



Economic Research Service
U.S. DEPARTMENT OF AGRICULTURE

Economic
Research
Service

Administrative
Publication
Number 121

February 2024

Selected charts from
Ag and Food Statistics
Charting the Essentials
2024





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On October 29, 2024, the chart entitled “Change in all-food CPI, intermediate foods and feeds PPI, and field crop prices, 2003-22” was updated with the correct annual percent change in field crop prices for 2022. No other changes were made.



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.

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 charts and maps. This booklet provides a sample of those maps and charts available on the ERS website at ers.usda.gov/essentials.

Organized into nine topics, ***Charting the Essentials*** provides answers for questions such as: How much do agriculture and related industries contribute to the U.S. economy? What economic forces are shaping rural areas of the United States? What are the top destinations for U.S. agricultural exports? What percent of income do U.S. households spend on food?

Charting the Essentials provides a resource for public officials, researchers, educators, students, journalists, and anyone looking for current information on these topics to inform decision-making.

Visit the ERS website where you can view and download these charts and maps, as well as a variety of reports and other products, such as *Charts of Note* and *Amber Waves* online magazine.

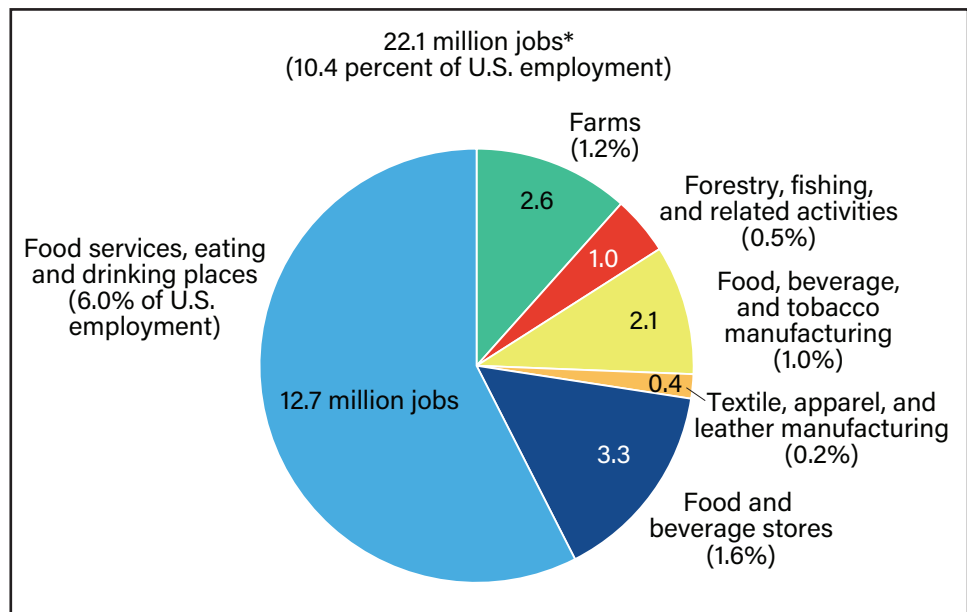


Ag and Food Sectors and the Economy

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

Agriculture and its related industries provide 10.4 percent of U.S. employment...

U.S. employment in agriculture, food, and related industries, 2022

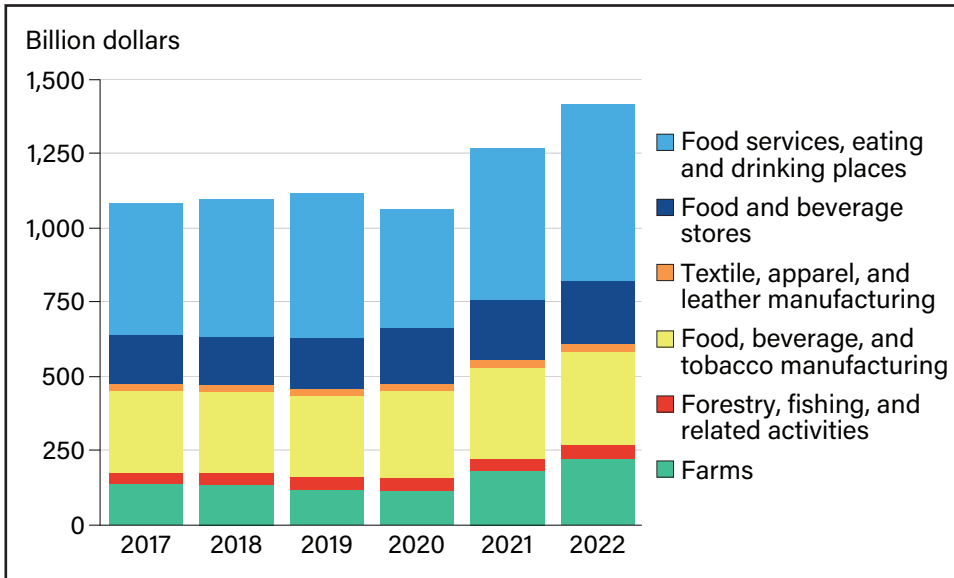


*Full- and part-time jobs. Categories may not sum to total because of rounding.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of Economic Analysis (SAEMP25N), as of September 29, 2023.

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

Value added to U.S. GDP by agriculture and related industries, 2017-22



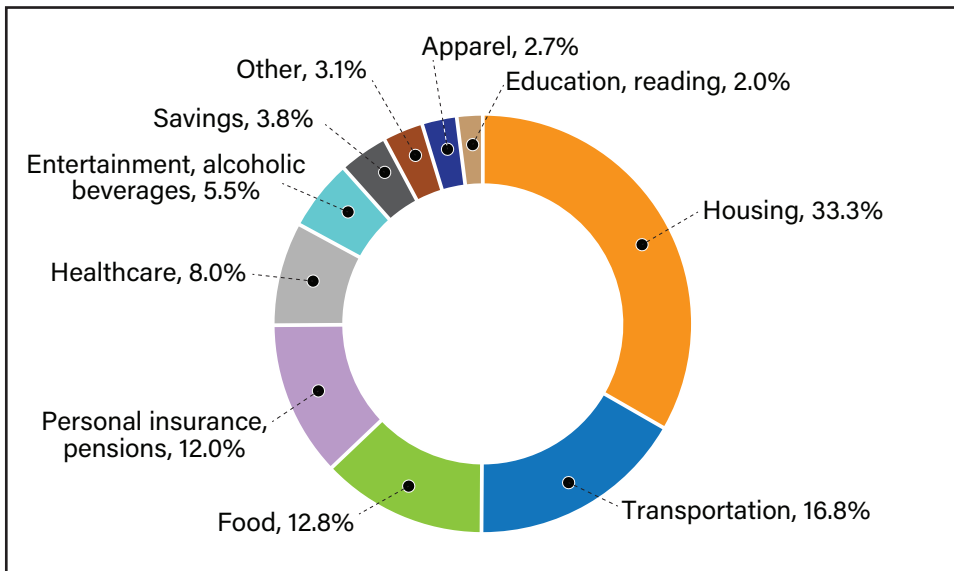
GDP = Gross domestic product.

Note: Values are not adjusted for inflation.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of Economic Analysis, Value Added by Industry, as of September 28, 2023.

Food ranked third behind housing and transportation in U.S. households' expenditures in 2022.

Share of U.S. household consumer expenditures by major categories, 2022



Note: "Other" includes personal care products, tobacco, and miscellaneous expenditures.

Source: USDA, Economic Research Service using U.S. Department of Labor, Bureau of Labor Statistics, 2022 Consumer Expenditure Survey data.

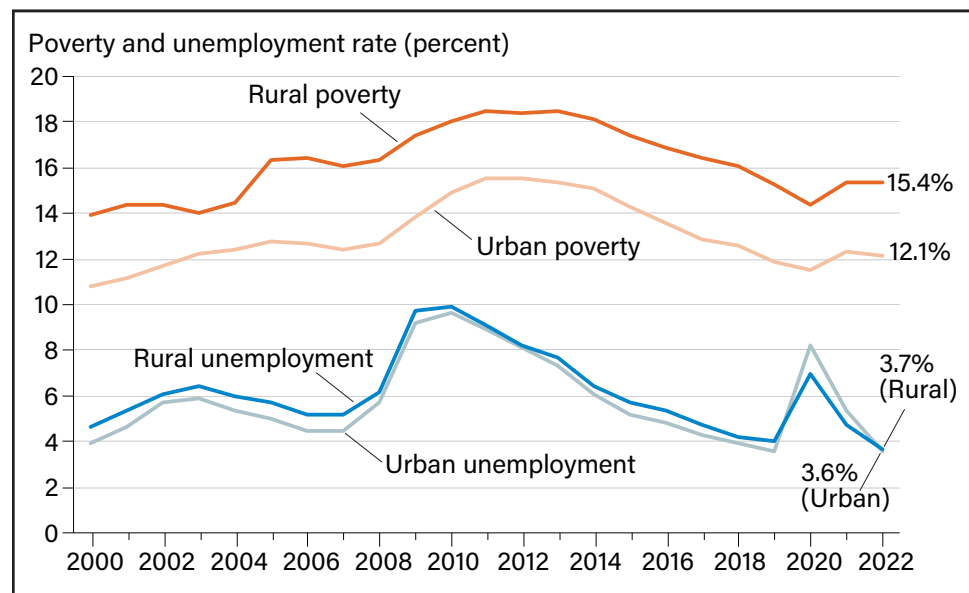


Rural Economy

Although rural and urban unemployment rates were similar during the Coronavirus (COVID-19) pandemic, poverty rates remained higher in rural areas. Despite overall rural population growth from 2020 to 2022, population change varied across rural counties of the United States.

The gap between rural and urban poverty rates persists.

