

AGRICULTURE



SMART SECTORS
A PROGRAM OF U.S. EPA



ECONOMICS

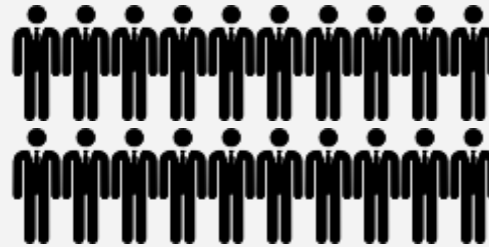


ENVIRONMENTAL
IMPACT



EFFICIENCY

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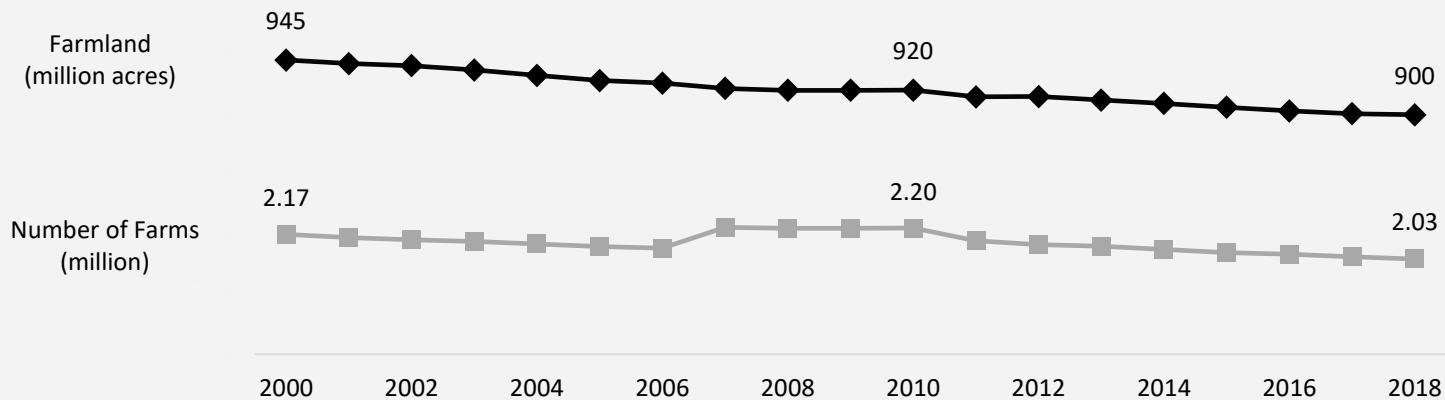


On-farm employment in the agriculture sector accounts for 2.6 million jobs in the United States. "On-farm employment" includes full- and part-time jobs.

Bureau of Economic Analysis, 2018



Number of Farms and Farmland in U.S. from 2000-2018



Between 2000 and 2018, the number of farms decreased from 2.17 million to 2.03 million, while farmland decreased from 945 million acres to 900 million acres.

