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Cooperative Extension in Transition: Trends Through 2024

Tatiana Borisova, Keith O. Fuglie, Benjamin Garber, and
Sun Ling Wang

Abstract

Cooperative Extension is a State-led activity carried out by land-grant universities and colleges with funding contributions from Federal, State, and county governments and non-government sources. The total funding for Cooperative Extension is estimated to be relatively stable since the 1970s; however, the role of the USDA funding has declined. USDA funding support for Cooperative Extension peaked in the 1970s and has since fallen by about 60 percent. The Federal share of total funding for Cooperative Extension declined from about 40 percent in the 1970s to about 20 percent by 2024. Land-grant universities have diversified their funding sources, obtaining a larger share of Extension funding from State and county governments, non-governmental projects, and user fees. Although land-grant universities may no longer report the full extent of their Extension programs to the USDA, it appears that nationwide, full-time equivalent (FTE) Extension staff may have fallen by 26 percent between 1979 and 2024. Extension activity has become more diversified, though program areas differ among regions.

Keywords: Cooperative Extension Service, Land Grant Institutions, Government funding, Extension personnel

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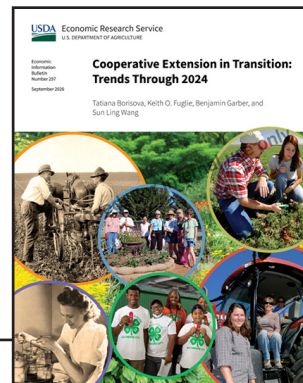
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A report summary from the Economic Research Service

Cooperative Extension in Transition: Trends Through 2024

By Tatiana Borisova, Keith O. Fuglie, Benjamin Garber,
and Sun Ling Wang



Key Points

- Total funding for Cooperative Extension grew from 1915 to 1973, stabilized at \$3.0–\$3.4 billion per year during 1973–2008, and declined slightly to \$2.7–\$2.9 billion since 2012 as measured in 2020 dollars.
- USDA funding for Extension has fallen about 60 percent from \$1.3 billion in 1973 to \$498 million in 2024 (in 2020 dollars). State and county governments, along with other sources, supplement Federal funds for Extension.
- The decline in USDA and total funding for Cooperative Extension have led to smaller full-time extension staffs. The number of full-time Extension staff shrank by an estimated 26 percent from 1979 to 2024. The share of full-time employees working in agriculture and natural resources Extension declined from 44 percent to 40 percent, when averages for 1977 to 1992 and 2007 to 2018 are calculated. The share of employees devoted to youth education has fallen from 26 percent to 18 percent in that same period.
- The changes in funding and staffing levels have impacted U.S. regions differently. The North Central and Southern regions have seen the largest decline in full-time staff numbers from 1980 to 2024 at 37 and 23 percent, respectively.

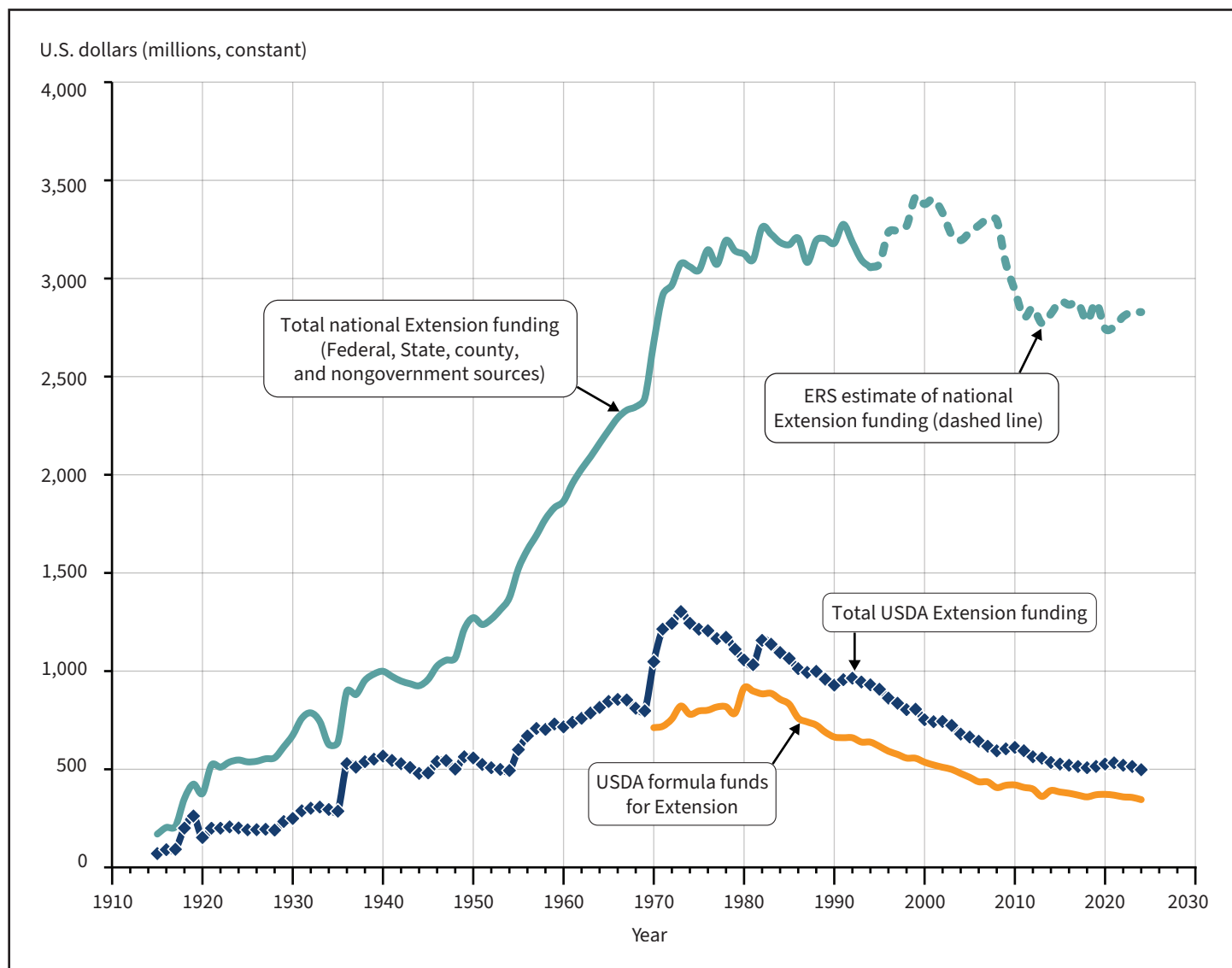
Why Does This Matter?

