yields, grain prices, and acres in high-cash-value crops. Wetter conditions in 2011 led to a slower start to planting, with only 34 percent of the crop planted by May 8. This was below the historical 5-year average of 62 percent and well below the 2010 average of 93 percent. Ninety-four percent of the the corn and 59 percent of the soybeans were reported as planted by May 29. Higher temperatures led to faster crop development, which allowed corn harvest to run ahead of the average pace. Soybean harvest was slower in 2011 than in 2010, but it was still above the 5-year average.

Crop yields. In spite of the wet spring and later start to planting, corn yields were the same for 2011 as in 2010. Too much rainfall lowered yields in certain parts of the state, including southern Illinois. The average corn yield for Illinois farms reported by the Illinois Crop Reporting Service was 157 bushels per acre, exactly the same as the previous year’s yield. The average for 2007 through 2011 is 168 bushels per acre. Farmers participating in the Illinois FBFM program averaged 167 bushels of corn per acre in 2011, 3 bushels above the year before.

Soybean yields for all Illinois farms were reported at 47 bushels per acre in 2011. This was below the highest on record of 51.5 in 2010, but equal to the 5-year average of 47 bushels per acre. FBFM recordkeeping farms averaged 54 bushels of soybeans per acre in 2011, 2 bushels above their 5-year average. Crop yields on the 5,692 recordkeeping farms covered in this report averaged 6 to 15 percent above the average for all Illinois farms.

Grain prices. Sales for corn and soybeans have been divided between old and new crop sales. The prices received for old-crop soybeans sold during the year averaged \$1.87 to \$2.01 per bushel above 2010 prices (Table 1). Old-crop corn prices received in 2011 averaged \$1.70 to \$1.73 above those received in 2010. New-crop prices received were higher for soybeans and corn compared to the year before. The price received for new-crop corn averaged \$1.49 to \$1.62 higher than the year before, and new-crop soybeans averaged \$1.36 to \$1.79 higher. Wheat sold for \$1.10 to \$2.01 more per bushel during the year. Except for southern Illinois old-crop corn that was sold at the inventory price, prices received for both old-crop corn and old-crop soybeans sold in 2011 were below their inventory prices, resulting in a negative marketing margin and lower crop

returns. The year-end, new-crop inventory price for corn was 25 cents higher than the year before; for soybeans it was \$2.25 lower. Both corn and soybean prices have been high enough that neither crop was eligible for loan deficiency payments. The national average marketing year price for corn and soybeans will be high enough that producers will not receive a countercyclical payment.

Crop Production. Corn production totaled 1.95 billion bushels in 2011, the same as the previous year. The final yield was 157 bushels per acre, which was also the previous year's yield. The yield for the 2011 soybean crop was 47 bushels per acre, 4.5 bushels below the 2010 yield of 51.5 bushels per acre. Production totaled 416 million bushels, 11 percent below the previous year.

The 2011 yield for sorghum for grain was 91 bushels per acre, 5 bushels below the yield in 2010. Sorghum production, at 1.82 million bushels, was down 43 percent from the previous year. The yield for the 2011 winter wheat crop was 61 bushels per acre, 5 bushels per acre more than the previous year. Total production was 46.7 million bushels, 182 percent above the 2010 production of 16.5 million bushels. The oats yield, at 68 bushels per acre, was 3 bushels above 2010. Production of all hay in 2011 was 1.58 million tons, 18 percent below 2010. Alfalfa hay production was down 26 percent, to 952 thousand tons. All other hay production stayed the same at 624,000 tons. The alfalfa yield decreased from 3.8 to 3.4 tons per acre, while all other hay yields stayed at 2.4 tons per acre.

Livestock production

Two major determinants in farm income are the price farmers receive for livestock and livestock products and the value of feed fed in producing livestock. Gross returns to hog, feeder pig finishing, dairy, beef cow, and feeder cattle enterprises were higher in 2011 compared to 2010. With higher gross returns, returns above feed cost were higher for all livestock enterprises. In 2011, the average prices received by farm recordkeepers in the Illinois FBFM Association were 21 percent higher for hogs and fed cattle and 25 percent higher for milk than they were in 2010 (Table 1). The prices paid for all weights of feeder cattle purchases averaged 24 percent above the 2010 price for feeder cattle, and feeder pigs weighing below 20 pounds averaged 19 percent above the 2010 price. Higher returns and slightly higher feed costs resulted in returns above feed and purchased animals for feeder cattle enterprises to increase from \$35.94 per hundredweight produced to \$36.77 (Table 10). This is the above the 5-year average and is the highest in 5 years. Mainly due to the higher price received, returns for farrow-to-finish hog producers increased returns above feed costs to \$20.18 per hundredweight produced in 2011. This was above the 5-year average and the highest in 5 years. Higher milk prices caused dairy returns above feed cost per cow to increase from \$1,506 in 2010 to \$2,205 in 2011.

This is above the 5-year average and the second highest in the last 5 years. Returns for beef cow herds with calves sold increased to \$189, which is above the 5-year average.

Labor and management income

The average operator's share of labor and management income for the 5-year period from 2007 through 2011 on all northern Illinois grain farms (located north of a line from Kankakee to Moline) was \$151,505 (Table 2). Operators on about 1,500 grain farms in central Illinois had 5-year average earnings of \$144,696. Central Illinois occupies the area between the Kankakee–Moline line in the north and the Mattoon–Alton line in the south. Better growing conditions in the last couple of years have led to larger earnings from crops.

The grain farms in northern Illinois averaged 995 tillable acres per farm, compared with an average of 1,102 tillable acres on grain farms in central Illinois. The figure for labor and management income varies considerably with the location and type of farm. For the period from 2007 through 2011 grain farms, operators in southern Illinois averaged \$126,713 for labor and management. This average increased by \$18,740 compared with the average for the 5-year period from 2006 through 2010.

When the average earnings on Illinois grain farms for the 5-year period from 2007 through 2011 are compared with the earnings from 2006 through 2010, earnings increased in all areas of the state. The average for the 5-year period from 2007 through 2011 increased 30 percent in northern Illinois, 20 percent in central Illinois, and 17 percent in southern Illinois as compared to the 5-year period 2006 through 2010. The 2011 return to operator's labor and management for all areas of the state except southern Illinois was significantly higher than the 2010 earnings and above the 2006–2010 5-year average. The year dropped from the 5-year average, 2006, averaged about \$133,000 lower earnings than in 2011.

Table 1. Average Prices Received and Paid by Farm Recordkeepers for Grain, Livestock, and Milk

	2011		2010	
	Northern & central	Southern	Northern & central	Southern
Grain prices per bushel				
Sold				
Corn, old crop	\$ 5.33	\$ 5.50	\$ 3.60	\$ 3.80
Corn, new crop	5.66	5.82	4.17	4.20
Soybeans, old crop	11.81	12.08	9.94	10.07
Soybeans, new crop	12.06	11.80	10.27	10.44
Wheat	6.60	6.78	4.59	5.68
Livestock prices per cwt				
Hogs, all weights	\$ 64.58		\$53.24	
Fed cattle, all weights	112.03		92.41	
Feeder cattle, all weights, prices paid	132.60		106.86	
Dairy cattle, all weights	67.73		61.38	
Sheep and wool, all weights	168.46		129.44	
Milk per cwt	20.35		16.30	

When average earnings on Illinois livestock farms for the 5-year period from 2007 through 2011 are compared with the earnings from 2006 through 2010, earnings increased for all livestock enterprises. The average for the 5-year period from 2007 through 2011 increased 34 percent for hog farms, 153 percent for beef farms, and 50 percent for dairy farms as compared to the 5-year period 2006 through 2010.

In 2011, the labor and management income for all areas of Illinois averaged \$223,449 per farm. This figure is \$63,331 above the 2010 state average. Returns averaged \$68,412 above the average for the 5-year period 2007 through 2011. Higher crop prices were the main reason for the higher incomes. The new crop grain prices resulted in minimum farm program payments in 2011, just like in 2010.

Corn yields were slightly above the yields recorded the year before. The average corn yield on the 2,674 farms in 2011 was 167 bushels per acre, 3 bushels higher than the 2010 yield. The average soybean yield in 2011 was 54 bushels per acre, 1 bushel lower than the 55 reported in 2010. Corn and soybean yields were generally highest in central and northern parts of the state. Too much rainfall lowered yields in certain parts of the state, including southern Illinois. The average corn yield was the second lowest in

the last five years, and the average soybean yield was the second highest on record.

Year-end inventory price for the 2011 corn crop of \$5.75 per bushel was 25 cents per bushel higher than a year earlier. Soybeans were inventoried at \$10.75 per bushel, \$2.25 lower than December 31, 2010. The average sales price received for the 2010 corn and soybean crop sold in 2011 was below the inventory price, resulting in a negative marketing margin. Crop returns averaged \$899 per tillable acre, \$144 per acre higher than the 2010 crop returns. The average crop returns per acre were at an all-time high.

The income or salary of the farm operator, whether tenant or part-owner, is the return for the labor and management provided by the operator. The level of income received is a measure of overall farming efficiency and includes compensation for the risk involved. The income includes the operator's gross sales and the net change in inventory. This income is reduced by operating expenses, depreciation, a charge for unpaid family labor, 4.5 percent interest on nonland investment, and a land-use charge equivalent to the average net rent received by landowners for crop-share leases from 2007 to 2010.

Whenever the income figures in Table 2 fall below the amounts required for living expenses and income and Social Security taxes, operators must use the charges deducted for interest on equity capital to pay these expenses. If we assume that \$75,000 is needed to pay living expenses and income and Social Security taxes, figures for the lowest 5-year average labor and management income indicate that the average farm operator's family uses up to \$42,000 of the return for equity capital, depending on location and type of farm. Some average labor and management incomes were high enough that the operator did not need to use any of the return for equity capital to meet living expenses. Using part of the return to equity to pay family living expenses indicates that farm operators are not receiving a competitive return for either their labor and management or their equity in the business. Off-farm income could be used to pay for some living expenses.

Table 2. Operator's 5-Year Average Share of Labor and Management Income by Size and Type of Farm, 2007 Through 2011

	Tillable acres per farm ^a			
	Under 500	500 to 799	800+	All
Northern Illinois				
Tillable acres	347	639	1,580	995
Labor and management earnings by type of farm				
Grain.....	\$49,166	\$105,009	\$239,137	\$151,505
Central Illinois				
Tillable acres	356	656	1,484	1,102
Labor and management earnings by type of farm				
Grain ^b	\$60,193	\$102,223	\$211,805	\$165,648
Grain ^c	47,569	85,804	158,747	118,131
All.....	53,468	92,765	190,388	144,696
Southern Illinois				
Tillable acres	344	658	1,652	1,312
Labor and management earnings by type of farm				
Grain.....	\$33,140	\$67,524	\$158,674	\$126,713
Illinois livestock				
Labor and management earnings by type of farm				
Hog.....	... ^d	... ^d	\$75,756	\$62,287
Beef.....	... ^d	... ^d	... ^d	32,754
Dairy.....	... ^d	... ^d	... ^d	41,821

^aTillable acres.

^bHighly productive soils with soil productivity ratings from 86 to 100.

^cHeavy-till and transition soils with soil productivity ratings from 56 to 85.

^dData not available.

Financial characteristics

The Farm Financial Standards Council has identified several key measures to analyze the financial strength of a farm business. These measures are in the areas of liquidity, solvency, profitability, and financial efficiency. The averages for these key measures for 2,510 Illinois farms can be found in Table 3. These measures are also calculated by farm type. Due to the effects that weather and other outside factors may have on a farm business for any one year, it is better to monitor these measures over time and to identify trends than it is to rely too heavily on these measures for any one year when making business decisions. More detail and in-depth analysis of these financial characteristics can be found in *Financial Characteristics of Illinois Farms*, published by the Department of Agricultural and Consumer Economics at the University of Illinois.

Liquidity is an assessment of a farm’s ability to meet current cash-flow needs. The amount of working capital and the current ratio (current assets divided by current liabilities) are two measures of liquidity. The average amount of working capital as of December 31 for the 2,510 farms was \$340,554, up over \$70,000 from \$270,477 a year earlier. Grain farms had the greatest working capital, averaging \$347,640, while dairy farms had the least, averaging \$86,305. Most of the assets of a dairy farm—the dairy herd, buildings, and land—are noncurrent assets. The average current ratio for all the farms was 2.76, up from 2.54 a year ago. Grain farms and hog farms recorded the highest (most healthy) current ratio, and beef farms the lowest. The 2011 current ratio was the highest for any year during the last 15 years.

Solvency is a measure of the farm’s overall financial strength and risk-taking ability. The average net worth of the 2,510 farms at the end of 2011 was \$2,287,223, up from \$1,946,075 the year before. Average farm and nonfarm incomes in 2011 were above family living requirements, thus enabling net worth increases. Increasing land values have also boosted net worths for those operators who own land. Grain farms had the highest net worth, followed by hog farms, with dairy farms recording the lowest. The **debt-to-farm equity** and **debt-to-farm asset** indicators show how debt capital is combined with equity capital. This is useful in looking at the risk exposure of the business. The average debt-to-farm asset percentage for all farms was 19.8. The debt-to-farm asset percentage ranged from 19.7 for grain farms to 24.6 for beef farms. The average debt-to-farm asset level of 19.8 was at its lowest level for at least 15 years.

A measure of a farm’s **profitability** is useful in examining its ability to meet family living demands and retire term debt. It is also useful in measuring the farm’s ability to

utilize assets and equity to generate income. The average return on farm assets for the 2,510 farms was 9.5 percent, up from 8.1 percent a year earlier. Hog farms recorded the highest returns, averaging 10.0 percent, while beef farms recorded the lowest, averaging 2.7 percent. Return on farm equity in 2011 ranged from 11.6 percent for grain farms to 2.2 percent for beef farms. The average was 11.5 percent, up from 9.6 percent in 2010.

The interest, operating, and depreciation expense ratios relate these various expense categories as a percentage of the value of farm production. The farm operating income ratio measures the return to labor, capital, and management as a percentage of the value of farm production. These measures can be used to evaluate the financial efficiency of the farm business. The interest–expense ratio averaged 2.1 percent for the 2,510 farms, ranging from 2.0 percent for grain farms to 5.2 percent for beef farms. The 2.1 percent was down from 2.7 percent in 2010. The 2011 figure is the lowest since at least 1995. The farm operating income ratio ranged from a high of 35.3 percent for grain farms to 25.2 percent for beef farms. The average for all farms in 2011 was 35.0 percent, up from 32.4 percent in 2010. The 2007 through 2011 5-year average farm operating income ratio is 31.1 percent. The 2011 farm operating income ratio is above the 5-year average.

Family living expenditures

Total cash living expenditures for a sample of 1,273 Illinois sole-proprietor, farm-operator families in 2011 averaged \$71,929 (Table 4). This figure is 6.4 higher than the 2010 average. Capital purchases for family living expenses of \$7,729 include the family’s share of the auto, plus items that exceed \$250 and will last more than 1 year. Capital

Table 3. Financial Characteristics of Illinois Farms for 2011 by Type of Farm

	All farms	Grain farms	Hog farms	Dairy farms	Beef farms
Number of farms.....	2,510	2,400	33	53	24
Liquidity					
Working capital.....	\$340,554	\$347,640	\$306,510	\$86,305	\$119,745
Current ratio	2.76	2.78	2.78	2.14	1.94
Solvency					
Net worth (market)	\$2,287,223	\$2,312,272	\$2,278,982	\$1,396,514	\$1,760,727
Debt-farm equity (%)	24.6	24.5	28.1	30.7	32.6
Debt-farm asset (%)	19.8	19.7	21.9	23.6	24.6
Profitability					
Farm operating income	\$233,146	\$236,336	\$259,531	\$122,105	\$123,070
Return on farm assets (%)	9.5	9.6	10.0	6.2	2.7
Return on farm equity (%)	11.5	11.6	10.2	6.4	2.2
Financial efficiency					
Interest expense ratio (%)	2.1	2.0	3.4	4.4	5.2
Operating expense ratio (%)	55.1	54.9	58.2	58.8	61.1
Depreciation expense ratio (%) ..	6.6	6.6	4.7	7.6	7.7
Farm operating income ratio (%) ..	35.0	35.3	32.4	28.6	25.2
Asset turnover ratio	0.33	0.33	0.33	0.26	0.23

purchases for family living were 9.7 percent of the total cash outlay for all family living expenditures in 2011.

The average farmer in this sample paid \$22,749 in interest in 2011 on operating, machinery, and long-term real estate debts. This interest expense was 4.8 percent of total operating expense (including interest paid) and 3.4 percent of total farm receipts. The average amount of interest paid in 2011 was \$361 more than the amount paid in 2010. Here are the most significant financial facts about 2011:

- Net farm income plus net nonfarm income was \$178,805 more than the sum of family living capital purchases, total living expenses, and payments for income and Social Security taxes. This compares to the 5-year average of total income averaging \$120,037 more than family living expense and taxes for the period 2007 through 2011. The 2011 figure is the largest positive margin ever.
- Net nonfarm income averaged \$35,454 and was the second highest amount since this study began. This was \$522 less than the 2010 figure of \$35,976.
- Capital purchases were \$104,621, compared to \$84,055 in 2010, or 24 percent more. They were \$21,331 higher

than the average for 2007 through 2011 and at their second highest level ever.

