



United States Department of Agriculture

Economic
Research
Service

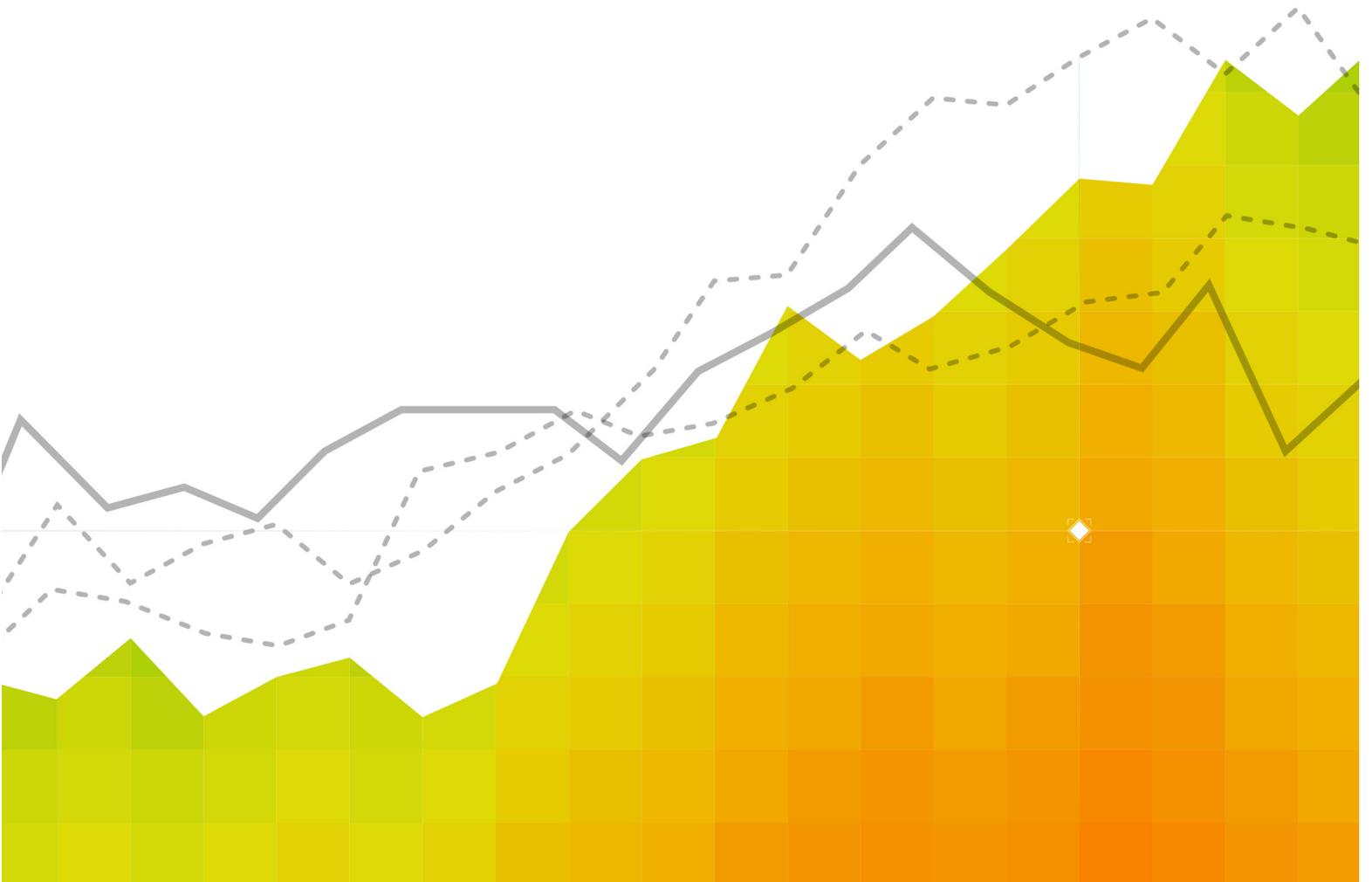
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Selected charts from

Ag and Food Statistics

Charting the Essentials, October 2017





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A message from the Administrator

The USDA's Economic Research Service (ERS) conducts high-quality, objective economic research to inform and enhance public and private decision making on emerging issues in agriculture, food, the environment, and rural America. Our online product, ***Ag and Food Statistics: Charting the Essentials***, covers key food and agricultural indicators and illustrates the scope of ERS's work through a series of 70 charts and maps. This booklet provides a sample of those maps and charts available on the ERS website.

Organized into nine topics, ***Charting the Essentials*** anticipates questions, such as how much do agriculture and related industries contribute to the U.S. economy? How has rural America recovered from the Great Recession? What are the top destinations for U.S. agricultural exports? What percent of income do Americans spend on food?

Since its launch, ***Charting the Essentials*** has provided a resource for public officials, researchers, educators, students, journalists, and anyone looking for current information on these topics.

I invite you to explore this booklet, and visit the ERS website where you can view and download all 70 charts and maps, as well as a variety of reports and other products, such as our daily Charts of Note and our online magazine, *Amber Waves*.

A handwritten signature in black ink, reading "Mary Bohman". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Mary Bohman, Ph.D.
Administrator

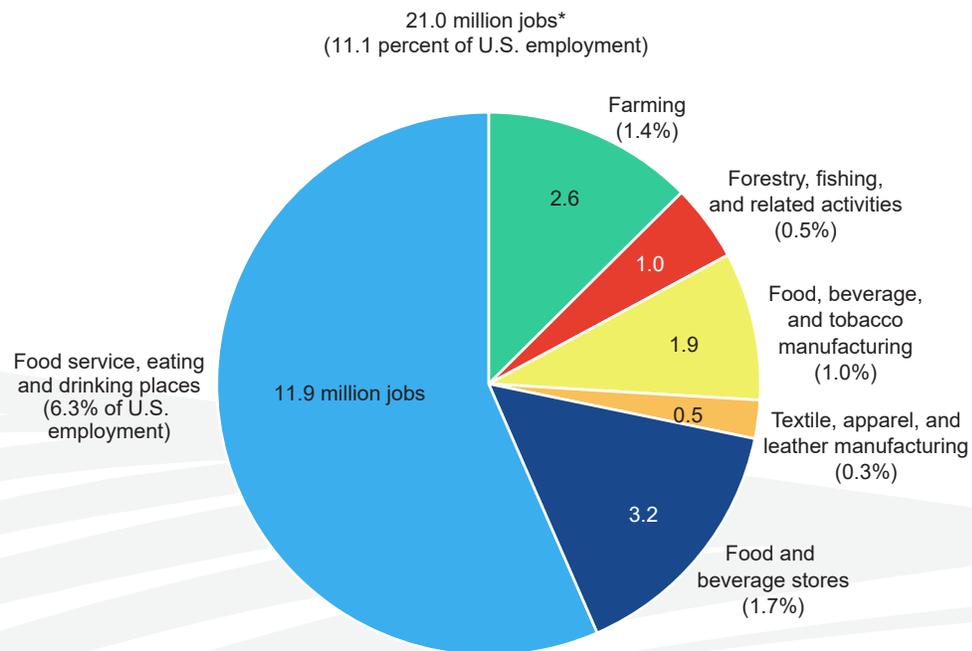


Ag and Food Sectors and the Economy

The U.S. agriculture sector extends beyond the farm to include restaurants, food manufacturers, and foodstores.

Agriculture and its related industries account for 11.1 percent of U.S. employment ...

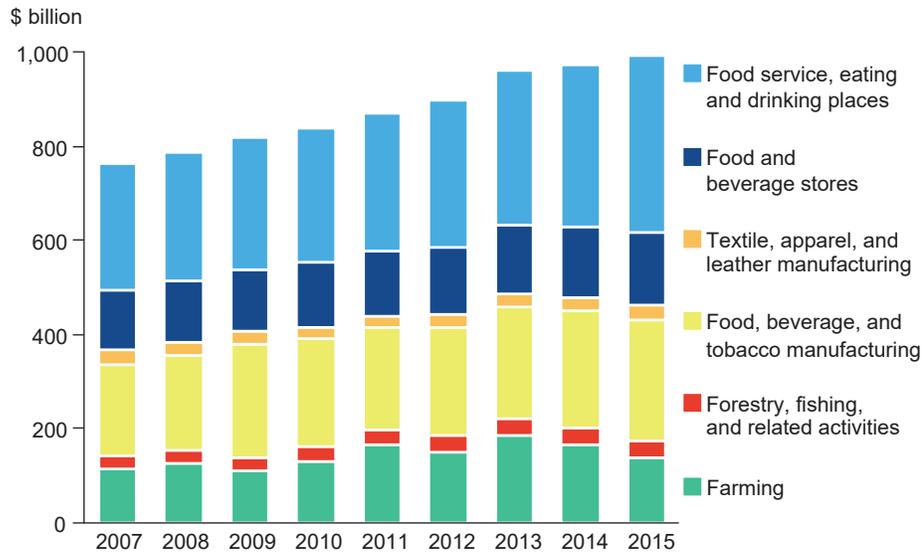
Employment in agriculture, food, and related industries, 2015



*Full- and part-time jobs. Categories do not sum to totals due to rounding.
Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of Economic Analysis.

... and 5.5 percent of U.S. gross domestic product (GDP).

