

Economic Contribution of Agriculture to the Arkansas Economy in 2008

Jennie Popp
Professor - Agricultural
Economics and
Agribusiness

Katherine McGraw
Research Associate -
Agricultural Economics
and Agribusiness

Wayne Miller
Professor -
Community and
Economic Development

Nathan Kemper
Program Associate -
Agricultural Economics
and Agribusiness

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Introduction

Agriculture¹ is critical to Arkansas' economy, generating approximately 17 percent of the state's value added and employment and 15 percent of income. In 2009, Arkansas was in the top 25 states in the production of 24 agricultural commodities and was in the top three states for six commodities: rice, broilers, upland cotton, cottonseed, catfish and turkeys. Cash receipts for Arkansas from all commodities totaled \$8.35 billion for the 2008 calendar year, the largest in Arkansas history. This fact sheet summarizes the findings of a recent study undertaken to analyze the economic contribution – in terms of jobs, income and value added² – of Arkansas' Agriculture Sector in 2008.

Measuring Economic Activity of Arkansas' Agriculture Sector

The economic contribution of agriculture includes not just the economic activity in the industries that make up the Agriculture Sector (Crop, Livestock and Forestry production and processing industries and the Agriculture-Related Sector), but also the indirect and induced contributions. The direct contributions of agriculture are measured by

production and processing of crops, poultry, livestock and forestry products and services performed by the Agriculture-Related Sector such as commercial hunting and trapping. Indirect contributions occur when the Agriculture industries purchase goods and services from other Arkansas businesses, such as when the poultry and egg producers purchase concrete and steel and secure financing to build new poultry houses. Agriculture's induced contributions are measured through increases in personal consumption by employees working in agriculture industries and agricultural supplying firms. The sum of these direct, indirect and induced contributions provides a measure of the total economic contribution of agriculture. These contributions are measured in terms of jobs, labor income and value added.

Agriculture's Contributions

Agriculture accounted for \$16.34 billion of value added to the Arkansas economy in 2008. That's 17 cents of every \$1 of value added in the state. It also provides 261,101 jobs, which is more than one in every six jobs in Arkansas, and \$9.57 billion in labor income, or more than 15 percent of the state's total labor income.

¹Agriculture is defined as the sum of agricultural production and processing activities, which includes crop and animal production and processing, forestry and forest products manufacturing, agricultural support industries and textile manufacturing.

²Value added is the sum of employee compensation, proprietary income and indirect business taxes.

Arkansas agriculture affects other sectors of the economy through direct, indirect and induced contributions to employment and value added. The sector generated jobs and value added in all 20 industries in the North American Industry Classification System (NAICS) used for economic analysis.

Elements of the Agriculture Sector

The direct, indirect and induced effects compose the Agriculture Sector. Employment, labor income and value added are created from each of the three types of effects. The majority of the effects of employment (60 percent), labor income (55 percent) and value added (53 percent) generated by agriculture are direct effects (Figure 1).

Direct Effects by Sector and Relative Importance of Commodities

Direct effects of Agriculture can be further differentiated by the sectors from which they arise: Crops, Animal Agriculture, Forestry and Agriculture-Related. This analysis only compares direct effects; indirect and induced effects are excluded. Animal Agriculture creates the most jobs and labor income, but the Crops Sector's value added is highest. The Agriculture-Related Sector (e.g., support activities for agriculture and forestry) is the smallest contributor to the direct effects (Table 1).

The Crops Sector directly contributed 56,051 jobs and \$3.26B in value added (Table 1). The Crops Sector includes all production and processing of cotton, food and feed grains, hay and pasture,

fruits, nuts, vegetables and oil-bearing crops. Rice, wheat, corn, grain sorghum, soybeans and cotton (grain, oilseed and cotton farming industries) accounted for 54 percent of value added and 63 percent of jobs in the Crops Sector in 2008.