U.S. rural and urban poverty and unemployment rates, 2000-22

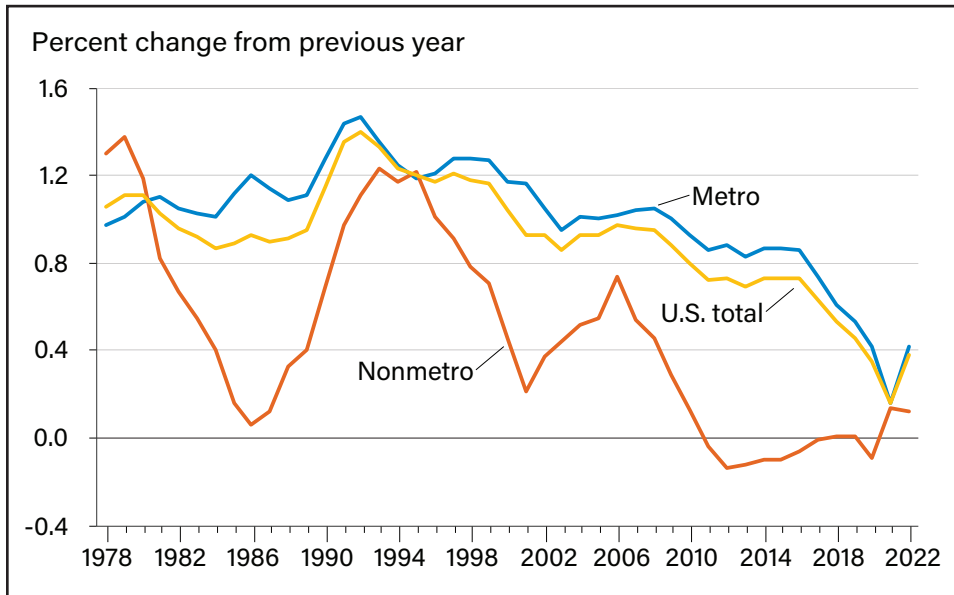


Note: Rural/urban status is based on 2013 county nonmetro/metro delineations as determined by the Office of Management and Budget.

Source: USDA, Economic Research Service using county-level data from U.S. Department of Commerce, Bureau of the Census, Small Area Income and Poverty Estimates Program (poverty) and U.S. Department of Labor, Bureau of Labor Statistics (unemployment).

Losses to rural population reversed in 2021 and 2022...

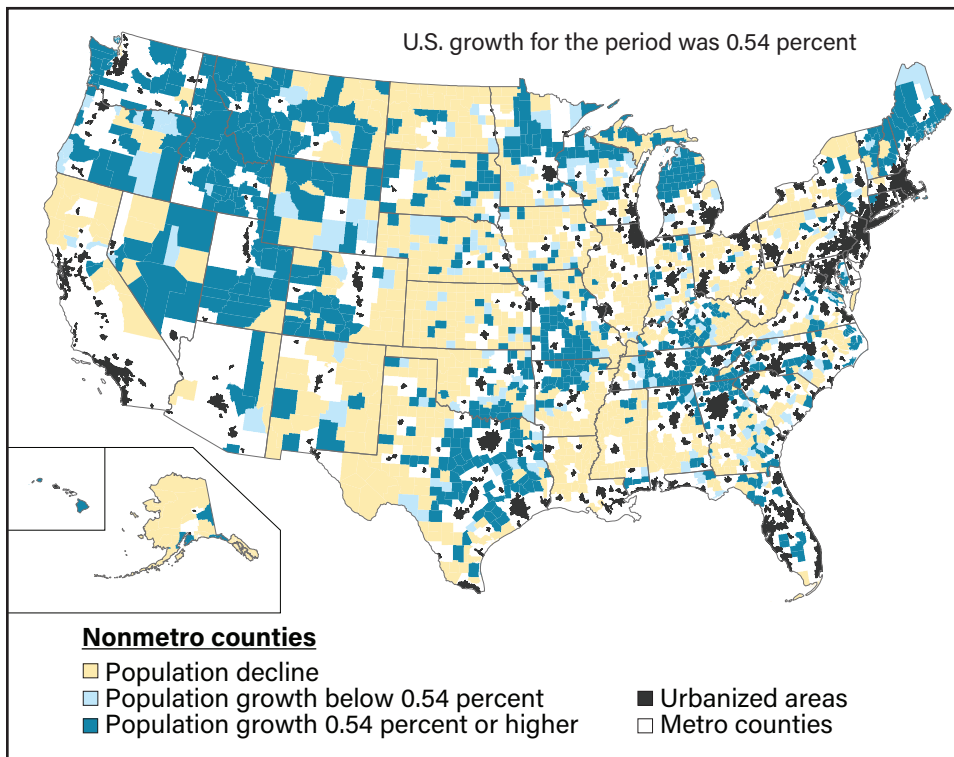
U.S. population change in metro and nonmetro areas, 1978-2022



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, county population estimates. Estimates of annual change for 2010-2020 are provisional and do not reflect 2020 Census counts.

...but this varied across the United States.

U.S. nonmetro county population change, 2020-22

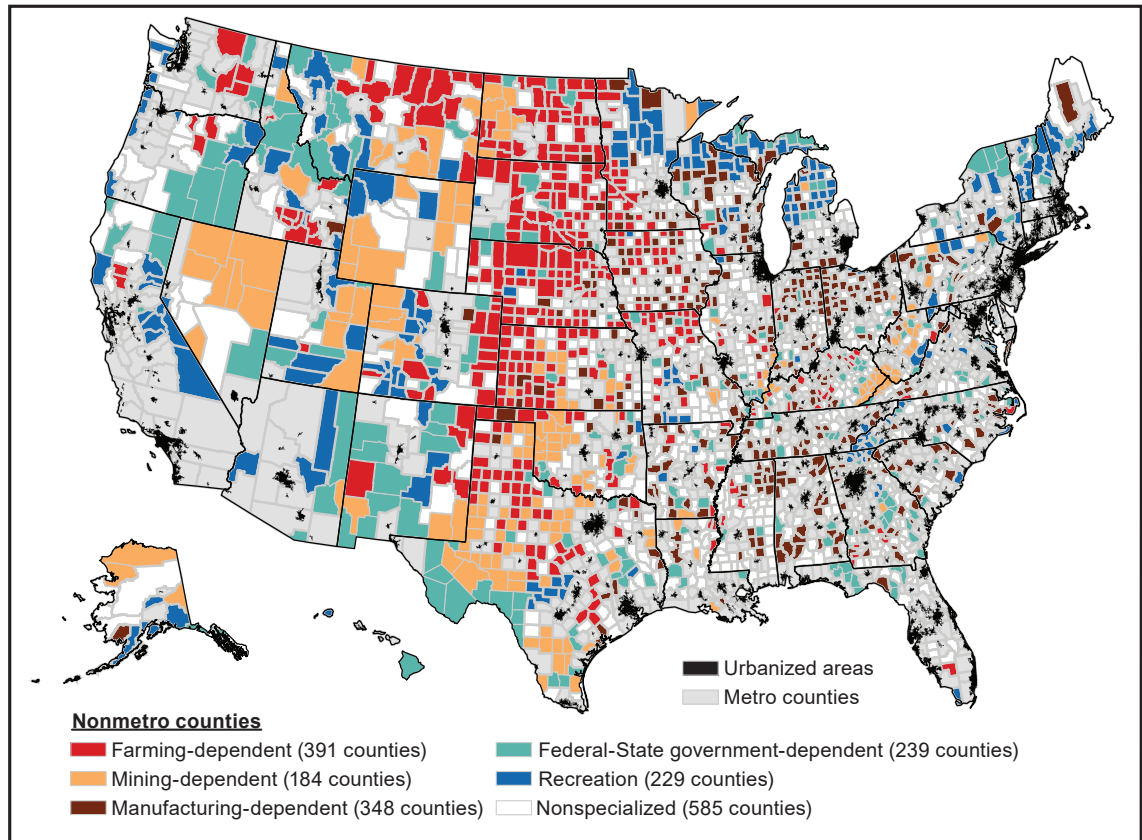


Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, Population Estimates Program, based on 2013 county nonmetro/metro delineations as determined by the Office of Management and Budget.



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.

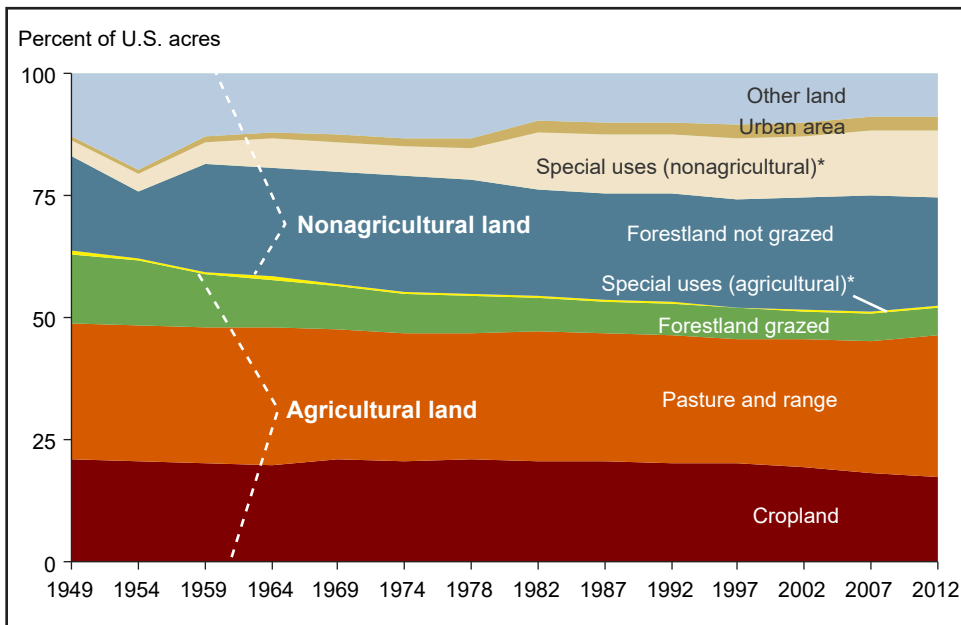
Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of Economic Analysis.

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



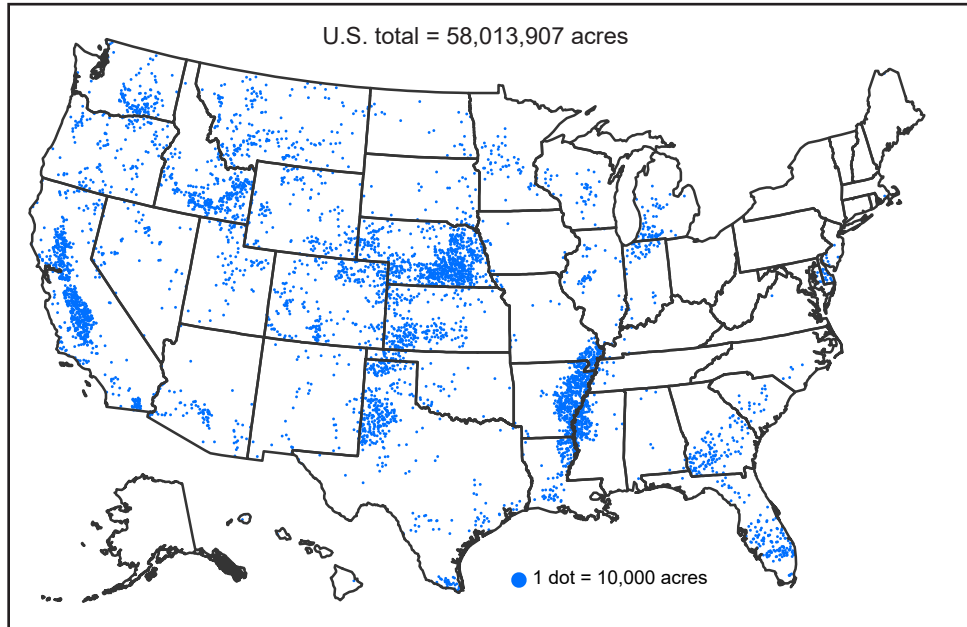
*Nonagricultural special uses include rural parks and wilderness areas, rural transportation areas, and defense/industrial lands. Agricultural special uses include farmsteads and farm roads.

