

Economic Contribution of Idaho Agribusiness 2018



University of Idaho
Extension



Author—Philip Watson, Associate Professor,
Department of Agricultural Economics and
Rural Sociology, University of Idaho College of
Agricultural and Life Sciences

Issued in furtherance of cooperative extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Barbara Petty, Director of University of Idaho Extension, University of Idaho, Moscow, Idaho 83844. The University of Idaho has a policy of nondiscrimination on the basis of race, color, religion, national origin, sex, age, sexual orientation, gender identity/expression, disability, genetic information or status as a Vietnam era veteran.

Contents

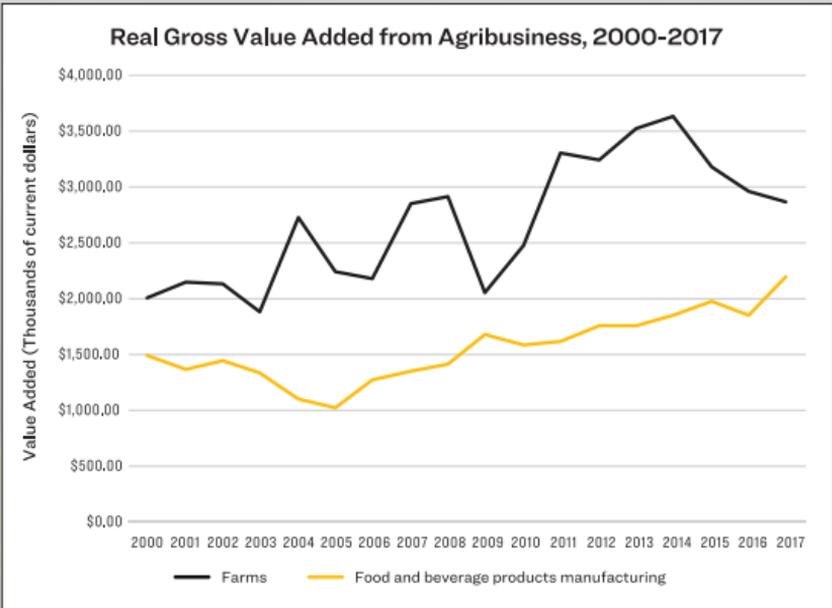
Gross Contribution of Idaho Agribusiness, 2017	4
Base Contribution of Idaho Agribusiness, 2017.....	5
Definitions	6
Contribution of Agribusiness to Idaho's Economic Base.....	8
Agribusiness in Idaho vs. Neighboring States.....	11
National Rankings: Crop and Livestock Production....	12
National Rankings: Gross Production and Market Value of Agricultural Products Sold	13
Idaho Agricultural Exports	14
Agricultural Commodities: Gross Receipts and Production.....	15
Agricultural Commodities: Production.....	16
Gross Economic Contribution: Idaho Crops	17
Gross Economic Contribution: Idaho Livestock	18
Gross Economic Contribution: Idaho Agricultural Processing	19
Indirect Contribution of Agribusiness to Idaho Jobs....	20
Indirect Contribution of Agribusiness to Value Added.....	21
Idaho's Top Agribusiness Counties	22

Gross Contribution of Idaho Agribusiness, 2017

In Idaho in 2017, agribusiness alone contributed:

- **\$19.7 billion in sales**
- **69,800 Idaho jobs**
- **\$5.5 billion in value added¹**

Source: Author calculations using IMPLAN data



Source: U.S. Bureau of Economic Analysis Regional Data, GDP by State and Industry

¹Value added is the sum of employee compensation, proprietary income, returns to capital, and indirect business taxes, and is a measure of a sector's contribution to GSP.

Base Contribution of Idaho Agribusiness, 2017

In addition to these direct contributions to the Idaho economy, agribusiness exports generate economic activity in other sectors of the Idaho economy. Accounting for these linkages between agribusiness and other sectors, Idaho agribusiness and the economic activity it generates in other sectors accounted for:

- **\$26.4 billion in sales**, or 18% of Idaho's total economic output
- **123,100 Idaho jobs**, or approximately 1 in every 8 jobs in the state
- **\$9.6 billion in value added**, or 13% of total Idaho GSP

Source: Author calculations using IMPLAN data

Definitions

Agribusiness is the vertically integrated industrial complex comprising all production agriculture – crop farming and livestock production – and the processing of agricultural products.

The total economic contribution of agribusiness to the Idaho economy can be described in two ways, using gross values and base values.

Gross values are the government-reported measures of economic activity in agribusiness – output (sales), jobs, and value added. Measuring gross values is an accounting task.