- The amount of money borrowed exceeded principal payments for the 23rd year in a row. Money borrowed exceeded principal payments by \$28,101. For the 2007 through 2011 time period, money borrowed has exceeded principal payments by an average of \$30,420.
- Of the total living expenses—excluding family capital purchases—charitable contributions accounted for 4 percent, life insurance 5 percent, medical expenses 13 percent, and family living expendables the remaining 78 percent.
- Income and Social Security taxes paid decreased by \$338, and the total amount of taxes paid, \$19,726, was \$2,287 above the 5-year average for the period 2007 through 2011.
- Medical expenses averaged \$9,332. This is the first time the average has exceeded \$9,000. Expenses were 4.4 percent higher than the year before.

The 2011 records from 3- to 5-member families were sorted into high one-third and low one-third groups according to total living expenses (Table 4). The total cash living

Table 4. Average Sources and Uses of Funds Over a 4-Year Period and by Noncapital Living Expenses for Selected Illinois Farms

	All records, average per farm				Family of 3 to 5, 2011 ^a	
	2011	2010	2009	2008	High-third	Low-third
Number of farms.....	1,273	1,200	1,164	1,176	182	182
Age of operator.....	55	55	54	54	51	49
Number in family.....	2.9	2.9	3.0	3.0	3.9	3.8
Net farm income	\$242,735	\$176,886	\$ 76,697	\$194,207	\$324,971	\$225,667
Source of dollars						
Net nonfarm income	\$ 35,454	\$ 35,976	\$ 34,567	\$ 30,913	\$ 47,155	\$ 26,274
Money borrowed.....	398,860	361,671	340,794	368,663	567,796	331,285
Farm receipts.....	<u>669,116</u>	<u>563,312</u>	<u>568,554</u>	<u>581,949</u>	<u>865,192</u>	<u>613,715</u>
Total sources	\$1,103,430	\$960,959	\$943,915	\$981,525	\$1,480,143	\$971,274
Use of dollars						
Interest paid.....	\$ 22,749	\$ 22,388	\$ 22,664	\$ 25,387	\$ 28,972	\$ 20,819
Cash operating expenses.....	451,756	388,256	389,334	409,072	585,329	437,281
Capital farm purchases.....	104,621	84,055	85,120	82,684	128,022	91,206
Payments on principal	370,759	327,000	319,492	332,573	509,826	289,547
Income & Social Security taxes....	19,726	20,064	20,671	15,770	22,135	15,447
Net new savings and investments	54,161	44,987	34,200	43,352	79,138	64,767
Contributions	3,066	2,935	2,788	2,667	4,253	1,799
Medical expenses.....	9,322	8,928	8,579	8,328	13,100	5,966
Life insurance	3,702	3,442	3,431	3,202	5,363	2,527
Expendables.....	<u>55,839</u>	<u>52,300</u>	<u>50,369</u>	<u>50,975</u>	<u>92,838</u>	<u>36,331</u>
Total living expenses	\$(71,929)	\$(67,605)	\$(65,167)	\$(65,172)	\$(115,554)	\$(46,623)
Living—capital purchases.....	<u>7,729</u>	<u>6,604</u>	<u>7,267</u>	<u>7,514</u>	<u>11,167</u>	<u>5,584</u>
Total uses	\$1,103,430	\$960,959	\$943,915	\$981,525	\$1,480,143	\$971,274

^aRecords were sorted into thirds according to total noncapital living expenses.

expenses for the high-third group averaged \$115,554, compared with \$46,623 for the low-third group. The high-third group had gross farm receipts of \$865,192, compared to \$613,715 for the low-third group. The results indicate that the high-third group had more nonfarm taxable income and a higher net farm income. When net farm income is added to net nonfarm income, and total family living expenses (including capital purchases for family living) and payments for income and Social Security tax are subtracted, the high-third group had \$38,983 more remaining than the low-third group. The high-third group had a balance remaining of \$223,270 compared to \$184,287 for the low-third group.

Living expenses included cash expenditures for food, operating expenses, clothing, personal items, recreation, entertainment, education, transportation, life insurance, contributions, and medical expenses.

The sample of 1,273 represents slightly smaller farms than the average size of all recordkeeping farms in the state. Management was considered slightly above average. In view of these factors, average total living expenses for all recordkeeping families (excluding capital purchases) are estimated to be between \$61,100 and \$57,500, or 15 to 20 percent below the average total living expenses of these 1,273 Illinois farms. When the \$35,454 net nonfarm income for 2011 is used for living expenses, the remaining \$44,204 must be generated from the farm business to pay the \$79,658 used for total living expenses, including family living capital purchases. The figure of \$44,204 amounts to 6.6 percent of total farm receipts.

Income changes on Illinois farms

The average operator’s net farm income for all farms in 2011 was \$273,508; it was \$206,557 in 2010 (Table 5). The 2011 net farm income was the highest for any year out of at least the last 10 years. Operator net farm incomes decrease steadily as a higher percent of gross farm returns is used to pay interest. Frequently, when more than 20 percent of the gross farm return is used to pay interest, the operator’s net farm income is usually negative. Interest paid as a part of

gross farm returns for all operators averaged 2.8 percent in 2011, 3.3 percent in 2010, 3.8 percent in 2009, 3.7 percent in 2008, and 4.5 percent in 2007. The 2.8 percent figure for 2011 was one of the lowest for any year during the last 20 years.

Comparative costs and returns between years and among major types of farming operations are reported in Tables 6 and 8. The sample consisted of grain, hog, beef, and dairy farms having between 340 and 799 acres, or an average of 562 tillable acres. Labor available on farms of this size averaged 11 months on grain farms, 24 months on hog farms, 17 months on beef farms, and 39 months on dairy farms. These tables contain only operator data; landlord data are not included.

Size of farm, type of farm, and managerial inputs have been held reasonably constant by the sampling procedure used in selecting farms in each category. Variations among figures for 2011 are due to changes in farm prices and to costs, weather, and internal farming adjustments. The data in Tables 6 and 8 are particularly helpful for comparing types of farming and for evaluating changes in farm costs and returns for a particular size and kind of farm. The data do not reflect overall farming adjustments due to the enlargement of farms or to major changes in the use of resources.

The figure for net farm income comprises returns to the farm family for all unpaid labor, interest on all invested capital, and the managerial inputs used in farming. Changes in the value of farm inventories and the value of consumed farm products are included as income. Net farm income is calculated by accounting methods comparable to the accrual method used in calculating taxable farm income for the federal income tax. An important difference in the accrual method of income tax accounting should be noted: the inclusion of interest paid as a farm expense. The operator’s share of net farm income has the interest expense deducted from it.

The figures for net farm income are the amounts available from the farm business for living costs, income and Social Security taxes, debts, new investments, and savings. New capital investments for the farm business have been

Table 5. Percent of Illinois Farms and Operator Net Farm Income by Interest Paid as a Percent of Gross Farm Returns, 2007 Through 2011

	Interest paid as a percent of gross farm returns						All
	Under 1	1–4.9	5–9.9	10–14.9	15–19.9	20+	
Percent of farms							
2007	20	44	26	7	2	1	100
2008	26	48	20	4	1	1	100
2009	27	44	21	6	2	2	100
2010	30	47	18	4	1	1	100
2011	33	51	13	3	... ^a	... ^a	100
Net farm income							
2007	218,989	238,415	196,869	117,821	66,360	7,915	209,165
2008	206,858	238,747	178,563	108,000	108,000	(8,605)	209,282
2009	112,117	100,968	43,720	4,597	(9,926)	(56,892)	82,153
2010	228,631	223,151	168,639	94,621	54,423	6,334	206,557
2011	267,886	300,237	219,052	148,385	17,090	23,841	273,508

^aLess than 1 percent.

included with total cash expenditures. Although the cash balance reflects the cash position of the farm business, the figure is influenced by purchases and sales of feed and livestock and by changes in liabilities and borrowed funds.

Grain farms. The operator's net farm income for Illinois grain farms having 340 to 799 acres and no livestock averaged \$156,950 in 2011 (Table 6). This income was \$37,453 above that of 2010, and \$43,381 above the 5-year average income for 2007 through 2011. The 2011 net farm income was the highest in the last 30 years. The value of farm production averaged \$430,675, which was \$71,574 above 2010 and \$80,316 above the 2007–11 average. The 2011 value of farm production was the highest since this study began. The value of farm production included a \$46,358 increase in inventory values compared to 2010, when the inventory value increased by \$47,209. Net cash operating income (adjusted gross) was \$383,878, \$65,175 higher than the 5-year average. Total cash operating expenses were \$52,215 higher than the year before, while depreciation of \$25,881 was 16 percent higher than the year before and 35 percent higher than the 2007–11 average. Total cash operating expenses were one of the highest on record.

Incomes were considerably higher on these farms in 2011 compared to 2010. Higher prices were the main factor for the higher incomes. The average soybean yield on these farms in 2011 was 54 bushels per acre, compared to 55 the year before. The average corn yield was 169 bushels per acre, compared to 165 the previous year. Corn was inventoried 25 cents higher at the end of 2011 compared to the beginning; soybeans were inventoried \$2.25 lower. The higher quantities in ending inventory caused the value of inventories to increase \$46,358 at the end of the year compared to the beginning. Crop returns averaged \$899 per tillable acre in 2011 compared to \$755 in 2010. Crop expenses per acre increased 16 percent. This was the third year for the new government farm program. A new part of this program was the Average Crop Revenue Election (ACRE) Program. Producers would receive a payment the following year after the year of production if the state trigger and farm triggers are met. This program is voluntary, and producers who signed up for it had 20 percent less direct payment rates. Producers receive a guaranteed direct payment based on their program yield, base acres, and a set payment rate per bushel. Countercyclical payments are made if market prices fall below a certain "trigger level." Countercyclical payments are not expected for corn, soybeans, or wheat for the 2011 crop. As in the old program, producers can also receive loan deficiency payments (LDPs) or take marketing loan gains when market prices are below the loan rate. All of these receipts are included in net farm income and crop returns. Total tillable land planted to corn and soybeans in 2011 was 95.7 percent, down from 96.1 percent in 2010. Corn acres increased slightly from 54.5 percent of tillable acres in 2010 to 55.3 percent in 2011, while soybean acres decreased from 41.6 to 40.4 percent.

The average prices received in 2011 for new-crop corn and soybeans of \$5.75 and \$11.99, respectively, were higher for corn and soybeans than in the previous year. The average prices received for old-crop corn and soybeans, \$5.43 and \$11.96, respectively, were lower than the inventory price at the beginning of the year for soybeans and corn, but higher than the year before. Capital purchases of \$63,772 in 2011 were \$19,453 more than in 2010 and \$17,825 above the 2007–11 average. Capital purchases were the highest of any year during the last 10 years.

While accrual net farm incomes averaged \$156,950, net cash incomes averaged \$61,798. Management returns were \$91,292 in 2011, compared to \$58,541 in 2010 and the 2007–11 average of \$56,262. Management returns for grain farms were lower than all other farm types in 2011. The value of farm production per man of \$482,632 was the highest for any type of farm. The amount of interest paid of \$11,698 was the lowest for any type of farm in Tables 6 and 8. Operators for these farms owned 26 percent of the land they farmed, crop-shared 34 percent, and cash-rented 39 percent. Of the total labor of 11.1 months, only 1.4 months were hired labor. The total months of labor used on these farms was the lowest for any type of farm.

A study of the cost to grow corn and soybeans on central Illinois farms is summarized in Table 7. These farms had a soil productivity index ranging from 86 to 100. The farms used 98 percent of their tillable land to grow corn and soybeans, with 56.2 percent of the acres in corn and 41.7 percent in soybeans. The table compares 2011 costs per acre with 2010 costs. In 2011, the total cost per acre averaged \$788 for corn and \$591 for soybeans. From 2010 to 2011, the total cost per acre increased 10 percent for corn and soybeans.

Nonland costs of \$3.24 per bushel for corn and \$6.55 for soybeans in 2011 are the most relevant costs for continuing production in the short run, especially where land is free of debt. Total cost to produce a bushel increased for corn and soybeans from 2010 to 2011. Costs per bushel for corn increased due primarily to crop costs, overhead costs, and land costs. Total costs per bushel increased 26 cents for corn and \$1.57 for soybeans. If the 2011 yield for corn had been 190 bushels, the same as the average for the period from 2008 through 2011, the total cost per bushel would have been \$4.15. These costs do not include a charge for management.

The cost of fertility for soybeans was allocated on the basis of phosphorus, potassium, and lime removals, with the residual allocated to corn. The total unpaid labor charge was based on the labor available. The nonland interest rate was 4.5 percent of one-half the average of the beginning- and end-of-year inventory values for the crops on hand, plus one-half the cash operating expenses (excluding interest paid), plus the depreciated value of machinery and buildings. The adjusted net rent was the average net rent received by crop-share landlords as reported on recordkeeping farms for the period 2007 through 2010.

Summary of Illinois Farm Business Records for 2011

Hog farms. The operator's net farm income in 2011 for Illinois hog farms having 340 to 799 acres averaged \$250,427 (Table 6). Net incomes were \$59,410 higher than net incomes in 2010 and \$150,120 higher than the average for the 5-year period from 2007 through 2011. The cash balance on these farms of \$73,745 was \$2,263 more than in 2010 and \$30,361 above the average for the 5-year period from 2007 through 2011. Inventories on these farms increased \$112,197 in 2011, following a \$75,969 increase in 2010. The value of farm production of \$724,802 was \$99,715 more than in 2010 and \$216,655 higher than the average for the 5-year period from 2007 through 2011. Production per farmer was \$458,906. Incomes on hog farms increased in 2011 due to higher prices received for pork and higher crop returns. Depreciation of \$34,541 was \$2,789 higher than in 2010.

Management returns were \$169,440 in 2011 compared to \$134,434 in 2010. Management returns were \$35,006 more than in 2010 and \$134,299 above the average for

2007 through 2011. Management returns for this type of farm were the highest for any other type of farm in Illinois. Capital purchases were \$79,298, which was \$28,515 higher than in 2010 and \$33,697 higher than the average for 2007 through 2011. Farm production per one dollar of nonfeed costs of \$1.27 was the highest for any type of farm in Illinois. Purchased feed and livestock for this group totaled \$518,716, \$95,268 less than 2010. The average interest paid on these farms was \$25,313. That was the second highest of the farms in this size range. Farm operators in this group owned 28 percent of the land they farmed, crop-shared 27 percent, and cash-rented 45 percent. Total labor was 23.9 months, 11.9 months of which was hired. Corn was planted on 59 percent of the acres and soybeans on 34 percent. The average corn yield was 173 bushels per acre and the average soybean yield 60 bushels per acre.

Beef farms. The operator's net farm income for Illinois beef farms having 340 to 799 acres averaged \$213,208 in 2011 (Table 6). This figure was \$92,074 higher than the

Table 6. Averages for Selected Total Farm Items on 340- to 799-Acre Illinois Grain, Hog, and Beef Farms

	Grain farms			Hog farms			Beef farms		
	2011	2010	2007-11 average	2011	2010	2007-11 average	2011	2010	2007-11 average
Number of farms	827	804	761	14	23	23	5	9	9
Total acres	602	596	604	616	588	597	580	585	653
Soil-productivity rating	82	82	82	78	81	78	75	73	71
Percent land owned.....	26	26	25	28	24	23	47	35	43
Percent land crop shared	34	36	37	27	28	25	7	19	14
Percent land cash rented	39	37	37	45	49	52	46	46	43
Cash operating income...	\$394,283	\$318,958	\$326,127	\$1,149,845	\$1,182,606	\$969,562	\$1,207,390	\$859,251	\$688,594
Less purch. feed, lvstk....	<u>10,404</u>	<u>6,758</u>	<u>5,457</u>	<u>518,715</u>	<u>613,984</u>	<u>476,400</u>	<u>736,641</u>	<u>463,260</u>	<u>336,177</u>
Net cash op. income.....	\$383,879	\$312,200	\$318,703	\$631,130	\$568,622	\$493,162	\$470,749	\$395,991	\$352,417
Accounts rec. change.....	438	(308)	(77)	(525)	(1,504)	(1,585)	207	(3,791)	(209)
Inventory change.....	<u>46,358</u>	<u>47,209</u>	<u>31,733</u>	<u>112,197</u>	<u>75,969</u>	<u>34,570</u>	<u>137,418</u>	<u>46,882</u>	<u>12,948</u>
Value of farm prod.....	\$430,675	\$359,101	\$350,359	\$742,802	\$643,087	\$526,147	\$608,374	\$439,082	\$365,075
Total cash op. expenses...	\$258,308	\$225,545	\$224,501	\$478,087	\$446,357	\$404,177	\$382,408	\$309,065	\$270,043
Prepaid-unpaid change..	(10,464)	(8,253)	(6,822)	(20,253)	(26,039)	(7,834)	(28,460)	(18,853)	(11,090)
Annual depreciation.....	<u>25,881</u>	<u>22,312</u>	<u>19,111</u>	<u>34,541</u>	<u>31,752</u>	<u>29,497</u>	<u>41,218</u>	<u>27,736</u>	<u>25,977</u>
Net farm income	\$156,950	\$119,497	\$113,569	\$250,427	\$191,017	\$100,307	\$213,208	\$121,134	\$80,145
Net farm inc. per op'er....	\$153,465	\$116,620	\$111,525	\$250,426	\$176,743	\$94,571	\$196,173	\$112,676	\$75,368
Unpaid labor charge	31,869	31,143	29,431	39,671	38,053	36,378	44,880	44,778	39,685
Returns to cap. & mgmt...	125,080	88,355	84,137	210,756	152,964	63,929	168,327	76,357	40,459
Interest charge on capital .	<u>33,788</u>	<u>29,814</u>	<u>27,875</u>	<u>41,316</u>	<u>18,530</u>	<u>28,788</u>	<u>58,518</u>	<u>37,737</u>	<u>44,309</u>
Management returns	\$ 91,292	\$ 58,541	\$56,262	\$169,440	\$134,434	\$35,141	\$109,809	\$ 38,620	\$(3,850)
Total cash income ^a	\$383,878	\$312,200	\$318,703	\$631,130	\$568,622	\$493,163	\$470,749	\$395,991	\$352,417
Total cash expenditures ^a	<u>322,080</u>	<u>269,865</u>	<u>270,448</u>	<u>557,385</u>	<u>497,140</u>	<u>449,779</u>	<u>457,858</u>	<u>336,775</u>	<u>316,819</u>
Cash balance.....	\$ 61,798	\$ 42,335	\$ 48,255	\$ 73,745	\$ 71,482	\$ 43,384	\$ 12,891	\$ 59,216	\$ 35,598
Capital purchases.....	63,772	44,319	45,947	79,298	50,783	45,601	75,450	27,710	46,776

^aIncludes sales or purchases of capital items.