Source: USDA, Economic Research Service using data from the Major Land Uses series.



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

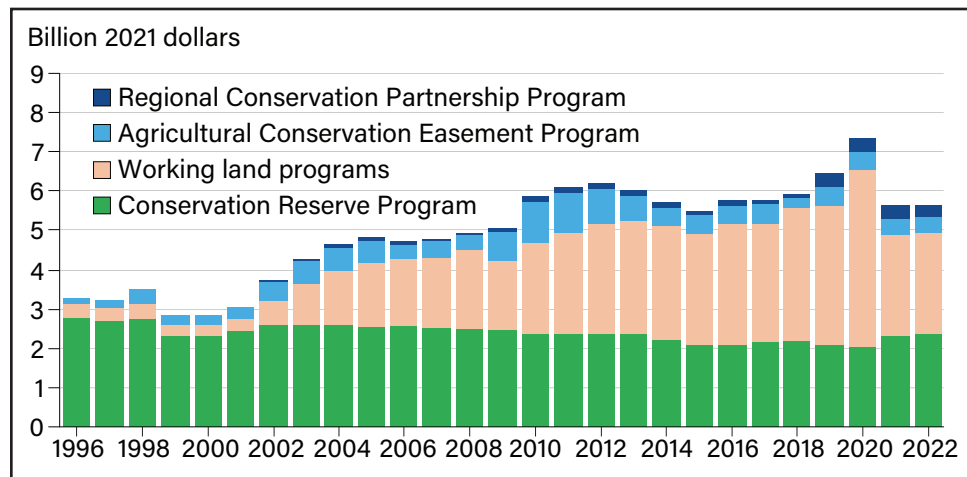
Acres of irrigated land, 2017



Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, 2017 Census of Agriculture.

USDA's funding for major working lands conservation programs has more than doubled over the past 25 years while funding for the Conservation Reserve Program has stayed fairly constant.

Major USDA conservation program expenditures, fiscal years 1996–2022



Note: Working land programs include the Environmental Quality Incentives Program, the Conservation Stewardship Program (CSP), program-related technical assistance, and predecessor programs. Predecessors of the Agricultural Conservation Easement Program include the Wetlands Reserve Program, Farmland Protection Program, and part of the Grassland Reserve Program. CSP expenditures in 2019 and 2020 reflect obligations under CSP contracts signed prior to the 2018 Farm Act that had originally been budgeted as ongoing obligations during the term of the contract. Data for 2022 reflect enacted spending. Values adjusted to 2021 dollars using the Gross Domestic Product Implicit Price Deflator.

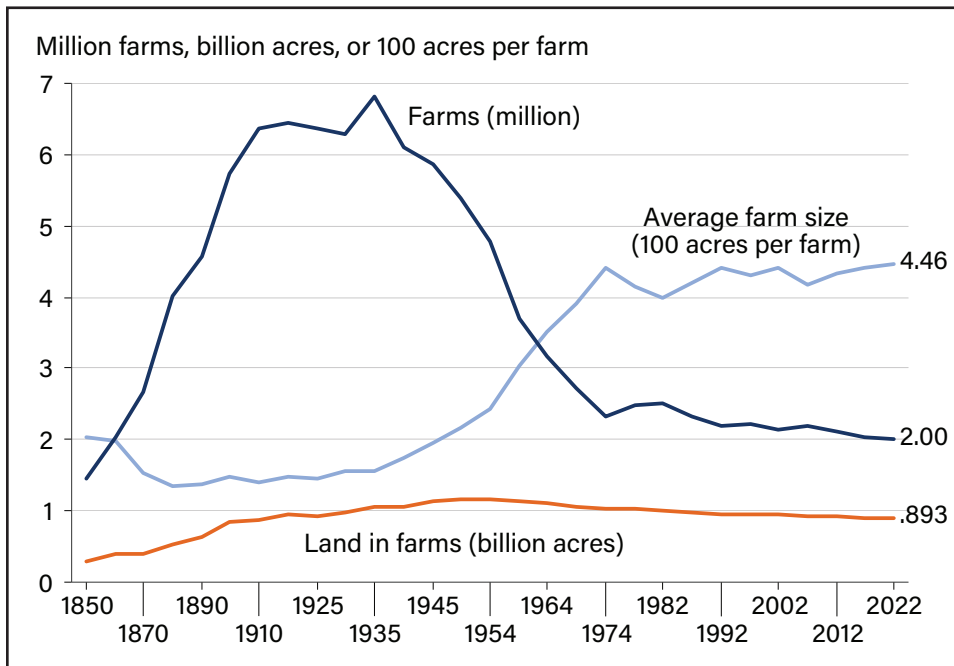
Source: USDA, Economic Research Service using budget summary data from USDA, Office of Budget and Program Analysis.

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 larger and more specialized farms.

The number of farms has leveled off at about 2 million.

Farms, land in farms, and average acres per farm, 1850-2022

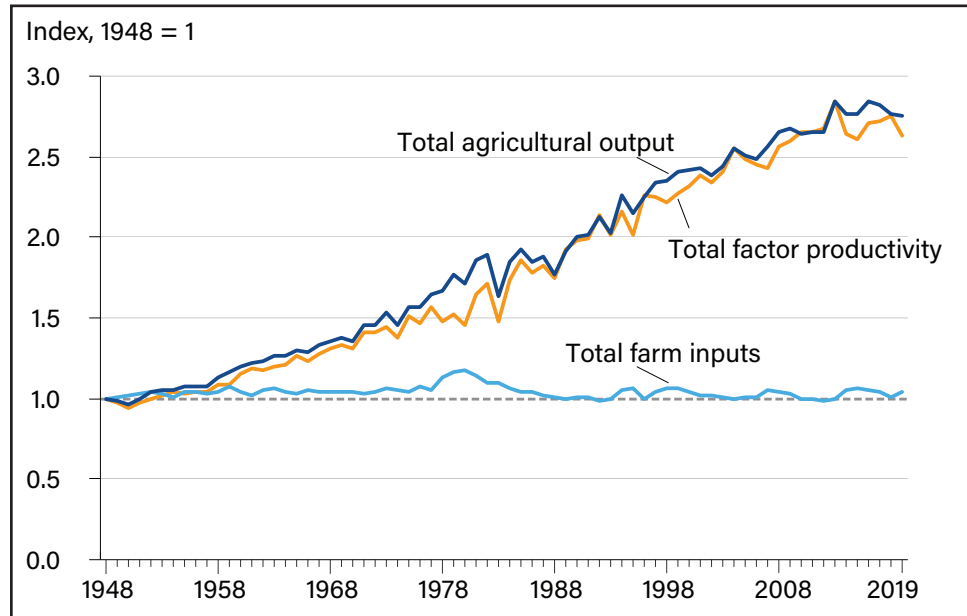


Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, Census of Agriculture (through 2017) and *Farms and Land in Farms: 2022 Summary* (February 2023).



Agricultural output has grown, driven primarily by total factor productivity change.

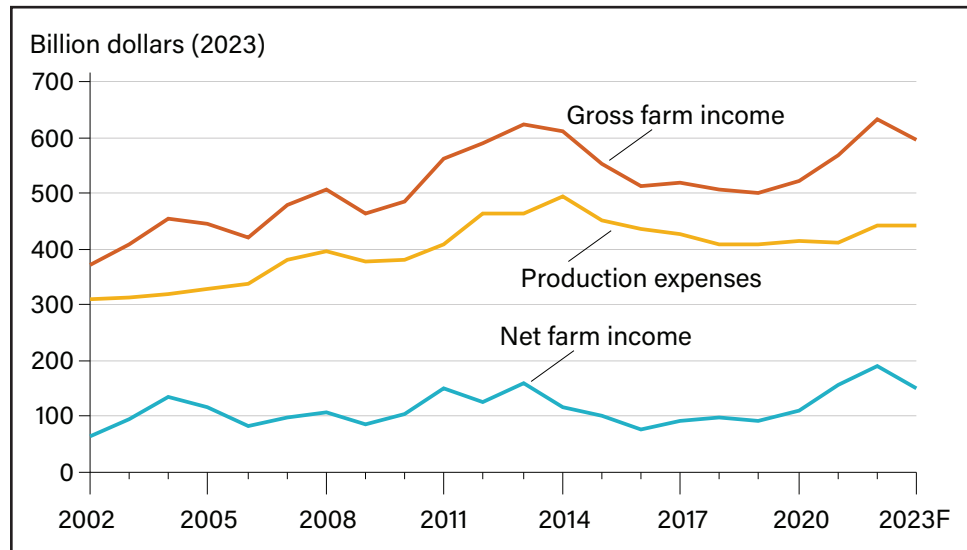
U.S. agricultural output, inputs, and total factor productivity, 1948-2019



Source: USDA, Economic Research Service, *Agricultural Productivity in the U.S.* data series. Data as of January 2022.

Net farm sector income reached a record high in 2022...