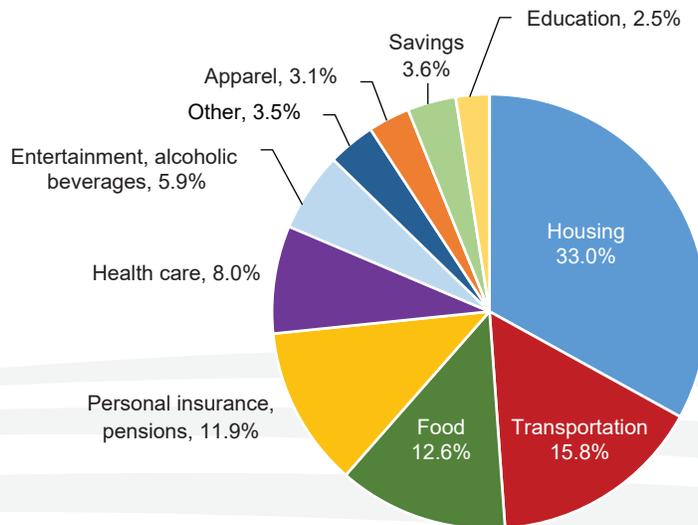
Value added to GDP by agriculture, food, and related industries, 2007-15



Note: GDP refers to Gross Domestic Product.
 Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of Economic Analysis, *Value Added by Industry* series.

Food ranked third behind housing and transportation in U.S. households' expenditures in 2016.

Share of U.S. household consumer expenditures by major categories, 2016



Note: "Other" includes personal care products, tobacco, and miscellaneous expenditures.
 Source: USDA, Economic Research Service using data from U.S. Bureau of Labor Statistics, Consumer Expenditure Survey, 2016.

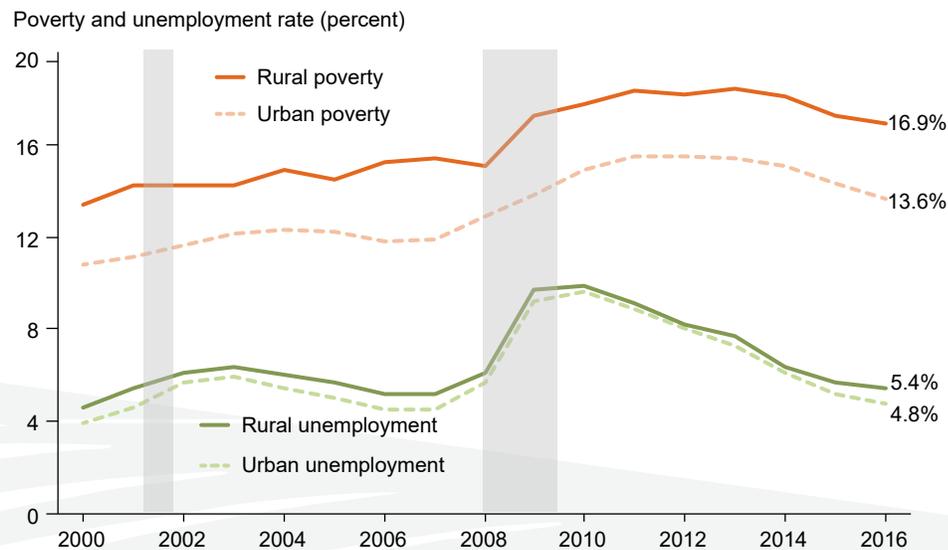


Rural Economy

Recent trends point to relatively slow employment and population growth in rural areas, and continued higher poverty levels than in urban areas. The trends, however, vary widely across rural America.

Rural America has been slow to recover from the Great Recession.

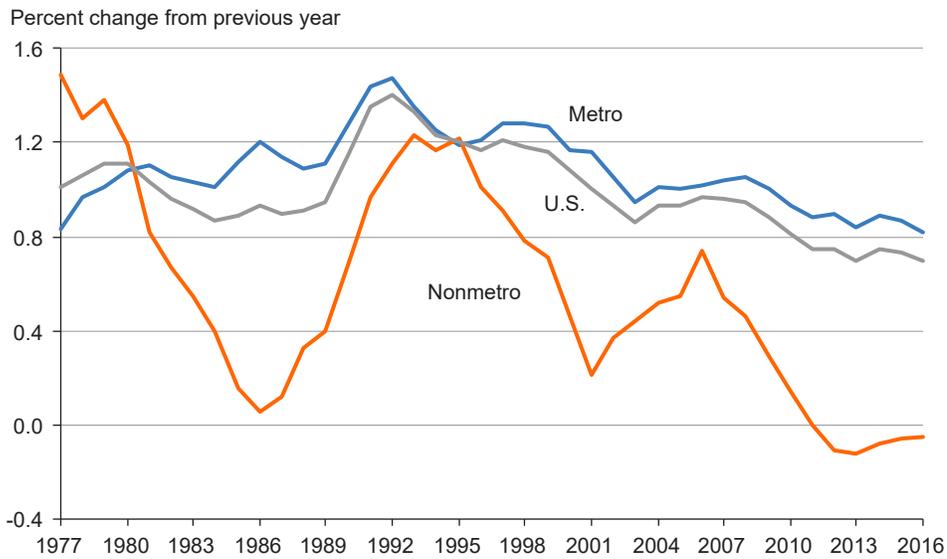
U.S. rural and urban poverty and unemployment rates, 2000-16



Note: Rural/urban determined by nonmetro/metro status as defined by the Office of Management and Budget.
Gray bars indicate recessions.
Source: USDA, Economic Research Service using data from U.S. Census Bureau (poverty) and U.S. Bureau of Labor Statistics (employment).

On the whole, rural areas have lost population recently ...

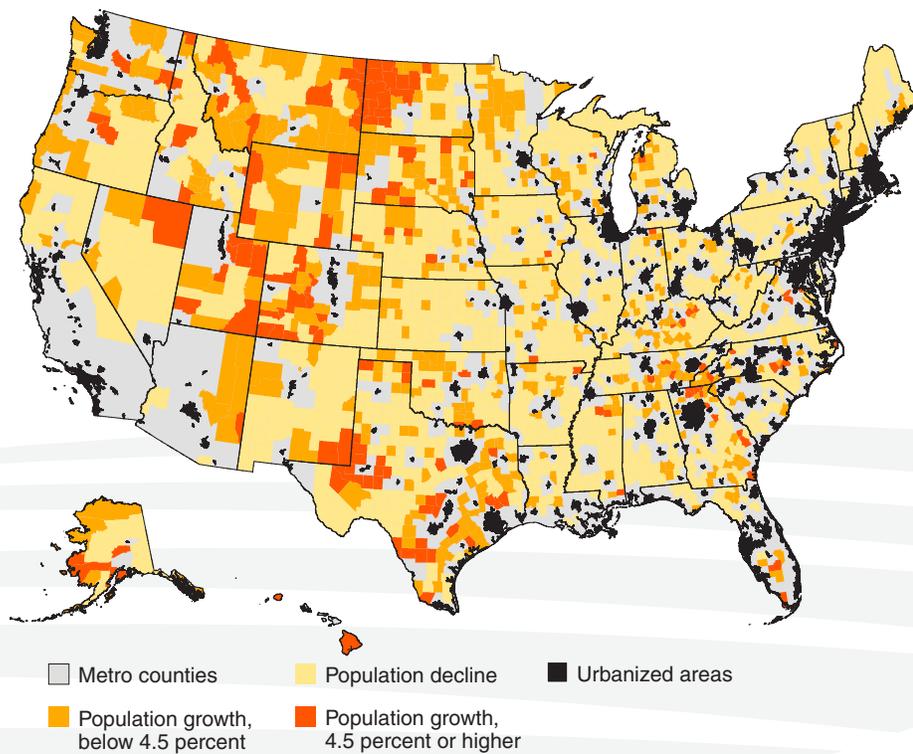
Population change by metro/nonmetro residence, 1977-2016



Source: USDA, Economic Research Service using data from U.S. Census Bureau, county population estimates.

... but this varies across the United States.