2010 figure and \$133,063 higher than the average from 2007 through 2011. Higher market cattle prices and increases in crop returns contributed to the higher earnings. Net farm income for these farms was the second highest of any type of farm in the sort. Feed cost per hundredweight produced increased 21 percent, while the average price received for market cattle increased 21 percent in 2011 compared to 2010. The price paid for feeder cattle went up about 24 percent from the year before. The value of farm production for this group of farms averaged \$608,374, or \$169,292 more than in 2010. Cash operating income averaged \$1,207,390, purchased feed and livestock totaled \$736,641, and net cash operating income averaged \$470,749.

Management returns of \$109,809 in 2011 for these farms were the second highest for any type of farm in the acreage range study. Management returns averaged a *negative* \$3,850 for the period 2007 through 2011. Capital purchases were \$75,450 in 2011, compared to \$27,710 in 2010 and \$45,212 in 2009. The 2007 through 2011 average was \$46,776. Depreciation of \$41,218 was \$13,482 above 2010. Cash operating expenses, excluding purchases of feed

and livestock, totaled \$382,408. The net cash balance for these farms was \$12,891.

Costs and returns to produce beef from 2008 through 2011, based on a detailed breakdown of individual costs from a selected sample of beef farms, are shown in Table 14. Total returns exceeded total costs in 2011 and 2010, but in 2009 and 2008 total costs exceeded total returns. An analysis of feeder cattle enterprises is discussed in detail under the livestock section.

Farm operators in this group owned 47 percent of the land they farmed. They crop-shared 7 percent and cash-rented 46 percent. Operators in this group averaged the second lowest amount of interest paid, \$25,050. They planted 66 percent of their tillable land to corn or corn silage. They also had 10 percent of their tillable land in hay and pasture. These farms used 16.5 months of total labor, with 2.9 of that hired labor. The average corn yield on these farms was 175 bushels per acre and the average soybean yield was 59 bushels per acre. In 2010, corn and soybeans yields on these farms averaged 156 and 52 bushels per acre, respectively.

Farms where beef cattle are raised or fed continue to compete for resources in Illinois where nonmarketable resources—such as roughage, labor, and buildings—or very high levels of management are available. In recent years, this type of farm has survived primarily where large amounts of debt-free capital have been combined with very high levels of management. Higher crop returns have helped them endure the volatile, cyclical nature of the cattle enterprise

Dairy farms. The operator's net farm income for Illinois dairy farms having 340 to 799 acres averaged \$200,886 in 2011 (Table 8). This figure was \$52,621 above the 2010 figure and \$81,965 above the 5-year average from 2007 through 2011. The 2011 net farm income for these farms was the highest ever for Illinois dairy farms. The second highest income was recorded in 2007. The farms averaged \$29,491 hundredweight of milk produced.

Higher milk prices and higher crop returns were the main factors for the increase in earnings. The value of farm production was \$736,142, the second highest for any type of farm in Illinois in 2011. This was \$82,442 higher than 2010 and \$138,571 higher than the 2007–2011 average. It was the highest ever for these farms. The value of inventory increased by \$52,098, while cash operating income increased by \$119,911. Cash operating expenses totaled \$492,248, 6 percent more than in 2010. (A detailed breakdown of the cost of producing milk is given in Table 16.) Management returns were \$100,215. Management returns were \$51,357 higher than the 2010 figure and \$72,239 higher than the 5-year average from 2007 through 2011. Management returns were the second lowest for any type of farm in this acreage range. Capital purchases increased to \$111,398 in 2011, compared to \$98,263 in 2010 and \$48,664 in 2009. The 2007 through 2011 average was \$86,568. This is the highest amount of capital purchases ever for these type

Table 7. Average Cost per Tillable Acre to Grow Corn and Soybeans on Central Illinois Grain Farms with No Livestock

	Corn		Soybeans	
	2011	2010	2011	2010
Number of farms.....	659	628	659	628
Acres grown per farm.....	717	684	532	542
Yield per acre, bu.....	174	168	56	60
Variable nonland costs				
Soil fertility.....	\$159	\$122	\$ 55	\$ 42
Pesticides.....	50	44	31	27
Seed.....	96	95	62	61
Drying and storage.....	27	35	5	7
Machinery repairs, fuel, and hire.....	49	47	45	43
Total, variable costs.....	\$381	\$343	\$198	\$180
Other nonland costs				
Labor.....	\$ 37	\$ 40	\$ 37	\$ 38
Buildings.....	11	10	9	8
Machinery depreciation.....	39	38	35	34
Nonland interest.....	51	50	46	45
Overhead.....	45	35	42	33
Total, other costs.....	\$183	\$173	\$169	\$158
Total, nonland costs.....	\$564	\$516	\$367	\$338
Land costs				
Taxes.....	\$ 34	\$ 31	\$ 34	\$ 31
Adjusted net rent.....	190	170	190	170
Total, land costs.....	\$224	\$201	\$224	\$201
Total, all costs.....	\$788	\$717	\$591	\$539
Nonland cost per bu.....	\$3.24	\$3.07	\$6.55	\$5.63
Total, all costs per bu.....	\$4.53	\$4.27	\$10.55	\$8.98

Average yield, past 4 yrs....	190	193	56	55
Total, all costs per bu.....	\$4.15	\$3.72	\$10.55	\$9.80

of farms. Annual depreciation on these farms averaged \$52,896. These farms used 38.5 months of total labor, 20.2 months of which was hired labor. The total labor used was the highest for any type of farm in the state. The average interest expense paid by these operators, \$31,347, was the highest of any farm type.

Farm operators in this group owned 35 percent of the land they farmed and cash-rented 58 percent. About 11 percent of the land they farmed was in hay ground, the highest for any type of farm; 49 percent was in corn and corn silage. Over 96 percent of the value of crop produced was fed to livestock. The average corn yield was 159 bushels per acre for these farms, which is 1 bushel per acre less than in 2010. The average price received for milk in 2011 was 25 percent higher than the average price received in 2010.

LIVESTOCK ENTERPRISES

The returns per \$100 of feed fed from various livestock enterprises and the price of corn during each of the past 15

Table 8. Averages for Selected Total Farm Items on 340- to 799-Acre Illinois Dairy Farms

	2011	2010	2007–11 average
Number of farms.....	26	21	22
Total acres.....	567	598	566
Soil productivity rating.....	67	68	69
Percent land owned.....	35	34	34
Percent land crop shared.....	7	9	8
Percent land cash rented.....	58	56	57
Cash operating income.....	\$860,785	\$740,874	\$700,653
Less purch. feed, lvstk.....	<u>184,491</u>	<u>141,895</u>	<u>146,132</u>
Net cash operating income.....	\$676,294	\$598,979	\$554,521
Accounts receivable change...	7,750	(2,857)	1,246
Inventory change.....	<u>52,098</u>	<u>57,578</u>	<u>41,804</u>
Value of farm production.....	\$736,142	\$653,700	\$597,571
Total cash op. expenses.....	\$492,248	\$466,576	\$436,787
Prepaid-unpaid change.....	(9,888)	(10,930)	(3,207)
Annual depreciation.....	<u>52,896</u>	<u>49,789</u>	<u>45,070</u>
Net farm income.....	\$200,886	\$148,265	\$118,921
Net farm income per operator	\$152,194	\$126,420	\$96,336
Unpaid labor charge.....	60,415	52,464	51,890
Returns to capital and mgmt...	140,470	95,801	67,031
Interest charge on capital.....	<u>40,255</u>	<u>46,943</u>	<u>39,055</u>
Management returns.....	\$100,215	\$ 48,858	\$27,976
Total cash income ^a	\$676,294	\$598,979	\$554,521
Total cash expenditures ^a	<u>603,647</u>	<u>564,839</u>	<u>523,354</u>
Cash balance.....	\$ 72,647	\$ 34,140	\$ 31,167
Capital purchases.....	111,398	98,263	86,568

^aIncludes sales or purchases of capital items.

years are given in Table 9. This table also shows 15-year and 5-year averages. The difference between the average return figure and a feed cost of \$100 represents the margin available for cash expenses other than feed, labor, depreciation on equipment, interest on investment, and profit.

The margin needed to cover nonfeed costs varies with the kind of livestock and depends on the proportion of total production costs represented by feed. The 15-year averages from 1997 through 2011 represent the approximate level of return at which farmers have been willing to maintain livestock production. The average may not represent a breakeven return on all farms because some farmers may discount market prices for some of the resources used in producing livestock. If farmers already have facilities for livestock, they need only to cover direct operating costs to continue production. However, when livestock production is a new or a long-term enterprise, farmers hope to cover all fixed and variable costs. Otherwise, they should not undertake the enterprise.

Patterns and fluctuations

As individual farmers try to increase profits, they tend to curtail livestock production when the return per \$100 of feed fed is below the 15-year average. This tendency on the part of producers causes supplies of livestock products to fluctuate.

In farrow-to-finish hog production, returns tend to follow a noticeably cyclical pattern (Table 9). They tend to exceed the 5-year average for 1 or 2 years and then drop below this average for 1 or 2 years. Returns per \$100 of feed fed of \$146 in 2011 were above the 5-year average of \$136. The 2011 return was below the 1997 through 2011 average. The 2011 return of \$146 was the second highest during the last 5 years, while the 2004 and 2005 returns of \$216 were the highest for any year during the last 15 years.

The returns from feeder cattle vary greatly from year to year. The long-run averages shown in Table 9 indicate that the cattle-feeding business has not been paying average market rates for all resources used by the enterprise, although the 2003 through 2005 time period resulted in some of the better returns on record. Table 9 shows the return of \$137 per \$100 of feed fed for the most recent 5-year period (2007 through 2011) to be below the previous 5-year period and only slightly below the 15-year average of \$142. The 2011 return of \$153 per \$100 of feed fed was \$16 above the most recent 5-year average. Above-average skills are needed in buying, selling, and feeding to meet the competition from other uses for time and money on farms with feeder cattle. Identifying cyclical income movements over a 15-year period in the beef-cattle industry is difficult because this industry is more complex and adjusts more slowly than other livestock enterprises.

The average return above feed and purchased animal costs for dairy enterprises of \$2,205 per cow in 2011 was \$468 above the 5-year average of \$1,737 (Table 10). These

returns indicate that the average dairy enterprise has not covered the total estimated cost of production of \$1,924 per cow from 2006 through 2010. The 2011 return per \$100 of feed fed of \$181 was above the past 5-year average of \$175.

For the beef-herd enterprise, the average returns above the cost of feed and purchased animals for the period from 2007 through 2011 showed great volatility. Producers combining the returns of 2008, 2009, and 2010 would have been hard-pressed to cover feed costs. Historically, the beef-herd enterprises generate enough returns to cover cash costs but not total nonfeed costs (Table 10). The implication is that the beef enterprise competes most favorably on farms where the resources of labor, capital, and management are plentiful and have few alternate uses. This enterprise is most commonly found on farms with nontillable pasture that has limited alternative uses. In the beef-cow enterprise, returns above the cost of feed per cow were \$66 during the past 5 years. The 2011 return of \$189 covered feed costs, but not total nonfeed costs, estimated at \$197 per cow.

Raising livestock has become more competitive and specialized. Average profit margins are narrow. Fewer farmers are willing to stay in business, because returns in some enterprises barely cover direct operating costs. As an alternative, more producers are specializing in a certain phase of livestock production and entering contractual arrangements to guarantee a certain return. While these contracts may limit upside potential, they can also reduce risk during times of low prices. Expansion plans that require large investments for new facilities should be based on an estimated return high enough to cover all costs. Fluctuations in livestock returns can involve a risk in low-return years.

Hog enterprises

The information on farrow-to-finish enterprises in Table 11 is based on a sample of 31 enterprises farrowing 10 litters or more a year. Farms were omitted from the sample if the number of hogs purchased exceeded 10 percent of pigs weaned, which eliminated farms with combined farrowing and feeder-pig operations. (Information on feeder-pig finishing enterprises is given in Table 13.) The average size of farrow-to-finish enterprises on all recordkeeping farms in 2011 was 358 litters. Average pigs weaned per litter of 9.40, was above the 2010 figure of 8.96. The 2,444 pounds of pork produced per litter was 169 pounds higher than 2010. The 2011 records summarized here for the “all farms” group show that the return of \$20.18 above feed costs per 100 pounds of pork produced was 47 cents above the 2010 return of \$19.71. The 2011 return was the highest since 2005.

The 5-year average return above feed costs per 100 pounds produced was \$12.85 (Table 10). Even the 5-year average can vary significantly because of wide fluctuations in returns from year to year. Detailed records show that an average farmer with existing facilities needed a return above feed costs of \$18.90 per 100 pounds to pay for all nonfeed costs in the 2006 through 2010 time period. The return above all costs during this 5-year period of *negative* \$6.05 (\$12.85 minus \$18.90) has led to very little expansion and increase in pork production. Pork production has turned from a profitable industry to an unprofitable one, mainly due to higher feed costs. Despite the negative returns, pork production has continued to increase. Fortunately, strong export demand has supported pork prices. Depending on

Table 9. Returns per \$100 of Feed Fed to Different Classes of Livestock

	Farrow-to-finish hogs (\$)	Feeder pig finishing (\$)	Feeder pig production (\$)	Feeder cattle bought (\$)	Dairy cow herds (\$)	Beef cow herds (\$)	Native sheep raised (\$)	Yearly price of corn (\$)
1997.....	161	122	238	122	169	116	141	2.71
1998.....	104	97	279	105	220	107	128	2.31
1999.....	178	150	374	160	233	149	131	1.97
2000.....	212	166	327	147	197	141	140	1.89
2001.....	203	150	331	128	233	138	97	1.94
2002.....	151	121	433	128	198	130	154	2.19
2003.....	168	132	314	200	202	148	165	2.30
2004.....	216	158	287	165	222	178	161	2.49
2005.....	216	143	347	167	245	170	111	2.02
2006.....	183	121	349	124	192	137	117	2.41
2007.....	138	136	249	142	218	111	134	3.42
2008.....	115	131	149	102	172	86	106	4.70
2009.....	123	104	..a	126	138	109	75	3.76
2010.....	156	127	..a	163	168	135	139	3.86
2011.....	146	153	..a	153	181	145	173	6.15
Averages								
1997–2011.....	165	134	..a	142	199	133	131	2.94
1997–2001.....	172	137	310	132	210	130	127	2.16
2002–2006.....	187	135	346	157	212	153	142	2.28
2007–2011.....	136	130	..a	137	175	117	125	4.38

^aData not available.

Table 10. Variations in Returns to Livestock Enterprise Units, 2007 through 2011

	Hogs (per cwt)	Feeder-pig finish- ing (per cwt)	Feeder cattle (per cwt)	Dairy cattle (per cow)	Beef herd: calves sold (per cow) ^a
Return above cost of feed and purchased animals					
2007.....	\$11.04	\$ 6.67	\$21.37	\$2,360	\$ 45
2008.....	5.84	1.77	1.60	1,775	(51)
2009.....	7.50	3.46	13.43	838	32
2010.....	19.71	15.36	35.94	1,506	115
2011.....	<u>20.18</u>	<u>18.88</u>	<u>36.77</u>	<u>2,205</u>	<u>189</u>
Five-year average.....	\$12.85	\$ 9.23	\$21.82	\$1,737	\$ 66
Nonfeed costs, 2006 through 2010^b					
Direct cash.....	\$10.23	\$ 6.82	\$14.44	\$1,297	\$134
Other costs.....	<u>8.67</u>	<u>4.49</u>	<u>13.26</u>	<u>627</u>	<u>63</u>
Total.....	\$18.90	\$11.31	\$27.70	\$1,924	\$197

^aThe feed cost for beef herds includes up to \$60 of hay equivalent from salvage roughage.