U.S. gross farm income, production expenses, and net farm income, 2002-23F

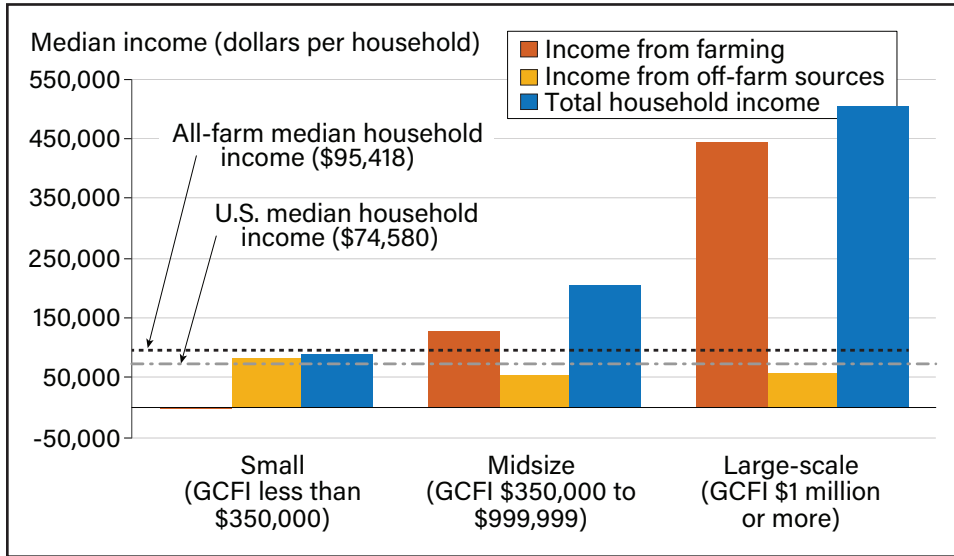


Note: F = forecast. Values are adjusted for inflation using the U.S. Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product Price Index (BEA API series code: A191RG) rebased to 2023 by USDA, Economic Research Service.

Source: USDA, Economic Research Service, *Farm Income and Wealth Statistics*. Data as of November 30, 2023.

...while off-farm income continues to be important to total farm household income, especially among small-scale producers.

Median income of farm households, by income source and farm type, 2022



Note: Farm type reflects annual gross cash farm income (GCFI), which includes sales of crops and livestock, Federal Government payments, and other farm-related income, including fees received by operators from production contracts.

Source: USDA, Economic Research Service and USDA, National Agricultural Statistics Service, Agricultural Resource Management Survey and U.S. Department of Commerce, Bureau of the Census, Current Population Reports. Data as of November 30, 2023.

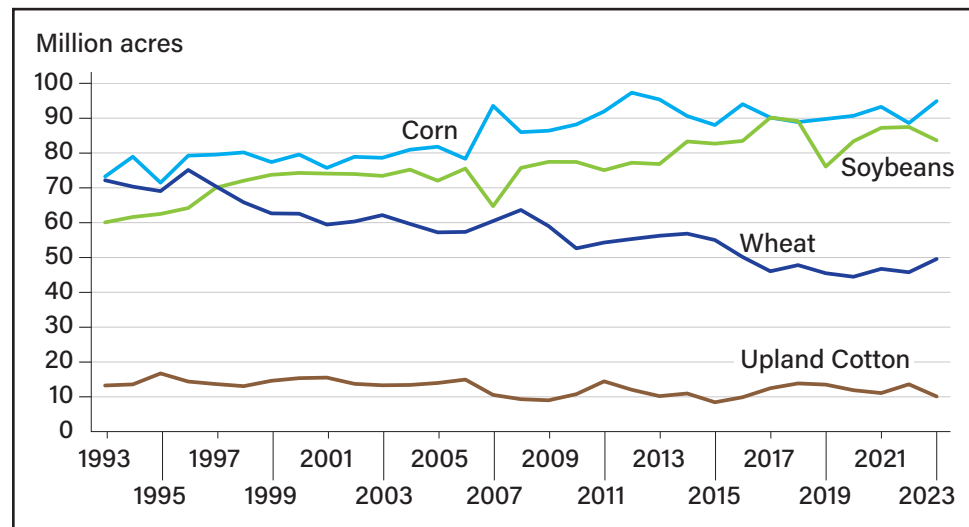


Agricultural Production and Prices

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.

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

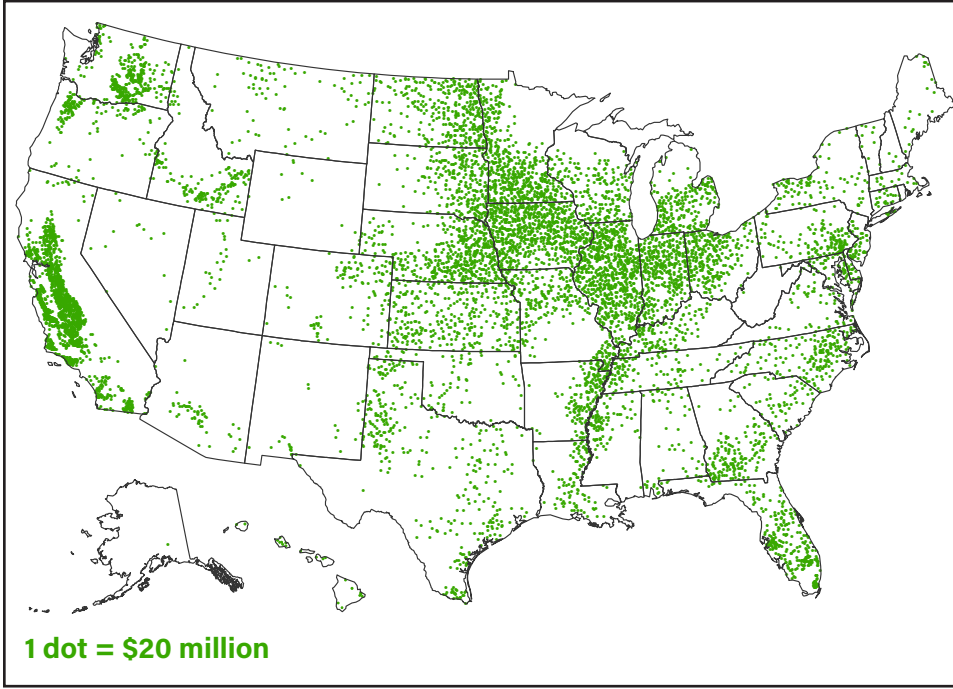
U.S. planted area: Corn, wheat, soybeans, and upland cotton, 1993–2023



Source: USDA, Economic Research Service, Agricultural Baseline Database.

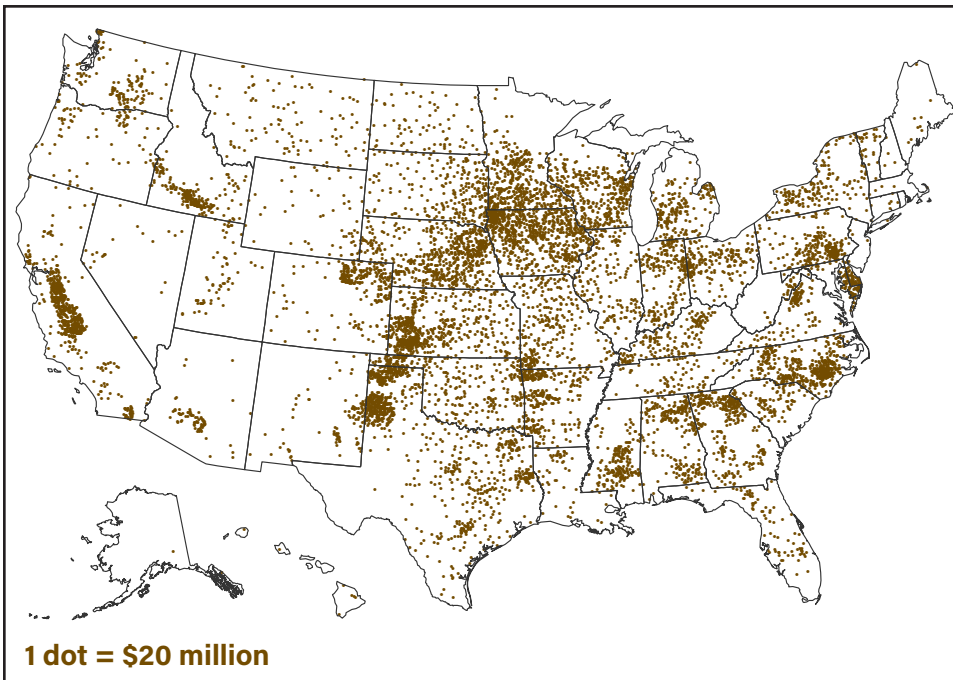
U.S. crop production is concentrated in California and the Midwest, while livestock production is more spread out across the country.

Market value of crops sold in 2017



Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, 2017 Census of Agriculture.

Market value of livestock, dairy, poultry, and their products sold in 2017

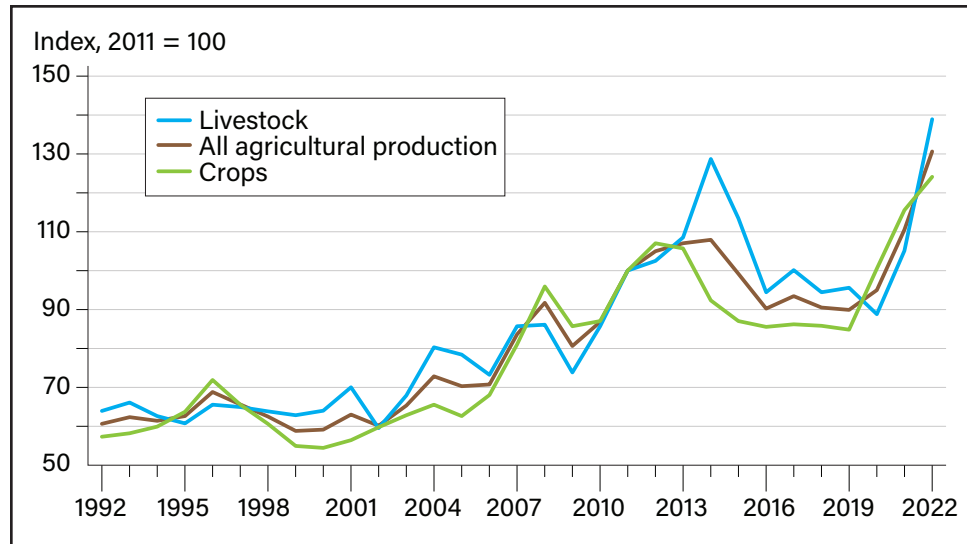


Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, 2017 Census of Agriculture.



Agricultural prices have been trending upward since 2020...