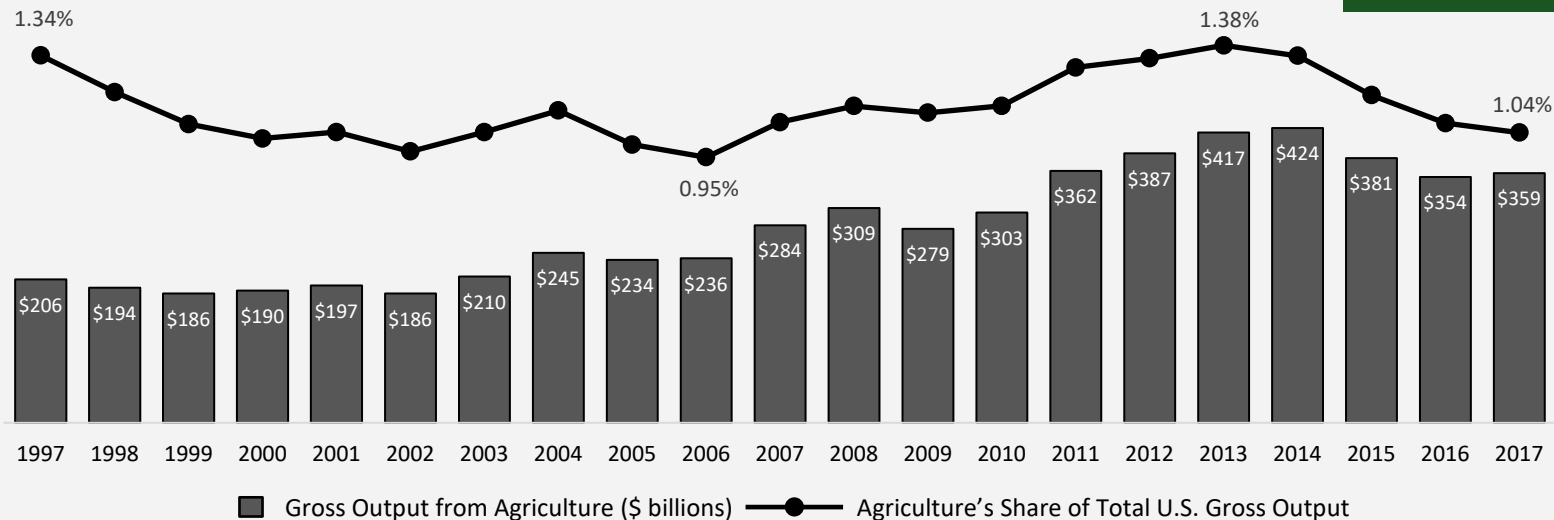
USDA Economic Research Service, 2019



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Agricultural Share of U.S. Economy

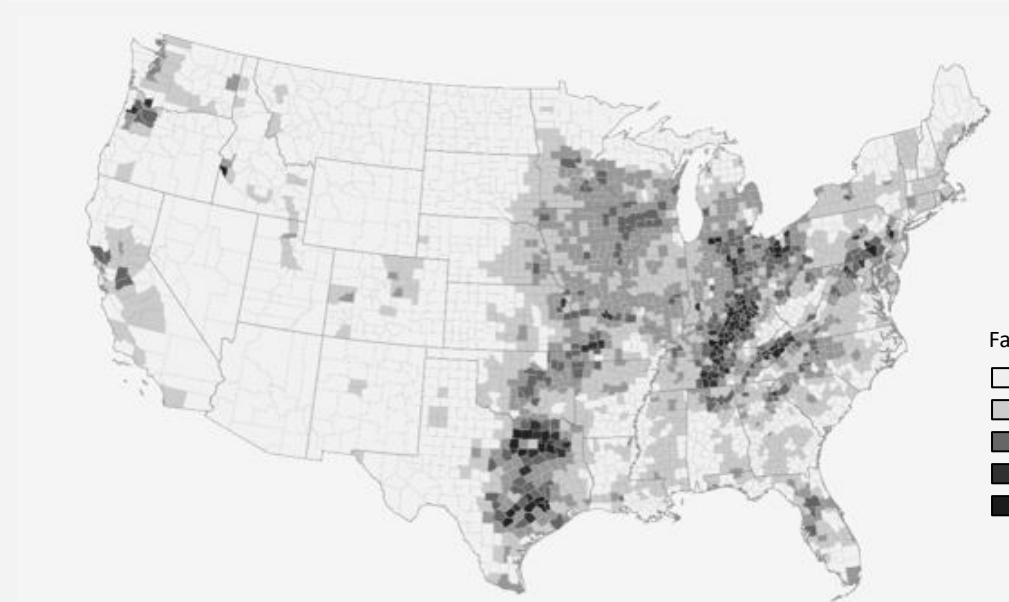


Between 1997 and 2017, the agriculture sector's gross output increased from \$206 to \$359 billion while its share of the U.S. economy stayed steady at about one percent.

Bureau of Economic Analysis, 2017



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Farms per 1,000 acres

- 0 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- 4 +

In 2017, the 2,042,220 farms accounted for roughly 40% of all contiguous U.S. land.

Notes: Not all states disclose data to USDA; additionally, Alaska and Hawaii are not surveyed.

A farm is defined as “any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year.”