^bEstimates of annual nonfeed costs are based on enterprise cost studies of operative units.

adjustments in pork production levels and to what level feed costs might drop, the pork industry may return to profitability in 2012. Pork production was down 2.4 percent in 2010 and up 0.5 percent in 2011, and it is expected to increase about 2.4 percent in 2012.

The farrow-to-finish enterprise records for 2011 reported in Table 11 were also sorted by the number of litters produced. The group farrowing 350 or more litters averaged 811 litters. Compared with the average feed cost for all farrow-to-finish enterprises, feed cost per 100 pounds of pork produced was \$2.03 lower for the 350-or-more litter group.

The large producers paid slightly less per ton for commercial feed but had better feed conversion. The average price received for hogs sold by large producers, or the net at the farm, was 28 cents more than the average net received by all producers.

A substantial profit margin is required to compensate for the risk and detailed management involved in hog production compared with other resource uses. Large-scale hog production in modern confinement facilities requires high capital investment. The future recovery of this investment is uncertain. The salvage value of confinement hog facilities is low. In addition, acquiring the managerial skills for the large-scale production of hogs in confinement may discourage any rapid expansion of large hog-producing units. Pork production in 2011 increased 0.5 percent due to higher prices received that offset the higher feed costs. Pork production in 2012 is expected to increase compared to 2011. Hog prices have moved up due to decreasing pork production over the last couple of years. Higher feed and fixed costs have increased the cost of production, resulting in lower profit margins.

The data on hog enterprises in Table 12 show a detailed breakdown of costs and returns from a group of specialized commercial hog farms for 2008, 2009, 2010, and 2011. The value of the feed fed to hogs was more than 75 percent of the crop returns produced on these farms. This intensity

of livestock feeding indicates a commitment of major resources to the hog enterprise. The producers in this group probably exercise a higher level of management.

The cost data reported in Table 12 have been divided into two categories: cash costs and other costs. This classification of production costs is important when short-term management decisions are being made concerning the volume of production, particularly during periods of low prices.

As reported in Table 12, cash costs of production in 2011 was \$52.74 per 100 pounds of pork produced. Feed is included as a cash cost, although for some producers a major share of the grain is raised on the farm. The readily available alternative cash market for grain makes raised feed the same as cash.

The other category of costs includes depreciation, labor, and an interest charge on all capital. Part of the labor and interest charge is a cash cost on most farms. The proportion of labor that is hired depends largely on the size of the farm.

Feed costs increased 26 percent as one compared 2011 to 2010. Total nonfeed costs decreased 90 cents per 100 pounds of pork produced with maintenance and power expenses representing most of the decrease. Feed costs increased as grain prices increased. Total cost of production increased from 2010 to 2011 by \$7.83 (15 percent) per 100 pounds of pork produced.

From 2008 through 2011, the return above all costs averaged a *negative* \$4.29 per 100 pounds of pork produced. Management practices, such as the choice of building systems, method of transporting hogs to market, type of market used, and on- versus off-farm systems for feed processing affect the individual cost items reported in Table 12. But the return above all costs should accurately reflect the relative efficiency of the of hog enterprises.

Feeder cattle and feeder pig finishing enterprises

Data for 2011 on the feeder cattle and feeder pig finishing enterprises are presented in Tables 13 and 14. These

Table 11. Hog Enterprises, 2011 Averages per Farm

	All farms	Farrow-to-finish enterprises ^a
Number of farms.....	31	10
Pork produced, lbs.....	874,574	2,017,756
Pork prod. per litter, lbs.....	2,444	2,487
Total returns.....	\$562,194	\$1,286,895
Value of feed fed.....	\$385,733	\$849,028
Returns per \$100 feed fed.....	\$146	\$152
Number litters farrowed.....	358	811
Pigs farrowed per litter.....	10.91	11.25
Pigs weaned per litter.....	9.40	9.65
Litters per female year.....	1.91	2.00
Pigs weaned per female year...	18.12	19.67
Number pigs weaned.....	3,365	7,826
Death loss, % lbs produced.....	2.4	2.7
Wt per market hog sold, lbs.....	267	268
----- per cwt produced -----		
Price received—market.....	\$65.33	\$65.61
Total returns.....	64.28	63.78
Feed costs.....	<u>44.11</u>	<u>42.08</u>
Return above feed.....	\$20.18	\$21.70
Farm grains/complete feed, lbs	229	221
Commercial feed, lbs.....	<u>86</u>	<u>83</u>
Total concentrates, lbs.....	314	304
Cost per cwt supplement.....	\$22.12	\$21.40
Cost per cwt concentrates.....	\$14.02	\$13.83

^a350 or more litters per farm.

enterprise summaries include weights and values on partly finished animals purchased in previous years and on animals purchased during the current year.

The average amount of pork produced per farm from feeder pig enterprises was 1,471,207 pounds in 2011 (Table 13). At 240 pounds of gain per head, this figure amounted to 6,130 head fed per farm in 2011. These feeder pig enterprises represent those that buy weaner pigs and finish them.

The return above the cost of feed and purchased animals from 2007 through 2011 averaged \$9.23 per 100 pounds of gain. This return was \$2.08 below the \$11.31 of all nonfeed costs for the period 2006 through 2010 (Table 10). The 2011 return of \$18.88 was \$3.52 above the 2010 return and \$9.65 above the 2007 through 2011 return. Higher price received was the main reason for the higher returns.

Given that a 475-pound unit of gain equals one head of feeder cattle, the average of 181,991 pounds of beef produced per farm in 2011 (Table 13) equals 383 head of feeder cattle per farm. That figure is higher than the year before. The return per \$100 of feed for feeder cattle enterprises was \$153 in 2011, in comparison with a 5-year average of \$137 and a 15-year average of \$142 (Table 9). The 2011 returns were the second highest in the last 5 years.

The price paid for feeders was \$25.74 per 100 pounds higher in 2011 than it was in 2010; the price received for cattle sold in 2011 was \$19.62 higher per 100 pounds than the price received in 2010. The average weight of purchased animals was 648 pounds; the average weight of animals sold was 1,281 pounds. Feed cost was \$69.08 per

Table 12. Average Costs and Returns for Farrow-to-Finish Hog Enterprises, 2008 through 2011

	2011	2010	2009	2008	2008–11 average
Number of farms.....	9	9	13	14	11
Tillable acres.....	734	720	602	761	704
Number of litters.....	736	818	575	614	686
Total returns.....	\$65.35	\$53.69	\$38.83	\$44.36	\$50.56
----- per cwt pork produced -----					
Cash costs					
Feed.....	\$41.68	\$32.95	\$31.92	\$37.07	\$35.91
Operating expenses:					
Maintenance and power ^a	\$ 5.45	\$ 6.39	\$ 4.62	\$ 5.27	\$ 5.43
Livestock expenses.....	4.22	3.92	3.10	3.92	3.79
Insurance, taxes, and overhead.....	<u>1.39</u>	<u>1.36</u>	<u>1.68</u>	<u>1.73</u>	<u>1.54</u>
Total operating expenses.....	\$11.06	\$11.67	\$ 9.40	\$10.92	\$10.76
Total cash costs.....	\$52.74	\$44.62	\$41.32	\$47.99	\$46.67
Other costs					
Depreciation ^b	\$1.76	\$1.89	\$1.22	\$1.26	\$1.53
Labor.....	4.43	4.59	5.47	4.57	4.77
Interest charge on all capital.....	<u>1.75</u>	<u>1.75</u>	<u>1.67</u>	<u>2.37</u>	<u>1.89</u>
Total other costs.....	\$7.94	\$8.23	\$8.36	\$8.20	\$8.18
Total nonfeed costs.....	\$19.00	\$19.90	\$ 17.76	\$ 19.12	\$18.95
Total all costs.....	\$60.68	\$52.85	\$ 49.68	\$ 56.19	\$54.85
Return above all costs.....	\$ 4.67	\$ 0.84	\$(10.85)	\$(11.83)	\$(4.29)

^aIncludes utilities, machinery, equipment and building repairs, machine hire, and fuel.

^bIncludes machinery, equipment, and building depreciation.

100 pounds produced in 2011; it was \$57.24 in 2010. Feed costs increased in 2011 and were considerably above the last 10-year average. Higher market cattle prices did offset an increase in feed costs of \$11.84 per 100 pounds produced, resulting in higher returns above feed in 2011.

Each 100 pounds of beef produced required 614 pounds of concentrates and 88 pounds of hay. The amount of corn silage used in 2011 averaged 237 pounds; other silage averaged 35 pounds, for a total of 272 pounds. Silage use by the feeder cattle enterprise has been variable in the past 5 years; the 10-year average for the period 1992 through 2001 was 515 pounds per 100 pounds of beef produced, compared to 346 pounds for the period 2002 through 2011. The use of 268 pounds of silage per 100 pounds of beef produced in 2010 was the smallest amount fed since 1963. The high initial investment required for many silage feeding operations may denote more reliance on higher concentrate and dry roughage facilities.

This data does not show the wide variation in profits among cattle-feeding programs. The data on Illinois feeder cattle enterprises in Tables 9, 10, and 13 reflect the composite results of all qualities and ages of cattle fed. The data are heavily weighted, with good to choice calves and yearlings as the predominant cattle feeding system. Most farmers feed more than one drove of cattle each year to better utilize their fixed investments in mechanized feedlots.

The return above the cost of feed and purchased animals averaged \$21.82 per 100 pounds of beef produced from 2007 through 2011 (Table 10). During this period, returns ranged from \$1.60 in 2008 to \$36.77 in 2011. The returns above feed costs are below the estimated cost of \$27.70 per 100 pounds produced required to pay for all nonfeed costs for the average cattle feeder for the past 5 years. The returns above feed costs are up because of the higher returns in 2011.

The data in Table 14 show a detailed breakdown for the period from 2008 through 2011 on costs and returns to produce beef on beef-feeding farms. The farms included had no other livestock. All costs were accounted for, either in crops or in the beef-feeding enterprise. The figure for feed costs is based on the assumption that all the grain and roughage fed was produced on the farm and was marketable.

The data show that these farms were finishing an average of 841 feeders each year from 2008 through 2011. The 4-year average total cash cost including feed and interest charged on cattle, was \$80.73 per 100 pounds of beef produced. The average total returns of \$81.17 for the same period was more than total cash costs by 44 cents per 100 pounds produced, or about \$2.99 per feeder.

Some feeders may be able to discount some of these cash costs for roughage fed and for interest on cattle if they had no market for the roughage or were able to use their own money to invest in cattle without paying interest. Total other costs of \$8.43 per 100 pounds of beef produced, or \$57 per feeder (\$8.43 multiplied by 6.79 hundredweight of

gain per feeder), include depreciation, labor, and interest. Adding the other costs to cash costs results in total costs of \$89.16 per hundredweight over the 4-year period. This was \$7.99 per hundredweight more than the average total returns of \$81.17.

A number of cattle feeders in Illinois apparently will feed cattle as long as their return covers feed and cash costs even if it falls short of paying market rates for some nonmarketable roughage and fixed and overhead costs; however, this number is declining.

Farmers' values, goals, and attitudes have been important in maintaining production, but the dictates of the market, technological changes, and shifts in the basic factors of supply and demand continue to cause changes. The return reflected in these averages for the feeder-cattle enterprise suggests that to be profitable, farmers must produce the kind of beef consumers want at the lowest possible cost. Even though farms may have nonmarketable feeds, unemployed labor, or fixed capital investments in facilities, these data indicate returns are not consistently high enough to justify building new facilities.

Dairy enterprises

The minimum size for a herd included in this analysis was 10 milk cows. The average herd size on recordkeeping farms increased steadily at an average of 1.8 cows per year, from 42 in 1970 to 63 in 1982. Herd size remained steady, between 63 and 70 cows, up to 1994. From 1994 until 2004,

Table 13. Feeder Cattle and Feeder Pig Finishing Enterprises, 2011 Averages per Farm

	Feeder cattle	Feeder-pig finishing ^a
Number of farms.....	84	37
Total lbs produced	181,991	1,471,207
Total returns.....	\$192,637	\$798,914
Value of feed fed.....	\$125,715	\$521,514
Returns per \$100 of feed fed.....	\$153	\$153
Death loss, % lbs produced.....	2.7	2.1
Average weight purchased.....	648	13
Price paid per 100 lbs.....	\$132.60	\$306.73
Price received per 100 lbs.....	\$112.03	\$ 65.94
Average weight sold	1,281	272
	- - per cwt produced - -	
Total returns.....	\$105.85	\$54.30
Feed costs.....	<u>69.08</u>	<u>35.45</u>
Return above feed.....	\$ 36.77	\$18.86
Farm grains/complete feed, lbs	565	174
Supplement, lbs.....	<u>49</u>	<u>78</u>
Total concentrates, lbs.....	614	252
Hay, lbs.....	88	.. .b
Corn silage, lbs.....	237	.. .b
Other silage, lbs.....	35	.. .b
Hay equivalent, lbs.....	180	.. .b

^aPurchase weight of 20 lbs and less.

^bData not available.

herd size had been between 75 and 85 cows. Since 2004, herd size has been around 100 cows. The 2011 average herd size is 112.8 cows. There continue to be fewer and fewer dairy herds in Illinois. A few dairy producers have decided to expand their herds and make a long-term commitment to the dairy industry.

The return per \$100 of feed fed to dairy cattle in 2011 was \$181. The average for the period from 2007 through 2011 was \$175 (Table 9). In 2011, milk prices per hundredweight increased from \$16.30 to \$20.35. From 2010 to 2011, beef prices for market animals sold increased \$12.36 per hundred pounds, while feed costs increased \$1.53 per milk equivalent. Milk production per cow in 2011 of 21,226 pounds was up 435 pounds from 2010 and the highest on record.

Dairy farmers have reduced the amounts of pasture and dry hay and increased the amounts of grain and silage fed over the past two decades. Pasture days per animal unit dropped from 145 in 1960, to 50 in 1970, to 12 in 2011. This shift indicates that significant pasture days are a thing of the past on nearly all dairy farms in this sample. However, some producers are beginning to experiment

again with intensive rotational grazing as a means of lowering costs.

The herds in Table 15 were divided into groups based on size: the two “high efficiency” groups had 40 to 79 cows and 80 to 149 cows. Efficiency is measured by the return above cost of feed per cow. The larger herds averaged 104 cows, and the smaller herds averaged 59 cows. The return above feed costs per cow was higher for the larger herds, at \$1,913, compared to a return of \$1,091 for the smaller herds. The larger herds averaged 20,424 pounds of milk produced per cow, compared to 10,674 pounds for the smaller herds. Feed cost per milk equivalent was lower for the larger herds, at \$12.19, compared to \$14.73 for the smaller herds.

The average return above feed costs per cow for all dairy herds was \$2,205 in 2011 (Table 15). This figure compares with the recent 5-year average of \$1,737 per cow (Table 10). For the years 2006 through 2010, the 5-year average return above feed costs required to pay market prices for all nonfeed costs is estimated to be about \$1,924 per cow. Although the number of dairy herds has decreased, their size and efficiency have increased, and they have continued to increase the milk supply. Normal depreciation and

Table 14. Average Costs and Returns for Beef-Feeding Enterprises, 2008 through 2011

	2011	2010	2009	2008	2008–11 average
Number of farms.....	9	6	6	9	8
Average per farm					
Tillable acres.....	438	423	423	464	437
Hundredweight beef produced.....	4,233	4,406	3,479	3,855	3,993
Number head at 475-lb gain equivalents.....	891	928	732	812	841
Average weight purchased, lbs.....	497	529	548	697	568
Average weight sold, lbs.....	1,212	1,216	1,264	1,296	1,247
Price received per 100 lbs sold.....	\$108.46	\$ 88.40	\$80.14	\$ 92.67	\$ 92.42
Price paid per 100 lbs purchased.....	\$108.60	\$102.37	\$88.80	\$104.85	\$101.16
----- per cwt beef produced -----					
Cash costs					
Feed.....	\$75.62	\$55.24	\$58.35	\$62.34	\$63.89
Operating expenses					
Maintenance and power ^b	\$ 8.17	\$ 8.11	\$ 4.38	\$ 6.21	\$ 6.72
Livestock expense.....	5.97	3.96	3.26	5.60	4.70
Insurance, taxes, and overhead.....	1.16	1.19	1.76	2.52	1.66
Interest on cattle ^c	<u>4.62</u>	<u>4.69</u>	<u>4.64</u>	<u>5.13</u>	<u>4.77</u>
Total operating expenses.....	\$19.92	\$17.95	\$14.04	\$19.46	\$17.84
Total cash costs.....	\$95.54	\$73.19	\$72.39	\$81.80	\$80.73
Other costs					
Depreciation ^d	\$ 2.33	\$ 2.10	\$ 2.66	\$ 2.50	\$ 2.40
Labor.....	5.25	5.15	4.17	3.54	4.53
Interest on other capital.....	<u>1.81</u>	<u>0.97</u>	<u>1.48</u>	<u>1.77</u>	<u>1.51</u>
Total other costs.....	\$ 9.39	\$ 8.22	\$8.31	\$ 7.81	\$ 8.43
Total all costs.....	\$104.93	\$81.41	\$ 80.70	\$ 89.61	\$ 89.16
Total returns ^e	\$105.11	\$84.09	\$ 64.87	\$ 70.62	\$ 81.17
Return above all costs.....	\$ 0.19	\$ 2.68	\$(15.83)	\$(18.99)	\$(7.99)

^aAll grain fed was priced at the average market price for the year. Market values were used for roughage fed, while protein and minerals were charged at cost. All the feed fed is assumed to have been marketable.