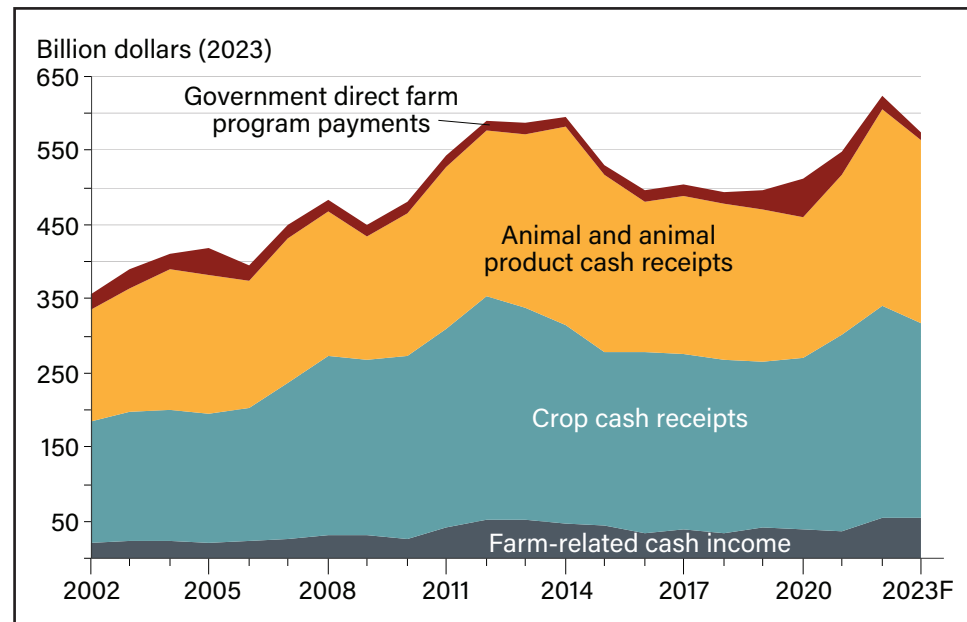
U.S. prices received by farmers, 1992-2022



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

...bringing crop and animal/animal product cash receipts higher as well.

U.S. gross cash farm income components, 2002-23F



Note: F = forecast. Values are adjusted for inflation using the U.S. Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product Price Index (BEA API series code: A191RG) rebased to 2023 by USDA, Economic Research Service.

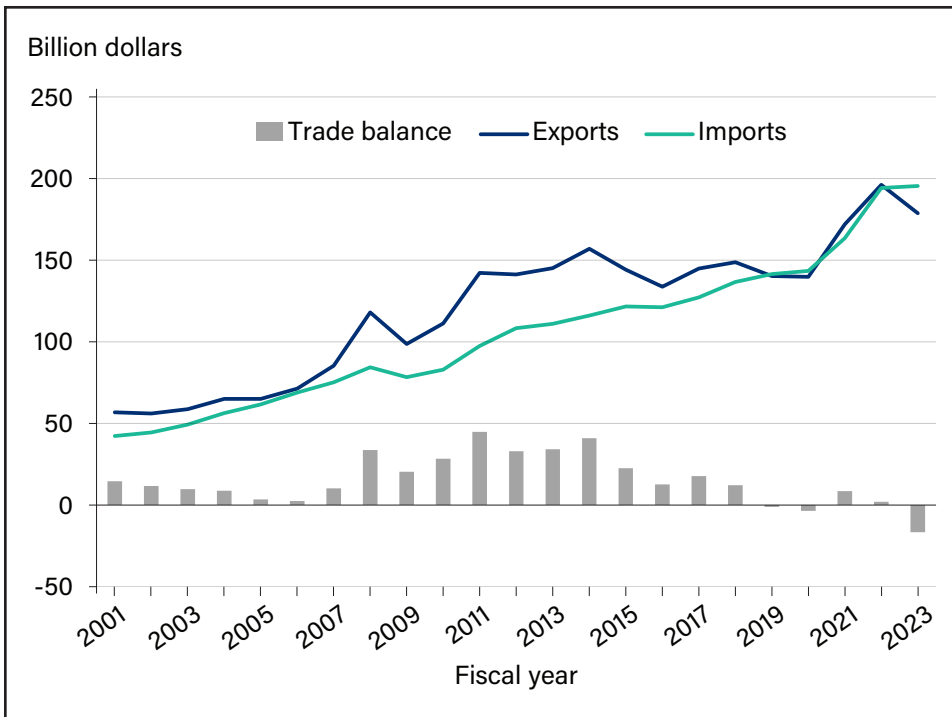
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of November 30, 2023.

Agricultural Trade

The leading U.S. agricultural exports are grains and feeds, soybeans, livestock products, tree nuts, fruits, vegetables, and other horticultural products. The leading U.S. imports are horticultural and tropical products. China, Mexico, Canada, the European Union, and Japan are major U.S. trade partners.

The United States typically exports more agricultural goods by value than it imports, but the value of imports have grown more rapidly than exports over the past decade.

U.S. agricultural trade, 2001-23



Note: Values are not adjusted for inflation. The trade balance is equal to the value of exports minus the value of imports. When the balance is negative, imports exceed exports.

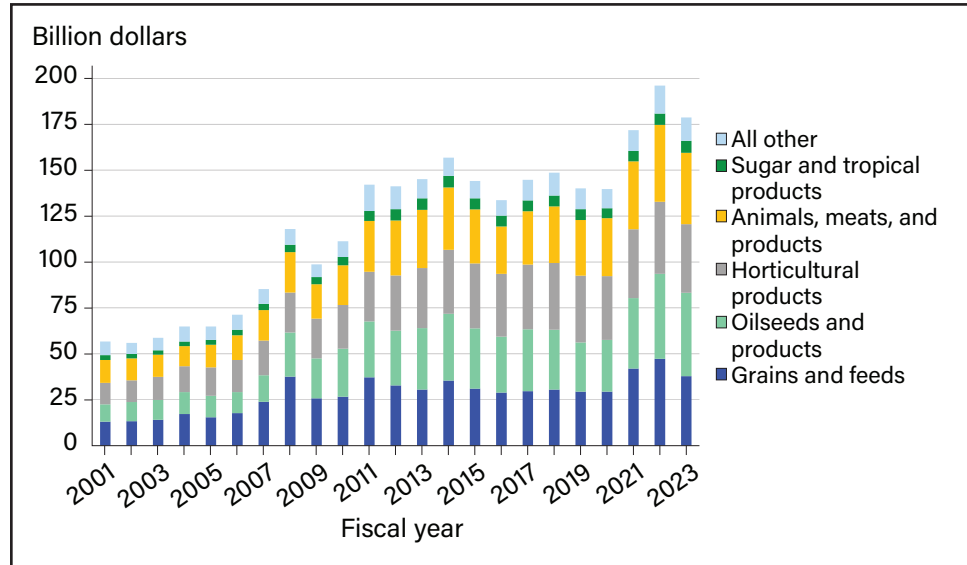
Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census.





The value of U.S. agricultural exports, not adjusting for inflation, peaked in 2022 before declining into 2023. Much of the decrease was from lower export values of corn, wheat, tree nuts, and beef.

U.S. agricultural exports, 2001-23

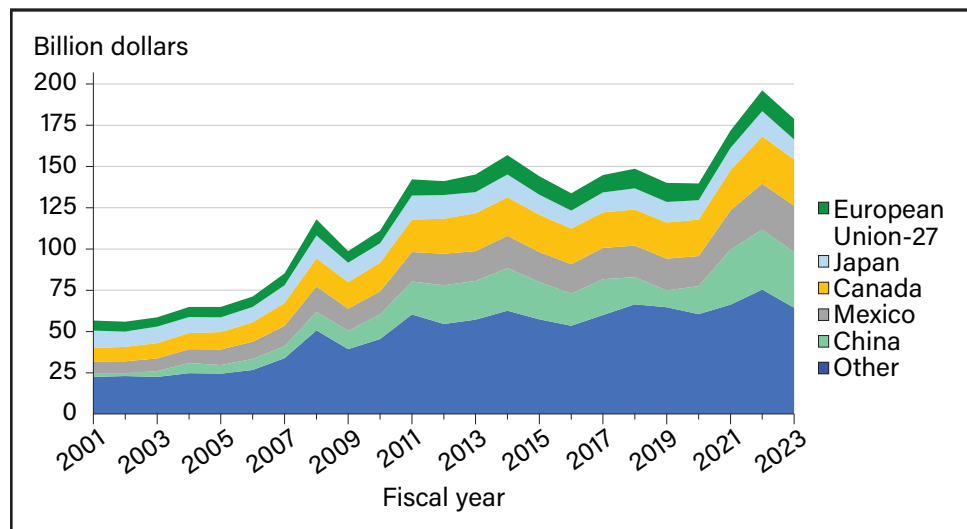


Note: Values are not adjusted for inflation.

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

China, Mexico, and Canada were top destinations for U.S. agricultural exports in 2023.

Top five markets for U.S. agricultural exports, 2001-23

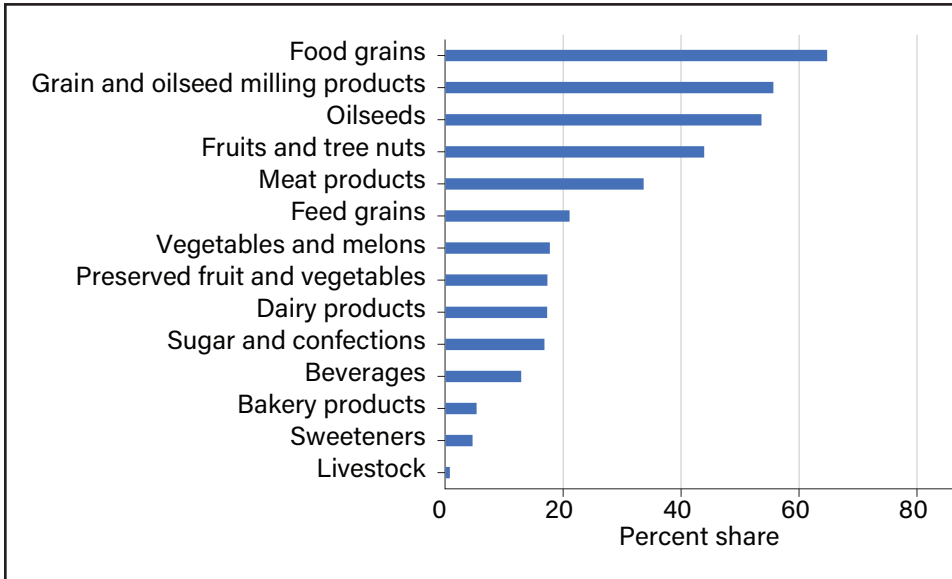


Note: Values are not adjusted for inflation.