The U.S. Cooperative Extension System provides non-formal education and advisory services to farmers, rural and non-rural households, and communities. Cooperative Extension operates through the system of land-grant colleges and universities in partnership with Federal, State, and local governments. The USDA's National Institute for Food and Agriculture (NIFA) currently provides the funding and leadership for Cooperative Extension at the Federal level. Improving farming and agricultural practices was the primary rationale behind the creation of the agricultural Extension system but the program's mission has expanded to include the broader goal of enhancing rural and non-rural living conditions. Extension programming varies based on region and customer needs, but generally falls

into agriculture and natural resources; family, community, and economic development; human nutrition, health, and food safety; and youth activities and 4-H program areas. Previous research has shown a reduction in Federal funding for Extension, a decline in the share of Federal funds in Extension's overall expenditures, and the loss of full-time Extension staff. This report extends that research past 2010 and assesses long-term trends in funding, staffing, and resource allocation across Extension programs at the national and regional levels. Personnel and total funding trends are estimated and are based on assumptions because comprehensive data are no longer collected by Federal agencies.

A Few More Details

Funding of Cooperative Extension since 1915 in constant 2020 dollars adjusted for the cost of extension service provision



Note: Federal funds for Extension include formula and non-formula Extension grants. Annual expenditures were adjusted for inflation by the Biomedical Research and Development Price Index (NIH, 2024) over 1950–2024 and extended backward to 1915 using the agricultural research and development price index in Huffman and Evenson (2006).

Source: USDA, Economic Research Service (ERS) using data from Huffman and Evenson (2006); Alston et al. (2010); USDA, National Institute for Food and Agriculture (NIFA), Research, Education, and Economics Information System database; USDA, National Institute for Food and Agriculture, Annual Reports of Accomplishments; and USDA Budget Summary and Annual Performance Plans.

The Federal share of total Cooperative Extension funding fell by more than half from 1971–75 to 2019–24, dropping from 42 percent in 1973 to under 20 percent. In response to this decline in Federal funding, State Extension programs have diversified their funding sources. In addition to traditional funding from Federal capacity grants (which are allocated based on statutory formulas and generally require a 1:1 State funding match), a large share of Extension funding is now associated with project grants, county funding, and user fees. In other words, a greater portion of funding has shifted from unrestricted capacity grants to funds that are restricted to specific topics and duration.

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Cooperative Extension in Transition: Trends Through 2024

Introduction

U.S. Cooperative Extension is a system that provides non-formal educational and advisory services to farmers and rural and non-rural households and communities (Rasmussen, 1987; Huffman & Evenson, 2006; USDA, NIFA, 2025d, e). Cooperative Extension¹ operates through the system of land-grant institutions in partnership with Federal, State, and local governments. The USDA, National Institute for Food and Agriculture (NIFA) provides funding for Cooperative Extension at the Federal level.

Over its century-long history, Cooperative Extension has helped raise farm productivity, creating economic benefits several times larger than the government investments into the system (Birkhaeuser et al., 1991; Fuglie et al., 1996; Evenson 2001). Wang et al. (2012, 2017) showed that Extension activities enhance the benefit of public R&D investments by increasing the growth rate in national agricultural productivity. Alston et al. (2011) found that each \$1 of public agricultural research and Extension spending combined generated \$21 to \$32 in economic benefits to States through higher farm productivity. Goetz and Davlasheridze (2017) reported that farmer contact with Extension improved the likelihood of farm business survival. Contacts with Extension have also been associated with increased adoption of conservation practices (e.g., Rahelizatovo & Gillespie, 2004; Goodhue et al., 2010; Baumgart-Getz et al., 2012). Furthermore, youth development Extension programs have been linked with positive youth outcomes, from leadership skills development to civic engagement, healthy living, science learning, and reduced likelihood of incarceration (Agans et al., 2020). Other areas addressed by Extension, such as nutrition and health education, and related success stories, can be found in Atoloye et al. (2021), Hatch et al. (2018), Sherin and Burkhart-Kriesel (2018), Hill et al. (2020), and other studies.