Nonmetro county population change, 2010-16

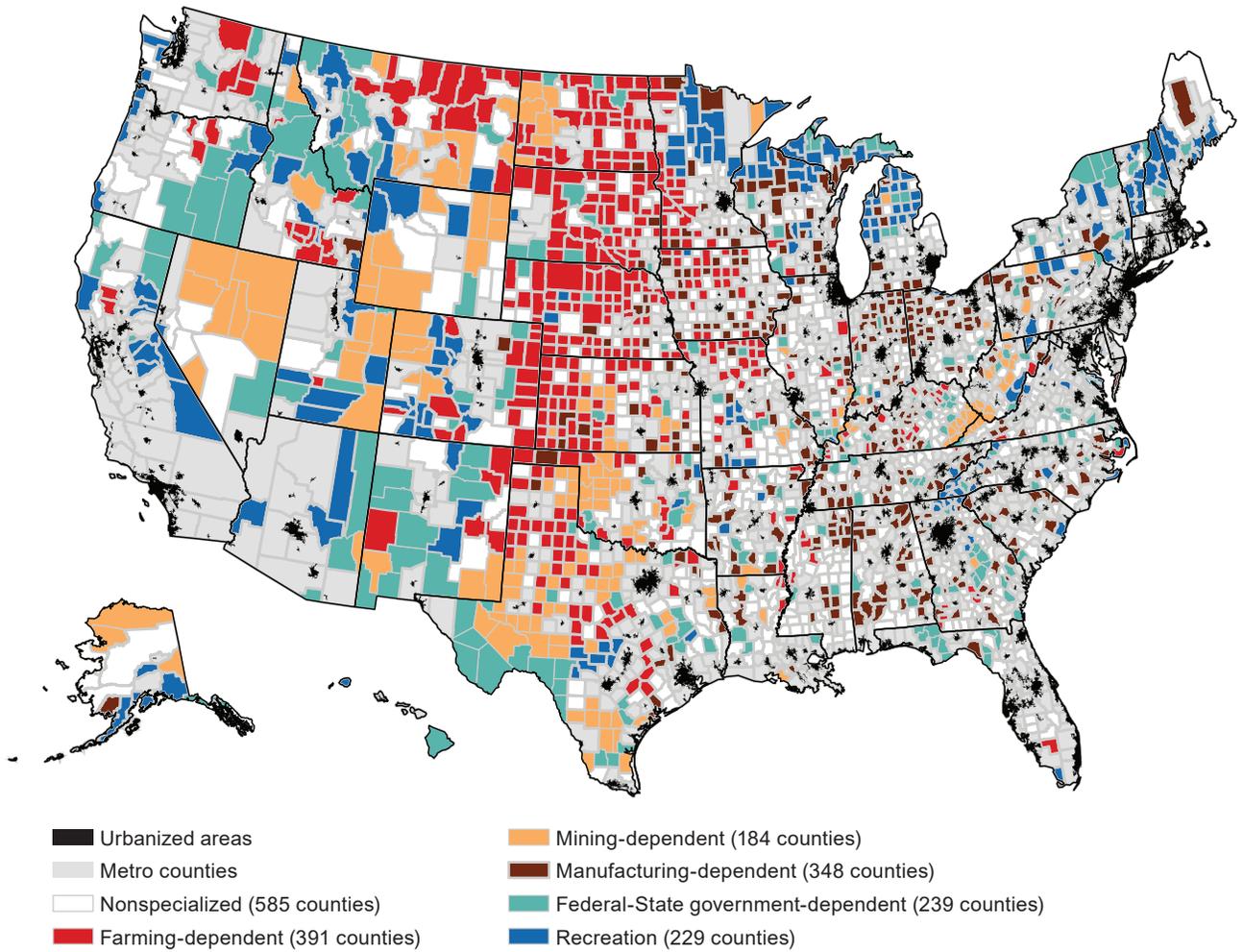


Source: USDA, Economic Research Service using data from U.S. Census Bureau.



Rural areas vary in the industries that underpin their economies.

ERS county economic typology, 2015



Note: The 2015 county typologies use data from 2010-12.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of Economic Analysis.

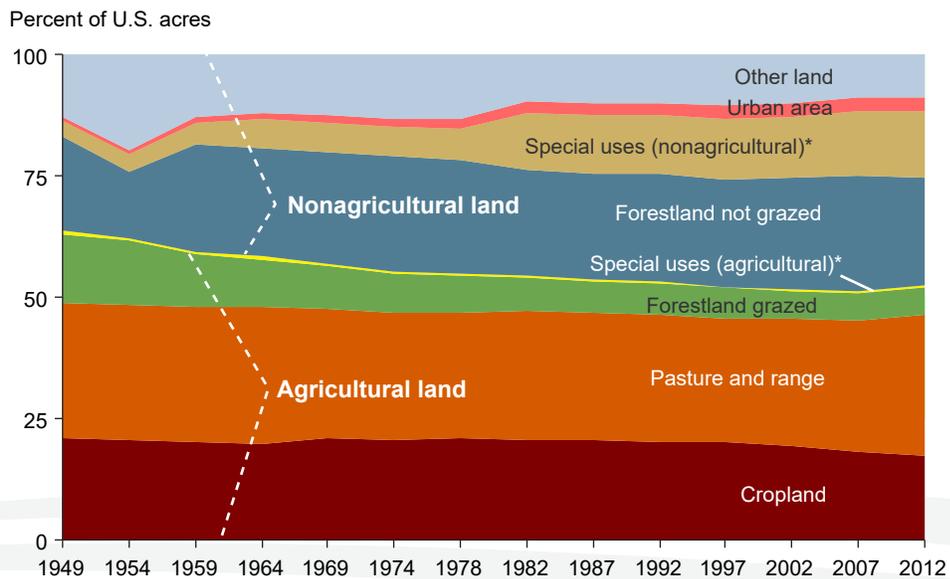


Land and Natural Resources

U.S. agricultural production relies heavily on the Nation’s land, water, and other natural resources, and has a direct impact on the quality of the natural environment.

Agricultural production is a major use of land, accounting for over half of the U.S. land base.

Major land uses in the United States, 1949-2012

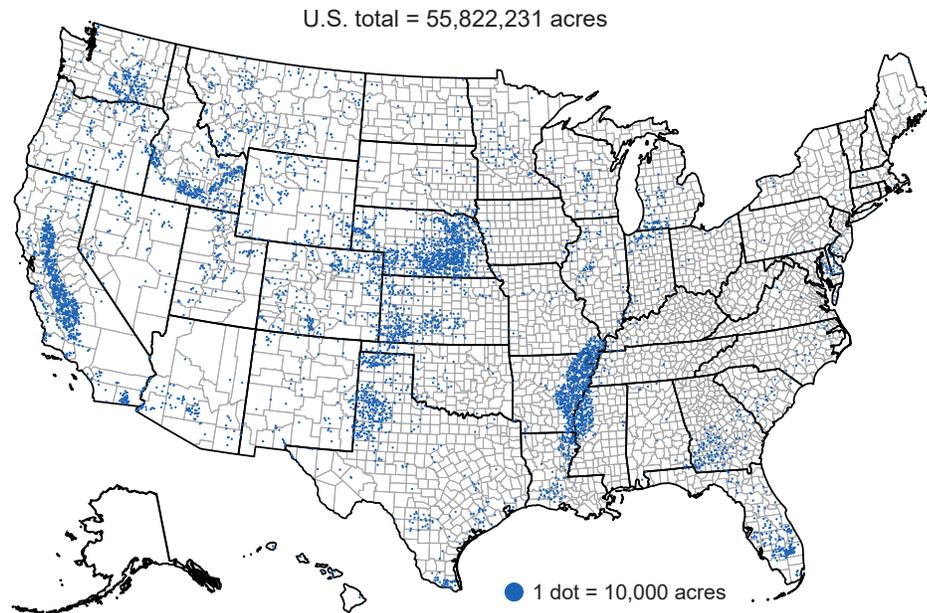


*Nonagricultural special uses include rural parks and wilderness areas, rural transportation areas, and defense/industrial lands. Agricultural special uses include farmsteads and farm roads.
Source: USDA, Economic Research Service using data from the Major Land Uses series.



Five States—Nebraska, California, Arkansas, Texas, and Idaho—account for just over half of the Nation’s irrigated acres.

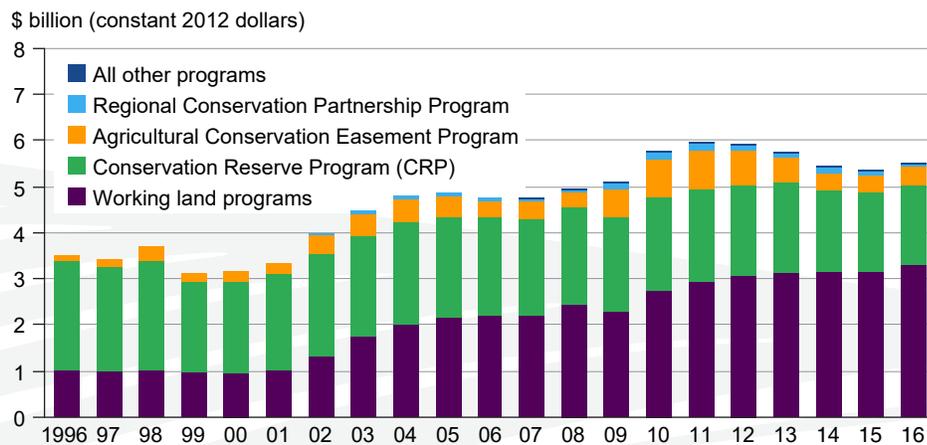
Acres of irrigated land, 2012



Source: USDA, National Agricultural Statistics Service, Map Atlases for the 2012 Census of Agriculture.

USDA’s mix of conservation efforts have shifted from removing environmentally sensitive land from production (primarily through CRP) toward programs that target working land.

Major USDA conservation program expenditures, 1996-2016



Note: Working land programs include the Environmental Quality Incentives Program, the Conservation Stewardship Program, Conservation Technical Assistance, and predecessor programs. Predecessors of the Agricultural Conservation Easement Program include the Wetland Reserve Program, Farmland Protection Program, and part of the Grassland Reserve Program. Other programs include Voluntary Public Access, Healthy Forest Reserve Program, Agricultural Management Assistance, and watershed programs.

Source: USDA, Economic Research Service using data from Office of Budget and Program Analysis budget summary data.

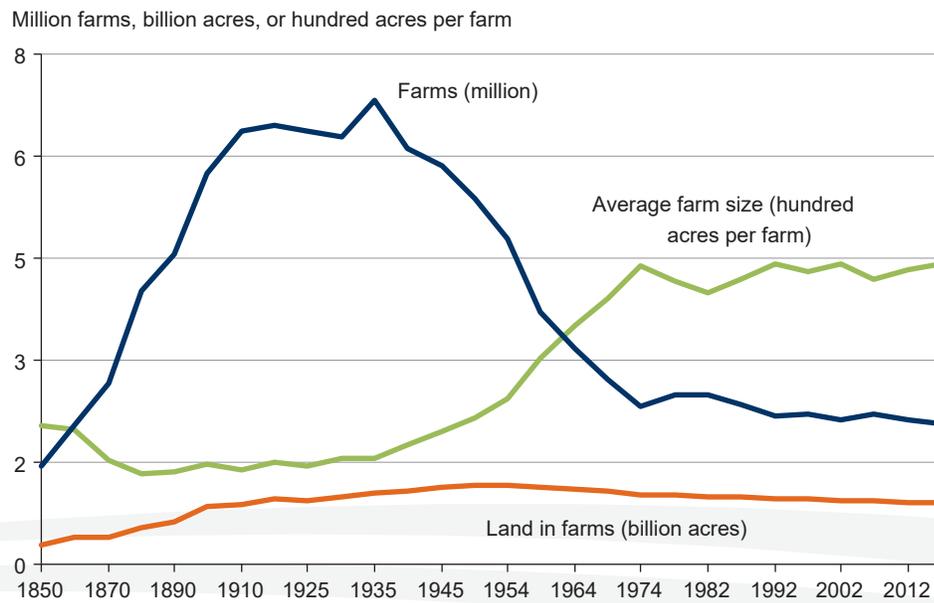


Farming and Farm Income

Early 20th century agriculture was labor intensive, and it took place on many small, diversified farms. Much of today's agricultural production takes place on large, specialized farms.

