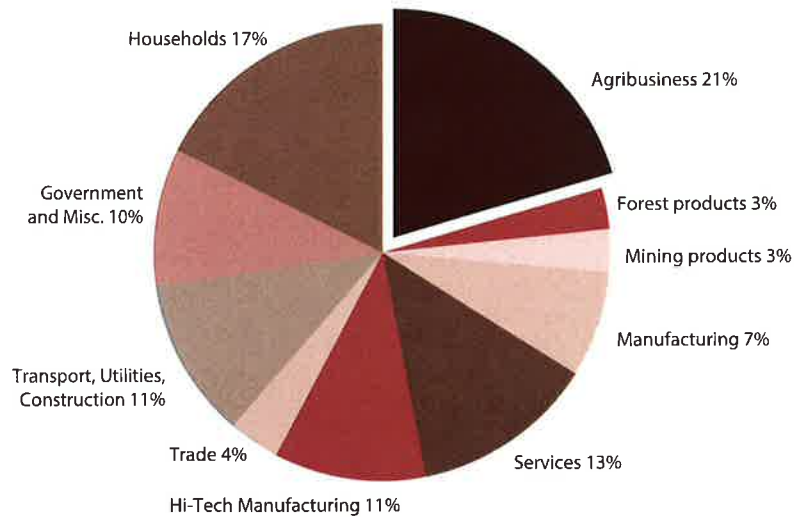


Contribution of Agribusiness to Idaho's Economy

Agribusiness is a vertically integrated industry comprising food production and processing. In providing food to national and international markets, agribusiness creates business sales and jobs throughout the Idaho economy and contributes to the state's GDP. Agribusiness export dollars ripple throughout Idaho's economy, creating (directly and indirectly) \$27 billion in sales (21% of total economic output), more than 126,000 Idaho jobs (14% of state employment), and more than \$10 billion of state GDP (16% of GDP). Agribusiness is Idaho's largest (export-driven) base industry as ranked by base sales, third largest by base GDP, and fourth largest by base jobs.

Direct and Indirect Sales, by Industry, for the Idaho Economy, 2013



Source: G. Taylor, B. Eborn, and P. Watson. Contribution of Agribusiness to Idaho's Economy, 2013. University of Idaho Extension Bulletin 900. Published in 2015.

Idaho Farm Cash Receipts

Idaho's 2018 farm cash receipts are estimated to be \$7.18 billion—relatively unchanged from 2017's \$7.20 billion, but 18% lower than the record high of \$8.8 billion in 2014.

2018 crop revenues are estimated at \$3.0 billion, up 5% from 2017's \$2.8 billion and 3% below the 10-year average. Wheat (up 16%), hay (up 26%) and beans (up 14%) recorded the largest increases in receipts over 2017. Other major crops posted small increases: barley (up 3%) and sugarbeets (up 3%). Potatoes (down 4%) were the only major crop that posted a decrease. Revenue from crops (except sugarbeets) is recorded on a calendar-year basis and, therefore, includes a portion of the previous year's and the current year's production.

Livestock revenues are estimated at \$4.2 billion, down 4% from 2017 and 1% higher than the 10-year average. Cash receipts from milk are expected to be \$2.4 billion, down 6% from last year's \$2.5 billion. Cash receipts from cattle and calves are projected to be \$1.6 billion, 1% lower than 2017.

In real dollars (inflation adjusted to 2012), estimated cash receipts are 28% higher than the 39-year (1980 to 2017) average. Extreme volatility in commodity prices over the past ten years has increased agricultural revenue volatility to levels not seen since the 1970s and 1980s. In the past 10 years (2009–2018) real cash receipts have grown at an average annual rate of 1.7%. In the previous two decades (1983–2002) real cash receipts grew at an average annual rate of 0.4%.