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

Exports account for 40 percent or more of the total market value for U.S. fruits and tree nuts, oilseeds, and food grains such as rice and wheat.

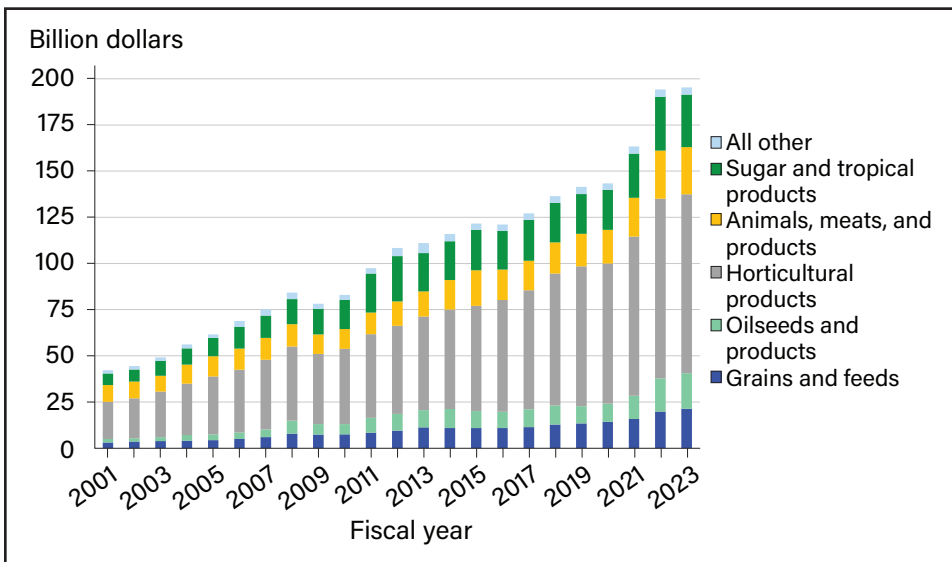
Export value share of production, 2013-22



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

Increasing imports of horticultural products, particularly fresh fruits, have driven total growth in the value of U.S. agricultural imports over the past two decades.

U.S. agricultural imports, 2001-23



Note: Values are not adjusted for inflation.

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

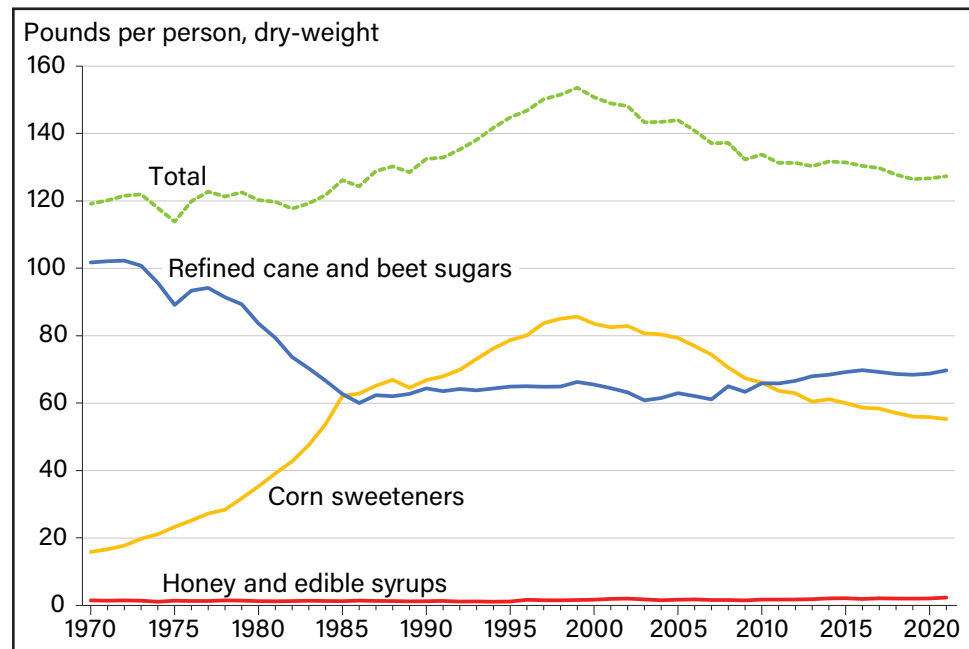


Food Consumption and Availability

ERS's Food Availability Data estimate the amount of food available for human consumption in the United States by measuring the supply of foods moving through the U.S. marketing system. Food availability data track changes in U.S. diets over time.

Per capita availability of caloric sweeteners in the United States trended down over the last two decades—led by a steady decline in corn sweeteners consumption.

U.S. per capita caloric sweetener availability, 1970–2021

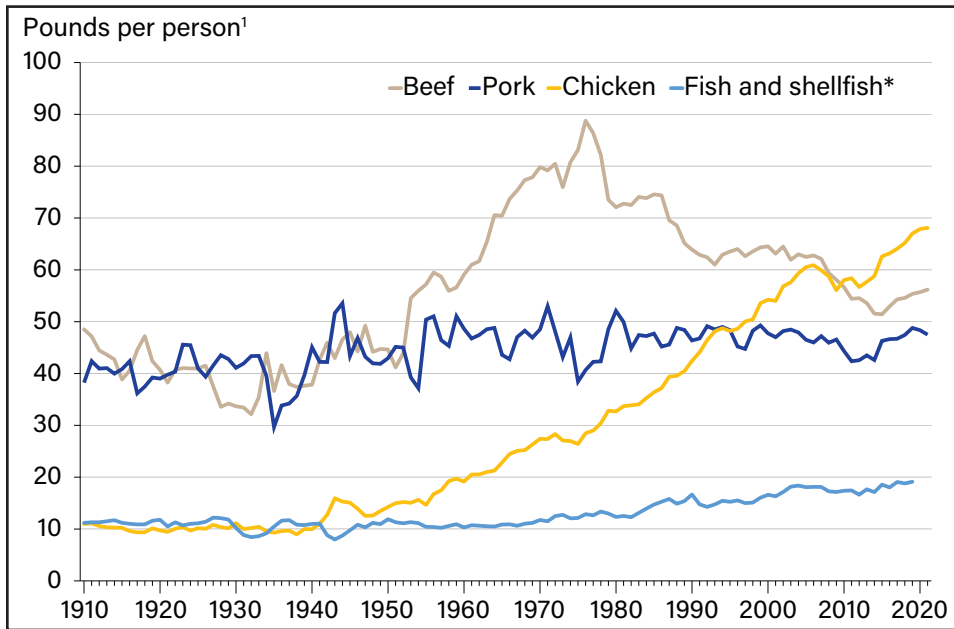


Note: Corn sweeteners include high-fructose corn syrup (HFCS), glucose syrup, and dextrose. Edible syrups include sorgo (sweet sorghum), maple and sugarcane syrup, edible molasses, and edible refiners' syrup.

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

U.S. per capita availability of chicken has outpaced pork since 1996 and beef since 2010.

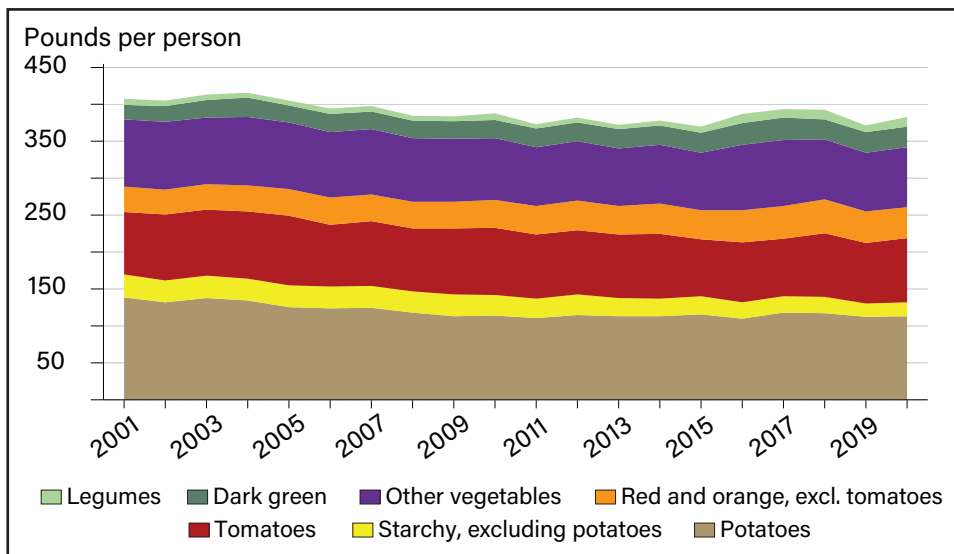
U.S. per capita availability of beef, pork, chicken, and fish/shellfish, 1910-2021



¹Calculated on the basis of raw and edible meat in boneless, trimmed (edible) weight. Excludes edible offals, bones, viscera, and game from red meat. Includes skin, neck, and giblets from chicken. Excludes use of chicken for commercially prepared pet food.
 *Fish and shellfish data are only available through 2019.
 Source: USDA, Economic Research Service, Food Availability Data.

Potatoes and tomatoes are consistently the individual vegetables with the highest U.S. per capita availability over the 2001-20 period.

U.S. per capita vegetable availability, 2001-20



Note: **Legumes:** dry edible beans, dry peas. **Dark green:** broccoli, collard greens, escarole, kale, mustard greens, romaine and leaf lettuce, spinach, turnip greens. **Other vegetables:** artichokes, asparagus, beets, brussels sprouts, cabbage, cauliflower, celery, cucumbers, eggplant, garlic, head lettuce, okra, onions, radishes, snap beans, squash. **Red and orange, excluding tomatoes:** bell peppers, carrots, chili peppers, pumpkin, sweet potatoes. **Starchy, excluding potatoes:** green peas, lima beans, sweet corn.
 Source: USDA, Economic Research Service, Food Availability Data.