^bIncludes utilities, machinery, equipment and building repairs, machine hire, and fuel.

^cInterest is a charge on the average value of beginning- and end-of-year inventories on hand. The rate was 5.5% for 2008, 5.0% for 2009 and 2010, and 4.5% for 2011.

^dIncludes machinery, equipment, and building depreciation.

^eSales less cost of purchased animals, plus or minus inventory value change. No credit has been calculated for reduced fertility cost when manure is applied to crops.

wear-and-tear will soon require the reinvestment of greater amounts of capital in some of these businesses.

The data in Table 16 on dairy enterprises show a detailed breakdown of milk production costs and returns for dairy farms by the number of cows in the herd from 2009 through 2011. The farms included had no other livestock. All costs were accounted for either in crops or in the dairy enterprise. The total costs for the dairy enterprise were reduced by the amount of income derived from an inventory increase in the pounds of beef produced or sold, which was valued at the average price received for all weights of dairy animals sold from 2007 through 2011. The residual costs, amounting to about 92 percent of the total enterprise costs, were then considered the net cost of producing milk.

The differences between the herds with 40 to 79 cows and those with 80 or more for the period from 2009 through 2011 is a combination of slightly higher returns and lower feed costs for the larger herds. For the 3-year period, the milk price for the larger herds is 41 cents per 100 pounds higher than that for the smaller herds, while feed costs per 100 pounds of milk sold for the larger herds were \$2.74

lower than for the smaller herds. Total nonfeed costs were 25 cents lower for the larger herds.

In 2011, feed costs per 100 pounds of milk produced increased for small herds (\$3.50) and for large herds (\$2.01). The cost of feed averaged about 54 percent of total production costs in Illinois dairy enterprises. Compared with 2010, total nonfeed costs increased 11 percent for the small herds, whereas the large herds increased by 8 percent. The total cost of producing 100 pounds of milk in 2011 was \$25.84 for the small herds and \$20.38 for the large herds. The average price received for milk in 2011 increased for both groups of dairy enterprises. With higher milk prices, returns still did not cover total production costs for the smaller group in 2011, while returns for the larger group barely did. Returns were a *negative* \$5.11 per 100 pounds of milk produced for the small herds and 38 cents for the large herds. The returns above all costs per 100 pounds of milk produced had averaged \$3.41 more for the large group than the small group from 2009 through 2011. Dairy assistance payments from the Farm Service Agency and patronage returns related to the dairy enterprise were not included in returns. This would add about 17 cents per 100 pounds of milk produced to returns.

Table 15. Dairy Cattle Enterprises, 2011 Averages per Farm

	All farms	High efficiency	
		40-79 cows	80-149 cows
Number of farms.....	63	19	25
Number of cows.....	112.8	58.7	104.2
Milk cows dry, %.....	12.1	15.3	10.9
Animal units in herd.....	217	109	192
Total returns.....	\$557,412	\$242,877	\$478,758
Value of feed fed.....	\$308,678	\$178,862	\$279,314
Return per \$100 of feed fed	\$181	\$136	\$171
Return above feed per cow .	\$2,205	\$1,091	\$1,913
Total milk produced, cwt	23,938	10,674	20,424
Lbs of milk per cow.....	21,226	18,193	19,593
Lbs of butterfat per cow.....	788	694	730
Total beef produced, lbs	78,054	36,085	82,598
Pounds of beef per cow.....	692	615	792
Death loss, % lbs produced.	13.0	20.2	12.0
Price received for:			
cwt milk.....	\$20.35	\$19.87	\$20.56
cwt beef	\$96.17	\$96.01	\$99.76
Per cwt milk equivalent ^a			
Feed cost.....	\$11.37	\$14.73	\$12.19
Grain/complete feed, lbs....	23	35	24
Protein and minerals, lbs...	19	16	21
Total concentrates, lbs.....	42	51	45
Hay and dry roughage, lbs	18	33	21
Corn silage, lbs.....	90	91	84
Other silage, lbs.....	42	70	43
Pasture days per animal unit	12	9	20
Hay equivalent per cow, tons	8.1	9.6	7.7
Concentrates per cow, lbs ...	10,021	10,486	9,879

^aMilk equivalent equals value of beef produced divided by average price received per cwt milk plus cwt of milk produced.

Beef-cow herds

The minimum size for a beef-cow herd included in Table 17 was 10 cows. Farms combining cow herds and purchased feeder cattle were not included. In addition to all farms, Table 17 gives an analysis of cow herds in which calves were sold at weaning time, comparing them with cow herds in which calves were finished to slaughter weights. From 1956 through 1969, the average size of the herd on all farms ranged from 25 to 30 cows. From 1970 to 1973, the average grew to about 40 cows per herd and remained stable through 1989. Since 2001, the herd size has been about 50 to 60 cows. The herd size was 58 cows in 2011, 3 higher than in 2010. Most Illinois farmers who maintain a beef-cow herd do so as a supplemental enterprise to market nonsalable feeds and labor.

The return per \$100 of feed fed to beef-cow herds where the calves are sold averaged \$145 in 2011. The returns for the 5-year period from 2007 through 2011 averaged \$117, which is below the 15-year average of \$133 for the period from 1997 through 2011 (Table 9). Beef prices received in 2011 averaged \$117.65 per hundredweight, an increase of \$20.63 from prices in 2010. Feed costs per 100 pounds of beef produced increased by \$17.99 to \$83.85 in 2011.

Since 2007, the return above feed costs per cow for the average farmer to feed out calves rather than sell them at weaning has been about \$169 per cow. Additional returns are needed for the added costs of labor, buildings, and capital required to feed out the calves. In 2011, the return above feed costs per cow for feeding calves to market weight was \$370 more than selling them at weaning.

Table 16. Average Milk Production Costs and Returns by Size of Herd, 2009 through 2011

	40–79 cows in herd			80 or more cows in herd		
	2011	2010	2009	2011	2010	2009
Number of farms	9	7	14	21	18	26
Tillable acres	181	170	196	431	351	445
Number of cows.....	61.6	57.1	58.8	230.9	187.2	192.3
Milk per cow, lbs.....	18,431	18,474	18,734	23,736	22,982	22,503
	----- per 100 pounds of milk produced -----					
Price received.....	\$20.73	\$16.46	\$13.16	\$20.76	\$16.44	\$13.39
Cash costs						
Feed	\$15.10	\$11.60	\$10.42	\$10.57	\$ 8.56	\$ 8.94
Operating expenses						
Maintenance and power ^a	2.34	2.29	2.31	2.53	2.03	1.99
Livestock expense.....	3.17	2.56	2.14	2.79	2.84	2.94
Insurance, taxes, and overhead	0.13	0.20	0.31	0.24	0.20	0.26
Total operating expenses.....	\$ 5.64	\$ 5.05	\$ 4.76	\$ 5.56	\$ 5.07	\$ 5.19
Total cash costs.....	\$20.74	\$16.65	\$15.18	\$16.13	\$13.63	\$14.13
Other costs						
Depreciation ^b	\$ 1.06	\$ 0.85	\$ 0.80	\$ 0.80	\$ 0.65	\$ 0.76
Labor	3.14	2.85	2.55	2.56	2.47	2.50
Interest charge on all capital.....	0.90	0.89	0.90	0.89	0.90	0.89
Total other costs	\$ 5.10	\$ 4.59	\$ 4.25	\$ 4.25	\$ 4.02	\$ 4.15
Total nonfeed costs.....	\$10.74	\$ 9.64	\$ 9.01	\$ 9.81	\$ 9.09	\$ 9.34
Total all costs.....	<u>\$25.84</u>	<u>\$21.24</u>	<u>\$19.43</u>	<u>\$20.38</u>	<u>\$17.65</u>	<u>\$18.28</u>
Return above all costs.....	(\$5.11)	\$(4.78)	\$(6.27)	\$(0.38)	\$(1.21)	\$(4.89)

^aIncludes utilities, machinery, equipment and building repairs, machine hire, and fuel.

^bIncludes machinery, equipment, and building depreciation.

Table 17. Beef-Cow Enterprises, 2011 Averages per Farm

	All farms	Calves sold	Calves fed out
Number of farms.....	142	59	31
Number of cows in herd.....	58	59	61
Animal units in herd.....	.. . ^a	.. . ^a	108
Total lbs produced	39,704	24,973	68,360
Beef per cow, lbs.....	689	420	1,122
Total returns.....	\$52,313	\$36,329	\$84,999
Value of feed fed.....	\$33,291	\$25,073	\$50,929
Return per \$100 feed fed.....	\$157	\$145	\$167
Return above feed per cow	\$330	\$189	\$559
Death loss, lbs.....	2,555	2,568	2,839
% lbs produced.....	6.4	10.3	4.2
Weight per animal sold, lbs	721	564	1,015
Price per cwt sold—market.....	\$117.65	\$125.85	\$111.38
	----- per cwt produced -----		
Feed costs.....	\$83.85	\$100.40	\$74.50
Grain/complete feed, lbs.....	148	127	188
Protein and minerals, lbs.....	78	123	62
Total concentrates, lbs.....	226	250	251
Hay and dry roughage, lbs	755	1,057	618
Corn silage, lbs.....	335	275	316
Other silage, lbs.....	80	123	88
Pasture days.....	31	49	18
Pasture days per animal unit... ^a	.. . ^a	114
Hay equivalent per cow, tons...	5.5	4.8	6.4

^aInsufficient data.

Sheep enterprises

Sheep production is a minor enterprise on Illinois record-keeping farms. The minimum size of enterprise in Table 18 is 3 animal units. One animal unit of sheep is defined as 750 pounds, liveweight. The return per \$100 of feed fed in 2011 was \$173 for native flocks. The average return for the 5-year period from 2007 through 2011 is \$125 per \$100 feed fed. The pounds of wool and mutton produced per farm have remained fairly constant for the past 10 years. The price received for sheep increased from \$134.33 per hundredweight in 2010 to \$180.25 in 2011, while feed costs per hundredweight produced increased by \$16.72 to \$87.54, or 24 percent. Most Illinois farmers who keep sheep do so as a supplemental enterprise in order to market nonsalable feeds and labor.

Table 18. Sheep Enterprises, 2011 Averages per Farm (Native Flocks)

Number of farms.....	8
Number of ewes in flock	44
Wool and mutton produced, lbs.....	8,052
Total returns.....	\$12,220
Value of feed fed.....	\$7,049
Return per \$100 of feed fed.....	\$173
Percent lamb crop	147
Death loss, lbs.....	732
Percent lbs produced.....	9.1
Weight per market animal sold, lbs	125
----- per cwt produced -----	
Price received—market.....	\$180.25
Feed costs.....	\$ 87.54
Concentrates, lbs.....	332
Hay, lbs.....	556
Pasture days.....	9
Hay equivalent, lbs	720

Appendix A

Costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of Illinois farms are reported in Tables 19 through 23a.

Table 19. 2011 Operator Average Returns, Costs, and Financial Summary by Size and by Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 86 to 100

	180-499		500-799		800-1,199		> 1,199		Your farm		All farms		800-1,199		
	Range in size (total acres)	Management returns	Number of farms	Low 33%	High 33%	Low 33%	High 33%	Low 33%	High 33%	Low 33%	High 33%	Low 33%	High 33%	Low 33%	High 33%
Total acres in farm	380	678	227	267	343	1,038	1,012	1,028	1,177	1,038	1,177	1,012	1,028	88	88
Acres of tillable land	357	653	504	752	2,031	1,139	974	1,006	1,139	1,139	1,139	974	1,006	88	88
Operator tillable acres	296	504	92	91	1,628	899	771	718	899	899	899	771	718	88	88
Soil rating on tillable land	91	92	19	14	11	91	91	91	91	91	91	91	91	88	88
Percent land owned	28	19	11	14	11	17	17	11	17	17	17	17	11	88	88
Percent land crop shared	33	47	34	48	42	43	41	41	43	43	43	41	41	88	88
Percent land cash rented	39	34	38	38	47	40	42	42	40	40	40	42	42	88	88
Months of hired labor	0.7	1.8	3.3	3.3	9.9	4.7	4.8	2.3	4.7	4.7	4.7	4.8	2.3	88	88
Total months labor	7.9	11.4	14.0	14.0	22.9	15.2	15.3	12.5	15.2	15.2	15.2	15.3	12.5	88	88
Dollar returns															
Crop returns	281,325	479,774	719,999	1,571,986	864,052	742,280	674,627	298	864,052	864,052	864,052	674,627	298	88	88
Livestock returns above feed	146	13	234	184	152	298	200	298	152	152	152	200	298	88	88
Custom work	1,610	3,266	4,951	22,983	9,894	4,247	5,915	4,247	9,894	9,894	9,894	5,915	4,247	88	88
Other farm receipts	4,487	6,700	9,900	25,319	13,247	12,389	8,539	12,389	13,247	13,247	13,247	8,539	12,389	88	88
Value of farm production	287,568	489,753	735,085	1,620,472	887,345	759,213	689,281	759,213	887,345	887,345	887,345	689,281	759,213		
Dollar costs															
Crop expenses	69,648	116,236	179,951	391,434	214,541	159,530	195,533	159,530	214,541	214,541	214,541	195,533	159,530	88	88
Power and equipment	39,362	63,002	90,174	194,377	108,826	76,989	102,519	76,989	108,826	108,826	108,826	102,519	76,989	88	88
Building and fence	11,503	16,844	23,613	52,043	29,182	22,733	23,713	22,733	29,182	29,182	29,182	23,713	22,733	88	88
Labor	21,950	29,163	34,749	64,487	40,876	30,021	39,431	30,021	40,876	40,876	40,876	39,431	30,021	88	88
Insurance and miscellaneous	19,467	32,158	50,162	126,054	65,359	43,353	57,778	43,353	65,359	65,359	65,359	57,778	43,353	88	88
Livestock services and supplies	223	251	277	435	313	209	242	209	313	313	313	242	209	88	88
Interest on nonland capital	12,955	23,268	34,998	75,440	41,528	32,696	36,271	32,696	41,528	41,528	41,528	36,271	32,696	88	88
Real estate taxes	3,707	4,836	5,119	8,955	6,051	4,224	5,813	4,224	6,051	6,051	6,051	5,813	4,224	88	88
Cash rent	28,180	50,023	85,751	259,650	124,253	71,443	93,390	71,443	124,253	124,253	124,253	93,390	71,443	88	88
Other land charges	30,335	49,675	66,897	104,634	68,521	62,169	72,584	62,169	68,521	68,521	68,521	72,584	62,169	88	88
Total nonfeed costs	237,331	385,456	571,692	1,277,510	699,451	503,369	627,273	503,369	699,451	699,451	699,451	627,273	503,369		
Capital account adjustment	1,782	1,683	3,577	6,591	3,811	3,002	4,174	3,002	3,811	3,811	3,811	4,174	3,002	88	88
Management returns	58,610	117,826	186,156	399,465	216,935	275,686	87,765	275,686	216,935	216,935	216,935	87,765	275,686		
Farm production per \$1.00 of nonfeed costs	1.21	1.27	1.29	1.27	1.27	1.51	1.10	1.51	1.27	1.27	1.27	1.10	1.51		
Farm production per man	339,937	584,945	824,329	1,144,471	783,968	943,691	695,899	943,691	783,968	783,968	783,968	695,899	943,691		
Financial summary															
Cash operating income	260,024	440,835	658,343	1,468,420	801,330	634,929	661,066	634,929	801,330	801,330	801,330	661,066	634,929		
Inventory change	27,714	48,949	76,900	173,108	93,054	125,109	27,519	125,109	93,054	93,054	93,054	27,519	125,109		
Accts. receivable (net change)	97	139	617	-4,116	-1,152	24	1,535	24	-1,152	-1,152	-1,152	1,535	24		
Less purchased feed	94	135	628	455	359	817	869	817	359	359	359	869	817		
Less purchased livestock	22	41	182	322	166	33	0	33	166	166	166	0	33		
Gross farm returns	287,720	489,748	735,051	1,636,635	892,706	759,214	689,250	759,214	892,706	892,706	892,706	689,250	759,214		
Cash operating expenses	171,143	282,968	435,538	1,057,865	556,618	384,384	477,847	384,384	556,618	556,618	556,618	477,847	384,384		
Prepaid expenses (- if increased)	-8,358	-10,564	-19,272	-48,739	-24,992	-22,345	-17,887	-22,345	-24,992	-24,992	-24,992	-17,887	-22,345		
Accts. payable (+ if increased)	655	351	2,510	6,260	2,918	5,185	1,959	5,185	2,918	2,918	2,918	1,959	5,185		
Total operating expenses	163,440	272,754	418,776	1,015,386	534,545	367,225	461,919	367,225	534,545	534,545	534,545	461,919	367,225		
Income before depreciation	124,280	216,994	316,276	621,248	358,162	391,989	227,331	391,989	358,162	358,162	358,162	227,331	391,989		
Less depreciation	16,948	32,819	51,852	108,212	59,555	43,753	56,595	43,753	59,555	59,555	59,555	56,595	43,753		
Capital account adjustment	1,782	1,683	3,577	6,591	3,811	3,002	4,174	3,002	3,811	3,811	3,811	4,174	3,002		
Net farm income	109,114	185,858	268,000	519,628	302,418	351,238	174,910	351,238	302,418	302,418	302,418	174,910	351,238		
Net farm income per operator	108,472	180,086	256,011	422,430	265,829	331,822	167,477	331,822	265,829	265,829	265,829	167,477	331,822		
Labor & mgmt. income per operator	81,772	144,557	211,389	358,752	220,369	292,190	117,723	292,190	220,369	220,369	220,369	117,723	292,190		

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 86 to 100 are those with nearly level, well-drained prairie soils.

