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## Farm Bill Primer: Agricultural Research and Extension

The farm bill is an omnibus, multiyear law that governs a broad range of agricultural and food programs. Enacted approximately every five years, it provides policymakers an opportunity to address evolving agricultural issues, including agricultural research. Since 1977, each version of the farm bill has included a title focused on agricultural research, extension, and education (the research title). This title contains reauthorizations and amendments for existing efforts and establishes new programs administered by the U.S. Department of Agriculture (USDA). The research title addresses research, extension, and education at land-grant universities (LGUs) and other nonfederal institutions, as well as departmental policies, programs, and research within USDA. This In Focus provides background information and discusses selected 2018 farm bill research title provisions and issues for the next farm bill related to agricultural research, extension, and education.

### Background

The research title addresses extramural and intramural research, extension, and education activities. In *extramural* activities, federal capacity (formula) and competitive grants fund the work of nonfederal researchers and educators at LGUs and other nonfederal entities. In *intramural* activities, agency appropriations fund the work of federal scientists at federal facilities. *Agricultural extension* provides nonformal education to the nonuniversity public.

Four agencies carry out USDA's research, extension, and education activities. The National Institute of Food and Agriculture (NIFA) administers extramural programs; the Agricultural Research Service (ARS) conducts intramural scientific research; the Economic Research Service (ERS) conducts economic and social science research; and the National Agricultural Statistics Service (NASS) conducts the *Census of Agriculture* and provides official statistics on agricultural production and other farm sector indicators.

Most research title programs require annual discretionary appropriations, with a few programs receiving mandatory funding. For example, under the Agriculture Improvement Act of 2018 (2018 farm bill; P.L. 115-334), projected mandatory outlays for the research title programs were approximately \$138 million per year. In contrast, research, education, and related programs received over \$3.8 billion in annual discretionary appropriations in FY2024 alone.

### Extramural Research, Extension, and Education

NIFA administers federal funds for extramural activities through two primary grant types. NIFA distributes *capacity grants* (formula funds) among eligible institutions based on formulas in statute. Recipient institutions develop work plans and decide which of their projects to support. NIFA

awards *competitive grants* directly to individual projects, which eligible applicants propose, and USDA selects by a peer-review process. Most capacity grants, and some competitive grants, require nonfederal matching funds. Grants of either type may focus on agricultural research, extension, education or some combination of the three.

### LGUs: Capacity and Competitive Grants

The farm bill research title addresses capacity funding of LGUs (e.g., Hatch Act, Evans-Allen Act, Tribal College Endowment Fund programs). Capacity grant programs require annual discretionary appropriations and do not require reauthorization. The 2018 farm bill addressed capacity grant issues including reporting and administrative requirements, nonfederal matching funds, and capacity program eligibility.

Certain competitive grants are available only to LGUs. The 2018 farm bill established new competitive grant programs for LGUs, including Scholarships for Students at 1890 Institutions, New Beginning for Tribal Students, and Centers of Excellence at 1890 Institutions. It also amended existing competitive grant programs for LGUs (e.g., the Federally Recognized Tribes Extension Program). Competitive programs generally require annual discretionary appropriations and reauthorization with each farm bill.

### Competitive Grants Not Specific to LGUs

NIFA administers a variety of competitive grant programs open to applicants from an array of institutions. The Agriculture and Food Research Initiative (AFRI) is NIFA's flagship competitive grants program; eligible applicants include colleges and universities, private foundations, and other entities. Congress established AFRI in the 2008 farm bill (P.L. 110-246) and authorized annual discretionary appropriations of \$700 million for the initiative.

### Funding

The 2018 farm bill authorized future discretionary appropriations that fund the majority of research programs. It also provided permanent mandatory funds for a few programs, including the Specialty Crop Research Initiative, Organic Agriculture Research and Extension Initiative, and Farming Opportunities Training and Outreach. Four research programs received mandatory funding but do not have baseline: Foundation for Future Agricultural Research (FFAR); Emergency Citrus Disease Research; Scholarships for 1890s Institutions; and Urban, Indoor and Emerging Agricultural Production. The farm bill expired on September 30, 2023. Congress enacted a one-year extension for FY2024 (P.L. 118-22, Division B) and a second one-year extension for FY2025 (P.L. 118-158, Division D). The first extension provided one year of mandatory funding for

the programs without baseline, but the second extension did not.