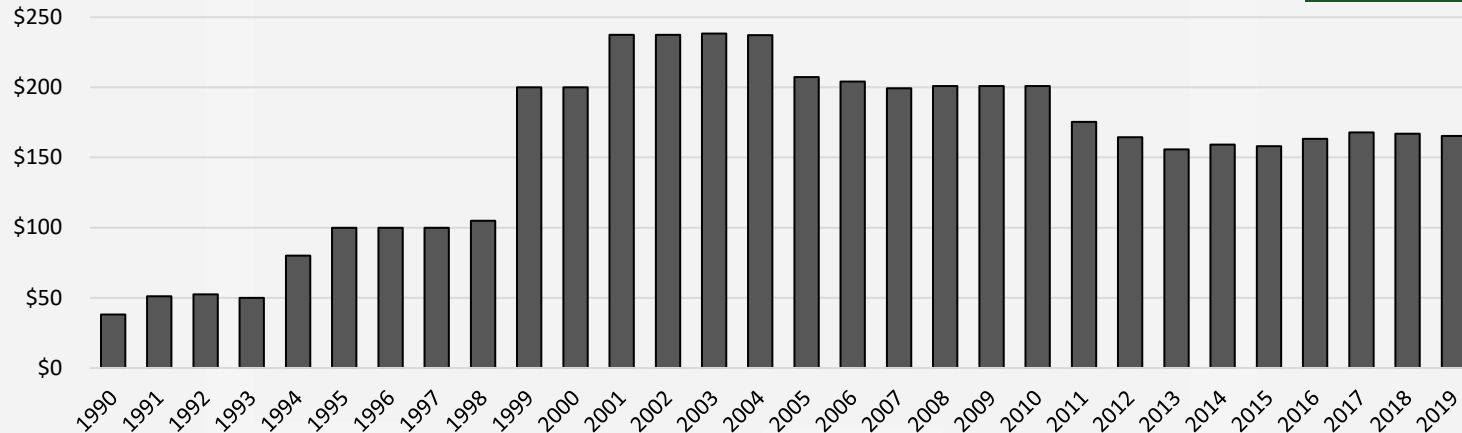
USDA National Agricultural Statistics Service, 2019



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**Total \$319 (Nonpoint Source Management Program)
Funding per Year (in \$ million)**



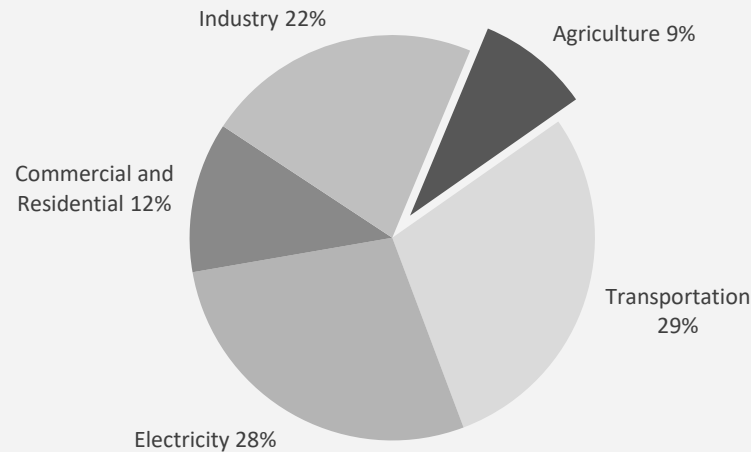
Of Clean Water Act \$319 funds that go to watershed projects, 30-40% annually address agricultural sources. These funds often work in conjunction with USDA program funding to implement innovative best management practices.

U.S. EPA, 2019





2017 U.S. Greenhouse Gas Emissions by Economic Category



The agriculture sector was responsible for 9% of U.S. greenhouse gas emissions in 2017.