Table 19a. 2011 Operator Average Operating Costs, Land Use, Yields, and Prices Received by Size and by Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 86 to 100

	180-499		500-799		800-1,199		> 1,199		All farms	
	Number of farms	201	227	267	343	Your farm	1,038	Low 33%	800-1,199	High 33%
Range in size (total acres)										
Management returns										
Number of farms		201	227	267	343	Your farm	1,038	88	800-1,199	88
Selected returns and costs										
per operator tillable acre										
Crop returns	952.02	951.76	957.62	957.62	965.47		961.25	875.57	800-1,199	1033.57
Livestock returns above feed	0.49	0.03	0.31	0.31	0.11		0.17	0.26		0.41
Custom work, other receipts	20.63	19.77	19.75	19.75	29.67		25.74	18.76		23.16
Value of farm production	973.15	971.55	977.68	977.68	995.25		987.16	894.59		1057.15
Soil fertility	112.70	109.45	115.72	115.72	117.37		115.74	126.66		105.85
Pesticides	44.35	41.60	42.04	42.04	40.17		41.01	42.48		41.35
Seed and other crop expense	78.64	79.53	81.58	81.58	82.88		81.92	84.63		74.94
Crop total	235.69	230.58	239.34	239.34	240.41		238.67	253.77		222.13
Light vehicle and utilities	14.61	10.62	8.13	8.13	6.36		7.79	9.65		7.34
Machinery repairs, supplies	31.95	29.63	28.43	28.43	21.95		24.92	31.49		25.48
Machinery hire, lease	20.44	13.86	11.49	11.49	17.29		15.82	13.69		10.82
Fuel and oil	23.05	25.01	24.53	24.53	27.76		26.43	26.38		23.09
Machinery depreciation	43.16	45.87	47.35	47.35	46.03		46.11	51.84		40.47
Power and equipment total	133.21	124.98	119.93	119.93	119.38		121.07	133.05		107.20
Drying and storage	20.39	18.90	19.03	19.03	17.34		18.09	17.10		20.74
Building repair and rent	10.50	6.79	5.89	5.89	6.53		6.68	6.89		5.75
Building depreciation	8.04	7.72	6.48	6.48	8.09		7.70	6.79		5.17
Building total	38.93	33.42	31.41	31.41	31.96		32.47	30.78		31.65
Labor, unpaid	67.34	48.64	35.22	35.22	20.61		30.17	35.72		33.12
Labor, paid	6.94	9.21	11.00	11.00	18.99		15.31	15.46		8.68
Labor total	74.28	57.85	46.22	46.22	39.61		45.47	51.18		41.80
Insurance and miscellaneous	65.88	63.79	66.72	66.72	77.42		72.71	74.99		60.37
Livestock services and supplies	0.76	0.50	0.37	0.37	0.27		0.35	0.31		0.29
Interest on nonland capital	43.84	46.16	46.55	46.55	46.33		46.20	47.08		45.53
Other costs total	110.48	110.45	113.63	113.63	124.02		119.26	122.38		106.18
Land charge	210.56	207.37	209.83	209.83	229.23		221.19	222.96		191.93
Total nonfeed costs	803.14	764.65	760.37	760.37	784.61		778.13	814.11		700.90
Capital account adjustment	6.03	3.34	4.76	4.76	4.05		4.24	5.42		4.18
Management returns	176.04	210.24	222.07	222.07	214.69		213.27	85.89		360.43
Percent crop returns fed	0.01	0.01	0.02	0.02	0.02		0.01	0.01		0.04
Capital purchases	43,864	73,276	124,666	124,666	229,277		132,349	126,205		118,278
Interest paid	6,555	11,085	16,107	16,107	39,991		21,051	18,074		12,916
Percent tillable land in										
Corn and corn silage	56.4	56.5	57.0	57.0	61.5		59.6	58.2		56.2
Soybeans	42.7	41.4	40.9	40.9	36.1		38.2	39.7		41.2
Wheat	0.1	0.5	0.4	0.4	0.2		0.3	0.4		0.4
Other small grains	0.0	0.1	0.0	0.0	0.0		0.0	0.0		0.0
CRP acres	0.1	0.4	0.3	0.3	0.2		0.3	0.3		0.2
All hay and pasture	0.2	0.3	0.1	0.1	0.1		0.1	0.1		0.1
Crop yields, bushels per acre										
Corn	178	178	177	177	175		176	168		184
Soybeans	58	57	58	58	58		58	55		60
Wheat	80	78	79	79	76		77	82		89
Prices received										
Corn (old crop)	5.47	5.37	5.36	5.36	5.34		5.35	5.26		5.50
Corn (new crop)	5.75	5.86	5.75	5.75	5.60		5.66	5.54		6.06
Soybeans (old crop)	11.92	11.93	11.86	11.86	11.65		11.75	11.78		12.07
Soybeans (new crop)	12.18	12.05	12.07	12.07	12.08		12.08	11.93		12.35

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 86 to 100 are those with nearly level, well-drained prairie soils.

Table 20. 2011 Operator Average Returns, Costs, and Financial Summary by Size and by Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 56 to 85

	180-499		500-799		800-1,199		> 1,199		All farms	
	Range in size (total acres)	Number of farms	Low 33%	High 33%	Low 33%	High 33%	Low 33%	High 33%	Low 33%	High 33%
Management returns										
Number of farms	195	157	164	258	774	1,080	978	769	79	14
Total acres in farm	400	669	1,055	2,018	1,133	1,061	1,029	811	78	17
Acres of tillable land	352	642	991	1,936	1,074	1,029	811	78	17	41
Operator tillable acres	305	535	784	1,608	888	811	78	79	14	42
Soil rating on tillable land	77	78	78	78	78	78	78	79	14	42
Percent land owned	36	25	17	16	23	17	14	14	43	42
Percent land crop shared	27	33	41	36	34	41	43	43	3.2	2.9
Percent land cash rented	37	41	42	48	43	42	43	43	3.2	13.2
Months of hired labor	0.5	1.5	2.9	7.9	3.7	2.9	3.2	3.2	15.5	
Total months labor	8.9	11.7	14.4	21.3	14.8					
Dollar returns										
Crop returns	277,372	475,582	697,092	1,471,238	804,466	803,431	602,064	-341	803,431	
Livestock returns above feed	113	300	-158	445	204	-155	-341	4,243	3,849	
Custom work	1,365	3,281	4,300	14,612	6,791	3,849	4,243	8,157	10,951	
Other farm receipts	3,592	5,813	9,434	18,716	10,321	10,951	8,157	614,122	818,077	
Value of farm production	282,441	484,977	710,668	1,505,010	821,783	818,077	614,122	614,122	818,077	
Dollar costs										
Crop expenses	69,571	125,858	187,538	390,911	213,097	190,807	192,042	98,783	91,307	
Power and equipment	43,679	67,187	96,767	190,890	108,767	108,767	98,783	20,936	24,417	
Building and fence	10,521	16,472	24,254	47,439	26,944	24,417	20,936	40,722	33,673	
Labor	25,553	32,537	37,664	59,467	40,840	40,840	40,722	51,563	51,165	
Insurance and miscellaneous	19,383	33,628	52,497	118,013	62,165	62,165	51,563	192	238	
Livestock services and supplies	222	185	318	666	383	383	192	31,769	36,191	
Interest on nonland capital	12,559	22,552	33,904	72,184	38,984	38,984	3,894	81,362	78,123	
Real estate taxes	3,808	4,349	4,410	9,388	5,905	5,905	3,894	59,036	55,385	
Cash rent	23,539	49,200	79,506	208,493	102,254	102,254	81,362	661,643	661,643	
Other land charges	29,507	45,260	57,953	100,231	62,304	62,304	59,036	3,142	6,479	
Total nonfeed costs	238,339	397,228	574,812	1,197,682	661,643	565,894	580,301	56,085	278,174	
Capital account adjustment	2,226	2,650	4,237	6,127	4,038	4,038	3,142	1,06	1,45	
Management returns	52,966	102,307	159,926	360,988	188,312	278,174	56,085	56,085	278,174	
Farm production per \$1.00 of nonfeed costs	1.19	1.22	1.24	1.26	1.24	1.45	1.06	622,073	907,781	
Farm production per man	319,438	533,861	757,323	1,097,146	714,949	907,781	622,073	585,454	680,337	
Financial summary										
Cash operating income	249,955	440,025	638,554	1,336,431	733,007	680,337	585,454	23,841	137,668	
Inventory change	31,945	46,374	70,545	176,550	91,253	137,668	23,841	5,440	1,304	
Accts. receivable (net change)	729	354	2,300	89	773	1,304	5,440	118	740	
Less purchased feed	33	686	331	2,691	1,115	1,304	118	514	493	
Less purchased livestock	157	1,051	406	489	502	493	514	614,103	818,077	
Gross farm returns	282,439	485,015	710,662	1,509,890	823,415	818,077	614,103	447,465	442,570	
Cash operating expenses	167,608	295,487	447,574	975,879	522,292	442,570	447,465	-13,848	-25,432	
Prepaid expenses (- if increased)	-6,111	-11,997	-22,192	-46,525	-24,183	-25,432	-13,848	2,928	1,597	
Accts. payable (+ if increased)	515	-472	1,247	646	513	1,597	2,928	436,545	418,735	
Total operating expenses	162,012	283,018	426,629	930,000	498,622	418,735	436,545	177,558	399,342	
Income before depreciation	120,427	201,997	284,034	579,890	324,793	399,342	177,558	48,819	49,308	
Less depreciation	16,894	31,773	49,359	104,887	56,122	49,308	48,819	3,142	6,479	
Capital account adjustment	2,226	2,650	4,237	6,127	4,038	4,038	3,142	131,881	356,513	
Net farm income	105,758	172,874	238,912	481,130	272,709	356,513	131,881	119,918	340,153	
Net farm income per operator	105,508	168,499	226,697	413,914	246,766	340,153	119,918	87,826	297,616	
Labor & mgmt. income per operator	80,208	133,382	187,368	348,762	203,218	297,616	87,826			

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 56 to 85 are those with poorly drained, heavy-til, and timber soils.

Table 20a. 2011 Operator Average Operating Costs, Land Use, Yields, and Prices Received by Size and by Management Returns for Northern and Central Illinois Grain Farms with Soil Ratings from 56 to 85

	180-499		500-799		800-1,199		> 1,199		All farms	
	195	157	164	258	774	Low 33%	High 33%			
Range in size (total acres)	180-499	500-799	800-1,199	> 1,199	Your farm	800-1,199	High 33%			
Management returns						Low 33%	54			
Number of farms	195	157	164	258	774	54	54			
Selected returns and costs										
per operator tillable acre										
Crop returns	910.87	888.14	888.76	914.95		906.41	990.53			
Livestock returns above feed	0.37	0.56	-0.20	0.28		0.23	-0.19			
Custom work, other receipts	16.28	16.98	17.51	20.73		19.28	18.25			
Value of farm production	927.52	905.68	906.07	935.95		925.92	1008.59			
Soil fertility	110.70	112.17	116.29	118.79		116.81	113.55			
Pesticides	39.24	39.63	42.82	43.31		42.42	44.72			
Seed and other crop expense	78.52	83.23	79.99	81.01		80.88	76.97			
Crop total	228.47	235.04	239.10	243.10		240.10	235.24			
Light vehicle and utilities	16.84	10.76	9.45	7.13		8.85	9.06			
Machinery repairs, supplies	34.33	32.14	28.50	23.11		26.19	22.39			
Machinery hire, lease	24.52	15.35	15.40	15.86		16.46	16.85			
Fuel and oil	24.84	22.68	25.13	26.09		25.39	22.49			
Machinery depreciation	42.90	44.55	44.89	44.52		45.66	41.78			
Power and equipment total	143.44	125.47	123.37	118.71		122.55	112.57			
Drying and storage	14.84	15.65	15.63	13.77		14.44	16.79			
Building repair and rent	11.81	8.43	8.77	5.90		7.26	6.12			
Building depreciation	7.90	6.68	6.53	8.84		8.66	7.19			
Building total	34.55	30.76	30.92	29.50		30.36	30.10			
Labor, unpaid	78.95	52.81	38.16	22.73		34.16	42.05			
Labor, paid	4.97	7.96	9.86	14.25		11.86	10.90			
Labor total	83.91	60.76	48.02	36.98		46.02	41.52			
Insurance and miscellaneous	63.65	62.80	66.93	73.39		70.04	63.08			
Livestock services and supplies	0.73	0.35	0.41	0.41		0.43	0.29			
Interest on nonland capital	41.24	42.12	43.23	44.89		43.92	44.62			
Other costs total	105.62	105.26	110.56	118.70		114.40	107.99			
Land charge	186.70	184.52	180.88	197.83		192.07	170.26			
Total nonfeed costs	782.69	741.81	732.86	744.83		745.49	697.68			
Capital account adjustment	7.31	4.95	5.40	3.81		4.55	7.99			
Management returns	152.14	168.82	178.61	194.94		184.98	318.90			
Percent crop returns fed	0.01	0.03	0.03	0.03		0.03	0.03			
Capital purchases	36,433	73,383	109,027	221,591		121,029	122,381			
Interest paid	8,013	13,689	18,379	49,878		25,316	17,436			
Percent tillable land in										
Corn and corn silage	57.4	56.4	56.8	59.1		58.2	59.9			
Soybeans	39.1	41.4	40.5	36.0		37.8	37.8			
Wheat	0.8	1.0	0.9	0.7		0.8	0.4			
Other small grains	0.0	0.0	0.0	0.0		0.0	0.0			
CRP acres	0.8	0.5	0.4	0.6		0.6	0.5			
All hay and pasture	0.4	0.3	0.3	0.3		0.3	0.1			
Crop yields, bushels per acre										
Corn	167	164	163	167		166	176			
Soybeans	56	54	54	54		54	58			
Wheat	68	74	68	71		71	69			
Prices received										
Corn (old crop)	5.47	5.38	5.34	5.26		5.31	5.35			
Corn (new crop)	5.78	5.73	5.56	5.58		5.61	5.89			
Soybeans (old crop)	11.81	11.96	11.88	11.79		11.83	11.66			
Soybeans (new crop)	11.86	11.97	12.04	12.06		11.91	12.17			

Note: Variations in totals due to rounding to the nearest dollar. Farms with soil ratings from 56 to 85 are those with poorly drained, heavy-til, and timber soils.