Arkansas is a leading producer, processor and marketer of protein products. The Animal Agriculture Sector includes production and processing of poultry, eggs, beef and dairy products, hogs and pigs, catfish and other animals. The Animal Agriculture Sector directly contributed 57,601 jobs and \$2.55B in value added (Table 1). Poultry and egg production and processing is the leading industry in the Animal

Agriculture Sector. It had direct impacts of three of four direct Animal Agriculture jobs and \$3 of \$4 of Animal Agriculture value added (Figure 2)³.

Forestry is the leading employer in south Arkansas, which is one of the nation's leading timber-producing regions. The Forestry Sector includes forest products, furniture and wood and paper processing. The Forestry Sector directly contributed 34,065 jobs and \$2.62B in value added (Table 1). The top four forestry industries – paper mills, commercial logging, sawmills and wood preservation and sanitary paper product manufacturing – contribute 48 percent of value added (Figure 2).

Figure 1. The Agriculture Sector's Contribution to Arkansas' Economy in 2008

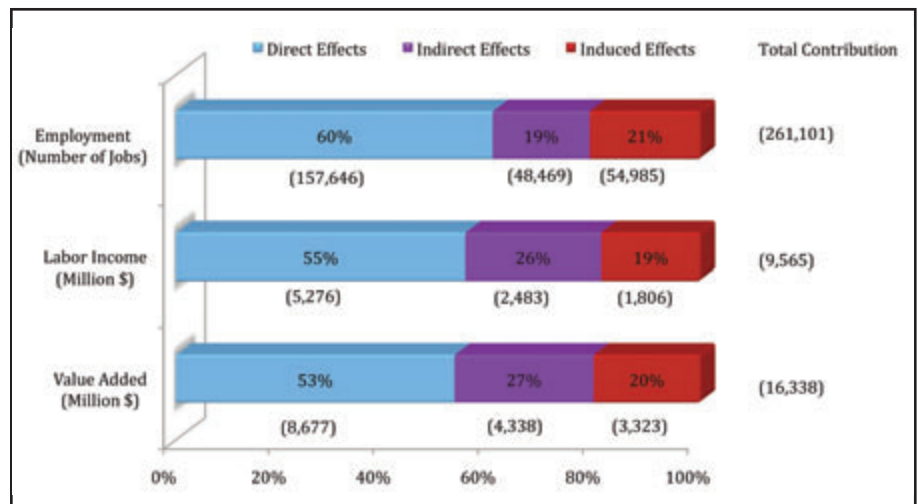


Table 1. The Direct Effects of the Agriculture Sector 2008

	Employment (Number Jobs)	Labor Income (000,000)	Value Added (000,000)
Crops	56,051	\$1,380	\$3,260
Animal	57,601	\$1,830	\$2,550
Forestry	34,065	\$1,730	\$2,620
Agriculture-Related	9,929	\$336	\$247
Total	157,646	\$5,276	\$8,677

³ When employment and income contributions are considered as well as value added, the top four overall contributing forestry industries are sawmills, commercial logging, paper mills and paperboard mills.

The Agriculture-Related Sector comprises those industries that support the Crops, Animal Agriculture and Forestry Sectors. Industries in this sector include commercial fishing, hunting and trapping and support activities for agriculture and forestry. The Agriculture-Related Sector directly contributed 9,929 jobs in 2008 and

\$250M in value added in 2008 (Table 1). Over 98 percent of value added in the Agriculture-Related Sector was contributed by the support activities for agriculture and forestry industry (Figure 2).

Conclusion

The contribution of agriculture in Arkansas is significant for job

creation, income and value added throughout the state's economy. Continued strength of agriculture is of paramount importance to the social and economic fabric of Arkansas communities and to the infrastructure and services that translate into quality of life for residents.

Figure 2. Direct Value Added by Industry of the Agriculture Sector in 2008



Printed by University of Arkansas Cooperative Extension Service Printing Services.

DR. JENNIE POPP is professor - agricultural economics and agribusiness, **KATHERINE MCGRAW** is research associate - agricultural economics and agribusiness and **NATHAN KEMPER** is program associate - agricultural economics and agribusiness with the University of Arkansas Division of Agriculture in Fayetteville. **DR. WAYNE MILLER** is professor - community and economic development with the University of Arkansas Division of Agriculture in Little Rock.

FSA43-PD-3-11N

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