Idaho Net Farm Income

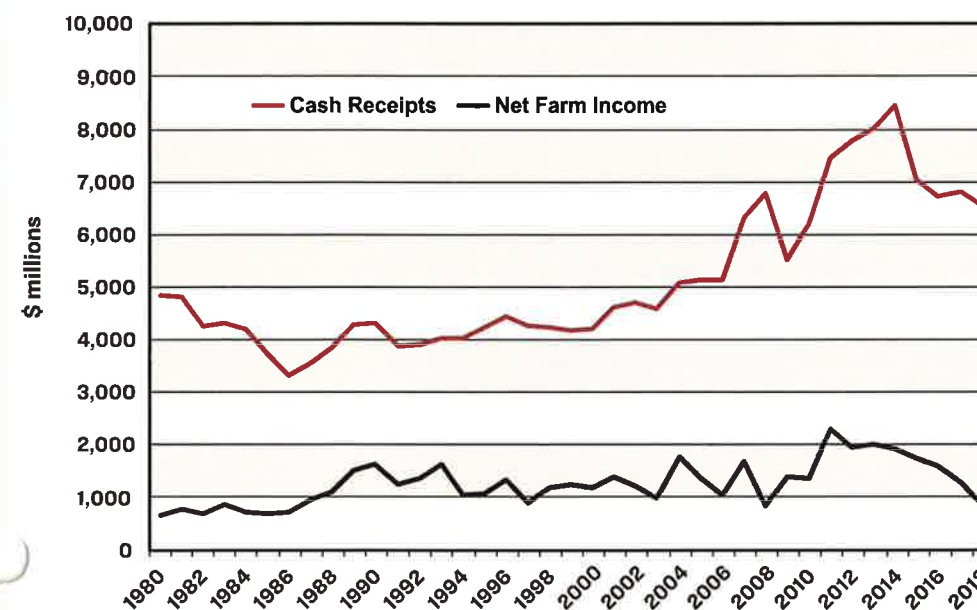
Net farm income is the farmer's bottom line, or revenues minus costs. Revenues include cash receipts from crop and livestock sales, inventory changes, the estimated value of home consumption, government payments, machine hire and custom work, forest product sales, and the imputed rental value of farm dwellings. Farm expenses include farm-origin inputs (purchased livestock, feed, and seed), manufactured inputs (fertilizers, fuel, and electricity), and "other inputs," including repairs and maintenance, machine hire and custom work, marketing, storage, transportation, and contract labor.

The projected 27% decrease in 2018 Idaho net farm income resulted from an estimated 0.5% decrease in revenues coupled with an estimated 4% increase in expenses. Estimated net farm income in 2018 is \$902 million, 43% below the 10-year average. In contrast, USDA's 2018 U.S. net farm income is estimated at \$66 billion, down 12% from 2017, and 2017's U.S. net farm income was up 22% from 2016.

Historically, net farm income is much more volatile than gross cash receipts. In six of the past 10 years, Idaho experienced double-digit swings in net farm income. Net farm income jumped 68% from 2008 to 2009, then increased 72% from 2009 to 2010 and 74% from 2010 to 2011. The 27% decrease in 2018 came on the heels of a 27% decrease in 2017 and a 7% decrease in 2016. Real-dollar Idaho net farm income (inflation adjusted to 2012) set a 49-year record (1970–2017) in 2011. Idaho real net farm income for 2018 is estimated to be 33% below the 49-year average.

The overall increase in farm expenses in 2018 was attributed to a 3% increase in farm-origin inputs (feed, seed, and replacement livestock purchases) and a 4% increase in manufactured inputs (fertilizer, chemicals, and fuel). Other expenses were up 3%, including machine hire and custom work, marketing, storage, transportation, repairs, and maintenance. Contract labor was up 4%. Interest expenses were up 18% and fuel and oil expenses were up 19% in 2018.

Idaho Farm Cash Receipts and Net Farm Income, 1980-2018



Sources: USDA Economic Research Service, Idaho office of the National Agricultural Statistics Service, and UI projections.