Base values include the agribusiness sector's export activity and the economic activity it spawns within other sectors and the state economy. The base sales contribution of the agribusiness sector, for example, is calculated as the sector's sales outside the state times the sector's multiplier. In gross analysis, the sale of a tire to a wheat producer would be credit to the state economy's retail trade sector; in base analysis, it would be credit to agribusiness.

In base analysis, the total economic contribution of agribusiness is made up of direct and indirect contributions:

Direct contributions are the jobs, value added, and output attributable to the out-of-state export of crop and livestock products.

Indirect contributions are generated when agribusiness firms purchase materials and services from other Idaho businesses to produce their exports.

Direct and indirect contributions are reported in terms of sales, jobs, wages, and value added:

Sales represent the output of the agribusiness sector.

Jobs represent wage-earning and salaried employees, including self-employed works, in agribusiness.

Wages are payments to workers, including benefits.

Value added is proprietary income and wages plus indirect taxes and other property-type income such as payments for rents, royalties, and dividends. Value added and gross state product (GSP) are equivalent measures in total but are estimated using different methods and data sources.

Sources:

Watson, P., S. Cooke, D. Kay, and G. Alward. 2015. A Method for Improving Economic Contribution Studies for Regional Analysis. *Journal of Regional Analysis & Policy*, 45(1):1-15.

"Contribution of Agribusiness to Idaho's Economy, 2010," by Taylor, G., B. Eborn, P. Watson and A. Rodriguez. CIS 1186. University of Idaho Extension, Feb. 2012.

"Economic Contribution of the Agricultural Sector to the Arkansas Economy in 2011," by English, L., J. Popp, and E.W. Miller. Research Report 992. Arkansas Agricultural Experiment Station, University of Arkansas System Division of Agriculture, Fayetteville. 2013.

Contribution of Agribusiness to Idaho's Economic Base

*Sales Contribution of the Agribusiness Sector in Idaho, 2017**

	Direct sales (exports)	Indirect sales	Total
Crop production	\$2.2 billion	\$1.9 billion	\$4.2 billion
Livestock and dairy production	\$2.4 billion	\$1.9 billion	\$4.3 billion
Agricultural processing	\$9.6 billion	\$8.3 billion	\$17.9 billion
Total	\$14.2 billion	\$12.2 billion	\$26.4 billion

*Value added contribution of the agribusiness sector in Idaho, 2017**

	Direct value added	Indirect value added	Total
Crop production	\$1.0 billion	\$1.1 billion	\$2.1 billion
Livestock and dairy production	\$0.9 billion	\$1.0 billion	\$1.8 billion
Agricultural processing	\$1.8 billion	\$3.8 billion	\$5.6 billion
Total	\$3.7 billion	\$6.0 billion	\$9.6 billion

**Individual values may not sum to total due to rounding*

Source: Author calculations using IMPLAN data

Agribusiness contributed:

- **\$26.4 billion in total sales**, which means that agribusiness was responsible for generating 18% of the state's total sales in 2017.
- **\$9.6 billion in value added**, or 13% of total Idaho GSP
- **123,100 jobs**, which is approximately 1 in every 8 jobs in the state.
- **\$4.2 billion in wages**, which is approximately \$1 of every \$9 of wages paid in the state of Idaho.

Source: Author calculations using IMPLAN data





Agribusiness in Idaho vs. Neighboring States

The agribusiness sector accounts for a greater share of the state economy in Idaho than in all of its neighboring states and the United States as a whole².

Agribusiness contributes 7% to Idaho GSP.

In comparison to neighboring states, this is:

- 3.4 times greater than in Washington
- 2.7 times greater than in Oregon
- 12.4 times greater than in Nevada
- 4 times greater than in Utah
- 3.9 times greater than in Wyoming
- 1.7 times greater than in Montana
- 3.3 times greater than in the United States as a whole

Source: Author calculations using U.S. Bureau of Economic Analysis Regional Data, GDP by State and Industry data.

²Calculations based on the percent contribution of the agribusiness sector to Idaho's GSP.