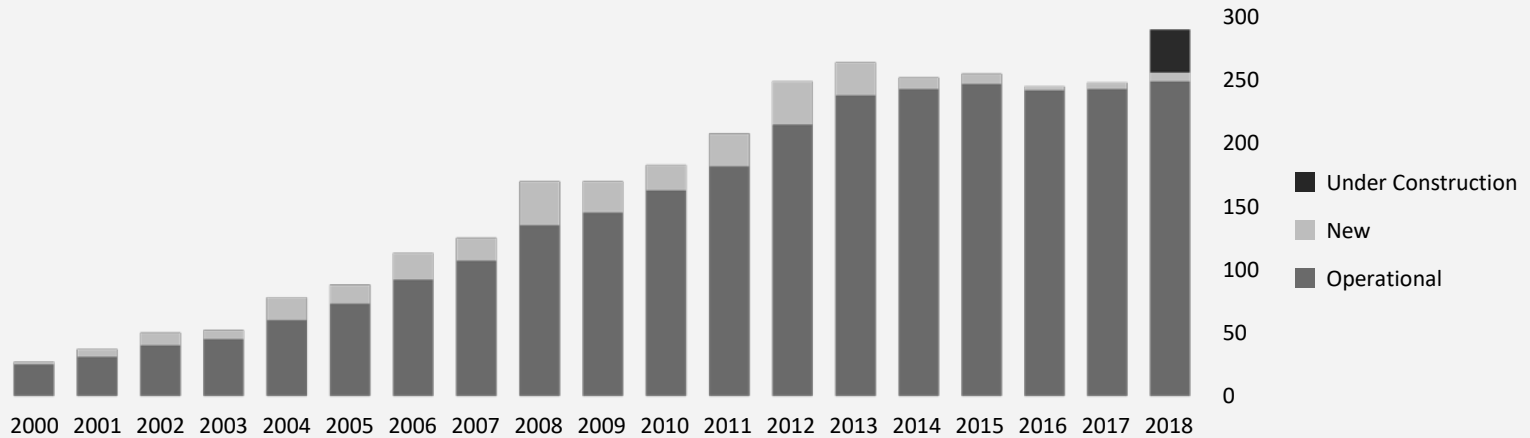
U.S. EPA, GHG Inventory 2019



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Number of Anaerobic Digesters on U.S. Livestock Farms

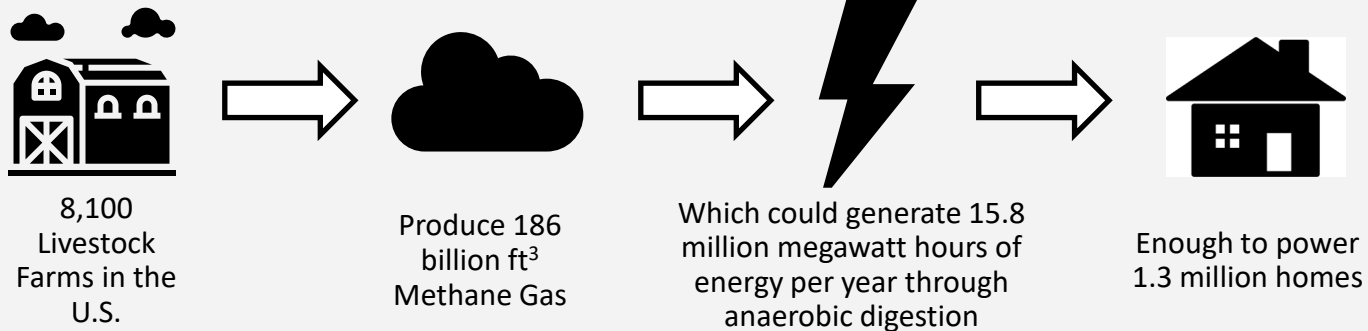


The number of anaerobic digesters on U.S. livestock farms has grown from 25 in 2000 to 248 in 2018, a 1,000% increase. These digesters use bacteria to break down organic matter such as manure without oxygen. As the bacteria “work,” they generate biogas, a renewable energy source.

U.S. EPA, AgSTAR, 2018

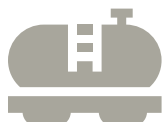


Potential for U.S. Farms to Turn Methane into Energy



If all U.S. livestock farms had anaerobic digesters, they could collectively generate enough energy to power 1.3 million homes for one year.