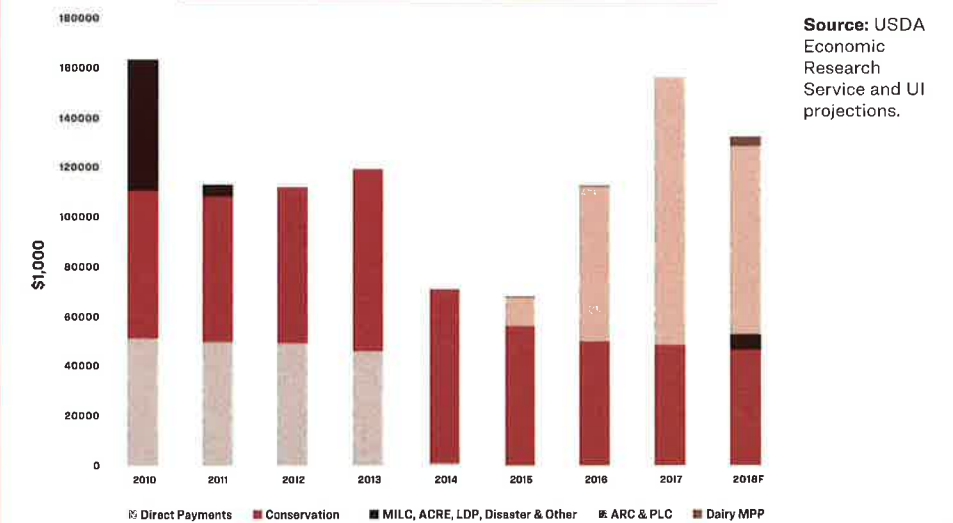
Note: In real dollars (2012 base).

Government Payments

Federal government payments to Idaho agriculture in fiscal year 2018 are estimated at \$132 million, a decrease of 19% from 2017 and 4% more than the average of the past 10 years.

In 2018, direct payments contributed 21% to total U.S. net farm income. In contrast, government payments contributed 15% to Idaho's net farm income, down from a high of 19% in 2009. Idaho received less than 1% of total 2018 payments to U.S. agriculture.

Idaho Government Payments, 2009-2018

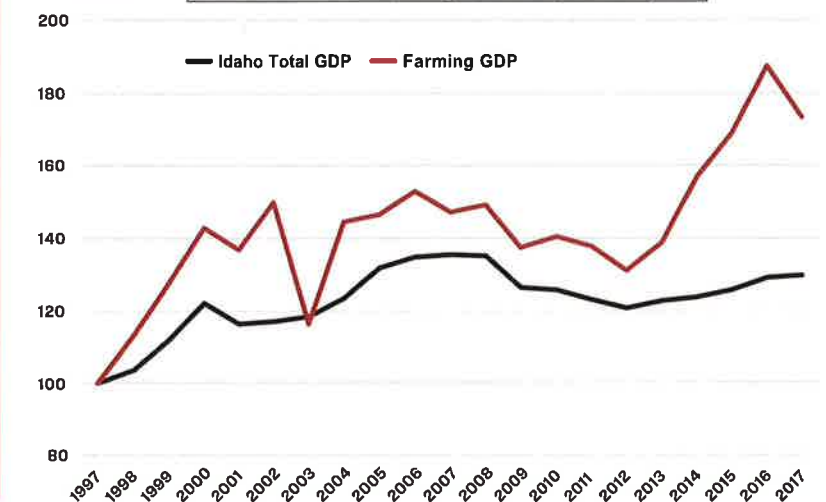


Source: USDA Economic Research Service and UI projections.