National Rankings: Crop and Livestock Production

Idaho has been the top producer of potatoes, barley, Austrian winter peas, and trout among all U.S. States, based on 2016 production levels. Idaho ranks among the top 10 states in production of twenty-eight crop and livestock commodities, including:

No. 1 in Potatoes	No. 4 in Onions
No. 1 in Barley	No. 4 in Spearmint Oil
No. 1 in Trout	No. 5 in Dry Beans
No. 1 in Austrian Winter Peas	No. 6 in Wheat
No. 2 in Peppermint Oil	No. 6 in Dry Peas
No. 2 in Sugarbeets	No. 7 in Canola
No. 2 in Wrinkled Seed Peas	No. 7 in Corn (Silage)
No. 2 in Alfalfa	No. 7 in Sheep and Lambs
No. 2 in Hops	No. 8 in Wool
No. 3 in Cheese	No. 9 in Peaches
No. 4 in Milk	No. 10 in Haylage
No. 4 in Lentils	No. 10 in Hay (All)
No. 4 in Milk Cows	No. 10 in Apples

Source: National Agricultural Statistics Service, 2017 Idaho Annual Statistical Bulletin

National Rankings: Gross Production and Market Value of Agricultural Products Sold

According to 2012 Census of Agriculture, Idaho ranked:

- No. 20 in **value of crops sold**, including nursery and greenhouse
- No. 15 in **value of livestock**, poultry and their products
- No. 19 in **total value of agricultural products** sold and had 24,816 farms on 11,760,109 acres (22.2% of Idaho's total 52,891,860 acres)

In 2017, Idaho cash receipts from all agricultural commodities totaled to approximately \$7.6 billion, with approximately \$4.6 billion from animals and their products and \$3 billion from crops.

Source: U.S. Bureau of Economic Analysis, CA45 Farm Income and Expenses, 2017

Idaho Agricultural Exports

Idaho ranked 23rd nationally in total international agricultural exports in 2017, with a value of \$2.0 billion. Plant product exports accounted for \$1.0 billion of total Idaho agricultural exports and animal product exports accounted for \$535 million.

Idaho ranked in the top five in the nation for international exports of three commodities:

- **No. 4 in dairy**, with international exports valued at \$356.2 million
- **No. 4 in fresh vegetables**, with international exports valued at \$296 million
- **No. 6 in wheat**, with international exports valued at \$295.7 million

Source: USDA Economic Research Service, 2017



Agricultural Commodities: Gross Receipts and Production

Cash Receipts and Production for Idaho's Crop and Livestock Commodities, 2017

Commodity	Cash Receipts, 2017 Nominal (Current Dollars, Thousands)
Dairy products, Milk	\$2,510,340
Meat animals	\$1,672,583
Cattle and calves	\$1,661,577
Vegetables and melons	\$1,047,685
Potatoes	\$904,692
Wheat	\$421,154
Hay	\$383,500
Sugar beets	\$292,040
Barley	\$237,228
Corn	\$80,392
Hops	\$68,796
Dry beans	\$65,129
Poultry and eggs	\$55,826
Trout	\$49,968
Onions	\$49,803
Chicken eggs	\$38,388
Mint	\$33,577
Peppermint oil	\$29,568
Turkeys	\$17,427
Mink pelts	\$11,380
Hogs	\$11,006
Peas, Green	\$10,019
Lentils	\$8,789
Apples	\$8,150
Honey	\$7,482
Canola	\$7,034
Peaches	\$6,629
Dry peas	\$6,331

Source: USDA Economic Research Service, 2017 Cash Receipts by Commodity

Agricultural Commodities: Production

Production and Rank of Idaho Crop and Livestock Commodities, 2017

Commodity	Production (thousands)	Units	Rank among states
Austrian winter peas	54	1,000 cwt	1
Barley	48,450	1,000 bushels	1
Potatoes	134,850	1,000 cwt	1
Trout	49,968	value of fish sold	1
Peppermint Oil	1,680	1,000 pounds	2
Sugarbeets	6,507	1,000 tons	2
Wrinkled seed peas	108	1,000 cwt	2
Hay, alfalfa	4,240	1,000 tons	2
Hops	13,759	1,000 pounds	2
Cheese	958,687	1,000 pounds	3
Dairy products, Milk	14,627,000	1,000 pounds	4
Wheat, spring	35,275	1,000 bushels	4
Lentils	315	1,000 cwt	4
Milk cows	600,000	head	4
Onions	5,800	1,000 cwt	4
Dry edible beans	2,873	1,000 cwt	5
Dry peas	234	1,000 cwt	6
Sheep and lambs	230,000	head	7
Corn, Silage	6,600	1,000 tons	7
Wheat, winter	53,600	1,000 bushels	7
Canola	34,565	1,000 pounds	7
Wool	1,600	1,000 pounds	7
Hay, all	5,128	1,000 tons	8
Honey	4,180	1,000 pounds	8
Haylage, all	983	1,000 tons	10
Apples	23.7	1,000 tons	11
Cattle and calves	2,400,000	head	12
Peaches	5.2	1,000 tons	13

Source: National Agricultural Statistics Service, 2018 Idaho Annual Statistical Bulletin, 2017 Production Year

Gross Economic Contribution: Idaho Crops

Idaho's crops sector includes all activities in the production and support of potatoes, sugarbeets, food and feed, grains, hay and pasture, fruits, nuts, vegetables, and oil-bearing crops and support services for crop farming such as custom harvester operations.