Total funding for Cooperative Extension grew steadily over the 20th century until the early 1970s when it plateaued at \$3.0–\$3.4 billion per year and remained at that level until the 2000s (in 2020 dollars, based on Huffman & Evenson, 2006; Alston et al., 2010). No comprehensive assessment of Cooperative Extension staffing and funding levels at the national level has been undertaken since the early 2010s, which is the subject of this report.

Since the 1950s, State and local governments have provided most of the funding for Cooperative Extension, while the Federal share of funding has declined over time (Ahearn et al., 2003; Wang, 2014a). This decline in Federal funding and fluctuations in State and local government funding led some State Extension programs to restructure or reduce their Extension activities. At the national level, Extension full-time-equivalent (FTE) staff numbers were slowly declining and gradually shifting away from Extension’s traditional focus on agriculture to other program areas. Ahearn et al. (2003) found that the number of full-time-equivalent Extension personnel decreased by 12 percent between 1977 and 1997, with community resource development and youth education programs

¹ In this publication, terms “Cooperative Extension,” “Extension service,” and “Extension” are used interchangeably. Note that States may refer to their Extension services in different ways, such as by opting not to use the terms “cooperative” or “service” in the official title. Sometimes, the word “Extension” is capitalized when it refers to an organization as a whole. We opted to consistently use the capitalized version throughout this publication.

declining the most. Wang (2014a) found that total Extension FTEs in the contiguous 48 States fell from approximately 17,000 in 1980 to approximately 13,000 in 2010 (a 20 percent drop in 30 years). Wang (2014a) also found that in many States, Extension FTEs had shifted in favor of State professional staff over county professional staff, potentially reducing the Extension presence on the local level and re-focusing Extension programs to regional and State (rather than county) issues.²

This report reviews and updates information on long-term trends in Extension funding, staffing, and resource allocation across program areas at the national and regional levels. This report extends the historical analysis presented in previous USDA, ERS publications (Ahearn et al., 2003; Wang, 2014b) and discusses the funding and staffing trends up to the early 2020s. This report also explores the differences in available data sources on Cooperative Extension funding and staffing.

We start with a historical overview of funding for agricultural education, research, and Extension at Land Grant Universities and Colleges. Then we discuss data sources used to compile historical funding and personnel data. Funding and personnel trends and allocation of Extension resources across program areas are discussed in the following section. The report concludes with a summary of findings.

Evolution of Federal Support for Agricultural Education, Research, and Extension at Land-Grant Universities and Colleges

Extension is an integral part of the mission of land-grant universities, and it evolved together with the development of the whole land-grant university system. Federal support for the teaching-research-Extension tripartite mission of the land-grant colleges of agriculture was established over 1862–1914 through a series of Federal legislative acts (table 1). In the same year USDA was established, the 1862 Morrill Act provided Federal land grants to States for the purpose of establishing universities focused on agriculture and mechanical arts, to provide educational opportunities for farmers and other working people. The network of universities established following this act are frequently referred to as 1862 institutions. A second Morrill Act followed in 1890 to expand educational opportunities for racial minorities. This led to the establishment of colleges of agriculture at 19 Historically Black Colleges and Universities (HBCUs, or 1890 institutions). Next, to support the research mission, Federal funds for agricultural research at the 1862 institutions were provided by the 1887 Hatch Act and at 1890 institutions by the 1977 Evans-Allen Act. Finally, the third mission area, cooperative Extension, was added by the 1914 Smith-Lever Act (the 1977 National Agricultural Research Education and Teaching Policy Act designated a portion of Smith-Lever Extension funds for 1890 institutions).

The Hatch Act (1887) and Smith-Lever Act (1914) provided Federal capacity grants to States to support agricultural research and informal (non-degree granting) education and training for farmers, households, and communities. Since the 1935 Bankhead-Jones Act, Federal capacity grants for agricultural research and Extension have been distributed among States according to a formula based on the size of States' rural population and number of farms.³ Faculty from institutions receiving Smith-Lever

² Professional Extension FTEs include specialists, county or regional agents, supervisors, directors and program administrators, working on a full-time or part-time basis. It does not include support and communications staff, paraprofessionals, and volunteers.

³ The formula for allocating Smith-Lever funds among land grants is as follows: 20 percent is distributed equally to each State, 40 percent is distributed according to each State's share of the national rural population, and 40 percent is distributed according to each State's share of the number of farms in all States (Croft, 2019).

funds may have all or a portion of their time devoted to Extension activities. In addition, county agents were assigned to most of the nation’s 3,000 counties and insular territories.⁴

Federal statutes require States to match dollar for dollar the Federal formula funds for research and Extension. However, if an 1890 Institution is unable to obtain a full 1:1 match from non-Federal sources, the institution can request the USDA waive up to 50 percent of the matching requirement (i.e., matching each Federal dollar with 50 cents in non-Federal support).⁵

In 1994, Congress extended Federal support to Tribal Colleges and Universities (TCUs, also referred to as 1994 institutions), granting them land-grant status through the 1994 Equity in Educational Land-Grant Status Act. Instead of a one-time land grant, Congress created an endowment fund for the 1994 institutions. Interest earned on the 1994 Institutions Endowment Fund is distributed among the 1994 institutions as an annual funding allotment for general purposes, based on the number of American Indian students attending the college (Bickell, 2022a; USDA, NIFA, 2025c). In 2024, there were 35 accredited 1994 institutions.

