

# NATIONAL AGRICULTURAL STATISTICS SERVICE

The National Agricultural Statistics Service (NASS) is the United States Department of Agriculture (USDA) federal statistical agency providing wide-ranging data on U.S. agriculture. Founded in 1862, NASS produces several hundred national reports and several thousand regional reports annually that are routinely used by producers, policymakers, the food and agriculture industry, and consumers. The Census of Agriculture, one of NASS's most important data products, is conducted every five years and provides a comprehensive picture of agricultural activities across the United States. The Census provides county-level data and shows trends in agriculture and land utilization.

\*\*The following is based on publicly available information and select information from our questionnaire.

STRENGTH OF NASS'S SUPPORT†	
<p><b>Autonomy: Challenging.</b> There are no current threats, but NASS lacks professional autonomy protections in statute. NASS generally has good professional autonomy within USDA, with minor concerns around IT systems.</p>	<p><b>Parent agency: Good.</b> USDA effectively provides the shared services NASS requires. USDA and the administration have requested budget increases that would help the agency maintain purchasing power and its ability to produce relevant and timely data. The USDA Office of the Chief Information Officer supports much of NASS's IT operations, and this arrangement generally works well.</p>
<p><b>Budget/Staffing: Challenging.</b> NASS has experienced an 18% decrease in purchasing power for its non-Census programs since FY09. This has made it difficult for NASS to efficiently operate, modernize processes and procedures, and otherwise innovate in order to sustain the delivery of its broad estimates program. Staffing is commensurate with the agency's budget.</p>	

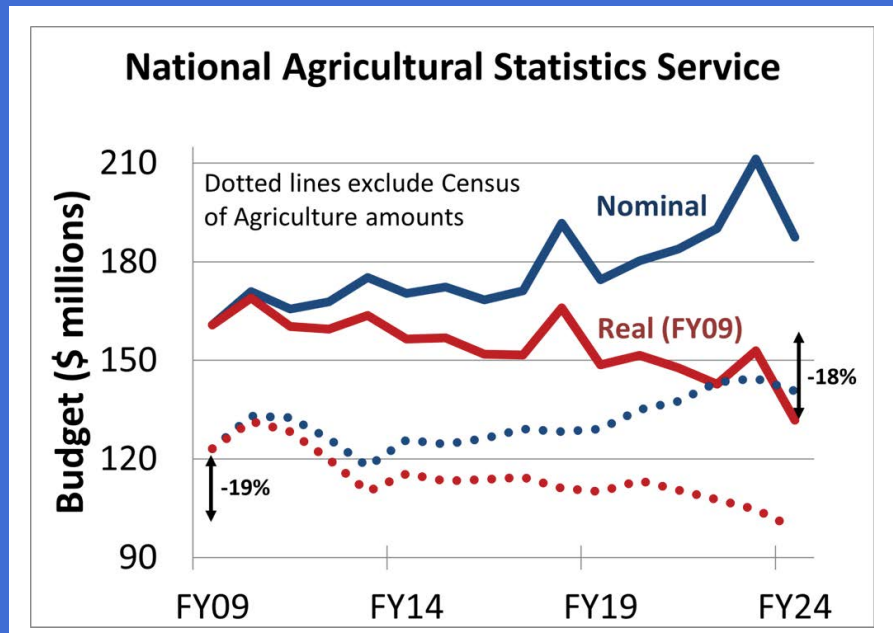
† See Supporting Materials F for an explanation of the support ratings.

## AGENCY FAST FACTS

### Budget inputs and FY24 level

1. Appropriations line items: \$187.6 million
  - Census of Agriculture: \$46.9 million
  - Non-Census: \$140.7 million

### Funding history, inflation adjusted



### Appointment of head & layers down in USDA org chart

NASS is one of eight principal federal statistical agencies for which the head is a career senior executive service appointee.