Gross Contribution of Crop Production to the Idaho Economy, 2017

Jobs	21,400
Wages	\$504 million
Value added	\$1.2 billion

Based on the gross contribution of crop farming to the Idaho economy, crop farming is responsible for

- 31% of all agribusiness jobs
- 23% of all agribusiness wages
- 23% of all agribusiness value added



Source: Author calculations using IMPLAN data

Gross Economic Contribution: Idaho Livestock

Idaho's animal livestock sector includes the production of beef, dairy products, poultry, eggs, trout, and other animals and their products.

Gross Contribution of Livestock Production, including Dairy, to the Idaho Economy, 2017

Jobs	17,700
Wages	\$197.4 million
Value added	\$1.6 billion

Based on the gross contribution of livestock production to the Idaho economy, livestock production is responsible for:

- 25% of all agribusiness jobs
- 9% of all agribusiness wages
- 29% of all agribusiness value added

Source: Author calculations using IMPLAN data



Gross Economic Contribution: Idaho Agricultural Processing

Idaho's agricultural processing sector makes products from both crops and livestock. Examples include grain milling, sugarbeet processing, and cheese manufacturing.

Gross Contribution of Agricultural Processing to the Idaho Economy, 2017

Jobs	20,800
Wages	\$1.2 billion
Value added	\$2.2 billion

Based on the gross contribution of agricultural processing to the Idaho economy, agricultural processing is responsible for

- 30% of all agribusiness jobs
- 53% of all agribusiness wages
- 40% of all agribusiness value added

Source: Author calculations using IMPLAN data

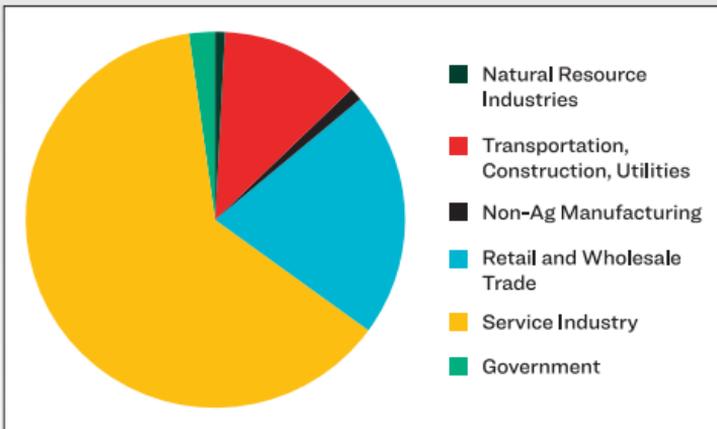


Indirect Contribution of Agribusiness to Idaho Jobs

Idaho agribusiness operations generated 58,200 jobs in other sectors of the Idaho economy in 2017.

Contribution of Agribusiness to Jobs in Other Sectors

Sectors	Indirectly created jobs
Natural Resource Industries	289
Transportation, Construction, Utilities	6,973
Non-Ag Manufacturing	529
Retail and Wholesale Trade	12,439
Service Industry	36,664
Government	1,306
Total	58,200



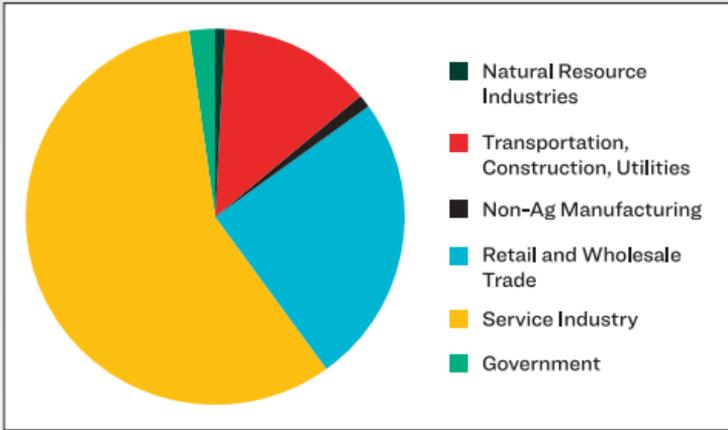
Source: Author calculations using IMPLAN data

Indirect Contribution of Agribusiness to Value Added

Idaho agribusiness generated \$4.5 billion in value added in other sectors of Idaho’s economy in 2017.