In 1990, with the Food, Agriculture, Conservation, and Trade Act (the 1990 Farm Bill), Congress established the Indian Extension Program, which in 2006 was renamed the Federally-Recognized Tribes Extension Program, or FRTEP. FRTEP is a competitive grant program for land-grant institutions to provide Extension services to tribal communities (Hiller, 2005; Brewer II & Stock, 2016). In addition, the 1998 Agricultural Research, Extension, and Education Reform Act (AREERA) established direct Federal support for agricultural research and Extension at 1994 institutions on a competitive basis (no specific formula-based funding for agricultural research and Extension in 1994 institutions exists, unlike 1862 and 1890 Institutions; see Bickell, 2022a). Thus, two Federal programs support Extension activities in tribal communities: FRTEP, which is open to 1862, 1890, and 1994 institutions; and the Tribal Colleges Extension Program, which is exclusively for 1994 institutions. In practice, most FRTEP grants go to 1862 institutions in States with large Native American populations and reservations. Neither of these programs provides formula-based grants or requires matching funds from non-Federal sources.

Table 1

Key legislation establishing Federal support for agricultural education, research, and Extension

Year	Legislation	Purpose
Education		
1862	Morrill Act	Established the 1862 land-grant colleges of agriculture
1890	2nd Morrill Act	Established the 1890 land-grant Historically Black Colleges and Universities (HBCUs)
1994	Equity in Education Land-Grant Status Act, section 533(c)	Provided Federal support for Tribal Colleges and Universities (TCU)

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⁴ Federal support for Cooperative Extension is provided to the 50 States, the District of Columbia, and the following insular territories: Puerto Rico, U.S. Virgin Islands, American Samoa, Federated States of Micronesia, Guam, and the Northern Mariana Islands. In recent decades, some States have consolidated their county Extension offices and switched to regionally focused programs.

⁵ Some have argued that this waiver may contribute to funding disparities between 1890 and 1862 land-grant universities, as the waiver could reduce incentives for State governments to provide full matching funds for the 1890 land-grant universities. Bickell (2021) reports that currently, all States meet the matching requirements for their 1862 institutions. In contrast, in fiscal year 2020, nine 1890 land-grant universities received the matching fund waivers for their research and/or Extension capacity grants (Bickell, 2021).

Year	Legislation	Purpose
Research		
1887	Hatch Act	Provided formula funds for agricultural research at 1862s; requires 1:1 non-Federal match
1935	Bankhead Jones Act	Increased Federal support for agricultural research and Extension, established a formula for allocation funding across States, and required States to provide a 1:1 match with non-Federal funds for formula funds received
1977	Evans-Allen Act	Provided formula funds for agricultural research at 1890s at level of not less than 15 percent (raised to 25 percent in the 2002 Farm Bill and to 30 percent in the 2008 Farm Bill) of Hatch Act funds provided to 1862s; requires 1:1 non-Federal match, although 50 percent of match can be waived by the USDA
1998	Agricultural Research, Extension and Education Reform Act (AREERA)	Established a separate competitive research fund exclusively for 1994 institutions (research must be in partnership with USDA, Agricultural Research Service, 1862 institutions, 1890 institutions, or forestry school)
Extension		
1914	Smith-Lever Act 3b and 3c: capacity (formula) grants 3d: competitive grants for targeted programs	Provided formula and other funds for agricultural Extension at 1862s; formula funds require 1:1 non-Federal match
1977	National Agricultural Research, Education, and Teaching Policy Act (NARETPA), section 1444	Provided formula funds for agricultural Extension at 1890s at a level not less than 4 percent of the capacity grant appropriations for 1862 institutions (raised to 20 percent in the 2008 Farm Bill); requires 1:1 non-Federal match, although 50 percent of match can be waived by the USDA.
1990	Food, Agriculture, Conservation, and Trade Act (the 1990 Farm Bill)	Established the Extension Indian Reservation Program, which was renamed the Federally-Recognized Tribes Extension Program (FRTEP) in 2005; 1862, 1890, and 1994 land-grant institutions are eligible to compete for FRTEP funding
1994	Equity in Educational Land-Grant Status Act	Authorizes Extension funds exclusively for 1994 institutions

Source: USDA, Economic Research Service using Huffman & Evenson (2006), Science for Agriculture: A Long-Term Perspective; Croft (2019), The U.S. Land-grant System: An Overview; Croft (2021), 1890 Land-grant Universities; Background and Selected Issues.

Private and Public Extension Service

Discussion around private Extension Service has a long history (Wolf, 1998; Hall & Kuiper, 1998; Feder et al., 1999; Hanson & Just, 2001; Hoag, 2005; Anderson & Feder, 2007). Private Extension may be more cost-efficient than public Extension. Private Extension would not be funded through taxes, and therefore, this would reduce the inefficiencies in the national economy that are associated with public taxation to fund Extension. Private systems may also improve the feedback mechanism to adjust Extension priorities to clientele needs and allow for specialized advice for producers who are able to pay for it (Feder et al., 1999; Hanson & Just, 2001; Hoag, 2005).

However, private Extension could create barriers for information access for low-income farms and farms operating in remote or sparsely populated agricultural areas. Private Extension may not deliver environmental and natural resource programs that provide public, rather than private, benefits.