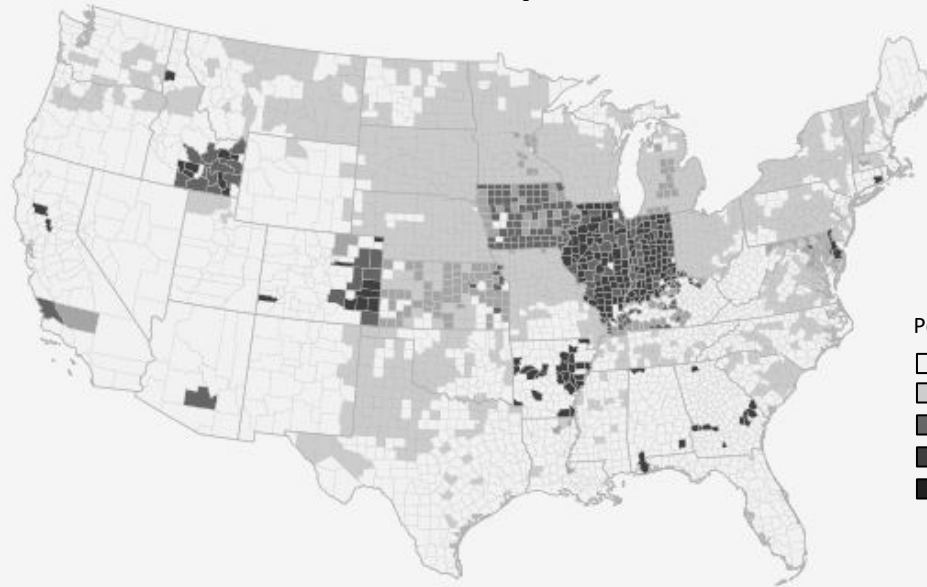
U.S. EPA, AgSTAR, 2018



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Cover Crops



Percentage of land covered by cover crops

- 0.0% - 0.1%
- 0.1% - 0.5%
- 0.5% - 1.0%
- 1.0% - 2.0%
- 2.0% +

In 2019, there were 5.3 million planted acres of cover crops across the contiguous U.S. Cover crops reduce the need for fertilizer, and improve soil structure, moisture, and nutrient content.

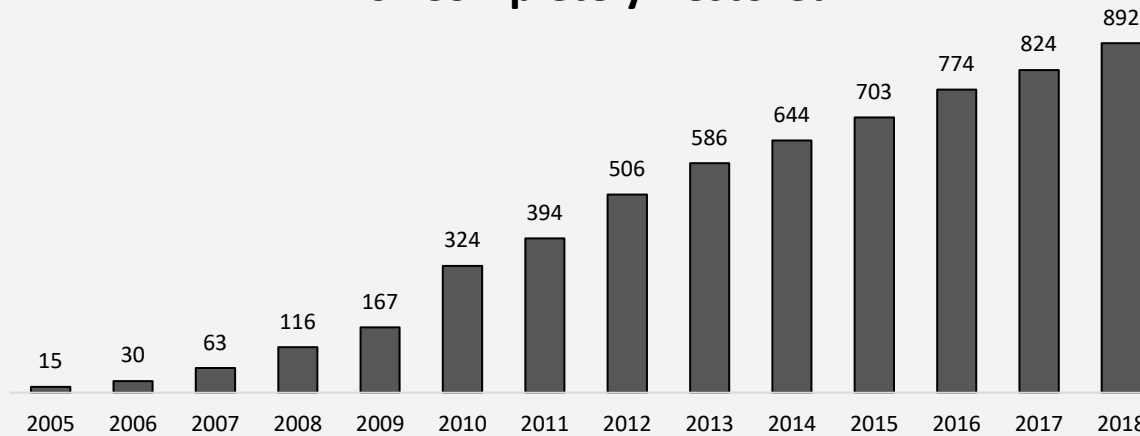
Note: This is likely a low estimate because not all producers report their acreage to the Farm Service Agency.

USDA Farm Service Agency, 2019





Number of Water Bodies Partially or Completely Restored



Restoration efforts to water bodies, some with multiple pollutants addressed, (largely from \$319 grant funds) have led to a significant increase in water quality improvements across sectors. About 60% of these improvements were achieved with agriculture as a contributing source.