The number of farms has leveled off at about 2.1 million ...

Farms, land in farms, and average acres per farm, 1850-2016

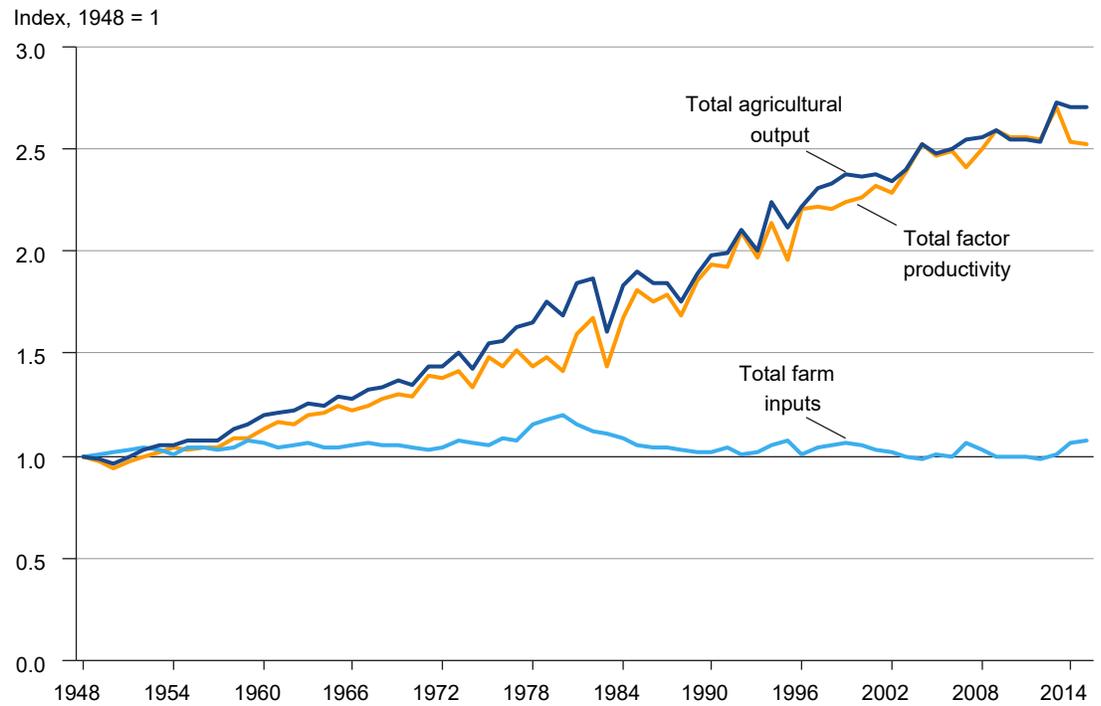


Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, Censuses of Agriculture (through 2012) and *Farms and Land in Farms: 2016 Summary*.



... but agricultural output has grown, along with improvements in agricultural productivity.

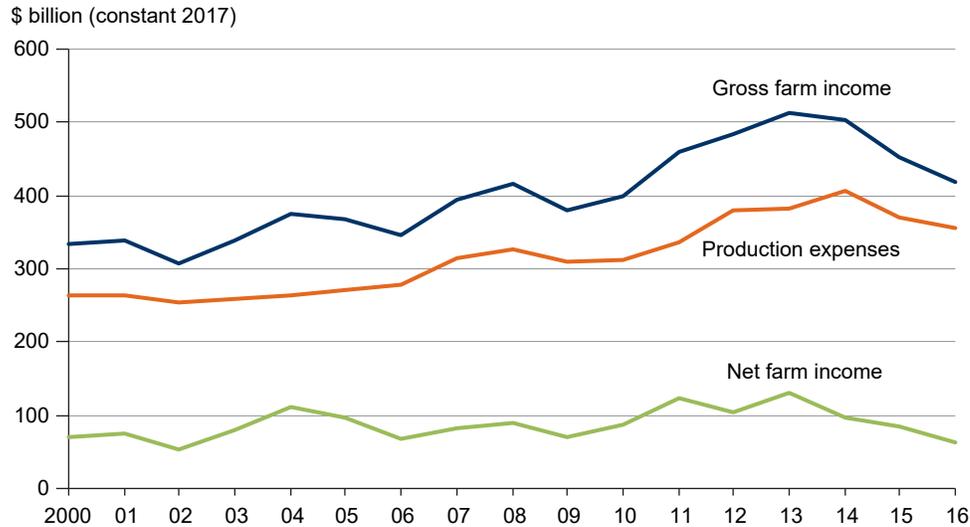
U.S. agricultural output, inputs, and total factor productivity, 1948-2015



Source: USDA, Economic Research Service, Agricultural Productivity in the U.S. data series.
Data as of October 2017.

U.S. net farm income has fallen since 2013 ...

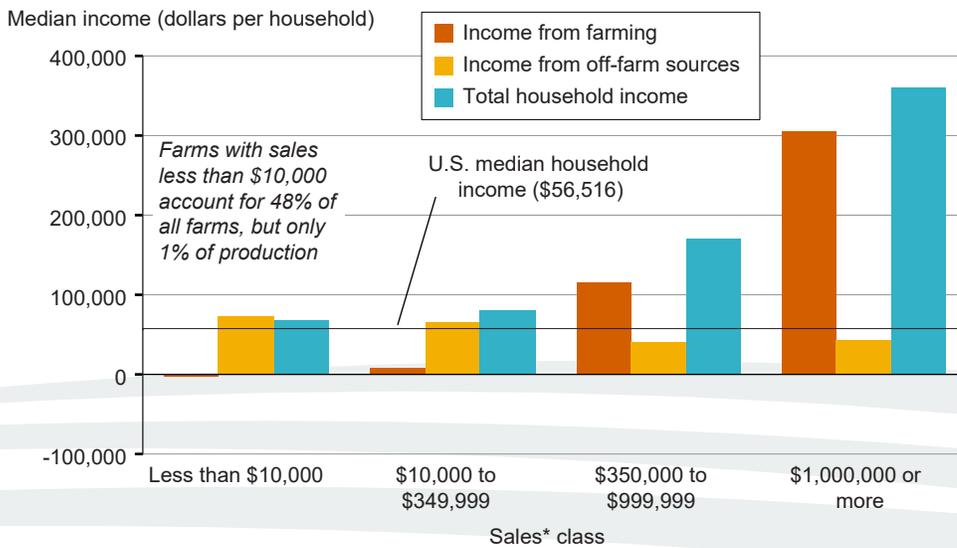
Gross farm income, production expenses, and net farm income, inflation adjusted, 2000-16



Note: Values are adjusted for inflation using the chain-type Gross Domestic Product (GDP) deflator, 2017 = 100.
 Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of August 30, 2017.

... but most farmers (especially small-scale operators) supplement their household income with income from off-farm sources.

Median household income of farm operators by source and sales class, 2015



*Sales = Gross cash farm income (the sum of the farm's crop and livestock sales, government payments, and other farm-related income).
 Source: USDA, Economic Research Service and National Agricultural Statistics Service, Agricultural Resource Management Survey, and U.S. Census Bureau, *Current Population Reports*. Data as of November 30, 2016.

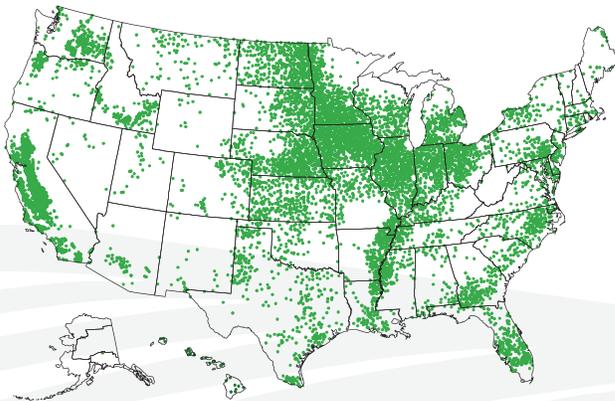


Agricultural Production and Prices

Markets for major agricultural commodities are typically analyzed by looking at supply-and-use conditions and the implications for prices. Many interactions and relationships exist between and among different commodities. For example, corn production and prices affect feed costs in the livestock sector.

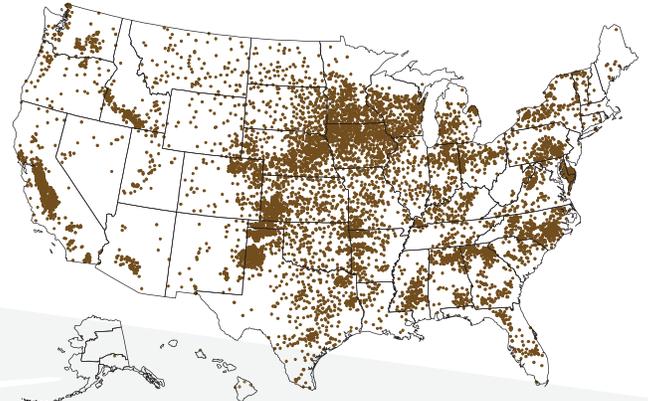
U.S. crop production is concentrated in California and the Midwest, while livestock production is more spread out across the country.