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Private and Public Extension Service

A large public Extension system may also have the advantage of economies of scale, where it is cheaper per member of a target audience to deliver information and coordinate actions for large groups and on a wide range of topics. Potential monopolization of information and difficulties with assigning value to information before it is delivered are also mentioned as potential disadvantages of private Extension system (Feder et al., 1999; Hanson & Just, 2001; Hoag, 2005).

To partially engage market mechanisms, Extension has been implementing mixed public-private approaches. For example, fee-for-service programs involve users paying a portion of the program delivery costs to help with cost recovery and ensure client orientation of public Extension (Feder et al., 1999; Hanson & Just, 2001; Holt et al., 2024). Similarly, some programs are implemented through partnering with commodity boards and advocacy groups (Holt et al., 2024).

Data and Methods

Professional Extension Staff Estimates

Cooperative Extension is a State-led program performed by land-grant institutions. Therefore, assessing Cooperative Extension at the national level requires collecting information from each State. For this report, State-level estimates of professional Extension staff in full-time equivalent (FTE) person-years were collected from several sources. First, FTEs for 1975–2010 are taken from “Salary Analyses for Cooperative Extension Service Positions,” annual reports that were prepared by USDA, Agricultural Research Service (ARS) over this period. These reports were used by Wang (2014a, 2014b) to examine national and regional trends in Extension FTEs during 1980–2010. These annual reports give the number of professional FTEs employed at each 1862 and 1890 land-grant institution receiving Smith-Lever funds for Extension and provide a breakdown of FTEs by type of position (e.g., program administrators, State or area specialists, and county agents) and educational level.

Two primary data sources are used for the 2010–24 FTE estimates of Extension personnel at the 1862 and 1890 land-grant institutions: (1) Agricultural Research, Extension, and Education Reform Act (AREERA) annual reports submitted by each State to USDA, NIFA, and (2) the USDA, NIFA Research, Education, and Economics Information System (REEIS) State Snapshots Data Mart online database. Following AREERA requirements, 1862 and 1890 institutions receiving Smith-Lever funds submit annual plans of work, followed by Reports of Accomplishments and Results detailing activities conducted over the past year. The plans of work provide 5-year projections of planned FTEs, while the 2007–18 Reports of Accomplishments and Results give actual FTEs employed that year (actual FTEs are no longer reported after 2018). For this report, actual FTE data from these Reports of Accomplishments are used through 2018, and planned FTEs are used for 2019–24. To fill in some missing data, AREERA data are supplemented with FTE data from the USDA, NIFA REEIS State Snapshots Data Mart. REEIS provides Extension FTEs, as well as sources of Extension funding (Federal, State, and other), for each year over the 2007–18 period.⁶

⁶ USDA, NIFA provides multiple pathways for users to access data of Extension and research programs supported by the agency. USDA, NIFA's REEIS State Snapshots Data Mart database can be accessed directly. It is also a part of the Leadership Management Dashboard (LMD), which is a reporting tool that allows the users to access USDA, NIFA's financial and budget information. Another opportunity to access REEIS data is through USDA, NIFA's Data Gateway—an online tool created to allow users to search USDA, NIFA-funded projects for financial details. The standard search modules in the Data Gateway provide links to various summaries of LMD data.

Key Terms

1862 Land Grant institutions: The Morrill Act of 1862 gave public lands to each State to establish at least one college of agriculture and mechanical arts. Federal funds for land-grant colleges were extended to new States as they entered the Union, including to U.S. insular territories such as Puerto Rico and Guam. The resulting network of 57 colleges are referred to as 1862 institutions or the 1862s.

1890 Land Grant institutions: The Second Morrill Act of 1890 prohibited racial discrimination for admission to colleges that receive public funds, unless separate institutions were maintained. This act resulted in establishing land grant institutions for African Americans. The land-grant institutions are mostly located in southern States, and they are referred to as 1890 institutions or the 1890s.

1994 Land Grant institutions (also referred to as “Tribal Colleges and Universities” or TCUs): The Equity in Educational Land-Grant Status Act of 1994 provided land-grant status for 29 Tribal Colleges and Universities (TCUs), which was subsequently extended to 36 (of which 35 are currently accredited and therefore eligible for Federal funding). See more in USDA, NIFA (2025b).

Capacity grants (informally referred to as formula grants): Funding to ensure “that the Land-grant University System and other partners maintain the “capacity” to conduct research and extension activities. Capacity Grants (...) are intended for land-grant institutions, schools of forestry, and schools of veterinary medicine to fund research and extension activities. The amount of funds provided to each institution is determined by a formula, often statutorily defined, that may include variables such as the rural population, farm population, and poverty rates. Local or regional university leaders determine which projects will be supported by an institution’s grant allotment. These decisions are informed, in part, by stakeholders who both conduct and use agricultural research and extension programs” (USDA, NIFA, 2025a).

Competitive grants: Federal and other sources of funding that are allocated to specified priority areas on a competitive basis, based on proposal evaluations by a panel of experts. Competition may be restricted to certain types of institutions, and the grants are always given for a limited period (USDA, NIFA, 2025a).

Historically Black Colleges and Universities (HBCUs): See “1890 land grant institutions” above. Note that the 1890 land grant institutions make up only a portion of the more than 100 colleges and universities nationwide that are recognized as HBCUs by the U.S. Department of Education.

Restricted (“soft”) funding: Funding that is for a specified priority or program area and for a limited duration. Competitive grants are usually restricted funding.