**Two:** The NASS administrator reports to the Under Secretary of Research, Education, and Economics, who reports to the Secretary of Agriculture

### Other

- ➔ NASS administers 68 survey programs on its own and 19 in collaboration with state and federal agencies. It also draws from 100+ administrative data sets.
- ➔ Sixty-three percent of NASS employees are survey statisticians.
- ➔ Six of NASS's products are official Principal Federal Economic Indicators.
- ➔ NASS maintains four call centers that are open six days a week to speak with survey respondents and collect agricultural data.
- ➔ NASS also maintains a customer service hotline that is staffed five days a week. It also provides contact information online for commodity-specific questions. NASS holds regular commodity-specific data users meetings to discuss reports and potential useful program changes.

<p><b>Misc.</b></p>	<ul style="list-style-type: none"> <li>→ NASS provides access to all of its reports free and online. The user interface allows searches by subject, release date, etc. NASS also publishes a yearly <a href="#">Guide to Products and Services</a>, which provides a description and timing of each report.</li> </ul>
<p><b>Recent successes</b></p>	<ul style="list-style-type: none"> <li>→ NASS maintains a near-perfect on-time release schedule for several hundred reports produced annually: 99.8% in FY 2023.</li> <li>→ NASS has developed an online dashboard of data visualizations that focus on specific topics (such as value of agriculture by congressional district, or apple prices by state) by using both data and graphics to tell a story. Besides the innovative approach per se, the dashboard demonstrates NASS's commitment to understanding who its data users are, how its products are being used, and the impact of its products, all of which helps NASS to remain an agile agency producing data that are relevant and timely for its current and potential data users.</li> <li>→ NASS maintains a strong culture of innovation, as documented in the section at the end of the entry, <a href="#">Innovations recently completed or underway</a>.</li> </ul>
<p><b>Agency strengths</b></p>	<ul style="list-style-type: none"> <li>→ NASS has strong interest in its products, as evidenced by the approximately 200 million PDF and database downloads annually as well as the market impact of some of their releases.</li> <li>→ NASS maintains active data user engagement through two user conferences annually, one in Washington, DC. It also regularly engages data users through user sessions at the annual conferences of such groups as the American Farm Bureau, USDA Agricultural Outlook Forum, National Cattlemen's Beef Association, National Association of State Departments of Agriculture, and Agricultural &amp; Applied Economics Association.</li> <li>→ NASS has good parent agency support and engagement, as seen through meaningful inclusion in department leadership meetings, department- or administration-wide policy initiatives, and congressional appropriations meetings; recognition through Secretary's Honor Awards in FY 2021, FY 2022, and FY 2023; and annual presidential proposals requesting increases above that of inflation.</li> <li>→ NASS has strong stakeholder support for several hundred products, made visible by the outcries to the agency, Congress, and USDA when delays or suspensions occur.</li> <li>→ NASS recognizes its employees for their accomplishments and successes through the NASS Innovation Award.</li> </ul>
<p><b>Agency threats/ vulnerabilities</b></p>	<ul style="list-style-type: none"> <li>→ NASS has no enabling legislation or statutory protections for professional autonomy, including on IT systems and decisions.</li> </ul>