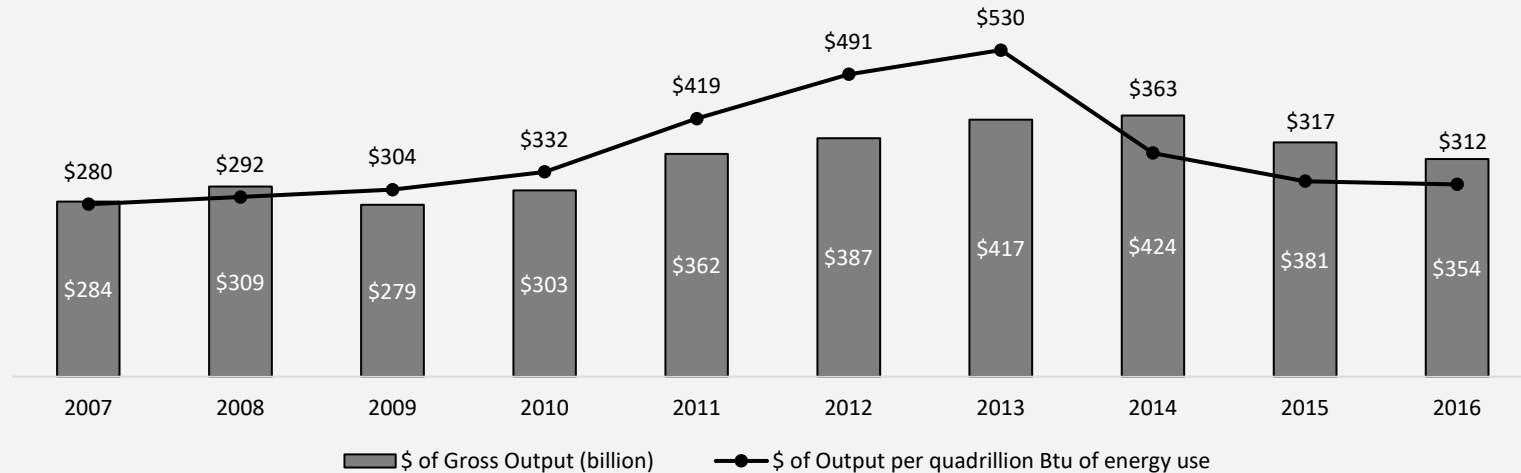
U.S. EPA, 2019



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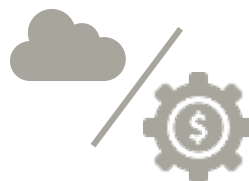


Agriculture Sector Output per Unit of Energy Consumed



In 2016, the agriculture sector produced \$354 billion of goods and used 1.13 quadrillion Btu of energy. Energy efficiency increased from \$280 to \$312 billion/quadrillion Btu between 2007 and 2016.

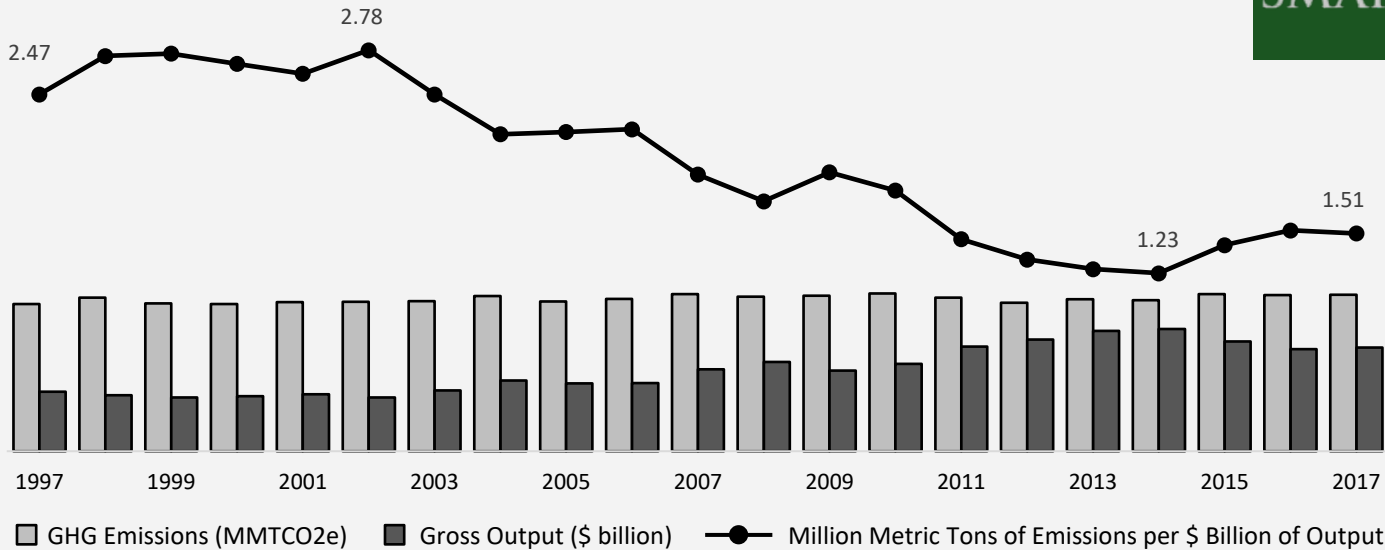
Bureau of Economic Analysis, 2017 | Energy Information Administration, 2018