Smith-Lever Act funding: Federal funding administered through USDA, NIFA to support Extension activities at the 1862 and 1890 land grant universities and colleges (LGUs). Smith-Lever Act sections (b) and (c) provide capacity grants allocated to States based on a formula (see Capacity grants above). Generally, these grants require a 1:1 match from the State, although USDA can waive 50 percent of the match for 1890 LGUs. Smith-Lever Act Section (d) provides competitive grants for targeted Extension programs.

Unrestricted funding: Funding that gives land-grant universities and colleges (LGUs) a wide scope in determining the use of the funds. For example, capacity grants and State matches are unrestricted.

In addition to 1862 and 1890 land-grant universities, this report also includes estimates of Extension staff employed at 1994 land-grant institutions and through the Federally-Recognized Tribes Extension Program (FRTEP). These Extension programs serve tribal communities and are relatively recent additions to the Cooperative Extension system. Congress began funding FRTEP (formerly known as the Indian Extension Program) in 1991. The first appropriation for the Tribal Colleges Extension Program was in 1997 (USDA, NIFA, 2015). While most FRTEP projects are carried out by 1862 land-grant institutions, the Tribal Colleges Extension Program funds Extension activities at the 35 accredited tribal colleges and universities that are designated as 1994 land-grant institutions. The Federal Government provides virtually all the funding for these programs, with little or no supplementary funding from non-Federal sources.

For each Tribal Colleges Extension Program grant awarded by USDA, NIFA, each grant recipient reports to USDA, NIFA on the use of funds and, since 2014, the number of FTEs employed (administrative, professional educators, scientists, and technical support staff). We defined Extension FTEs as the number of professional educators and scientists and sum over all active projects in a given year to get total annual Extension FTEs. For years prior to 2014, we estimate the number of professional FTEs from annual Extension spending by these projects, assuming \$150,000 per FTE in 2020 U.S. dollars (the average spending per FTE observed for 2020). To account for inflation in Extension salaries and other costs, we adjust annual expenditure per FTE by the Biomedical Research and Development Price Index for life sciences research costs (see appendix A, table A.1).

For FRTEP, the Indian Country Extension Commission (2022) estimated the number of FTEs by assuming one professional FTE per active project. In 2020, there were 33 active FRTEP projects supported by \$3.2 million in Federal funds, for an average of \$97,000 per FTE. For more details on the data and method, see appendix A.

Comparison of FTE Data Sources

The USDA, ARS Salary Reports, USDA, NIFA AREERA reports, and the USDA, NIFA REEIS State snapshots overlap for 4 years, 2007–10. Further, USDA, NIFA AREERA reports and USDA, NIFA REEIS State snapshots overlap for 2007–18. Comparing these overlapping years gives an indication whether these different data sources measure Extension resources at the 1862 and 1890 land-grant institutions consistently. There are several reasons why these data may differ. Over time, there were multiple system updates, organizational updates, and Government-wide funds administration updates. For one, in 2006–09 and again in 2018, USDA, NIFA changed its reporting guidelines on Extension funding.⁷ Previously, USDA, NIFA summarized Extension funding from all sources, but after 2006 States were required to primarily report on their use of Extension funds received from the Federal Government and the State matching funds. Still, many States continued to report funding from non-Federal sources well in excess of the minimum required match. Second, several States had enacted reforms to their Extension systems, which may have affected what they included as part of the State Extension program. Some States may have no longer included county agents in their FTE figures if county agents were funded wholly by local governments and were no longer employed by the university Extension

⁷ This report refers to the lead USDA agency for Extension with its current name, the National Institute for Food and Agriculture, or NIFA. However, the USDA agency for Extension was reorganized and re-named over time. USDA, NIFA was established by the Food, Conservation, and Energy Act of 2008 (also known as the 2008 Farm Bill), and it replaced USDA's Cooperative State Research, Education, and Extension Service (CS-REES) agency. CSREES itself was created in 1994 by merging the USDA's Cooperative State Research Service (CSRS) and the Extension Service.

system.⁸ Third, Extension services may count FTEs differently—with some reporting Extension specialists, support staff, and paraprofessionals—while others restricting their Extension FTEs to professional staff only. Finally, States responded to broadening national, State, and community demand for informal education and outreach services. To that end, States diversified their Extension funding and enhanced their programs by engaging university faculty from outside the traditional colleges of agriculture or comparable institutions. This expansion may have blurred the definition of what to include in reporting on Cooperative Extension.

From the comparison of data sources, it is apparent that State snapshots available from REEIS mostly include information for Extension funded from unrestricted funding (Federal formula funds and State government matching appropriations). It may not consistently include positions funded through fixed-term project funds, such as competitive Federal grants, project grants and other contributions from State and local governments, grants from non-government sources, and user fees. The AREERA reports, on the other hand, appear to give a fairly complete account of FTEs managed by the land-grant institutions. Therefore, this report defers to the AREERA reports for actual and planned Extension FTEs for 2010–24, with the following exceptions: in a few cases, REEIS data are used to supplement for missing information or other inconsistencies in the AREERA data; and for selected States, more complete information was obtained from State Extension offices (see appendix A). To summarize, data compiled from USDA, ARS Salary Reports for 1975–2010, and mostly AREERA for 2010–24 are used to show long-term trends in Extension FTE resources at the national and regional levels.⁹

Extension Personnel Allocation Across Program Areas

To examine changes in Extension personnel allocation across program areas, Extension program allocation averages in 1977–92 (from Ahearn et al., 2003) are compared with program allocation during 2007–18 from REEIS (the AREERA reports do not use a comparable program classification for FTEs). Ahearn et al. (2003) used States’ plans of work to examine Extension program priorities in 1977–92. REEIS breaks down FTE and funding by program areas and goals, though not all program categories are the same as those used by Ahearn et al. (2003). However, both sources break out the share of Extension resources allocated to two consistently defined categories: agricultural and natural resources (combined) and youth activities (4-H programs).