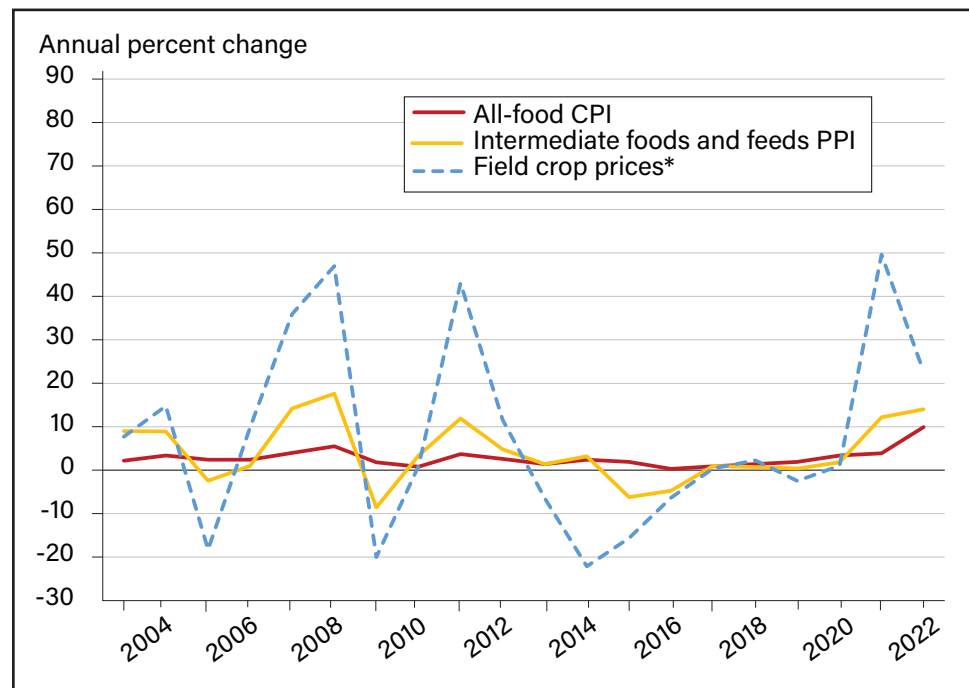


Food Prices and Spending

Retail food prices partially reflect farm-level commodity prices, but other costs of bringing food to the market (such as processing and retailing) 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, intermediate foods and feeds PPI, and field crop prices, 2003-22



*Calendar year, production-weighted average for corn, wheat, and soybeans.

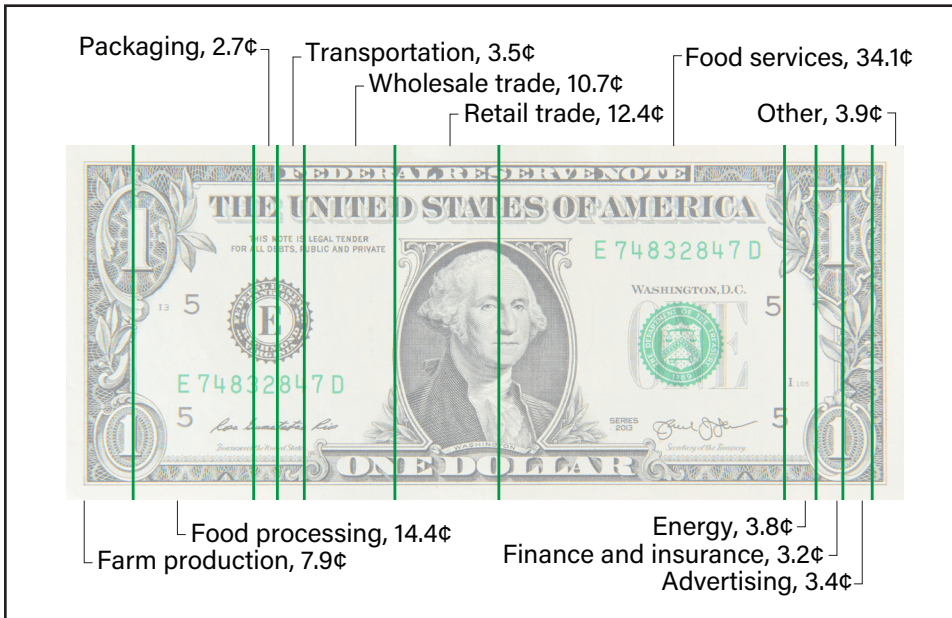
CPI = Consumer Price Index. PPI = Producer Price Index.

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

Last updated: November 29, 2023.

...as much of U.S. consumers' retail food dollar pays for processing, retailing, and foodservice costs.

2022 Food Dollar Series' industry group dollar, nominal

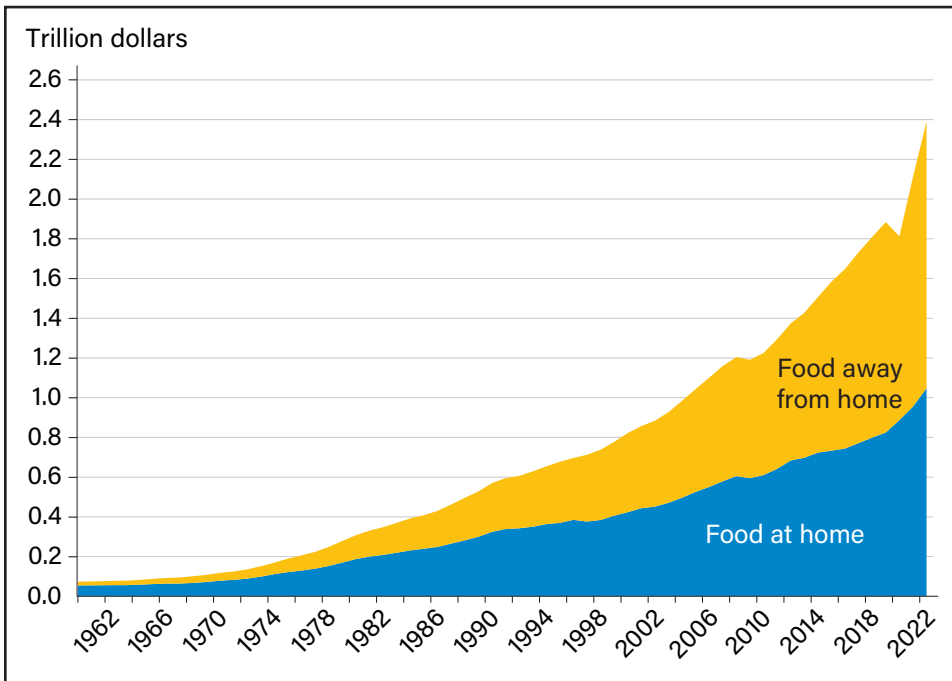


Note: The food dollar estimates provide the average industry group shares of each nominal, or unadjusted for inflation, dollar spent on domestically produced food in a year. **Other** includes Agribusiness (2.1 cents) and Legal and accounting (1.8 cents).

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

Spending on food-away-from-home continued to outpace food-at-home spending in 2022.

Food-at-home and food-away-from-home expenditures in the United States, 1960-2022



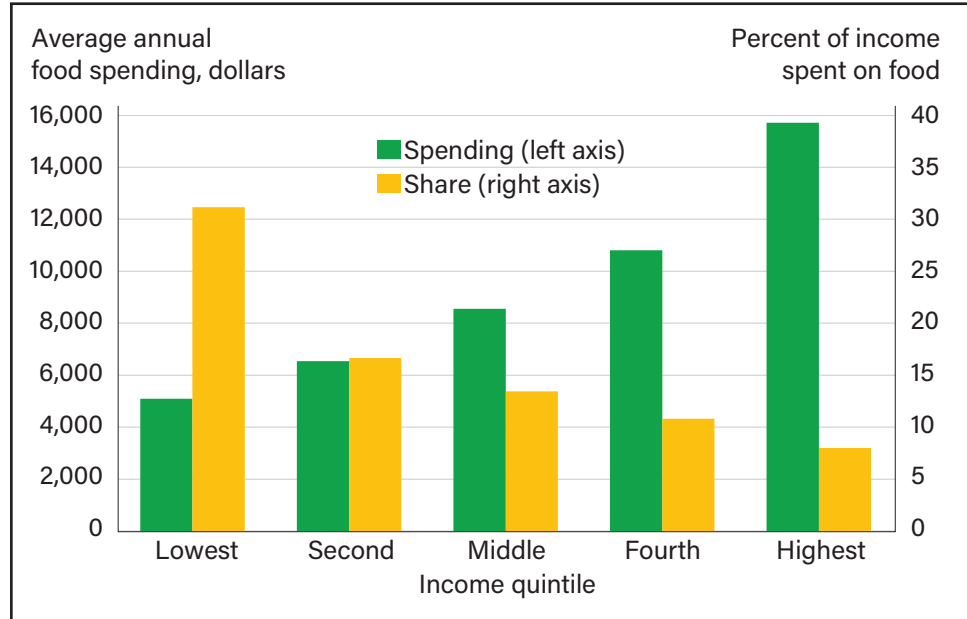
Note: Values are in nominal dollars, not adjusted for inflation.

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



U.S. households in the middle-income quintile spend just over 13 percent of their incomes on food, but households in the lowest-income quintile spend about 31 percent.

Food spending and share of income spent on food across U.S. households, 2022



Note: U.S. households are sorted from lowest to highest household income, and then divided into five equal groups, or quintiles.

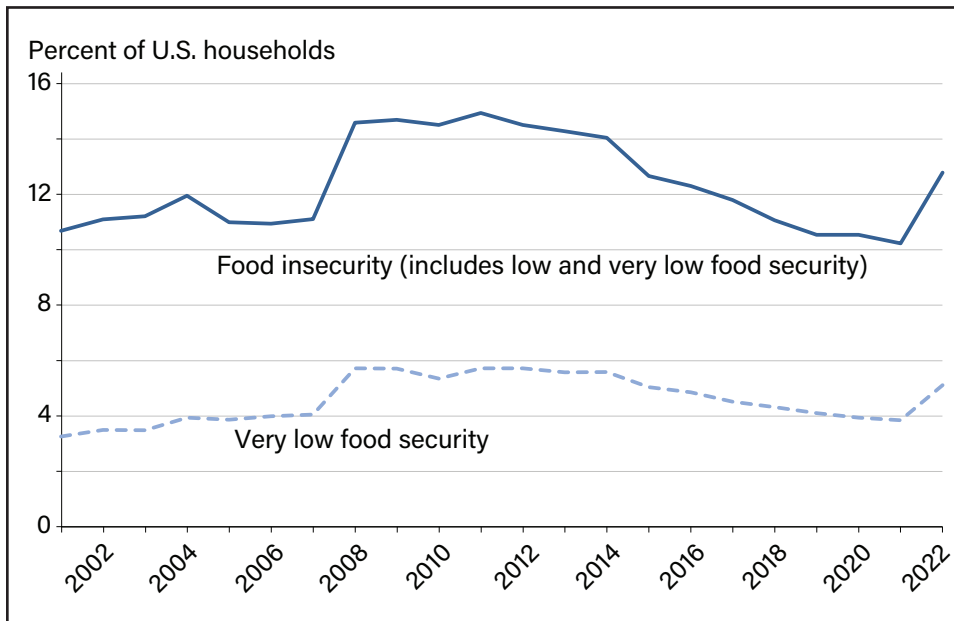
Source: USDA, Economic Research Service using U.S. Department of Labor, Bureau of Labor Statistics, 2022 Consumer Expenditure Survey data.