Market value of crops sold in 2012



1 dot = \$20 million

Market value of livestock, dairy, poultry, and their products sold in 2012

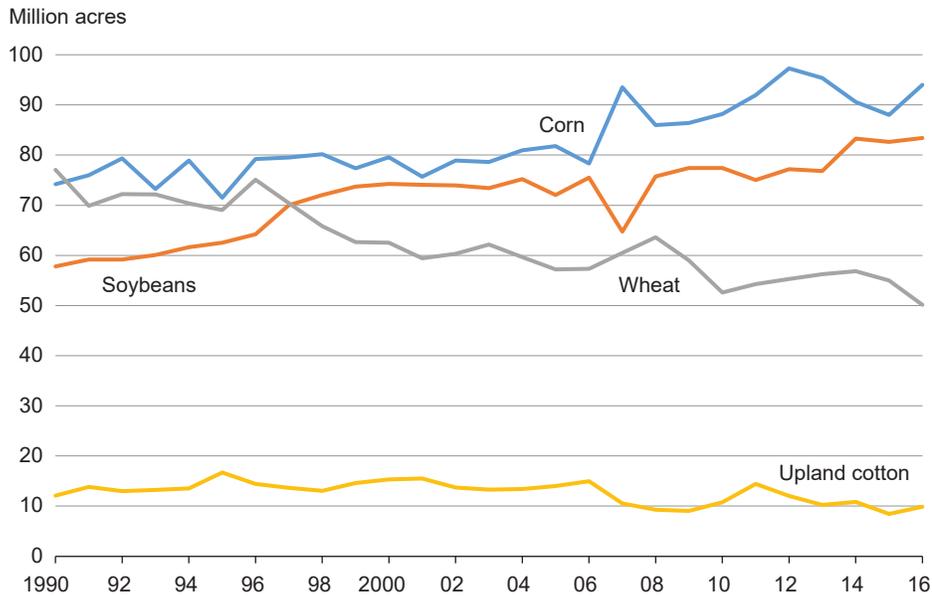


1 dot = \$20 million

Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, 2012 Census of Agriculture.

Corn and soybean acreage has increased since 1990, while fewer acres are planted with wheat and cotton.

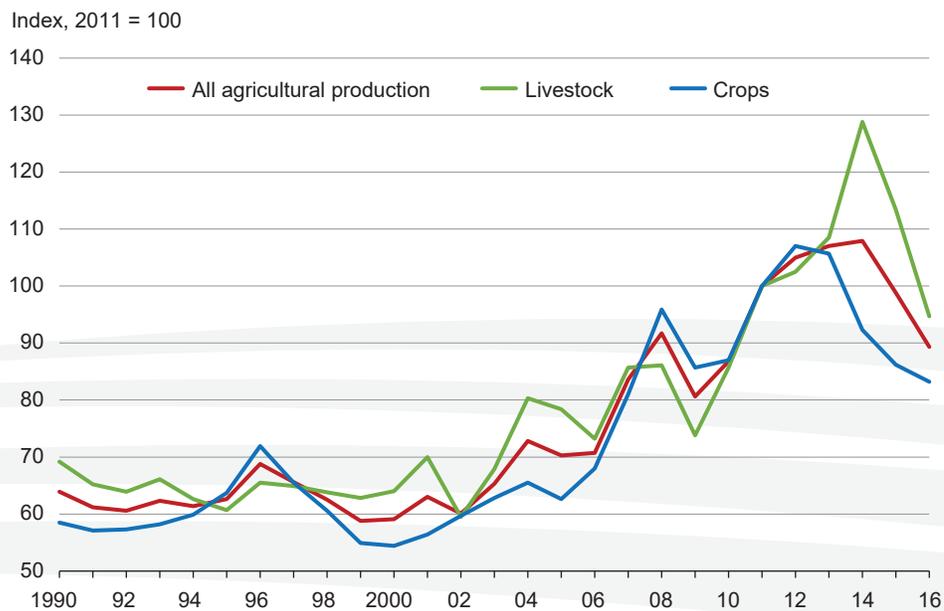
U.S. planted area: Corn, wheat, soybeans, and upland cotton, 1990-2016



Source: USDA, Economic Research Service, Baseline Related Historical Data.

Farm-level prices for agricultural commodities rose for much of the 2000s, but have declined in recent years ...

U.S. prices received by farmers, 1990-2016

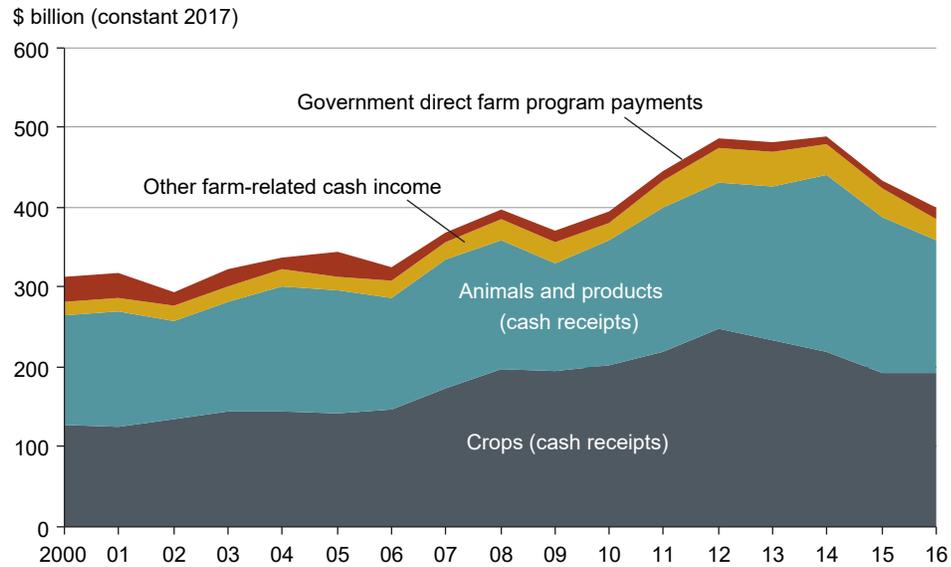


Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, *Agricultural Prices*.



... contributing to declining farm sector cash receipts.

Gross cash farm income components, inflation adjusted, 2000-16



Note: Values are adjusted for inflation using the chain-type Gross Domestic Product (GDP) deflator, 2017 = 100.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of August 30, 2017.

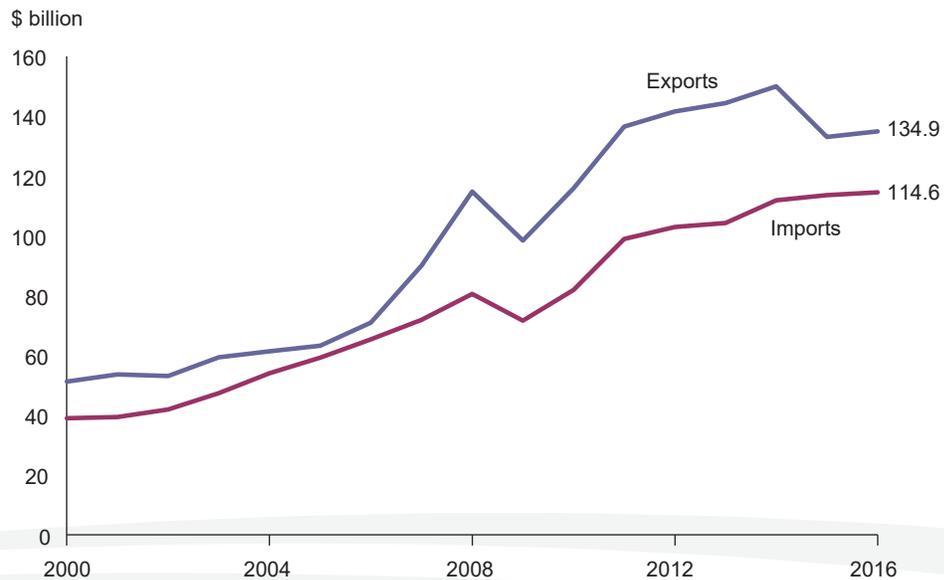


Agricultural Trade

The leading U.S. exports are grains and feeds, soybeans, livestock products, and fruit, vegetables, and other horticultural products. The leading U.S. imports are horticultural and tropical products. Canada, Mexico, and East Asia are major U.S. trade partners.

The United States exports more agricultural goods than it imports, but the surplus fell to \$20 billion in 2016, as the value of U.S. imports continued to rise and ...

U.S. agricultural trade, 2000-16

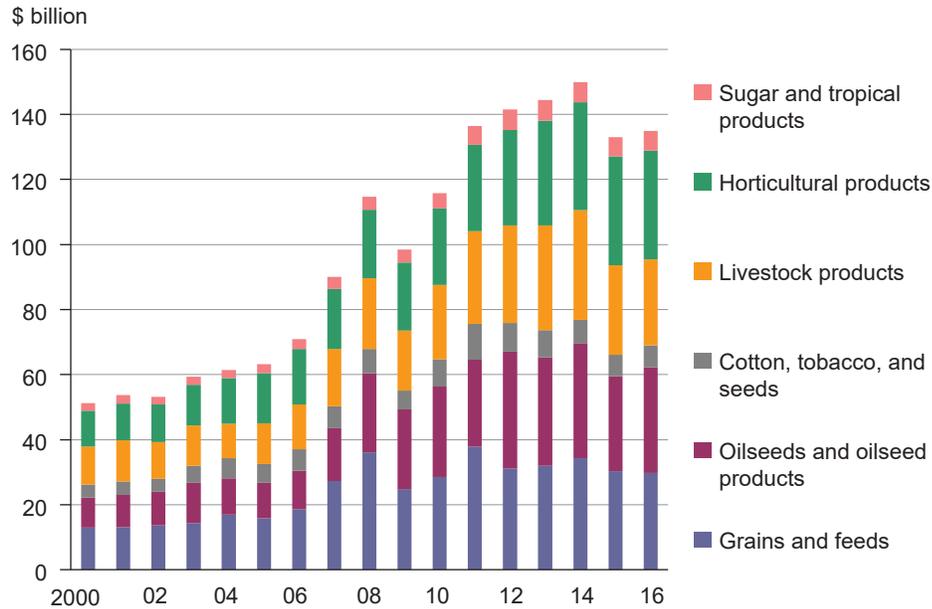


Source: USDA, Economic Research Service using data from U.S. Census Bureau, Foreign Trade Database.



