

The Role of Agriculture in the North Dakota Economy

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Since statehood, agriculture has been the largest single component of North Dakota's economic base. However, recent problems in the agricultural sector, including low commodity prices and drought, have contributed to a long-term trend of declining farm numbers. How have these trends affected the role of agriculture in the North Dakota economy? This article attempts to answer that question by analyzing information from two databases — economic base (or sales for final demand) and agriculture and related employment.

Economic Base

The basic sectors (export industries), which sell some or all of their products or services to external markets, are central to the growth and vitality of any economic system. Their exports of products or services generate a return flow of basic

income (new wealth) into the (state, regional, or local) economy.

The composition of the economic base of North Dakota and its substate areas has been the topic of several previous analyses. The North Dakota Input-Output Model has provided the conceptual and methodological framework for these analyses. The model groups the state's economic activities into five broad categories of basic sector activity: (1) agriculture; (2) manufacturing, including agricultural processing; (3) energy extraction and conversion; (4) tourism; and (5) federal government operations.

In 1991, the most recent year for which complete information is available, crop and livestock sales and government farm program payments accounted for 35.4 percent of North Dakota's total economic base while agriculture-linked manufacturing accounted for another 1.4 percent (Figure 1). Thus, agriculture

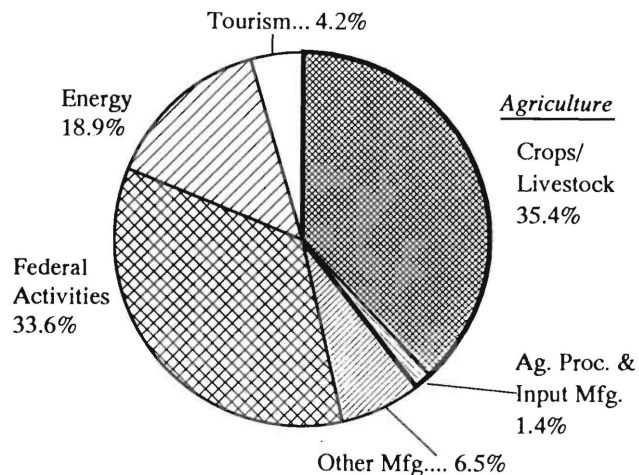


Figure 1. North Dakota's economic base, 1991.

remains North Dakota's most important basic sector. Moreover, agriculture remains the dominant component of the economic base for most of the state's rural counties, particularly in the eastern and central parts of the state: Agriculture accounted for 50 percent or more of the economic base of 31 of the state's 53 counties in 1991 (Figure 2). In 23 of the 31 counties, agriculture accounted for 60 percent or more of total sales for final demand.

Federal activities, which include federal payrolls, transfer payments, and construction expenditures, constitute the second largest source of basic income for the state in recent years. Recently however, federal budget pressures raise questions regarding the future of this economic base component. Hence, it is also useful to consider the role of agriculture as it relates to the other nongovernmental basic sector activities in North Dakota. As shown in Figure 3, agriculture (including agriculture-linked manufacturing) accounted for 55 percent of the state's total basic income, *excluding federal government activities*.

Farm and Farm-Related Employment

As the number of farms and ranches has decreased, the number of persons employed directly in crop and livestock production has also declined. From 1960 to 1990, direct agricultural employment (farm and ranch operators plus hired farm workers) statewide fell by 48 percent. Direct farm and ranch employment, however, tells only part of the story. In addition, many other jobs have been created as a result of agriculture. These include such jobs as agricultural processing, marketing, agricultural input manufacturing, and farm-related wholesale and retail trade.

Estimates of North Dakota's farm and farm-related employment for the period 1975-1988 have recently been developed. These data reveal that total farm and farm-related employment increased from 94,272 in 1975 to 95,092 in 1988 (Figure 4). During this period, the number of farm operators and farm workers fell from 57 percent to 47 percent of total farm and farm-related employment (or from about 19 percent of total state employment to about 13 percent). This decline was offset,

however, by gains in farm-related wholesale and retail trade, agricultural processing and marketing, and in the indirect agribusiness category. Thus, even with declines in farm numbers and the number of farm operators, the agriculture sector still provides an increasing number of jobs for workers in the state.

Estimates of farm and farm-related employment are available for all states, which allows a comparison of the relative importance of agriculture in their economies. In 1988, farm and farm-related employment accounted for 26.9 percent of North Dakota's total jobs, ranking third among all states. Only Iowa (27.7 percent) and South Dakota (27.6 percent) were more dependent on the agricultural sector.

Conclusions

The North Dakota economy has long been dependent upon agriculture for growth and vitality. Variability in agriculture has caused the state's economy to experience ups and downs, resulting in attempts to diversify the economic base. However, agriculture is still *the most important* segment of the state's economic base. Further, its products also provide the potential for additional employment through new processing facilities and value-added production.