### Other Extramural Research

The FFAR is a nonprofit research corporation designed to leverage private funding with federal dollars to support public agricultural research. Congress established FFAR in the 2014 farm bill (P.L. 113-79) and provided \$200 million in mandatory funding. The 2018 farm bill provided \$185 million in mandatory funding, and the first farm bill extension provided \$37 million. In 2020, FFAR published a strategy report outlining proposed models for financial self-sustainability, including diversifying funding sources.

### USDA Departmental Policies, Programs, and Intramural Research

Other research title provisions address USDA policies, programs, and intramural research. For example, the 2018 farm bill amended the purposes of federally funded agricultural research, extension, and education to add international scientific collaboration and reauthorized and amended the National Agricultural Research, Extension, Education, and Economics Advisory Board. The 2018 farm bill also established a new pilot program within USDA's Office of the Chief Scientist—the Agriculture Advanced Research and Development Authority (AGARDA)—to develop technologies, research tools, and products through advanced research on long-term and high-risk challenges for food and agriculture. Congress authorized appropriations of \$50 million per year for the program and has appropriated \$1 million per year since FY2022.

### Considerations for Congress

#### Capacity Versus Competitive Funding

In recent years, approximately 45% of agricultural research appropriations went to NIFA, and about 47% was allocated to ARS. Some stakeholders say that because ARS is the largest intramural agricultural research agency, it can better address problems of national and long-term priority. Other stakeholders say ARS scientists have an unfair advantage over other scientists who do not have the consistent funding ARS appropriations provide. Congress may consider evaluating whether the current allocation of funds between these programs appropriately supports national agricultural research priorities. Alternatively, Congress could choose to maintain the status quo.

#### LGU Funding Equity

The 2018 farm bill addressed certain aspects of funding equity among different types of LGUs. For example, it addressed a difference in nonfederal matching funds requirements for 1890 (historically Black) and 1862 (original) LGUs. Research and extension capacity programs require 1:1 nonfederal matching funds. For the 1890 programs—and not for the 1862 programs—states may request and receive a waiver for up to 50% of the required match. Granting waivers for matching funds can allow federal funding for 1890 Institutions when states do not meet the required match. These waivers may reduce the resources available to 1890 Institutions, as they may receive less than a full nonfederal match, while 1862 Institutions are required to receive a complete match. The 2018 farm

bill included a transparency provision requiring USDA to report on federal capacity awards and waivers received; there is limited evidence that this has influenced state matching contributions. The number of waivers granted has remained about the same before and after the implementation of this reporting requirement. In September 2023, the Secretaries of Education and Agriculture sent letters to 16 governors highlighting a \$12 billion funding disparity over 30 years between 1890 Institutions and their 1862 counterparts. The letters emphasized the importance of equitable funding, in accordance with the Second Morrill Act of 1890. Congress may choose to take no action, or Congress may consider how these waivers impact funding disparities between 1890 and 1862 Institutions and whether adjustments are needed to address stakeholder concerns about incomplete matching funds for 1890 Institutions' research and extension capacity grants.

In another example, some stakeholders have raised concerns about federal funding for 1994 Institutions (Tribal Colleges and Universities). Unlike 1862 and 1890 Institutions, 1994 Institutions do not have specific capacity grant programs for agricultural research and extension. Capacity grants for 1994 Institutions consist of interest distributions from a general-purpose endowment fund and provide less funding on a per institution basis. Competitive grants available to 1994 Institutions provide less financial predictability than capacity grants. Congress could preserve the status quo or may choose to consider the amount and type of funding it provides to 1994 Institutions.

### Agricultural Research Infrastructure

Some stakeholders have raised concerns about aging agricultural research infrastructure. Many grants administered by NIFA prohibit spending funds on constructing or maintaining research facilities. Proposals in the 118<sup>th</sup> Congress, such as the Agricultural Research Act (S. 2589), aimed to address this issue by providing funding specifically for facility maintenance and upgrades. Congress may consider the role of federal funding in addressing aging research infrastructure and consider whether existing funding restrictions could be revisited to support long-term agricultural innovation, or Congress could choose to take no action.

#### Selected CRS Reports

- CRS Report R40819, *Agricultural Research: Background and Issues*
- CRS Report R48071, *The Agricultural Cooperative Extension System: An Overview*
- CRS Report R45897, *The U.S. Land-Grant University System: Overview and Role in Agricultural Research*
- CRS In Focus IFI1847, *1890 Land-Grant Universities: Background and Selected Issues*
- CRS In Focus IFI2009, *1994 Land-Grant Universities: Background and Selected Issues*

Eleni G. Bickell, Analyst in Agricultural Policy

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