Table 21. 2011 Operator Average Returns, Costs, and Financial Summary by Size and by Management Returns for Southern Illinois Grain Farms with Soil Ratings from 36 to 85

Range in size (total acres)	180-499		500-799		800-1,199		> 1,199		All farms	
	Low 33%	High 33%	Low 33%	High 33%	Low 33%	High 33%	Low 33%	High 33%	Low 33%	High 33%
Management returns	43	54	76	146	319	1,284	1,052	1,284	1,052	1,052
Number of farms	373	710	1,131	2,220	3,199	969	963	969	963	963
Total acres in farm	324	655	982	2,131	1,363	844	816	844	816	816
Acres of tillable land	296	579	831	1,799	58	60	57	60	57	57
Operator tillable acres	60	57	58	59	26	26	28	26	28	28
Soil rating on tillable land	51	32	24	18	38	38	41	38	41	41
Percent land owned	24	32	42	42	36	35	31	35	31	31
Percent land crop shared	26	36	35	40	9.4	4.0	4.0	4.0	4.0	4.0
Percent land cash rented	1.3	3.6	4.3	16.7	22.4	16.2	16.0	16.2	16.0	16.0
Months of hired labor	10.0	14.0	16.5	32.3	828,171	500,387	642,870	500,387	642,870	642,870
Total months labor	194,079	397,651	581,618	1,302,501	1,810	1,810	7,128	1,810	7,128	7,128
Dollar returns	2,209	330	4,602	4,611	25,399	2,800	4,362	2,800	4,362	4,362
Crop returns	628	4,411	3,499	51,857	12,266	2,128	7,921	2,128	7,921	7,921
Livestock returns above feed	1,743	6,229	5,139	21,307	869,396	507,125	662,281	507,125	662,281	662,281
Custom work	198,659	408,621	594,858	1,380,276	244,315	170,146	164,594	170,146	164,594	164,594
Other farm receipts	62,012	122,344	170,553	381,516	157,072	105,714	95,141	105,714	95,141	95,141
Value of farm production	44,144	76,925	103,780	247,715	23,845	13,827	20,574	13,827	20,574	20,574
Dollar costs	5,882	8,885	17,357	38,045	65,836	44,414	42,966	44,414	42,966	42,966
Crop expenses	30,126	40,809	43,875	97,043	61,178	36,896	41,526	36,896	41,526	41,526
Power and equipment	14,494	28,220	40,456	97,904	1,089	2,462	954	2,462	954	954
Building and fence	587	468	1,709	1,143	47,020	33,313	33,219	33,313	33,219	33,219
Labor	11,137	21,274	33,681	74,054	5,010	3,304	4,306	3,304	4,306	4,306
Insurance and miscellaneous	2,062	3,018	3,570	7,365	70,433	44,056	35,593	44,056	35,593	35,593
Livestock services and supplies	8,549	26,832	39,458	120,910	80,387	66,706	58,983	66,706	58,983	58,983
Interest on nonland capital	27,649	43,011	61,708	119,467	756,184	520,838	497,857	520,838	497,857	497,857
Real estate taxes	206,642	371,786	516,147	1,185,161	5,441	4,247	3,304	4,247	3,304	3,304
Cash rent	5,995	2,949	4,948	6,574	139,005	2,716	181,444	2,716	181,444	181,444
Other land charges	876	48,256	97,084	235,074	0.97	0.97	1.33	0.97	1.33	1.33
Total nonfeed costs	0.96	1.10	1.15	1.16	458,622	458,622	606,914	458,622	606,914	606,914
Capital account adjustment	235,992	396,620	539,973	696,797	868,940	552,538	590,429	552,538	590,429	590,429
Management returns	205,904	402,440	580,027	1,387,152	33,416	-29,716	75,249	-29,716	75,249	75,249
Farm production per \$1.00	-5,146	8,605	25,252	58,200	4,766	486	2,670	486	2,670	2,670
of nonfeed costs	150	823	3,871	8,050	27,105	5,658	5,097	5,658	5,097	5,097
Farm production per man	1,126	3,347	10,129	52,381	3,498	10,251	1,606	10,251	1,606	1,606
Financial summary	1,012	415	4,614	4,791	876,519	507,399	661,645	507,399	661,645	661,645
Cash operating income	198,771	408,106	594,408	1,396,231	578,745	377,532	372,422	377,532	372,422	372,422
Inventory change	131,644	271,059	374,925	930,325	-15,471	-2,808	-19,496	-2,808	-19,496	-19,496
Accts. receivable (net change)	541	-10,882	-6,666	-26,468	941	941	350,662	941	350,662	350,662
Less purchased feed	325	799	-277	-6,305	316,019	131,733	310,963	131,733	310,963	310,963
Less purchased livestock	132,510	260,975	367,981	897,552	85,162	53,507	47,373	53,507	47,373	47,373
Gross farm returns	66,261	147,131	226,427	498,679	5,441	4,247	3,304	4,247	3,304	3,304
Cash operating expenses	17,247	34,380	52,357	141,024	236,297	82,474	266,894	82,474	266,894	266,894
Prepaid expenses (- if increased)	5,595	2,949	4,948	6,574	197,775	79,941	263,559	79,941	263,559	263,559
Accts. payable (+ if increased)	132,510	260,975	367,981	897,552	150,530	40,212	216,882	150,530	216,882	216,882
Total operating expenses	66,261	147,131	226,427	498,679	236,297	82,474	266,894	236,297	266,894	266,894
Income before depreciation	17,247	34,380	52,357	141,024	197,775	79,941	263,559	197,775	263,559	263,559
Less depreciation	5,595	2,949	4,948	6,574	150,530	40,212	216,882	150,530	216,882	216,882
Capital account adjustment	54,609	115,700	179,018	364,229	236,297	82,474	266,894	236,297	266,894	266,894
Net farm income	54,227	109,400	174,751	284,724	197,775	79,941	263,559	197,775	263,559	263,559
Net farm income per operator	29,867	77,560	132,753	222,311	150,530	40,212	216,882	150,530	216,882	216,882
Labor & mgmt. income per operator	29,867	77,560	132,753	222,311	150,530	40,212	216,882	150,530	216,882	216,882

Note: Variations in totals due to rounding to the nearest dollar.

Table 21a. 2011 Operator Average Operating Costs, Land Use, Yields, and Prices Received by Size and by Management Returns for Southern Illinois Grain Farms with Soil Ratings from 36 to 85

	180-499		500-799		800-1,199		> 1,199		All farms	
	Number of farms	43	54	76	146	319	Low 33%	High 33%	25	25
Range in size (total acres)										
Management returns										
Number of farms		43	54	76	146	319				
Selected returns and costs										
per operator tillable acre										
Crop returns	654.70	686.29	699.62	724.04	714.29	592.90	787.87			
Livestock returns above feed	7.45	0.57	5.54	2.56	3.07	2.14	8.74			
Custom work, other receipts	8.00	18.36	10.39	40.67	32.49	5.84	15.05			
Value of farm production	670.14	705.22	715.55	767.28	749.84	600.89	811.66			
Soil fertility	108.24	109.17	107.58	107.49	107.67	104.29	103.55			
Pesticides	37.63	35.80	34.20	38.27	37.34	31.96	37.14			
Seed and other crop expense	63.32	66.17	63.37	66.32	65.70	65.35	61.03			
Crop total	209.19	211.15	205.16	212.08	210.72	201.60	201.72			
Light vehicle and utilities	15.73	11.60	8.31	6.87	7.82	8.96	7.95			
Machinery repairs, supplies	40.71	34.75	32.20	31.78	32.41	29.10	33.02			
Machinery hire, lease	12.75	12.11	8.50	10.32	10.24	8.27	6.57			
Fuel and oil	30.45	26.52	27.11	29.32	28.74	27.50	25.91			
Machinery depreciation	49.26	47.77	48.72	59.42	56.26	51.43	43.15			
Power and equipment total	148.91	132.84	124.84	137.70	135.47	125.26	116.60			
Drying and storage	6.54	4.65	6.57	6.64	6.45	4.49	8.09			
Building repair and rent	8.24	5.03	7.69	5.15	5.68	7.06	8.53			
Building depreciation	5.06	5.66	6.62	9.37	8.44	4.83	8.59			
Building total	19.84	15.33	20.88	21.15	20.57	16.38	25.21			
Labor, unpaid	89.59	51.98	41.10	23.88	31.46	41.33	41.17			
Labor, paid	12.03	18.45	11.67	30.07	25.32	11.30	11.49			
Labor total	101.62	70.43	52.78	53.94	56.78	52.63	52.66			
Insurance and miscellaneous	48.89	48.70	48.66	54.42	52.77	43.72	50.89			
Livestock services and supplies	1.98	0.81	2.06	0.64	0.94	2.92	1.17			
Interest on nonland capital	37.57	36.72	40.51	41.17	40.55	39.47	40.71			
Other costs total	88.44	86.23	91.23	96.22	94.26	86.11	92.77			
Land charge	129.06	125.75	125.99	137.72	134.40	135.16	121.19			
Total nonfeed costs	697.07	641.64	620.87	658.82	652.20	617.14	610.15			
Capital account adjustment	18.87	5.09	5.95	3.65	4.69	5.03	4.05			
Management returns	-8.06	68.66	100.63	112.12	102.34	-11.22	205.56			
Percent crop returns fed	3.29	0.92	1.76	1.25	1.59	2.79	1.16			
Capital purchases	44,868	77,567	129,187	298,985	186,796	136,810	117,708			
Interest paid	6,890	12,141	18,249	42,402	26,738	22,871	17,809			
Percent tillable land in										
Corn and corn silage	40.7	39.4	42.3	42.4	42.1	36.9	46.6			
Soybeans	43.3	44.9	41.5	43.2	43.0	40.9	41.0			
Wheat	9.6	10.0	8.8	8.6	8.8	12.7	6.3			
Other small grains	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
CRP acres	0.8	0.6	0.5	0.6	0.6	0.5	0.2			
All hay and pasture	3.1	1.2	1.7	0.9	1.1	1.9	2.0			
Crop yields, bushels per acre										
Corn	133	138	136	140	139	122	149			
Soybeans	42	40	43	44	43	38	46			
Wheat	57	55	57	64	61	55	59			
Prices received										
Corn (old crop)	5.55	5.71	5.66	5.47	5.52	5.69	5.73			
Corn (new crop)	5.75	5.68	5.89	5.87	5.86	5.63	5.78			
Soybeans (old crop)	12.27	12.27	12.22	12.03	12.10	11.95	12.10			
Soybeans (new crop)	12.01	11.54	11.97	12.00	11.96	12.07	12.01			

Note: Variations in totals due to rounding to the nearest dollar.

Table 22. 2011 Operator Average Returns, Costs, and Financial Summary by Size and by Cwt of Pork Produced for Illinois Hog Farms

Range in size (total acres) Cwt of pork produced Number of farms	60-799		> 799	Your farm	All farms	Cwt of pork produced	
	22	487	24		46	< 6,000 cwt	> 6,000 cwt
Total acres in farm		1,341			933	7	10
Acres of tillable land		440	1,291		884	411	939
Operator tillable acres		395	1,164		796	352	923
Soil rating on tillable land		77	79		78	74	83
Percent land owned		33	15		24	40	12
Percent land crop shared		17	22		19	16	19
Percent land cash rented		49	63		57	44	69
Months of hired labor		8.9	33.5		21.7	2.5	29.0
Total months labor		21.9	47.2		35.1	16.0	44.2
Dollar returns							
Crop returns	361,383		1,040,735		715,828	235,677	820,382
Livestock returns above feed	190,767		449,214		325,609	63,473	452,297
Custom work	176		4,825		2,601	1,649	3,931
Other farm receipts	12,775		37,724		25,792	4,966	18,606
Value of farm production	565,101		1,532,497		1,069,830	305,765	1,295,216
Dollar costs							
Crop expenses	88,996		265,869		181,277	57,240	188,403
Power and equipment	93,582		242,212		171,128	53,304	203,203
Building and fence	38,557		138,768		90,841	13,904	96,768
Labor	70,091		147,045		110,241	51,039	134,281
Insurance and miscellaneous	25,456		93,815		61,122	17,801	71,720
Livestock services and supplies	30,104		77,738		54,957	9,617	76,703
Interest on nonland capital	30,914		89,276		61,364	16,222	72,758
Real estate taxes	5,461		9,726		7,686	3,127	6,677
Cash rent	42,746		154,625		101,118	23,854	137,743
Other land charges	36,870		71,597		54,988	31,140	40,561
T total nonfeed costs	462,777		1,290,672		894,722	277,248	1,028,817
Capital account adjustment	858		2,315		1,618	101	468
Management returns	109,664		272,415		194,578	34,198	286,607
Farm production per \$1.00 of nonfeed costs	1.22		1.19		1.20	1.10	1.26
Farm production per man	360,575		628,718		500,476	251,655	602,494
Financial summary							
Cash operating income	880,086		2,343,963		1,643,848	335,144	1,742,589
Inventory change	82,192		181,162		133,829	22,373	163,677
Accts. receivable (net change)	312		-3,263		-1,553	-170	1,421
Less purchased feed	268,705		651,953		468,661	49,597	526,003
Less purchased livestock	128,859		326,316		231,880	2,024	86,468
Gross farm returns	565,027		1,543,593		1,075,583	305,726	1,295,216
Cash operating expenses	362,564		1,097,918		746,227	180,855	839,772
Prepaid expenses (- if increased)	-11,075		-18,953		-15,186	-3,565	-21,364
Accts. payable (+ if increased)	-2,121		-6,434		-4,371	-307	976
T total operating expenses	349,369		1,072,530		726,670	176,983	819,384
Income before depreciation	215,658		471,063		348,913	128,743	475,832
Less depreciation	27,610		90,631		60,490	22,000	67,684
Capital account adjustment	858		2,315		1,618	101	468
Net farm income	188,906		382,747		290,040	106,844	408,616
Net farm income per operator	183,480		178,844		181,061	97,231	258,569
Labor & mgt. income per operator	149,251		164,258		157,081	74,410	215,989

Note: Variations in totals due to rounding to the nearest dollar.

Table 22a. 2011 Operator Average Operating Costs, Land Use, Yields, and Prices Received by Size and by Cwt of Pork Produced for Illinois Hog Farms

	Range in size (total acres)		Your farm		All farms	
	60-799	> 799	Your farm	All farms	< 6,000 cwt	> 6,000 cwt
Cwt of pork produced	22	24		46	7	10
Number of farms						
Selected returns and costs						
per operator tillable acre						
Crop returns	915.63	894.01		899.13	792.76	976.88
Livestock returns above feed	483.34	385.88		408.99	213.51	538.58
Custom work, other receipts	32.81	36.55		35.66	22.25	26.84
Value of farm production	1431.79	1316.44		1343.79	1028.52	1542.29
Soil fertility	102.52	100.28		100.81	92.58	92.29
Pesticides	45.16	43.06		43.56	35.55	49.63
Seed and other crop expense	77.81	85.04		83.32	64.41	82.42
Crop total	225.49	228.39		227.70	192.54	224.34
Light vehicle and utilities	37.93	22.39		26.07	33.53	27.79
Machinery repairs, supplies	49.24	44.09		45.31	38.70	50.40
Machinery hire, lease	47.40	47.74		47.66	13.75	63.71
Fuel and oil	52.04	46.42		47.76	36.18	51.22
Machinery depreciation	50.50	47.42		48.15	57.14	48.84
Power and equipment total	237.11	208.06		214.95	179.30	241.97
Drying and storage	14.02	21.37		19.63	16.91	22.77
Building repair and rent	68.98	72.28		71.50	22.27	64.59
Building depreciation	14.69	25.55		22.98	7.59	27.87
Building total	97.69	119.20		114.10	46.77	115.23
Labor, unpaid	100.57	35.37		50.83	138.55	53.53
Labor, paid	77.02	90.94		87.64	33.13	106.37
Labor total	177.59	126.31		138.47	171.68	159.90
Insurance and miscellaneous	64.50	80.59		76.77	59.88	85.40
Livestock services and supplies	76.28	66.78		69.03	32.35	91.34
Interest on nonland capital	78.33	76.69		77.08	54.57	86.64
Other costs total	219.10	224.06		222.88	146.79	263.37
Land charge	215.56	202.68		205.74	195.50	220.27
Total nonfeed costs	1172.53	1108.71		1123.84	932.60	1225.07
Capital account adjustment	2.17	1.99		2.03	0.34	0.56
Management returns	261.43	209.72		221.98	96.27	317.77
Percent crop returns fed	123.03	102.15		112.14	64.58	131.44
Capital purchases	60,273	204,888		135,725	58,911	168,757
Interest paid	17,923	55,931		37,753	6,602	19,529
Percent tillable land in						
Corn and corn silage	59.3	63.2		62.2	52.7	61.7
Soybeans	31.3	31.5		31.5	29.8	34.6
Wheat	5.0	3.2		3.6	6.1	2.3
Other small grains	0.2	0.0		0.1	0.9	0.0
CRP acres	0.5	0.5		0.5	0.0	0.1
All hay and pasture	3.2	0.1		0.9	10.3	0.6
Crop yields, bushels per acre						
Corn	169	167		168	154	173
Soybeans	60	53		55	50	61
Wheat	79	64		68	62	66
Prices received						
Corn (old crop)	5.66	5.32		5.37	5.63	5.44
Corn (new crop)	5.56	5.94		5.86	5.85	5.25
Soybeans (old crop)	12.18	12.03		12.07	12.16	12.47
Soybeans (new crop)	11.74	11.89		11.84	11.78	12.63

Note: Variations in totals due to rounding to the nearest dollar.