<p><b>Agency challenges</b></p>	<ul style="list-style-type: none"> <li>➔ NASS is challenged to update its 52 largely outdated IT systems, which include 3 legacy systems (2005, 2012, 2013); 1 other system that has been updated; 12 in the process of being updated; 10 being planned for updates; and 29 others from around the year 2000. These are inefficient and restrictive in many ways: <ul style="list-style-type: none"> <li>• Legacy systems are more susceptible to cyberattacks, which are an especially major concern with the NASS products that are principal principal federal economic indicators indicators.</li> <li>• Making NASS products more accessible to data users is more challenging on legacy systems.</li> <li>• Legacy systems make it challenging to recruit employees trained on cutting-edge systems.</li> <li>• Relying on legacy systems is often more expensive considering the efficiencies and speed of modern systems (and the need to train new staff to use legacy systems).</li> <li>• While recent successes include moving IT applications to the cloud and updating NASS's data collection portal, further updates are needed.</li> </ul> </li> <li>➔ NASS has lost 18% in purchasing power for its non-Census programs since FY 2009, keeping NASS from achieving substantial productivity gains that would come with much-needed IT system updates (as discussed above) and further adapting and expanding its products to meet the demands of data users and key stakeholders. The constrained budget also inhibits the training of staff on the latest technological and methodological advances (e.g., data science and artificial intelligence) that would allow them to be more efficient and productive. Further, because of budget levels, <a href="#">NASS announced in April 2024</a> that it is “canceling the July Cattle report and discontinuing the Cotton Objective Yield Survey, as well as all County Estimates for Crops and Livestock beginning with the 2024 production year.”</li> <li>➔ With each new administration, NASS is challenged to communicate to new USDA leadership the unique, demanding, and person-intensive work of NASS to produce several hundred reports on time annually, maintain four call centers that are open six days a week, and otherwise meet the requirements of a federal statistical agency.</li> </ul>
<p><b>Agency opportunities</b></p>	<p>To remain innovative, NASS has five general needs: 1) making more efficient use of existing data, 2) exploring and using additional data, 3) training staff on new methodology, 4) improving communication with data users, and 5) transitioning to updated IT processes.</p> <ul style="list-style-type: none"> <li>➔ With additional resources, NASS could pursue such initiatives as those in the <a href="#">President's FY 2024 request</a>, including: <ul style="list-style-type: none"> <li>• Leveraging and automating the use of “data from a wide variety of sources, including administrative, geospatial, and economic data to improve the timeliness and quality of planted acreage estimates” to better support USDA's response to extreme weather events.</li> <li>• Improvements to the Census of Agriculture to reduce costs and burden on respondents while improving customer service and access to data.</li> </ul> </li> </ul>

<b>Agency opportunities</b>	<ul style="list-style-type: none"> <li>→ In addition, NASS could assess the needs of a changing agricultural system and tailor new reports, or create more frequent intervals on existing reports, to areas where additional information is needed.</li> </ul>
<b>Agency-specific recommendations</b>	<p>In addition to the all-agency recommendations in the body of the report, we recommend the following:</p> <ul style="list-style-type: none"> <li>→ In order to meet demands of an agile, accountable agency producing relevant, timely data with minimal budget increases, USDA could help maintain products, productivity, and efficiency through support for updating NASS IT systems.</li> </ul>

## INNOVATIONS RECENTLY COMPLETED OR UNDERWAY

NASS's innovative work can be grouped into four categories: 1) making more efficient use of existing data; 2) exploring and using additional data; 3) training staff on new methodologies; and 4) improving communication with data users.

### Making more efficient use of existing data:

- Using automated imputation with the Predictive Cropland Data Layer in the June Area Survey
- Using statistical techniques to establish more accurate official estimates for smaller geographic areas
- Improved integration of administrative and remotely sensed data with survey data (USDA Secretary's Award, REE Mission Area Under Secretary Award)

### Exploring and using additional sources of data:

- Using administrative and other data to reduce respondent burden in Census of Agriculture and surveys (USDA Secretary's Award, REE Mission Area Under Secretary Award)
- Working cooperatively with universities on topics ranging from use of differential privacy to enhancing survey estimation with statistical modeling
- Working cooperatively with data aggregator MyAgData to investigate the future use of precision agriculture in NASS surveys

- Using web scraping to identify hemp producers for National Hemp Survey
- Linkage of CoreLogic commercial data with survey data to reduce sampling frame undercoverage
- Collaborative effort with George Mason University and NASA to develop web-based geospatial application: Condition and Soil Moisture Analytics (Crop-CASMA)

### Staff training on new methodologies:

- Staff training on new developments in data science: artificial intelligence, data visualization
- Developing active internal user group on machine learning and use of R programming language
- Creating an internal Kaggle competition "Naggle" to inspire innovation

NASS also **improved communication with data users by introducing** hybrid briefings for major commodity reports, digital data dissemination products, a Statistics Application Process portal, and full virtualization for secure data access.