Idaho Agriculture's Gross Domestic Product

Gross domestic product (GDP) measures value added. It equals the value of output minus the value of intermediate goods and services used in production. GDP grows when farms and businesses become more efficient—increasing output while reducing use of intermediate inputs. In 2017, Idaho's nominal GDP exceeded \$72 billion, of which 4.1% was generated by farming. Farm GDP in 2017 increased by 2% over 2016, to \$3.0 billion. Over the past 21 years (1997–2017) inflation-adjusted (2012 dollars) Idaho GDP has grown by 81%, while Idaho farm GDP increased 142%.

Idaho Total and Farming GDP Index (1997=100)



Chained dollars—2012 base.

Source: U.S. Department of Commerce Bureau of Economic Analysis and UI projections.

Idaho Livestock and Crop Revenues

Cattle and Calves

Revenue from cattle and calves is estimated at \$1.6 billion in 2018, down 1% from 2017. Strong export markets have supported higher than expected beef prices following four years of expansion in the U.S. beef cow herd. The January 1 inventory of Idaho beef cows was 510,000 head in 2018, up 2% from 2017.

Milk

Weaker milk prices through 2018, below \$16 per cwt in several months, decreased milk revenues to an estimated \$2.4 billion, down 6% from 2017. Idaho ranks third in the nation for milk production, with an output of 15 billion pounds in 2018. Production was up 2% from 2017, but prices averaged 8% lower. The January 1, 2018, milk cow inventory was 600,000 head, unchanged from 2017.

Barley

Idaho barley production in 2018 increased an estimated 10% from 2017, and the average barley price is projected to be 6% lower. Barley revenues in 2018 are estimated to be \$245 million, an increase of 3% from 2017. The state's average yield is estimated to be 101 bushels per acre, up 6 bushels per acre from 2017.

Dry Beans

Dry bean revenues are estimated at \$74 million for 2018, 14% higher than in 2017. Growers harvested 188,000 acres, up 10,000 acres from 2017. Yields averaged 16 cwt per acre, unchanged from 2017 and prices were down 14% per cwt.

Hay

As measured by sales, hay is Idaho's third-most-valuable crop. Cash receipts are projected to be \$483 million, up 26% from 2017. Approximately 45% of the hay produced in Idaho is fed on the farms where it was produced rather than being sold; the total value of hay production is estimated at \$835 million in 2018. Idaho hay production was 5.7 million tons, up 12% from 2017. A good hay year coupled with low stocks in neighboring states and strong domestic demand pushed Idaho's hay prices up 9%. The average price was \$146 per ton, up \$12 per ton from 2017.

Potatoes

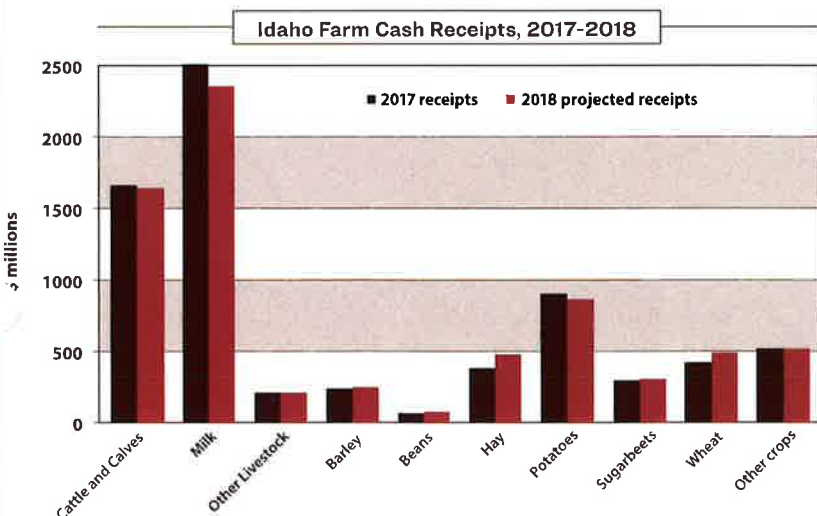
Potatoes remain Idaho's largest crop source of farm cash receipts, with revenues estimated to be \$864 million in 2018, 4% lower than 2017. Potato production is estimated to be 138.6 million cwt, up 3% from 2017. Yields in 2018 were at a record high 440 cwt per acre. The average price is estimated to be down 13%, to \$6.82 per cwt.