... the value of U.S. agricultural exports was flat after declining in 2015 due to falling commodity prices, slowing of the global economy, and an appreciating dollar.

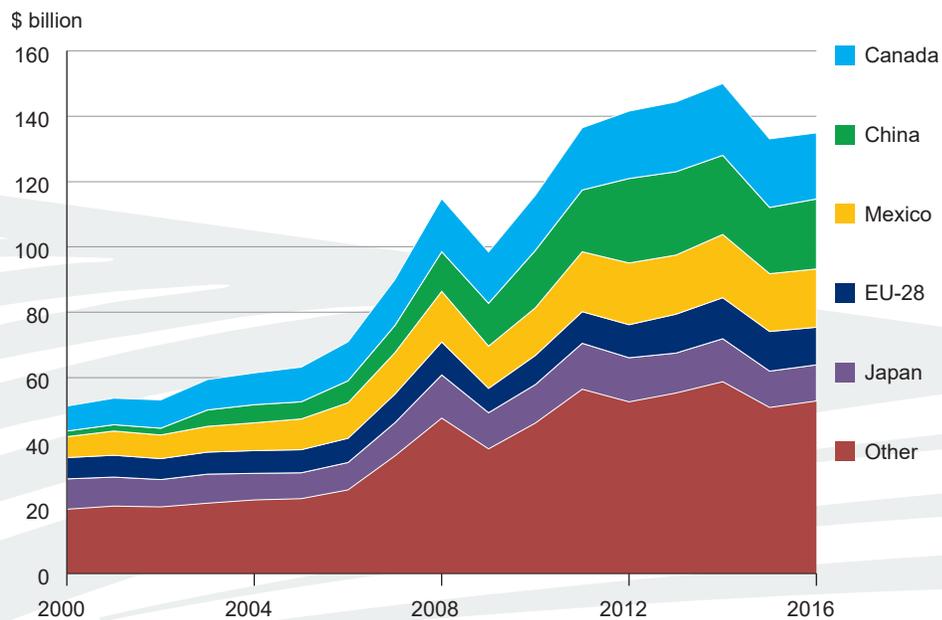
U.S. agricultural exports, 2000-16



Source: USDA, Economic Research Service using data from U.S. Census Bureau, Foreign Trade Database.

China, Canada, and Mexico are the top destinations for U.S. agricultural exports.

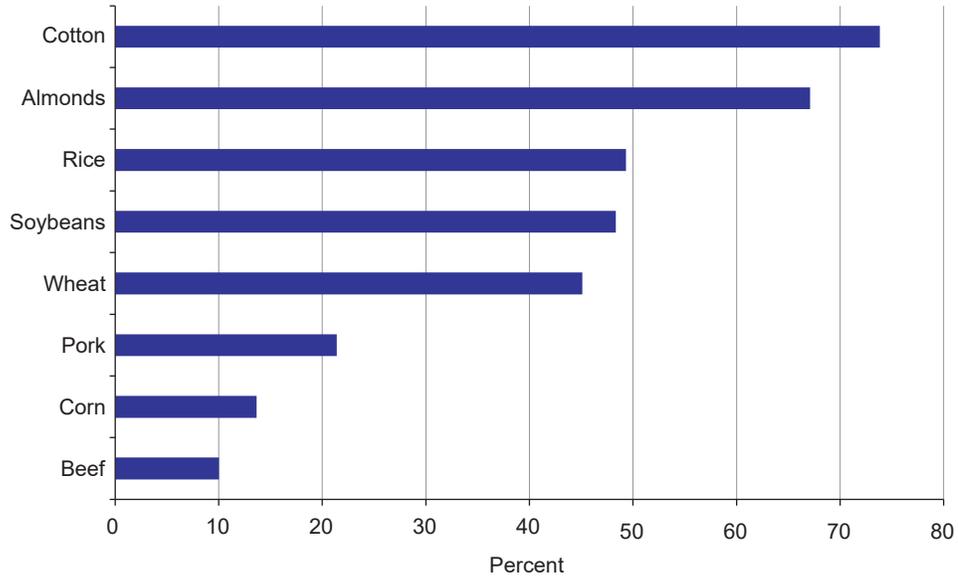
Top five markets for U.S. agricultural exports, 2000-16



Source: USDA, Economic Research Service using data from U.S. Census Bureau, Foreign Trade Database.

Overseas customers account for 40 percent or more of the market for U.S. cotton, almonds, rice, soybeans, and wheat.

Export share of U.S. farm production, 2013-15



Note: Data are reported for the 2013/14-2015/16 marketing years. Specific marketing years vary by commodity type.

Source: USDA, Economic Research Service using USDA, Foreign Agricultural Service, Production, Supply and Distribution database.

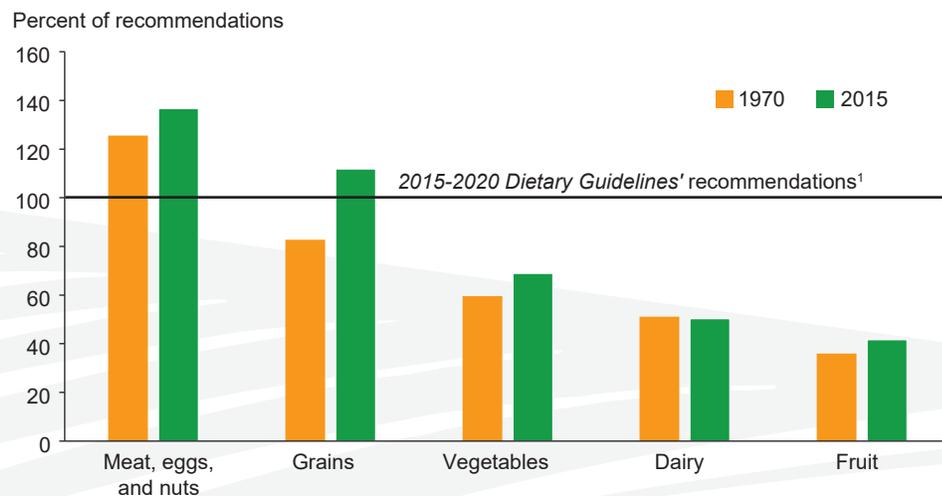


Food Consumption and Availability

ERS's Food Availability data measure per capita annual supplies of several hundred food commodities moving through the U.S. marketing system. A second data series—Loss-Adjusted Food Availability—adjusts for losses from farmgate to fork—such as damaged products, spoilage, and plate waste—to more closely approximate per capita consumption.

According to ERS's loss-adjusted food availability data, U.S. diets are out of balance when compared to the *Dietary Guidelines'* recommendations.

Estimated average U.S. consumption compared to recommendations, 1970 and 2015



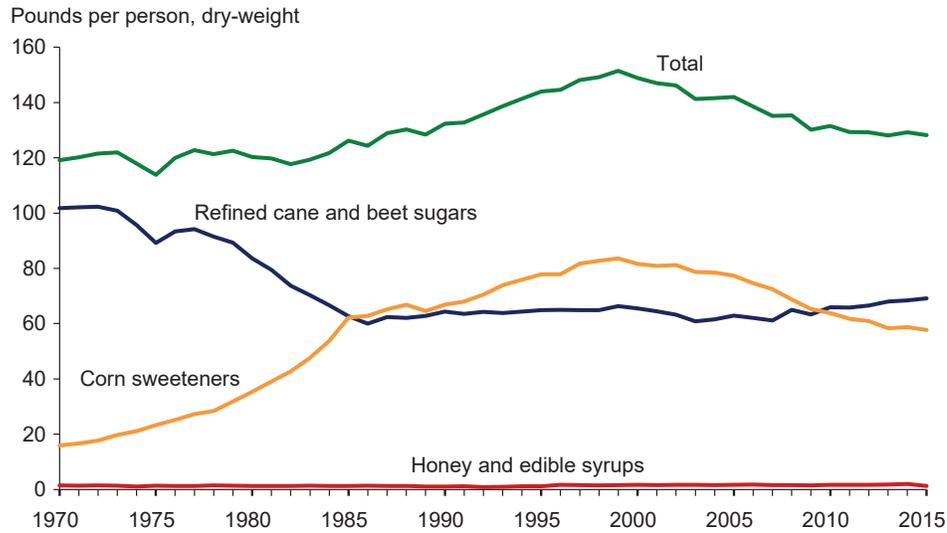
¹Based on a 2,000-calorie-per-day diet.

Note: Loss-adjusted food availability data are proxies for consumption.

Source: USDA, Economic Research Service, Loss-Adjusted Food Availability data and *2015-2020 Dietary Guidelines for Americans*.

Our diets have made some progress; we are consuming fewer caloric sweeteners ...

