Arizona County Agricultural Economy Profiles University of Arizona Cooperative Extension

Overview

Navajo County is located in northeastern Arizona between Coconino and Apache counties. As of 2022, the population of Navajo County was 108,650. More than half of the county's population (64.3%) resides in rural areas, and a large share of the county consists of tribal areas, including lands of the Navajo Nation, the Hopi, and the White Mountain Apache tribes. Major population centers include Winslow, Holbrook, and Show Low. Top industries in Navajo County include government, tourism, forestry, and agriculture, specifically livestock production. Prior to the closing of the Kayenta Mine in 2019, coal mining was a major industry in the county.

More than 70% of Navajo County's land is in farms and on-farm agriculture directly accounts for approximately 1% of all private industry jobs and 1.33% of county GDP, higher than the state and national averages. The county's agricultural production is heavily influenced by tribal agricultural producers, ranking nationally as a top producer of horses, goats, and traditional corn. Navajo County accounts for about 1% of Arizona's total agricultural cash receipts.

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		Navajo	Apache
2	Yavapai		
2	_ ~~~		
La Paz	Gila		Greenlee
Yuma	Pinal	Gral	ham 9
	Pima Santa C	-	ochise

Map of Navajo County, Arizona

Indicator	Navajo County	Arizona
Land Area (square miles)	9,950	113,591
Land in Farms (Crops, Grazing) (square miles) (2022)	7,246	39,883
Population (2022)	108,650	7,359,197
Annual Average Population Growth Rate (2010-22)	0.1%	1.2%
Percent of Population Over 65 (2022)	20.0%	18.8%
Percent Population Rural (2020)	64.3%	10.7%
Total Employment (2022)	27,528	3,075,427
Share Federal, State, & Local Government Employment (2022)	34.7%	13.5%
GDP (2022)	\$3.4 billion	\$475.7 billion
Ag, Forestry, & Hunting GDP (on-farm only) (2022)	\$45.3 million	\$2.6 billion

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Industry	Location Quotient
Outpatient mental health and substance abuse centers	7.53
RV (recreational vehicle) parks and campgrounds	7.03
Automotive glass replacement shops	4.19
All other consumer goods rental	3.91
Nursery, garden center, and farm supply retailers	3.44
Ready-mix concrete manufacturing	3.4
Fuel dealers	3.12
Elementary and secondary schools	2.97
Tire dealers	2.44
Beef cattle ranching and farming	2.42

An economy can be characterized by the industries that make up its "base". A common way to measure this is with location quotients (LQs), the ratio of a particular industry's share of employment within a region to the same industry's share of national employment. An industry with a LQ greater than 1.25 is considered part of the economic base, exporting goods and services and bringing money into the region. LQs also help identify a region's areas of specialization. Higher LQs indicate greater specialization.

Of the top 10 most concentrated industries in Navajo County, beef cattle ranching and farming ranks 10th, with employment nearly 3 times more concentrated than the national average.

Top 10 Private Industries in Navajo County by Employment LQ, 2022





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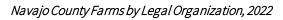
Every 5 years, U.S. Department of Agriculture releases the Census of Agriculture, the most comprehensive source of information on agricultural production by county. The Census provides information on the number of farms, types of crops and livestock produced, and farm characteristics, among other information. A farm is defined as any establishment that produced and sold, or could have sold, \$1,000 or more of agricultural products in the Census year. The following information comes from the most recent 2022 Census of Agriculture.

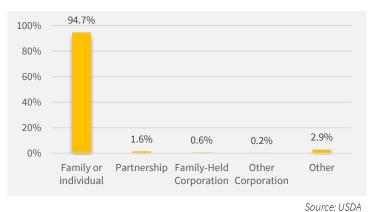
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Farms

There were 3,269 farms in Navajo County in 2022, covering 35,267 acres of cropland (99% of harvested cropland irrigated) and 4.6 million acres of pastureland (<1% irrigated). The average farm size was 1,419 acres, close to the state average of 1,528 acres, with the top 2% of farms accounting for 95% of county acreage. Of 3,269 farms, 2,573 had less than \$2,500 in sales and 19 farms had more than \$100,000 in sales. A large majority of county farms (95%) are family- or individually-held, 2% are partnerships, and only 0.2% are non-family-held corporate farms.

Farms are classified by the type of agricultural products they produce. When a farm or ranch produces more than one agricultural product, they are classified by the product that constitutes more than 50% of their sales. The most common type of operation in Navajo County is sheep and goat farming (1,370 farms), followed by beef cattle ranching and farming (896 farms), and aquaculture and other animal production (511 farms). While the number of farms is helpful in understanding how many farms "specialize" in different types of agricultural production, it does not reflect the magnitude or scale of production by commodity, which is better captured by sales or cash receipts (next page).