Sugarbeets

Sugarbeet revenues are estimated to be \$302 million, up 3% from 2017. Sugarbeet yields averaged 41 tons per acre and production is projected to be 6.6 million tons, up 1% from 2017. Growers harvested 4,100 fewer acres than in 2017. Idaho's projected 2018 average beet price of \$45.80 per ton is 2% higher than in 2017.

Wheat

Wheat was Idaho's second largest crop by revenue in 2018; revenues are expected to be \$490 million, up 16% from 2017. Production was 104.4 million bushels, up 15% from 2017. Declining stocks and strong exports boosted wheat prices up 14% from 2017's dismal prices.



Sources: USDA National Agricultural Statistics Service and UI projections.

Idaho Net Farm Income (\$ millions)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Change (%)
REVENUES											
Crop Production	2,630	2,691	3,292	3,725	3,496	3,262	2,818	2,836	2,822	2,977	5%
Livestock Production	2,563	3,250	4,004	4,058	4,651	5,487	4,562	4,271	4,381	4,203	-4%
Farm Related Income	674	452	603	526	642	571	616	539	634	670	6%
Government Payments	140	164	113	127	129	83	86	130	162	132	-19%
Home Consumption	10	12	12	17	17	14	16	14	15	16	2%
Inventory Adjustment	100	(87)	147	134	(167)	(62)	236	21	(38)	(61)	
TOTAL REVENUES	6,118	6,482	8,171	8,587	8,769	9,355	8,335	7,812	7,976	7,937	0%
EXPENSES											
Farm Origin Inputs	1,461	1,418	1,926	2,070	2,129	2,538	2,163	1,710	1,993	2,059	3%
Manufactured Inputs	935	947	1,202	1,333	1,302	1,313	1,179	1,067	1,210	1,262	4%
Other Inputs	1,263	1,150	1,106	1,321	1,272	1,335	1,237	1,281	1,438	1,481	3%
Contract Labor	56	30	36	46	59	70	51	78	76	79	4%
Property Taxes & Fees	126	126	133	155	137	167	142	132	131	140	6%
Capital Consumption	243	253	278	461	508	653	589	616	528	526	0%
Payments to Stakeholders	1,284	1,264	1,240	1,247	1,315	1,295	1,160	1,249	1,366	1,487	9%
TOTAL EXPENSES	5,367	5,188	5,922	6,634	6,722	7,371	6,522	6,132	6,743	7,034	4%
NET FARM INCOME	750	1,294	2,250	1,954	2,047	1,985	1,813	1,679	1,233	902	-27%
Year-to-Year Change	68%	72%	74%	-13%	5%	-3%	-9%	-7%	-27%	-27%	

SOURCES: 2009–2017: Economic Research Service/USDA. 2018: Forecasted by G. Taylor and B. Eborn, University of Idaho. NOTE: Some data for 2017 are preliminary and all 2018 data are preliminary.

