



Projected 2015 Net Income on a 1,500 Acre Grain Farm

Gary Schnitkey

Department of Agricultural and Consumer Economics
University of Illinois

July 14, 2015

farmdoc daily (5):127

Recommended citation format: Schnitkey, G. "Projected 2015 Net Income on a 1,500 Acre Grain Farm." *farmdoc daily* (5):127, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, July 14, 2015.

Permalink <http://farmdocdaily.illinois.edu/2015/07/projected-2015-net-income-on-a-grain-farm.html>

Last week, revised 2015 Illinois crop budgets were released indicating that operator and land returns would be \$244 per acre in central Illinois for high-productivity farmland (*farmdoc daily*, July 7, 2015). This projected return is used to estimate per acre net incomes for cash rented, share rented, and owned land. Then, net income is projected for a 1,500 acre grain farm. For a 1,500 acre grain farm, net income is projected at \$7,450 in 2015, down from \$103,500 in 2014.

Net Income from Cash Rented, Share Rented, and Owned Farmland

Operator and land return does not vary across land control methods and represents a return to farmer and landowner. Operator and land return is used as the starting point for estimated net income for cash rented, share rented, and owned farmland (see Table 1). From each, land costs are subtracted.

For cash rented farmland, the farmer pays a cash rent. For these estimates, a \$285 per acre cash rent is used, equal to the average cash rent for central Illinois, high-productivity farmland. Given this average cash rent, net income from cash rent farmland is projected at -\$41 per acre (\$244 operator and land return - \$285 cash rent). Cash rents vary greatly from parcel to parcel. Some farms will have much higher cash rents than the average, and vice versa. Therefore, net incomes from cash rented land will vary across farms.

For share rented farmland, the farmer's land cost is the landowner's net share of revenue and costs, plus any cash rent paid by the farmer to the landowner. These land costs are estimated at \$243 per acre based on 50-50 sharing of revenue and direct costs between landowner and farmer, plus an additional \$25 cash rent paid by the farmer to the landowner. Net income from a share rent acre is \$1 per acre (see Table 1).

Land costs for owned land include property tax and interest on farmland mortgage debt. Property taxes are estimated at \$30 per acre. Table 1 has \$115 of interest costs per acre based on \$2,500 of outstanding debt at a 4.6% interest rate. Obviously, higher debt outstanding would result in higher interest costs and vice versa. Further note that interest costs are not the entire cash flow associated with mortgages as principal repayment is not included. Given the \$145 of land costs, net income from an owned acre is \$99 per acre.

We request all readers, electronic media and others follow our citation guidelines when re-posting articles from *farmdoc daily*. Guidelines are available [here](#). The *farmdoc daily* website falls under University of Illinois copyright and intellectual property rights. For a detailed statement, please see the University of Illinois Copyright Information and Policies [here](#).

Table 1. Projected 2015 Net Incomes per Acre for Different Land Control Methods, Central Illinois with High Productivity Farmland

	Land Control Method		
	Cash Rented	Share Rented	Owened
Operator and Land Return	\$244	\$244	\$244
Less land costs			
Cash rent	285		
Share rent costs ¹		243	
Property tax			30
Interest on farmland debt ²			115
Net income	-\$41	\$1	\$99

¹ Return to share rent landowner based on sharing 50% of revenue and direct costs, plus a \$25 supplemental rent paid to the landowner.

² Based on \$2,500 debt per acre at a 4.6% interest rate. Note that this is only interest. Principal payment is not included.

Weighted per Acre Net Income based on Land Control Percentages

Most farmers have a combination of cash rented, share rented, and owned farmland. In central Illinois, commercially-sized farms have an average of 47% cash rented farmland, 39% share rented farmland, and 14% owned farmland. Given these percentages and per acre net incomes in Table 1, net income from farming operations in 2015 is projected at -\$5 per acre (see Table 2).

Table 2. Net Income Based On Percent of Acres that are Cash Rented, Share Rented, and Owned

Land Control	Net Income	Percent	Control Weighted Return
	\$ /acre		\$ /acre
Cash rented	-41	47%	-19
Share rented	1	39%	0
Owened	99	14%	14
Net Income from Grain Operations			-5

Farms with different compositions of cash rented, share rented, and owned land will have different net incomes. This year, those farms with more cash rent farmland will have lower net incomes. Take, for example, a farm with 90% of its farmland cash rented and 10% owned. If this farm rents farmland at the average cash rent of \$285 per acre, net income based on this composition will equal -\$27 per acre, -\$21 less than the -\$5 net income for a more typical composition of farmland control.

Higher cash rents result in lower income. The above example with 90% cash rent has -\$27 per acre net income at an average \$285 per acre cash rent. Increase cash rent by \$30 to \$315 per acre results in -\$54 per acre of net income.

Projected Income for a 1,500 Acre Farm

Take a 1,500 acre grain farm with 47% cash rented farmland, 39% share rented farmland, and 14% owned farmland. If this farm has average land costs, Projected income from farming operations is -\$7,530 (-\$5 per acre x 1,500 acres).

Net income often comes from other sources than from grain operations:

- Net income from related activities. Farms often receive modest amounts of income from activities closely related to farming operations including revenue from patronage dividends and relatively small amounts of custom work. Many farms typically have between \$10 and \$15 per acre of related income.
- Net income from other agricultural enterprises. Many farmers have other agricultural enterprises. These could include custom farming operations, agricultural sales business, custom livestock feeding, and livestock operations.
- Marketing gains or losses. Revenue from crop sales often occurs in the year following production. For example, grain produced in 2014 but sold 2015 could have a marketing gain or loss. Any difference in the valuation of 2014 grain on the 2014 balance sheet from the actual sales price in 2014 results in a marketing gain. If selling price was higher than valuation price, a marketing gain occurs (see *farmdoc daily* [May 27, 2015](#) for more detail).

Income is estimated given that it has no other agricultural enterprises. In this case, the farm likely has \$15 of related activity income, contributing \$15,000 to a farm's net income. In 2015, old crop marketing likely is very small or negative. At this point, marketing gains are projected at \$0. Given -\$7,530 of net income from operations and \$15,000 of income from other related activities, a 1,500 grain farm is projected to have \$7,450 of net income.

The 2014 net income for this 1,500 acre grain farm was \$103,500, \$96,050 lower than in 2015 income. Reasons for lower income include:

- Operator and land returns are lower in 2015 as compared to 2014. The 2014 operator and land return for central Illinois high-productivity farmland was \$294 per acre, compared to a \$244 projected for 2015.
- Significant marketing gains occurred in 2014 while marketing losses are more likely for 2015. In 2014, many farms had marketing gains of around \$20 per acre. Marketing gain will be near \$0, and perhaps negative, for 2015.

Overall, substantial decreases in incomes are projected for 2015.

Summary

Grain farm incomes are projected to be much lower in 2015 as compared to 2014. Farms with higher percentage of their acres in cash rent likely will have lower incomes. As yields and prices can vary from projection, actual incomes could vary dramatically from those given in this paper. Overall though, substantial decreases in incomes should be expected for 2015.

Further detail on net income projections will be given in a July 21st *farmdoc daily* article.

References

Schnitkey, G. "[Projected 2016 Crop Returns: Continuing Need to Adjust to Lower Returns.](#)" *farmdoc daily* (5):124, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, July 7, 2015.

Schnitkey, G. "[Marketing Gains Impacts on 2014 and 2015 Net Incomes on Grain Farms.](#)" *farmdoc daily* (5):97, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, May 27, 2015.