Source: USDA

Navajo County Farms by Industry, 2022

Category	Farms
Total farms	3,269
Oilseed and grain farming	70
Vegetable and melon farming	229
Fruit and tree nut farming	17
Greenhouse, nursery, and floriculture production	16
Other crop farming	131
Cotton farming	0
Sugarcane farming, hay farming, and all other crop farming	131
Beef cattle ranching and farming	896
Cattle feedlots	2
Dairy cattle and milk production	0
Hog and pig farming	7
Poultry and egg production	20
Sheep and goat farming	1,370
Aquaculture and other animal production	511
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Source: USDA



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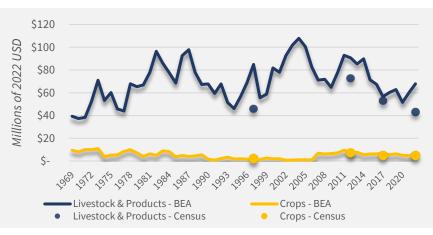


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Production & Marketing

Navajo County is a livestock-dominant county, with an estimated 90% of county cash receipts originating from sales of livestock. Livestock sales totaled \$43 million in 2022. Important livestock commodities for the county include cattle, sheep, wool, goats, and products thereof.

The county ranked third nationally in production of traditional or Indian corn. Other crops produced include vegetables and melons, with \$2.2 million in sales in 2022.



Navajo County Agricultural Cash Receipts, Crops & Livestock, 1969-2022

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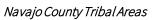
Source: USDA & BEA

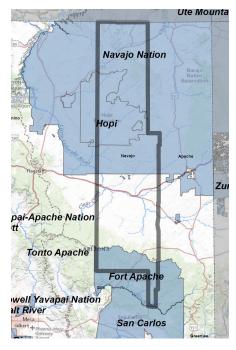
Tribal Agriculture

Navajo County includes portions of the Navajo Nation, the Hopi Reservation, and the Fort Apache Reservation. Statistics reported below represent production within entire tribal areas, therefore production occurring within Navajo County is only a portion of the totals reported. In 2017, there were 16,129 farms operating on the Navajo Nation with 16 million acres in farms and 212,465 acres in crops, generating \$87.7 million in sales. The most common type of farms on the Navajo Nation are those producing sheep and lambs, followed by horses, cattle and calves, and goats. There were 204 farms operating on the Hopi reservation with 1.7 million acres in farms, of which 3,182 acres were crops, generating total sales of \$1.5 million. Cattle and calf producers and farms growing traditional corn are the most common types of farms on the Hopi reservation. Traditional corn and vegetables are the most commonly produced crops. The Census of Agriculture does not report agricultural statistics for the Fort Apache Reservation.

Women in Agriculture

Navajo County is one of three counties in Arizona with more female than male principal agricultural producers (Apache, Coconino, and Navajo counties). These three counties also have more female producers than male producers overall, including non-principal producers. This is evidence of the influence of tribal agriculture on the county agricultural economy. Within the Navajo Nation, 53% of producers are female, and the three Arizona counties that include Navajo Nation lands (Apache, Coconino, and Navajo counties) are also the three counties with more female than male principal agricultural producers. In fact, driven in part by female producers in these counties, Arizona has the highest share of female agricultural producers (48%) in the nation.









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Irrigation Water Use

In Arizona, agriculture accounts for about 75% of the state's water use. More than half of withdrawals for agricultural uses in the state are from surface water. In some areas of the state with high demand, groundwater withdrawals for irrigated agriculture are limited by the 1980 Groundwater Management Act. This legislation established five Active Management Areas (AMA) as well as other Irrigation Non-Expansion Areas (INA) where groundwater pumping and expansion of irrigated agriculture are limited. There is no land in Navajo County within an AMA, but approximately 1.8% of the county is located in the Joseph City INA established under the Groundwater Management Act.

For more information on water in Navajo County, please visit the University of Arizona Water Resource Research Center county water factsheets by clicking <u>here</u> or scanning the QR code \rightarrow



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Extension Regional Economic Analysis Program

The Extension Regional Economic Analysis Program (EREAP) conducts applied research and economic analysis addressing economic development issues around Arizona. We work serving the needs of Cooperative Extension and its stakeholders, such as Arizona agricultural and agribusiness industries, natural resource users and organizations, and regional economic groups, to provide specialized analysis and targeted information. For more information or to contact us, please click <u>here</u> or scan the QR code to visit our site \rightarrow





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