Idaho Cash Receipts from Farm Marketings (\$ millions)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Change ('17-18)
LIVESTOCK											
Cattle and Calves	973	1,191	1,377	1,406	1,863	2,044	1,959	1,715	1,662	1,639	-1%
Milk	1,431	1,899	2,433	2,422	2,573	3,198	2,352	2,356	2,510	2,359	-6%
Other Livestock	159	160	194	230	215	246	251	201	209	205	-2%
TOTAL LIVESTOCK	2,563	3,250	4,004	4,058	4,651	5,487	4,562	4,271	4,381	4,203	-4%
CROPS											
Barley	224	201	213	286	326	295	267	268	237	245	3%
Beans	57	60	80	95	78	63	93	80	65	74	14%
Hay	345	337	569	530	544	551	440	354	384	483	26%
Potatoes	781	815	901	950	930	919	871	869	905	864	-4%
Sugarbeets	185	269	332	369	296	254	284	301	292	302	3%
Wheat	547	557	681	841	674	647	367	445	421	490	16%
Other Crops	491	453	516	654	649	534	495	519	518	519	0%
TOTAL CROPS	2,630	2,691	3,292	3,725	3,496	3,262	2,818	2,836	2,822	2,977	5%
TOTAL CASH RECEIPTS	5,193	5,941	7,296	7,783	8,147	8,750	7,380	7,107	7,202	7,180	0%
Year-to-Year Change	9%	14%	23%	7%	5%	7%	-16%	-4%	1%	0%	

SOURCES: 2009–2017: Idaho Agricultural Statistics Service. 2018: Forecasted by G. Taylor and B. Eborn, University of Idaho. NOTE: Some data for 2017 are preliminary and all 2018 data are preliminary.

The authors—Ben Eborn, Extension Economist, and Garth Taylor, Economist, UI Department of Agricultural Economics and Rural Sociology, Moscow.



The Financial Condition of Idaho Agriculture: 2018

Ben Eborn and Garth Taylor

Idaho net farm income in 2018 is projected to fall 27%, the fifth consecutive year of decline.

Cash receipts from sales of crops and livestock are projected to be \$7.2 billion in 2018, relatively unchanged from 2017. Cash receipts for two of Idaho's major commodities—wheat and hay—increased by 16% and 26%, respectively. Cash receipts for milk, Idaho's leading agricultural commodity, decreased by an estimated 6%.

Idaho's 2018 net farm income is projected to be \$902 million, a drop of 27% below 2017. Total revenues are relatively unchanged at \$7.9 billion and expenses are projected to increase by 4%, to \$7.0 billion. If realized, 2018 net farm income will be the lowest since 2009, the year of the record low milk prices, and off 60% from the peak in 2011.

Highlights:

- Exports from farms and food processors ripple throughout Idaho's economy to make agribusiness Idaho's largest industry. One of every five dollars in sales is directly or indirectly created by agribusiness.
- Idaho ranks first in U.S. potato production. With 2018 projected cash receipts of \$864 million, potatoes are Idaho's largest crop sales. Wheat and hay follow with projected cash receipts of \$490 million and \$483 million, respectively.
- Idaho ranks third in the U.S. for milk production. With \$2.4 billion in cash receipts, milk is the top source of cash receipts from Idaho's agricultural production. Second to milk are cash receipts from cattle and calves, projected to be \$1.6 billion.
- Idaho agriculture is driven largely by livestock. Nearly 59% of Idaho cash receipts are livestock products: milk, beef, and other (trout, sheep, etc.). Hay, silage, feed grains, and even the by-products of beet pulp and potato waste are livestock feed.
- Idaho's net farm income continued to be volatile in 2018, with a forecast of 27% lower than 2017. The 2018 decrease makes five consecutive years of decline. Only four of the last fifteen years have seen less than double-digit, year-to-year changes in net farm income. 2018 net farm income is 60% lower than the record of \$2.25 billion set in 2011.
- Except for 2009—a year of disastrously poor milk prices—livestock cash receipts have surpassed crop cash receipts every year since 2001. In 2018, livestock cash receipts are estimated to be 59% of total cash receipts, surpassing crop cash receipts by \$1.2 billion.
- Federal government payments in fiscal year 2018 are estimated at \$132 million, a decrease of 19% from 2017. Grain commodity programs constitute 57% of government payments while conservation programs accounted for 35% and disaster programs accounted for 5%. Dairy Margin Protection Program payments were roughly \$4 million in 2018.
- Tremendous yields of wheat, barley, sugar beets, hay, and record yields in potatoes, further depressed Idaho crop prices.