Extension Funding and Spending

For long-term Extension funding and spending, Alston et al. (2010) published estimates of annual Extension spending for the 48 contiguous States over 1902–2006 for the 1862 and 1890 LGUs. Further, Huffman and Evenson (2006) break Extension funding into Federal, State, local, and non-tax sources of funds for the 48 contiguous States for 1915–90, drawing on data compiled by USDA, NIFA employee Fred Woods (Alston & Pardey, 1996). While post-2006 Extension funding data are reported in the USDA,

⁸ In this report, personnel involved in educational programs at the county level are referred to as agents. However, the States differ in their naming conventions, referring to county educational personnel as agents, educators, public service professionals, or other position titles.

⁹ Note that at land-grant universities, the three missions—teaching, research, and Extension—are integrated, and all faculty members are expected to contribute to all three types of activities. For example, faculty members without official Extension appointments can be involved in Extension-type activities through giving occasional research presentations at Extension events, or through mentoring students writing outreach articles. However, in general, faculty time is aligned with their official research, teaching, or Extension appointments. Therefore, in this report, we use the data or estimates of the faculty Extension appointments and Extension program funding goals only. In other words, we do not attempt to count research or teaching faculty time as a part of Extension FTE, even though Extension outputs may be supported by the research and teaching faculty activities.

NIFA REEIS State Snapshots Data Mart database, these data mainly include unrestricted Federal and State funding and do not give a complete account of Extension resources in State programs. Therefore, we derive an estimate for national total Extension spending for 2007–24 as the sum of spending by each 1862 and 1890 land-grant institution, based on (1) their count of professional FTE staff and (2) the State’s average annual spending per FTE over 1990–94, in constant 2020 U.S. dollars. Data for 1990–94 were assembled by Woods and included FTE and expenditures for each state for 1990–94 period (Woods, unpublished data). Calculated average expenditures per FTE varied by State, between a high of \$417,000/FTE in Alaska to a low of \$110,000/FTE in West Virginia. This estimation procedure assumed that spending per FTE remained constant in each State in inflation-adjusted dollars (see appendix B).¹⁰ Then, the total annual national spending on Extension is the sum of estimated expenditures for all 1862 and 1890 land-grant institutions plus USDA, NIFA expenditures for two tribal Extension programs—Federally-Recognized Tribes Extension Program (FRTEP) and the 1994 Tribal Colleges Extension Program. For the tribal Extension programs, it is assumed that the Federal programs are the sole source of funding, and that FRTEP is not accounted for in the total Extension FTE for 1862 and 1890 land-grant universities in AREERA and other sources discussed above. For FRTEP, which provides competitive grants to land grants (1862s, 1890s, 1994s) for Extension programs serving tribal communities, the annual Federal expenditures in 1991–2005 are reported in Indian Country Extension Commission (2022), while the rest of the time series (2006–24) is estimated using USDA Budget Summary and Annual Performance Plan (and Explanatory Notes for USDA, NIFA). In turn, the Tribal Colleges Extension Program provides grants to 1994 LGUs for Extension programs, and for 1997–2005, the data are available in USDA, NIFA (2015). For 2006–24, the annual Federal expenditures are from USDA Budget Summary and Annual Performance Plan (and Explanatory Notes for USDA, NIFA). For Extension cost inflation, this report uses the Biomedical Research and Development Price Index, or BRDPI (NIH, 2024), which is available annually beginning with 1950, and the research and development price index developed by Huffman and Evenson (2006) for earlier years. An advantage of using these R&D price indices rather than a more general price index (like a Gross Domestic Product deflator) is that an R&D price index more closely reflects the costs of specific resources (personnel, equipment, supplies, and administrative overhead). In particular, personnel costs of the research and development sector have tended to rise faster than the general price level.

¹⁰ As mentioned above, 2019–24 FTE data are based on work plans submitted by each State. Therefore, the data are planned, rather than actual FTEs. Additionally, it is assumed that the total Extension funding is equal to the total Extension expenditure, and therefore, the terms “funding”, “cost”, and “expenditures” are used interchangeably.

Counting Extension Personnel

In this report, professional Extension personnel is defined to include professional educators, scientists, program leaders, and administrators, measured in full-time-equivalent (FTE) staff years. For example, if a university faculty member has a 50-percent Extension appointment, their FTE would be 0.5 staff-years. Not included are technical and administrative support staff, paraprofessionals, and volunteers. Based on information from selected States, professional Extension FTEs can make up about half or less of the total FTEs employed by a State's Cooperative Extension Service. Many Extension personnel are likely to be based off-campus, in county or multi-county Extension offices.