Table 23. 2011 Operator Average Returns, Costs, and Financial Summary for Illinois Dairy and Beef Farms

Type of Farm	Dairy (by Number of Cows in Herd)			Beef (by Size)		
	10-79	> 79	All farms	180-799	> 799	All farms
Number of cows in herd	26	41	67	10	3	13
Range in size (total acres)						
Number of farms	301	648	514	433	1,074	561
Total acres in farm	266	580	458	400	987	536
Acres of tillable land	256	562	443	390	920	513
Operator tillable acres	68	68	68	75	81	76
Soil rating on tillable land	57	38	46	42	33	40
Percent land owned	4	5	5	6	15	8
Percent land crop shared	39	56	50	52	53	52
Percent land cash rented	3.1	36.0	23.2	1.5	37.2	9.7
Months of hired labor	17.8	51.6	38.5	13.7	53.2	22.8
Dollar returns						
Crop returns	219,835	540,163	415,857	395,493	830,375	495,850
Livestock returns above feed	58,146	419,297	279,149	59,031	648,243	195,003
Custom work	993	1,625	1,380	2,662	8,194	3,939
Other farm receipts	4,567	20,713	14,447	2,216	12,145	4,507
Value of farm production	283,540	981,798	710,832	459,402	1,498,957	699,299
Dollar costs						
Crop expenses	38,810	113,425	84,470	89,011	237,356	123,245
Power and equipment	62,789	211,474	153,775	96,370	309,042	145,448
Building and fence	10,223	42,599	30,035	20,622	56,285	28,852
Labor	56,236	160,581	120,089	46,352	158,997	72,347
Insurance and miscellaneous	10,735	41,911	29,813	24,516	70,800	35,197
Livestock services and supplies	24,984	120,876	83,664	16,907	83,919	32,371
Interest on nonland capital	17,461	64,410	46,191	37,869	119,325	56,667
Real estate taxes	3,770	8,997	6,969	5,852	6,872	6,087
Cash rent	15,560	52,298	38,041	36,758	75,386	45,672
Other land charges	21,762	36,055	30,508	29,392	87,164	42,724
Total nonfeed costs	262,330	852,626	623,556	403,648	1,205,147	588,609
Capital account adjustment	39	1,157	723	723	0	556
Management returns	23,417	139,390	94,385	64,152	315,810	122,227
Farm production per \$1.00 of nonfeed costs	1.08	1.15	1.14	1.14	1.24	1.19
Farm production per man	207,585	245,709	230,915	369,403	372,330	370,079
Financial summary						
Cash operating income	300,711	1,198,272	849,965	1,022,441	3,021,353	1,483,728
Inventory change	37,191	68,698	56,471	47,466	317,718	109,832
Accts. receivable (net change)	-34	5,009	3,052	-1,296	53,742	11,405
Less purchased feed	49,077	259,805	178,030	156,614	448,617	224,000
Less purchased livestock	5,061	13,095	9,977	452,705	1,445,240	681,751
Gross farm returns	283,731	999,079	721,481	459,291	1,498,957	699,214
Cash operating expenses	170,206	687,978	487,051	305,276	946,037	453,144
Prepaid expenses (- if increased)	-4,189	-6,109	-5,364	-13,216	-2,883	-10,831
Accts. payable (+ if increased)	354	673	549	424	-8,218	-1,570
Total operating expenses	166,370	682,543	482,237	292,484	934,937	440,743
Income before depreciation	117,361	316,536	239,244	166,807	564,021	258,471
Less depreciation	20,846	70,737	51,377	30,895	99,859	46,810
Capital account adjustment	39	1,157	723	723	0	556
Net farm income	96,554	246,956	188,591	136,635	464,162	212,218
Net farm income per operator	87,137	136,562	117,382	128,118	351,864	179,751
Labor & mgt. income per operator	59,804	96,751	82,413	94,424	274,085	135,884

Note: Variations in totals due to rounding to the nearest dollar.

Table 23a. 2011 Operator Average Operating Costs, Land Use, Yields, and Prices Received for Illinois Dairy and Beef Farms

Type of Farm	Dairy (by Number of Cows in Herd)			Beef (by Size)		
	10-79	> 79	All farms	180-799	> 799	All farms
Number of cows in herd			67	10	3	13
Range in size (total acres)						
Number of farms	26	41	67	0	0	13
Selected returns and costs						
per operator tillable acre						
Crop returns	860.15	961.27	938.63	1,013.56	902.25	967.44
Livestock returns above feed	227.51	746.18	630.07	151.28	704.36	380.46
Custom work, other receipts	21.75	39.75	35.72	12.50	22.10	16.48
Value of farm production	1,109.41	1,747.20	1,604.42	1,177.35	1,628.71	1,364.38
Soil fertility	61.62	100.07	91.46	107.19	120.25	112.60
Pesticides	28.13	31.30	30.59	38.33	44.81	41.01
Seed and other crop expense	62.10	70.48	68.61	82.60	92.84	86.84
Crop total	151.85	201.85	190.66	228.12	257.90	240.46
Light vehicle and utilities	37.05	45.56	43.66	22.62	17.87	20.65
Machinery repairs, supplies	67.22	81.32	78.17	55.64	69.95	61.57
Machinery hire, lease	27.73	90.47	76.42	67.84	100.81	81.50
Fuel and oil	51.03	76.53	70.83	42.90	68.57	53.53
Machinery depreciation	62.63	82.45	78.02	57.98	78.60	66.52
Power and equipment total	245.67	376.34	347.09	246.98	335.79	283.78
Drying and storage	5.99	9.21	8.49	11.42	9.33	10.55
Building repair and rent	16.67	25.55	23.56	21.56	28.96	24.63
Building depreciation	17.34	41.05	35.74	19.87	22.87	21.11
Building total	40.00	75.81	67.79	52.85	61.16	56.29
Labor, unpaid	184.81	90.63	111.72	100.99	54.23	81.61
Labor, paid	35.23	195.13	159.34	17.80	118.53	59.54
Labor total	220.04	285.77	271.05	118.79	172.76	141.15
Insurance and miscellaneous	42.00	74.58	67.29	62.83	76.93	68.67
Livestock services and supplies	97.75	215.11	188.84	43.33	91.18	63.16
Interest on nonland capital	68.32	114.62	104.26	97.05	129.65	110.56
Other costs total	208.08	404.32	360.39	203.21	297.77	242.39
Land charge	160.78	173.24	170.45	184.50	184.09	184.34
Total nonfeed costs	1026.42	1517.33	1407.43	1034.46	1309.47	1148.42
Capital account adjustment	0.15	2.06	1.63	1.85	0.00	1.09
Management returns	83.14	231.93	198.62	144.74	319.24	217.05
Percent crop returns fed	84.81	117.46	104.79	81.02	70.29	78.54
Capital purchases	35,577	146,417	103,404	81,152	221,256	113,484
Interest paid	12,184	37,698	27,797	31,790	78,287	42,520
Percent tillable land in						
Corn and corn silage	49.3	50.7	50.4	66.0	74.1	69.4
Soybeans	16.2	17.4	17.2	19.4	22.8	20.8
Wheat	1.8	4.4	3.8	3.3	0.0	1.9
Other small grains	3.1	0.6	1.2	0.6	0.0	0.4
CRP acres	0.2	0.0	0.1	0.8	0.0	0.4
All hay and pasture	21.5	8.8	11.6	9.8	2.5	6.7
Crop yields, bushels per acre						
Corn	154	164	162	178	147	164
Soybeans	57	53	53	56	58	57
Wheat	61	65	64	82	0	82
Prices received						
Corn (old crop)	5.81	5.99	5.95	5.77	5.73	5.75
Corn (new crop)	6.09	5.81	5.87	6.28	5.50	5.97
Soybeans (old crop)	12.47	12.40	12.40	12.72	12.14	12.36
Soybeans (new crop)	12.01	12.14	12.10	11.70	11.52	11.68

Note: Variations in totals due to rounding to the nearest dollar.

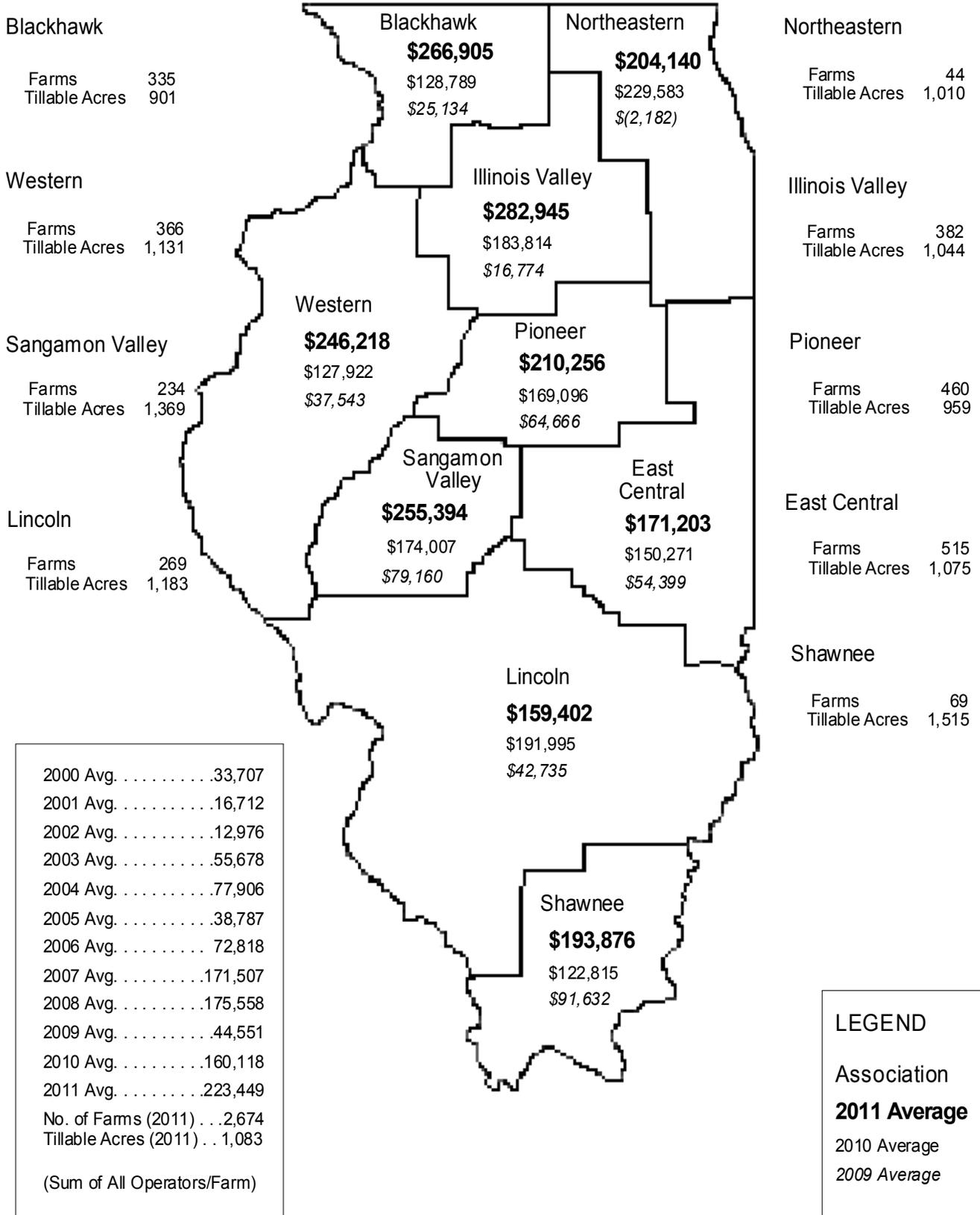
Financial Characteristics of Illinois FBFM Grain Farms

	2011	2010	2009	2008	4-Year Average	My Farm
Number of Farms	2,400	2,349	2,352	2,339	2,360	
Liquidity						
Working Capital	\$347,640	\$377,259	\$316,718	\$350,701	\$348,080	
Current Ratio						
Upper Quartile	NA	6.10	5.64	5.79	5.84	
Median	2.78	2.56	2.31	2.51	2.54	
Solvency						
Net Worth (Market)	\$2,312,272	\$1,948,499	\$1,745,105	\$1,636,947	\$1,910,706	
Debt/Equity Ratio (%)						
Upper Quartile	NA	10.2	11.6	11.5	11.1	
Median	24.5	26.9	28.8	29.1	27.3	
Debt/Total Asset Ratio (%)						
Upper Quartile	NA	9.3	10.5	10.4	10.1	
Median	19.7	21.2	22.5	22.7	21.5	
Profitability						
Net Farm Income	\$236,336	\$179,797	\$80,038	\$196,159	\$173,083	
Return on Farm Assets (%)						
Upper Quartile	NA	13.3	6.7	17.1	12.4	
Median	9.6	8.4	3.4	10.8	8.1	
Return on Farm Equity (%)						
Upper Quartile	NA	18.2	8.0	24.7	17.0	
Median	11.6	9.9	3.0	13.0	9.4	
Repayment Capacity						
Debt/Farm Operating Income	2.53	2.58	5.28	2.24	3.16	
Financial Efficiency (as a % of Gross Farm Returns)						
Interest Expense Ratio						
Upper Quartile	NA	0.8	1.1	1.1	1.0	
Median	2.0	2.6	3.1	2.9	2.7	
Operating Expense Ratio						
Upper Quartile	NA	48.8	62.2	49.4	53.5	
Median	54.9	56.8	71.4	57.0	60.0	
Depreciation Expense Ratio						
Upper Quartile	NA	4.7	4.9	3.4	4.3	
Median	6.6	6.8	7.0	5.0	6.4	
Farm Operating Income Ratio						
Upper Quartile	NA	42.1	28.3	43.1	37.8	
Median	35.3	33.0	17.8	34.5	30.2	
Asset Turnover Ratio						
Upper Quartile	NA	0.47	0.44	0.55	0.49	
Median	0.33	0.32	0.30	0.38	0.33	

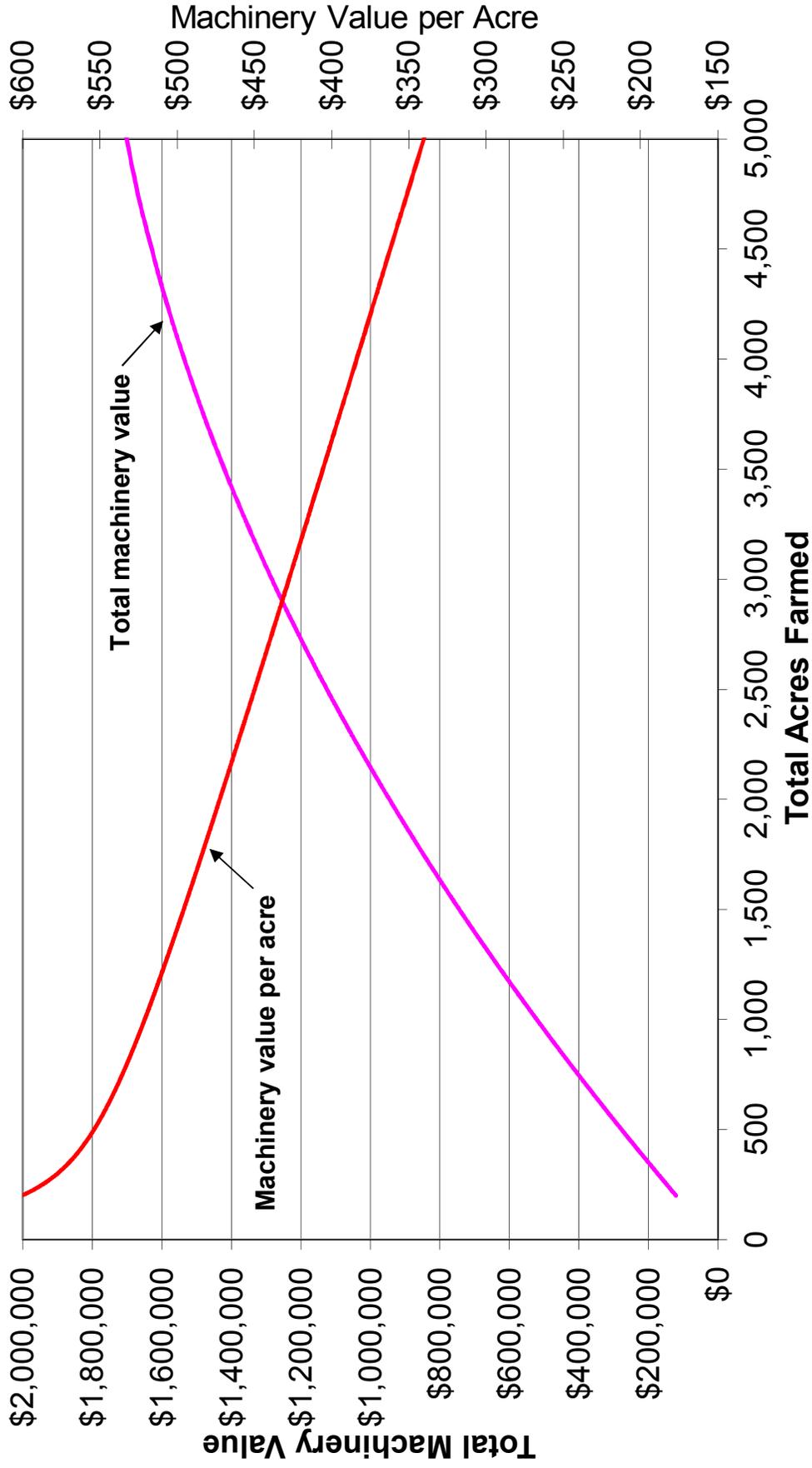
NA = not available yet.

Illinois FBFM Association

Operators' Share of Labor and Management Income per Farm—2009, 2010, and 2011 (Sum of All Operators/Farm)



Average Machinery Values FBFM Grain Farms





*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.

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For U of I farm management information see
<http://www.farmdoc.illinois.edu>