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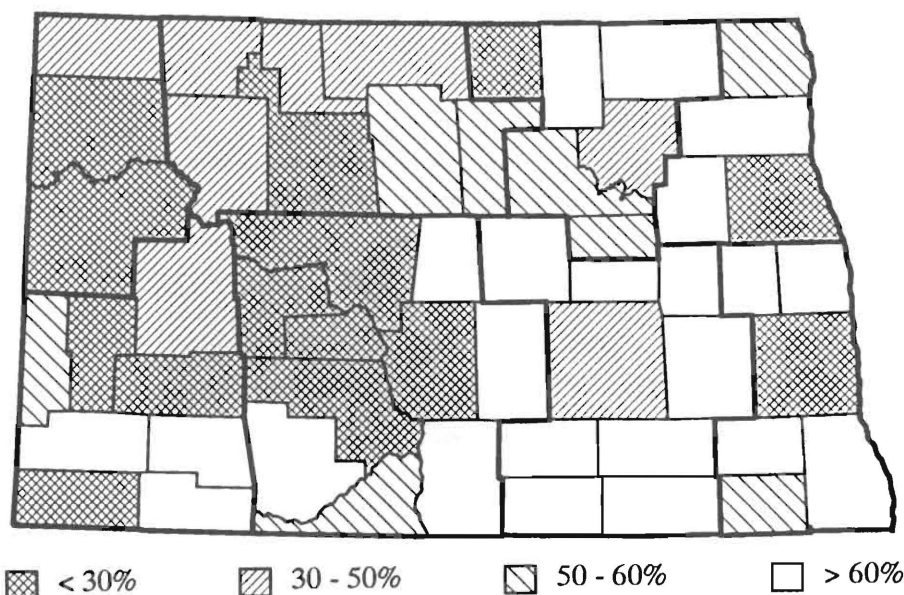


Figure 2. Agriculture as a percent of total sales for final demand, North Dakota counties, 1991.

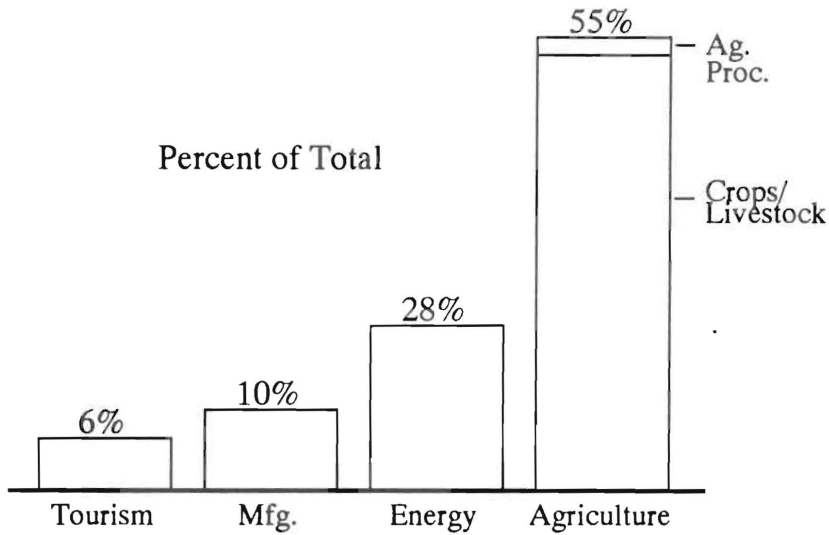


Figure 3. Role of agriculture and other nongovernmental basic sector activities in the North Dakota economic base, 1991, percent of total.

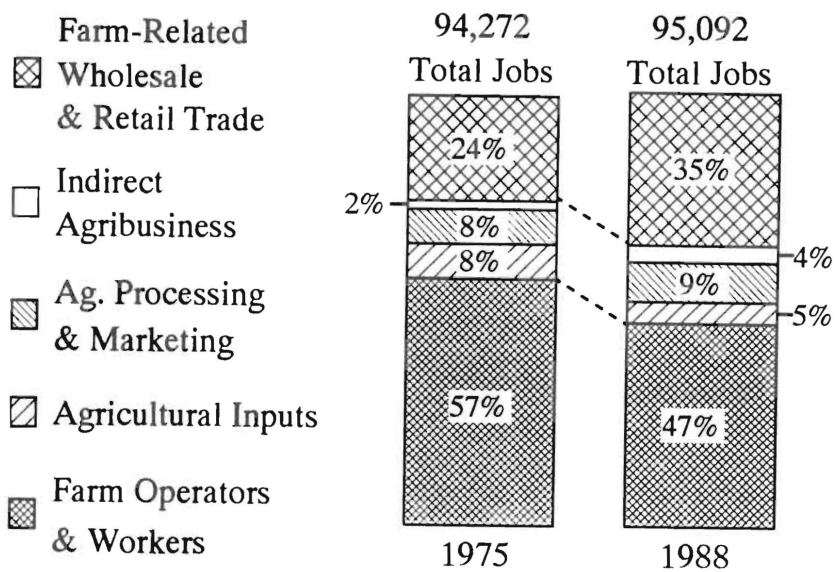


Figure 4. Farm and farm-related employment, North Dakota, 1975 and 1988