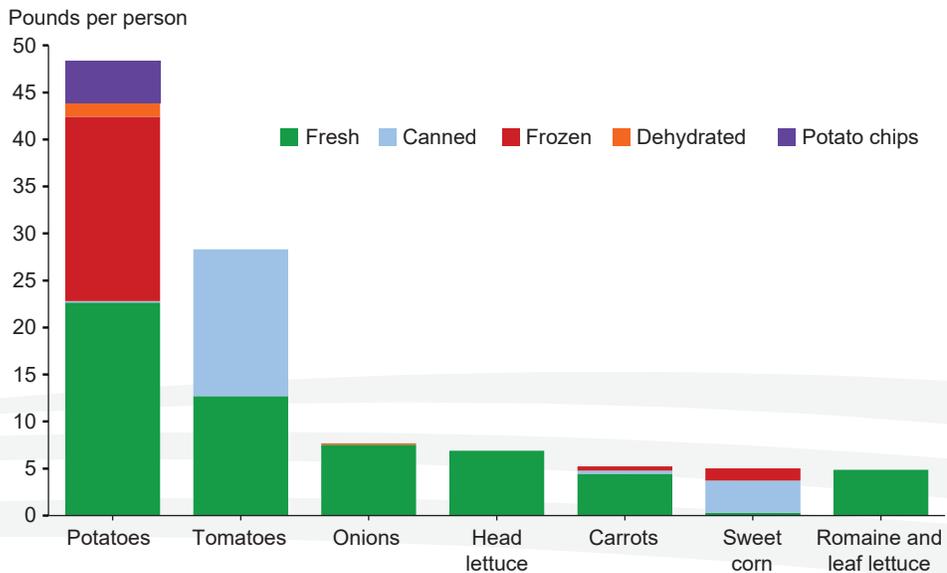
U.S. per capita caloric sweetener availability, 1970-2015



Source: USDA, Economic Research Service, Food Availability data.

... and eating more vegetables ...

U.S. per capita loss-adjusted vegetable availability, 2015

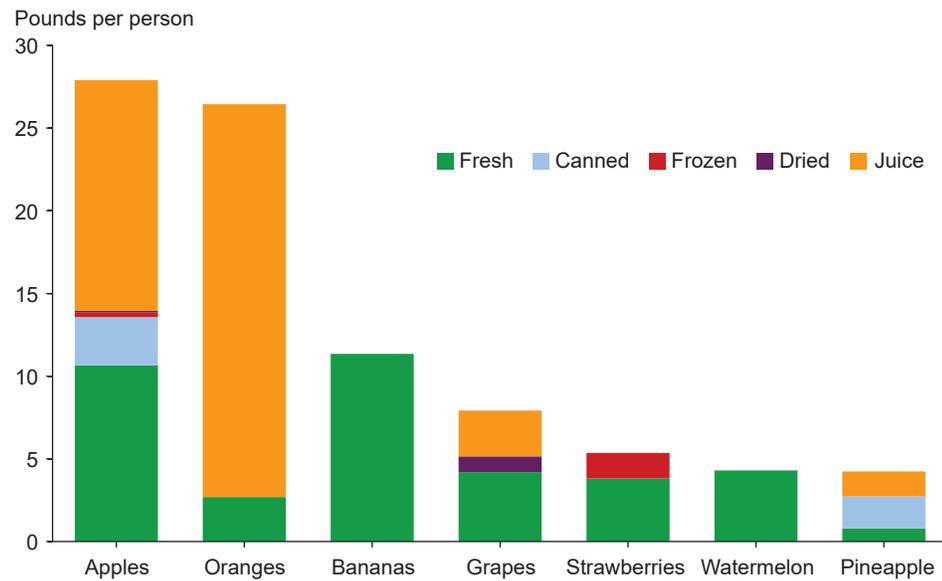


Note: Loss-adjusted food availability data are proxies for consumption.
Source: USDA, Economic Research Service, Loss-Adjusted Food Availability data.



... and fruit, though we still need to eat more and increase the diversity to achieve a healthier diet.

U.S. per capita loss-adjusted fruit availability, 2015



Note: Loss-adjusted food availability data are proxies for consumption.
Source: USDA, Economic Research Service, Loss-Adjusted Food Availability data.

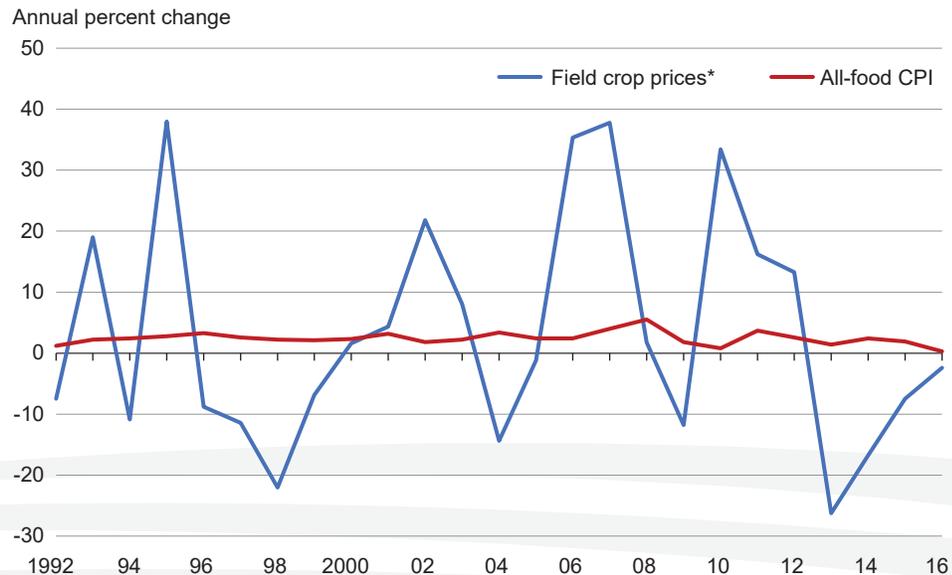


Food Prices and Spending

Retail food prices partially reflect farm-level commodity prices, but packaging, processing, transportation, and other marketing costs—along with competitive factors—have a greater role in determining prices on supermarket shelves and restaurant menus.

Even large swings in farm commodity prices result in modest changes in food prices ...

Change in all-food CPI and field crop prices, 1992-2016



*Production-weighted average for corn, wheat, and soybeans.

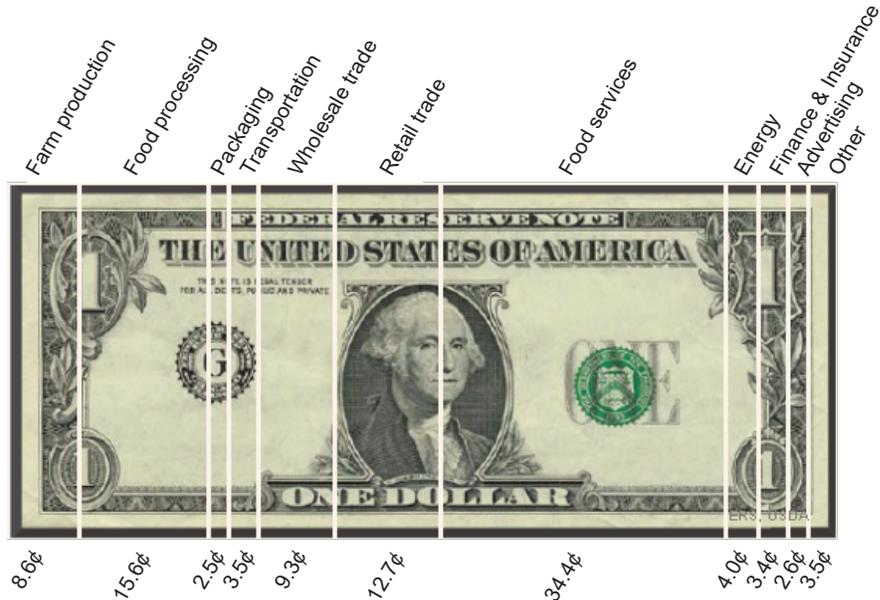
Note: CPI = Consumer Price Index

Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service and U.S. Bureau of Labor Statistics.



... as much of Americans' retail food dollar pays for more stable processing, retailing, and foodservice costs.

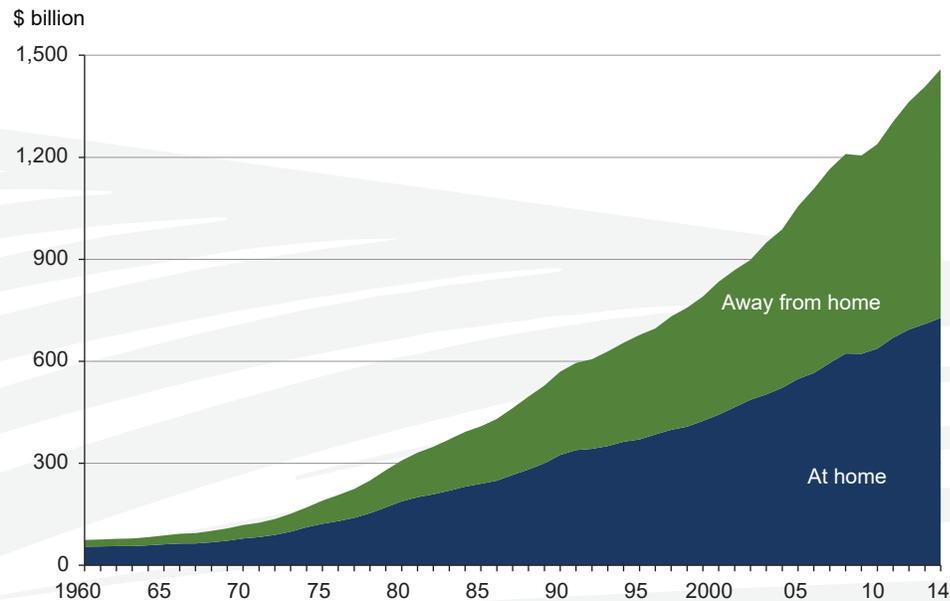
2015 food dollar (nominal): Industry group



Note: "Other" includes two industry groups: Agribusiness plus Legal & Accounting.
Source: USDA, Economic Research Service, Food Dollar Series.

Food away from home's share of total food expenditures rose to 50.1 percent in 2014, surpassing at-home food sales for the first time.

Food-at-home and away-from-home expenditures in the United States, 1960-2014



Source: USDA, Economic Research Service, Food Expenditure Series.