Food Security and Nutrition 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.

The prevalence of food insecurity and very low food security in U.S. households has varied over time; both increased from 2021 to 2022.

Trends in prevalence rates of food insecurity and very low food security in U.S. households, 2001–22



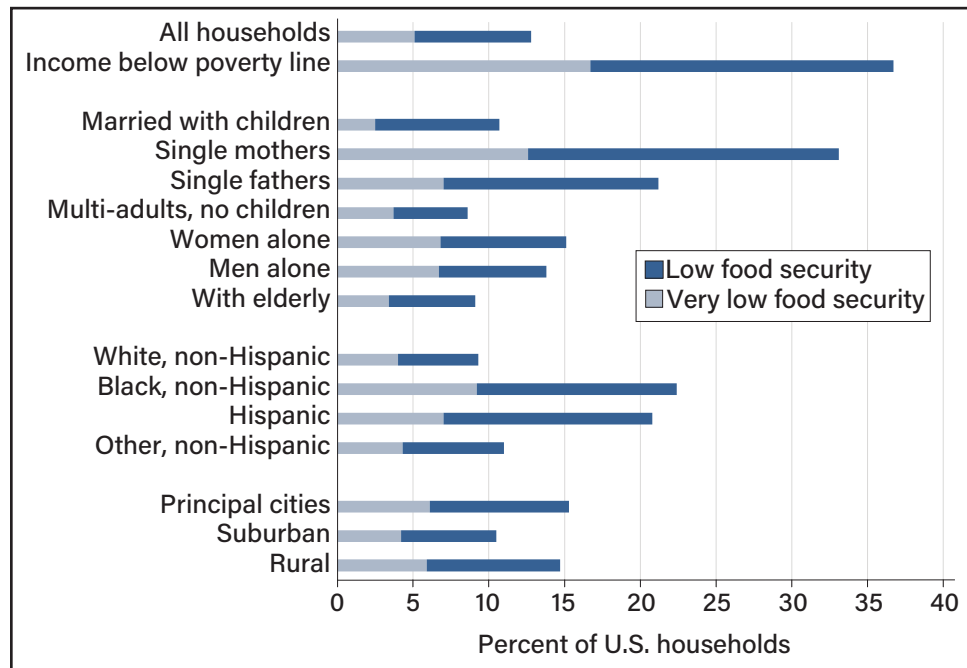
Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, Current Population Survey Food Security Supplements.





However, the prevalence of food insecurity differs by household characteristics.

Prevalence of food insecurity by selected household characteristics, 2022

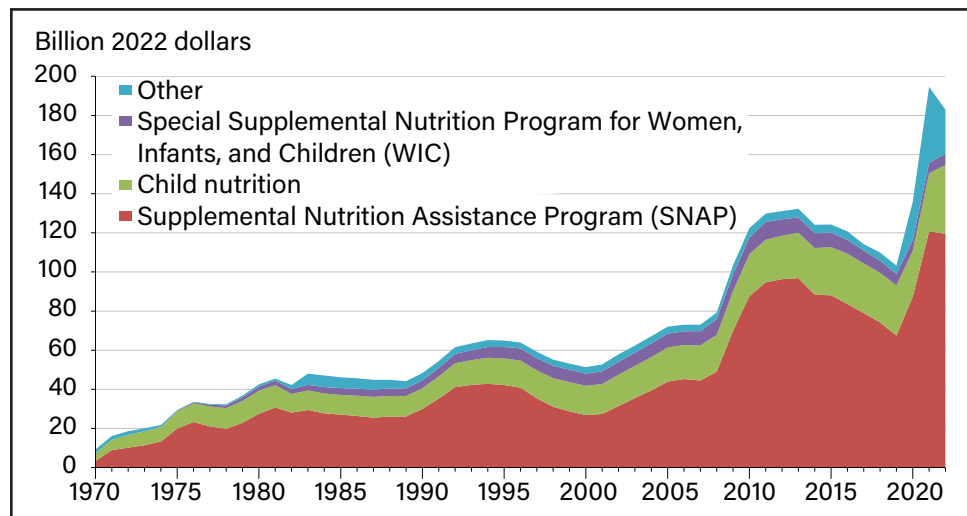


Note: Food-insecure households include those with low food security and very low food security.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2022 Current Population Survey Food Security Supplement.

USDA administers several food and nutrition assistance programs, the largest of which is SNAP.

Inflation-adjusted USDA spending on food and nutrition assistance, fiscal years 1970-2022

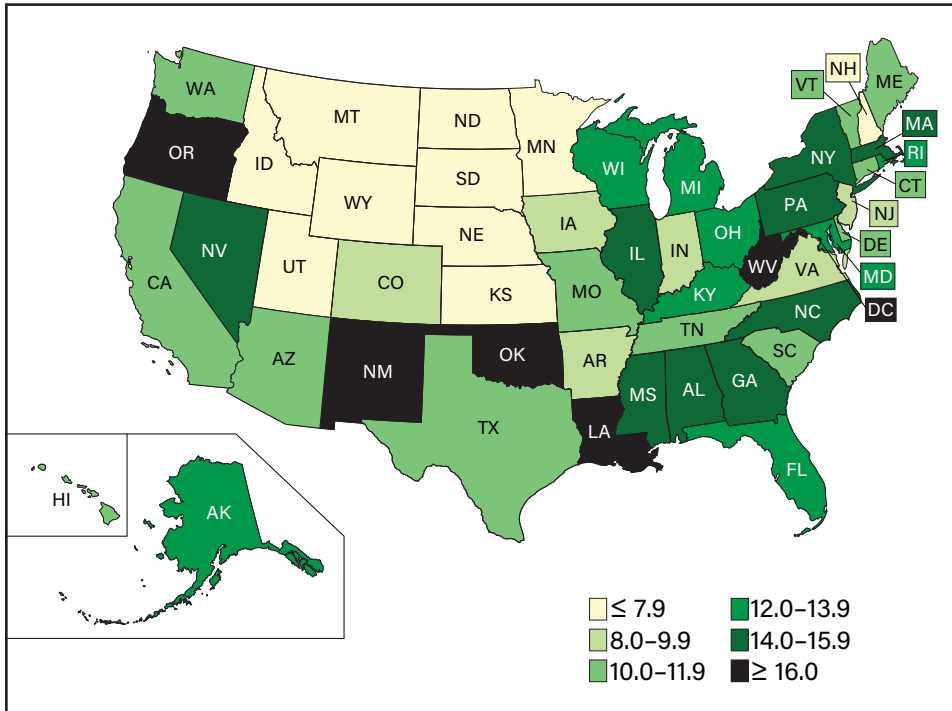


Note: **Child nutrition** includes the National School Lunch Program (NSLP), School Breakfast Program (SBP), Child and Adult Care Food Program, Summer Food Service Program, Special Milk Program, and related commodity costs; it does not include State administrative expenses. **Other** includes spending not elsewhere classified, including Pandemic Electronic Benefit Transfer in 2020-21 and the Farmers to Families Food Box Program in 2020-21. Inflation adjusted using the Personal Consumption Expenditures Price Index. Data are as of January 2023 and subject to revision.

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

Participation in SNAP varies across States, reflecting differences in need and program policies.

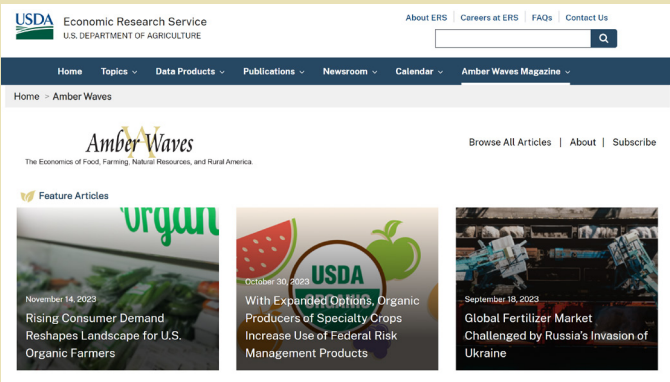
Percent of population receiving SNAP benefits in fiscal year 2022



SNAP = Supplemental Nutrition Assistance Program.

Source: USDA, Economic Research Service using data from the USDA, Food and Nutrition Service and the U.S. Department of Commerce, Bureau of the Census.

Read ERS's *Amber Waves* magazine, Charts of Note, and view the latest reports and data online, or sign up to have them delivered right to your email!



The screenshot shows the USDA Economic Research Service website. The navigation menu includes Home, Topics, Data Products, Publications, Newsroom, Calendar, and Amber Waves Magazine. The main content area features the Amber Waves magazine cover with the title "The Economics of Food, Farming, Natural Resources, and Rural America" and a "Browse All Articles | About | Subscribe" link. Below the cover are three featured articles:

- Rising Consumer Demand Reshapes Landscape for U.S. Organic Farmers** (November 14, 2023)
- With Expanded Options, Organic Producers of Specialty Crops Increase Use of Federal Risk Management Products** (October 30, 2023)
- Global Fertilizer Market Challenged by Russia's Invasion of Ukraine** (September 18, 2023)

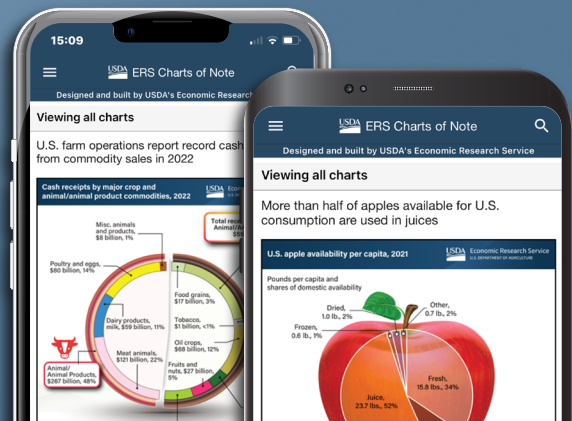
Amber Waves

The Economics of Food, Farming, Natural Resources, and Rural America



CHARTS of NOTE

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