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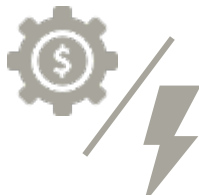


Agriculture sector GHG Emissions vs. Gross Output



In 2017, GHG emissions from the agriculture sector were 542 MMTCO₂e, while gross output was \$359 billion. Between 1997 and 2017, the ratio of GHG emissions to gross output decreased from 2.47 to 1.51.

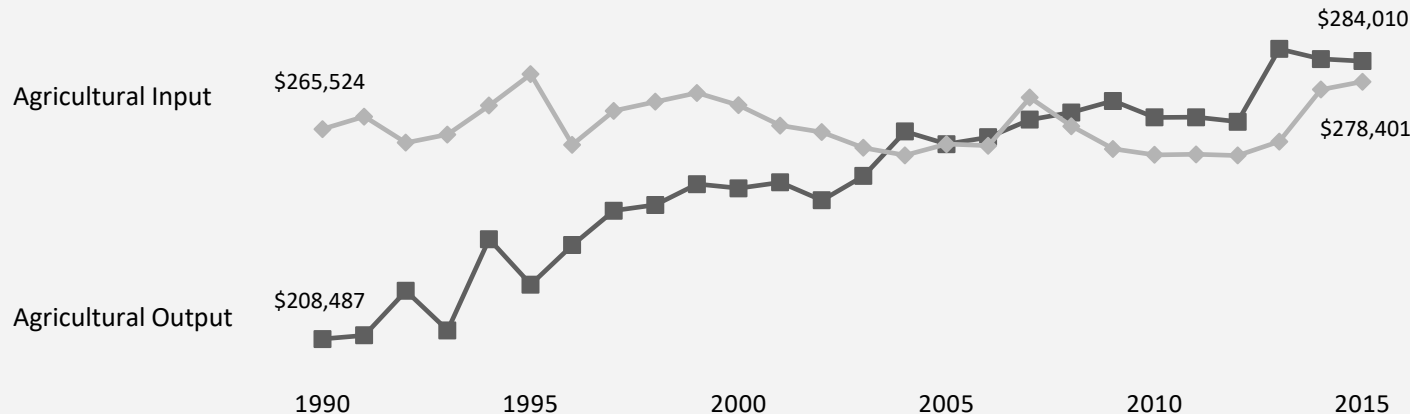
Bureau of Economic Analysis, 2017 | U.S. EPA, GHG Inventory 2019



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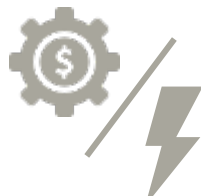


U.S. Farm Productivity Benchmarked with Resource Consumption (\$ million 2005)



Since 2009, the value of agricultural output has consistently exceeded the value of agricultural inputs; the ratio of output value to input value has increased from 0.78 in 1990 to 1.02 in 2015.

USDA Economic Research Service, 2017



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The agriculture sector includes crop production (NAICS 111) and animal production and aquaculture (NAICS 112). Establishments in this sector are involved in the production of crops, animal husbandry, and the harvest of fish and other animals from farms or their natural habitats.

Companies classified into these NAICS range from large, multinational agriculture and produce corporations to small, individually owned or family-owned farms.

For more information about the EPA Smart Sectors program, visit: epa.gov/smartsectors.

For more information about the agriculture sector, visit:

- [U.S. EPA – Agriculture](#)
- [U.S. EPA - AgSTAR](#)
- [U.S. EPA – Nonpoint Source Program](#)
- [U.S. EPA – Greenhouse Gas Inventory](#)
- [U.S. Bureau of Labor Statistics – Agriculture Industry: Workforce Statistics](#)
- [U.S. Census Bureau, NAICS 111 and 112](#)
- [U.S. Department of Agriculture](#)