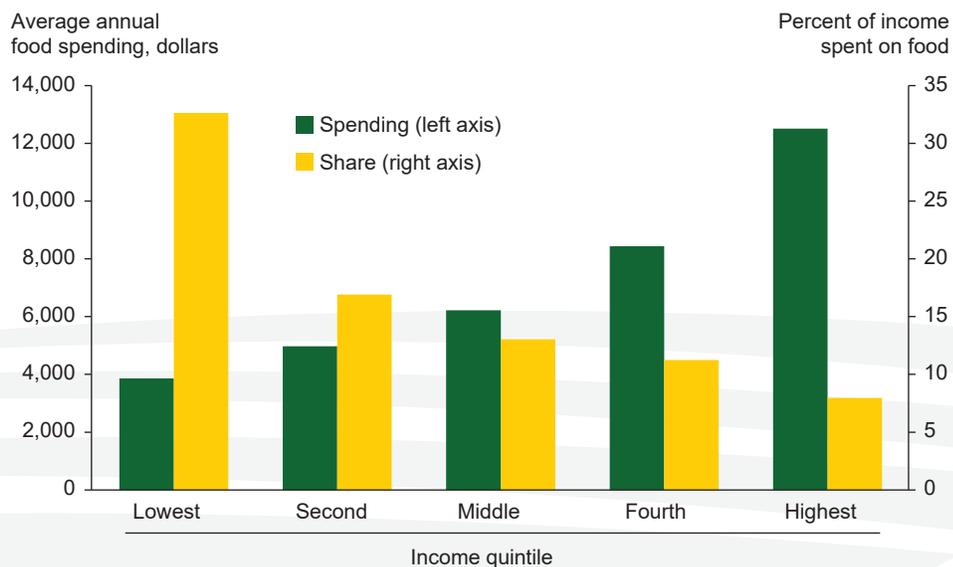


Food Security and Food Assistance

ERS monitors the food security of U.S. households through an annual, nationally representative survey. While most U.S. households are *food secure*, a minority of U.S. households are *food insecure*—they struggle to afford enough food for all household members. Some experience the more severe *very low food security*, where food intake of one or more members is reduced and normal eating patterns are disrupted.

U.S. households in the middle-income quintile spend about 12 percent of their incomes on food, but lowest income families spend over 30 percent.

Food spending and share of income spent on food across U.S. households, 2016

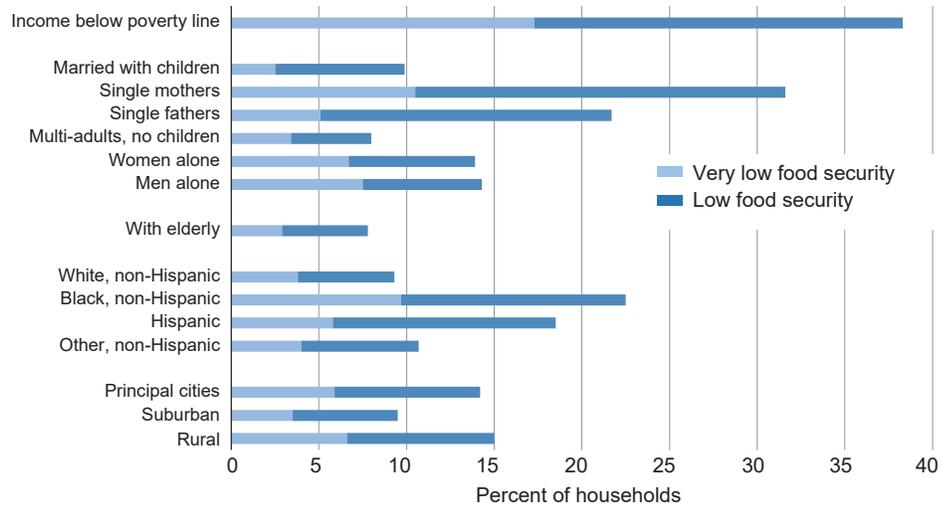


Source: USDA, Economic Research Service using data from U.S. Bureau of Labor Statistics, Consumer Expenditure Survey, 2016.



Some of these families may find themselves facing food insecurity...

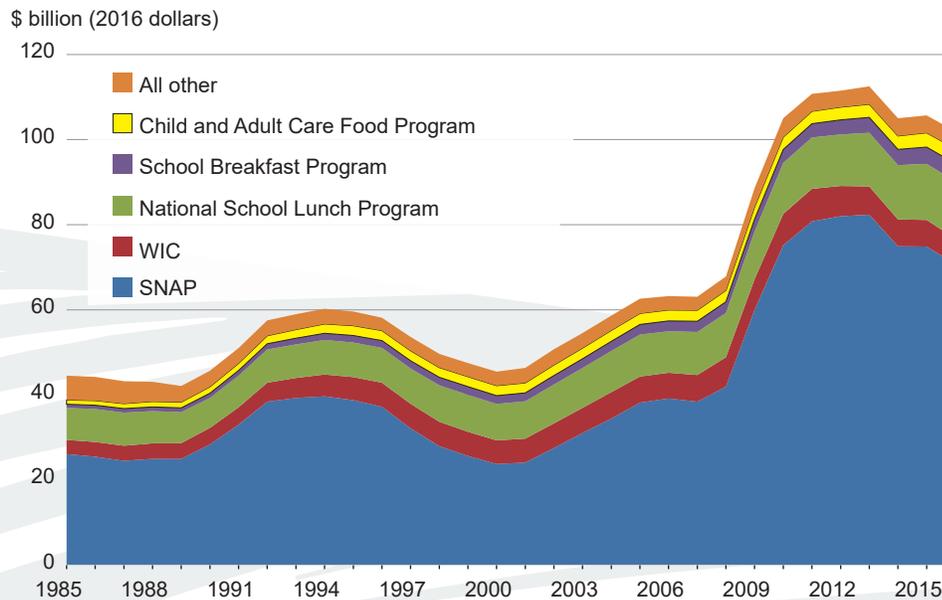
Prevalence of food insecurity by selected household characteristics, 2016



Note: Food-insecure households include those with low food security and very low food security.
Source: USDA, Economic Research Service using data from 2016 Current Population Survey Food Security Supplement, U.S. Census Bureau.

... and seek support from USDA's food and nutrition assistance programs.

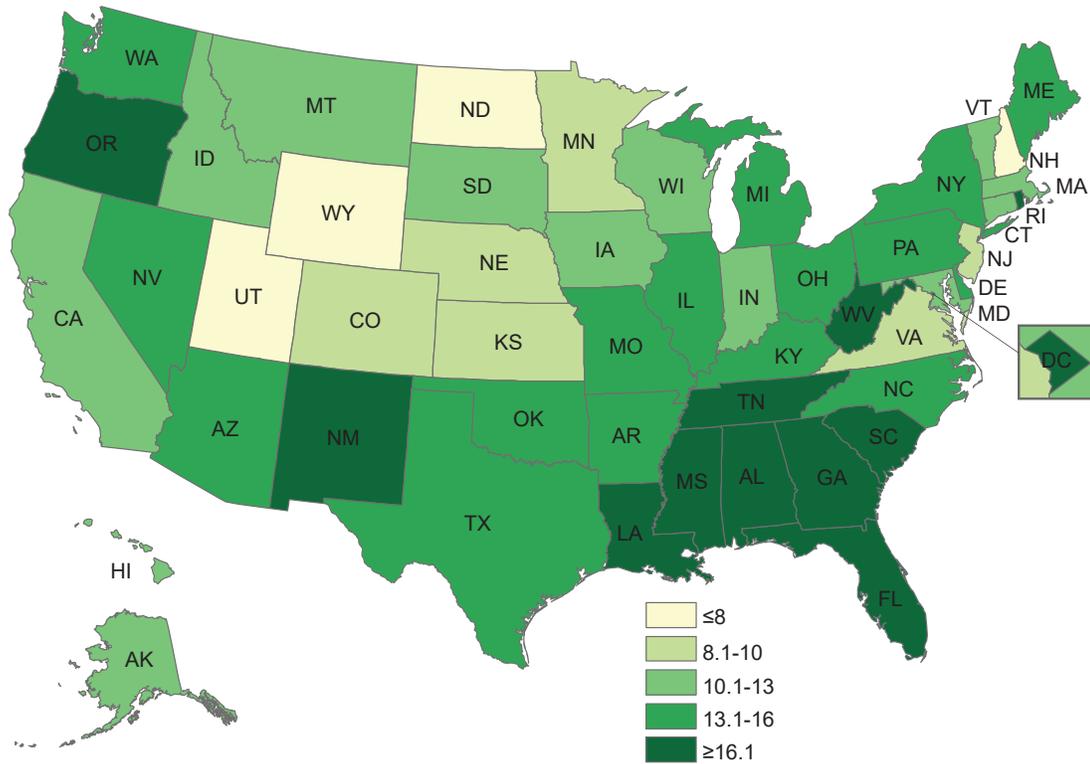
Inflation-adjusted USDA expenditures for food and nutrition assistance, fiscal 1985-2016



Source: USDA, Economic Research Service using data from USDA, Food and Nutrition Service.

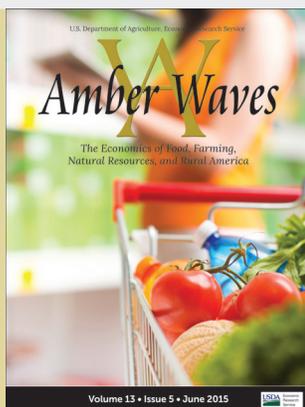
Participation in SNAP—the largest of these assistance programs—varies across States, reflecting differences in need and program policies.

Percent of population receiving SNAP benefits in fiscal 2016



Note: SNAP = Supplemental Nutrition Assistance Program.
Source: USDA, Economic Research Service using data from USDA, Food and Nutrition Service and U.S. Census Bureau.

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