Contribution of Agribusiness to Value Added in Other Sectors

Sectors	Indirect value added
Natural Resource Industries	\$33 million
Transportation, Construction, Utilities	\$601 million
Non-Ag Manufacturing	\$54 million
Retail and Wholesale Trade	\$1.1 billion
Service Industry	\$2.6 billion
Government	\$97 million
Total	\$4.5 billion



Source: Author calculations using IMPLAN data

Idaho's Top Agribusiness Counties

Total Cash Receipts for Agricultural Crops and Livestock by County

Agricultural Cash Receipts (Thousands of dollars)					
County	Crops	Percent of State Total	Livestock	Percent of State Total	Total Ag Cash Receipts*
Gooding	\$82,290	2.75%	\$901,207	19.54%	12.94%
Cassia	\$232,088	7.76%	\$723,838	15.69%	12.57%
Jerome	\$121,480	4.06%	\$501,942	10.88%	8.20%
Twin Falls	\$166,759	5.58%	\$407,174	8.83%	7.55%
Canyon	\$237,982	7.96%	\$256,140	5.55%	6.50%
Bingham	\$351,782	11.77%	\$82,875	1.80%	5.72%
Minidoka	\$257,789	8.62%	\$107,359	2.33%	4.80%
Elmore	\$81,562	2.73%	\$275,562	5.97%	4.70%
Owyhee	\$64,070	2.14%	\$209,377	4.54%	3.60%
Jefferson	\$130,442	4.36%	\$113,641	2.46%	3.21%
Payette	\$42,432	1.42%	\$195,800	4.24%	3.13%
Ada	\$47,596	1.59%	\$185,597	4.02%	3.07%
Power	\$188,990	6.32%	\$36,766	0.80%	2.97%
Bonneville	\$128,179	4.29%	\$60,094	1.30%	2.48%
Fremont (includes Yellowstone Park)	\$170,662	5.71%	\$17,405	0.38%	2.47%
Lincoln	\$31,845	1.07%	\$147,094	3.19%	2.35%
Madison	\$125,341	4.19%	\$7,849	0.17%	1.75%
Franklin	\$19,131	0.64%	\$87,263	1.89%	1.40%
Caribou	\$57,565	1.93%	\$21,189	0.46%	1.04%
Washington	\$31,714	1.06%	\$39,762	0.86%	0.94%
Bannock	\$35,154	1.18%	\$19,303	0.42%	0.72%
Latah	\$47,041	1.57%	\$4,822	0.10%	0.68%
Nez Perce	\$36,766	1.23%	\$9,172	0.20%	0.60%
Idaho	\$25,249	0.84%	\$18,782	0.41%	0.58%

Total cash receipts by county, continued.

County	Crops	Percent of State Total	Livestock	Percent of State Total	Total Ag Cash Receipts*
Gem	\$13,401	0.45%	\$27,197	0.59%	0.53%
Teton	\$32,126	1.07%	\$6,024	0.13%	0.50%
Blaine	\$24,001	0.80%	\$11,014	0.24%	0.46%
Butte	\$27,276	0.91%	\$7,205	0.16%	0.45%
Lemhi	\$4,843	0.16%	\$28,764	0.62%	0.44%
Lewis	\$30,010	1.00%	\$3,035	0.07%	0.43%
Oneida	\$17,336	0.58%	\$14,440	0.31%	0.42%
Boundary	\$26,642	0.89%	\$4,622	0.10%	0.41%
Clark	\$20,793	0.70%	\$9,215	0.20%	0.39%
Bear Lake	\$8,524	0.29%	\$19,899	0.43%	0.37%
Custer	\$8,238	0.28%	\$18,120	0.39%	0.35%
Kootenai	\$16,401	0.55%	\$3,849	0.08%	0.27%
Camas	\$14,994	0.50%	\$3,631	0.08%	0.24%
Bonner	\$10,439	0.35%	\$4,181	0.09%	0.19%
Adams	\$3,081	0.10%	\$10,557	0.23%	0.18%
Benewah	\$10,966	0.37%	\$768	0.02%	0.15%
Valley	\$1,242	0.04%	\$5,619	0.12%	0.09%
Clearwater	\$3,805	0.13%	\$2,587	0.06%	0.08%
Boise	\$1,490	0.05%	\$1,859	0.04%	0.04%
Shoshone	\$48	0.00%	\$99	0.00%	0.00%

Source: U.S. Bureau of Economic Analysis, CA45 Farm Income and Expenses, 2017

*As percent of state total.





University of Idaho
Extension

Bulletin 892

Published January 2019

© 2019 by the University of Idaho