For land-grant universities, reporting the number of professional FTE Extension personnel can be a challenging task. State and regional Extension specialists usually contribute to integrated activities related to research, teaching, and Extension missions. Their official appointments may only loosely represent their actual time allocations among these missions. In turn, for county-based personnel, accounting challenges may relate to funding sources. County-funded educators may not always be classified as land-grant university personnel, and therefore, may not be accounted for in the land-grant university Extension reports. County positions may also be differentiated by titles and education requirements (e.g., Extension educators, agents, paraprofessionals), resulting in various accounting approaches at different land-grant universities. Another challenge is defining the scope of Extension programs. Personnel funded by nutrition and health-related community education programs may be hired outside the Colleges of Agriculture or related entities. Land-grant universities may have different accounting procedures for these programs and personnel.

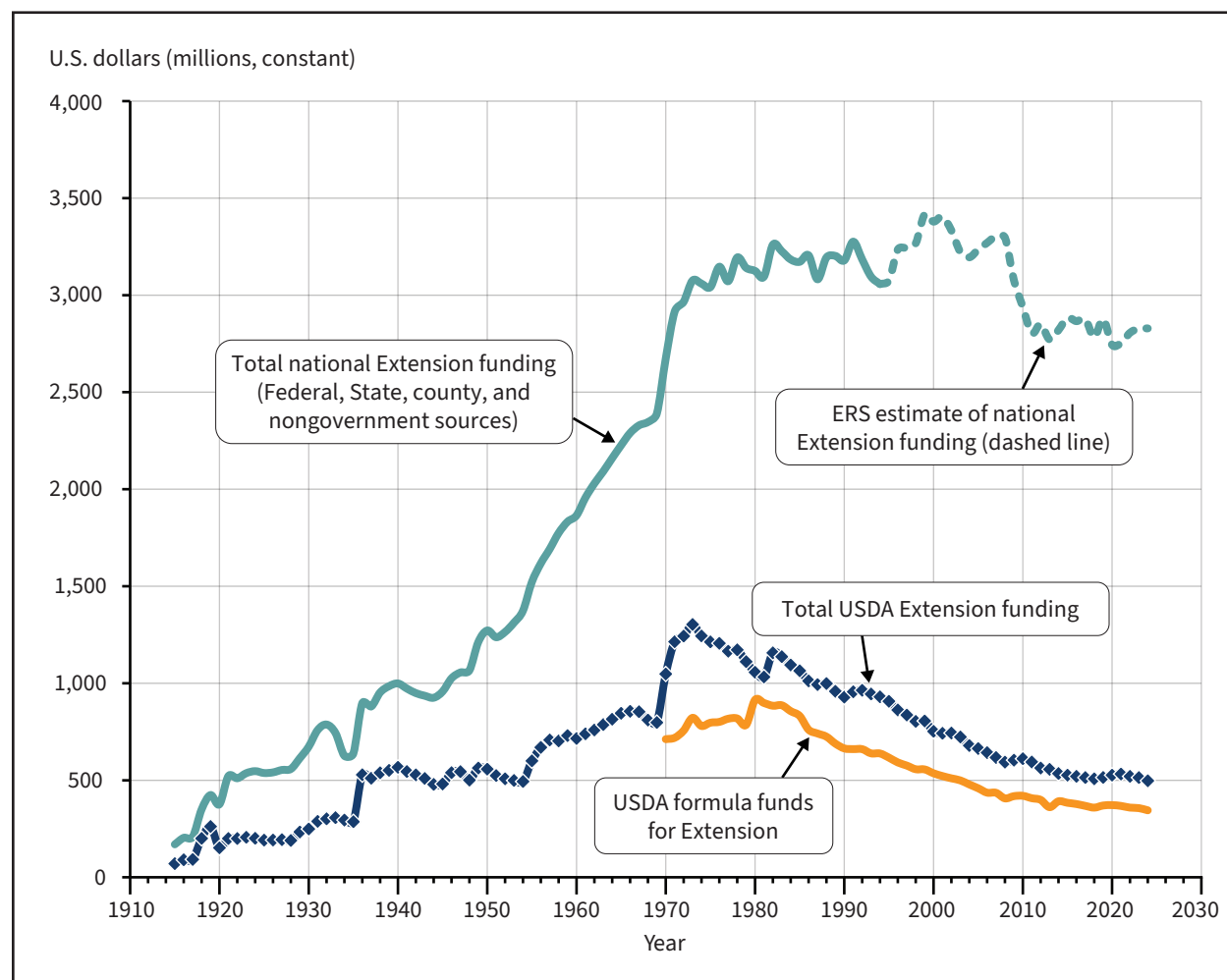
Administrative and support staff, paraprofessionals, and volunteers may be considered for some but not all accounting objectives. Accounting systems may also differentiate between actual and planned Extension positions, and FTEs versus a simple headcount of the number of people employed.

Finally, States' reporting systems can evolve over time, leading to potential accounting inconsistencies.

Funding Trends for Cooperative Extension

Figure 1 displays total estimated expenditures and Federal funds for Cooperative Extension between 1915 and 2024 in constant (inflation-adjusted) dollars. Total financial resources (Federal and non-Federal funds combined) for Cooperative Extension were around \$3.0–\$3.4 billion per year during 1973–2008, and then declined in 2009–11, before stabilizing at around \$2.7–2.9 billion per year over 2012–24 (in constant 2020 dollars). Federal funding for Extension, in constant 2020 dollars, peaked in 1973 at \$1.3 billion but had declined to \$498 million by 2024. Federal support for agricultural research and Extension at State institutions is provided through a mix of USDA capacity grants and competitive funding. In 2024, 69 percent of USDA, NIFA funding for Extension was through formula funds (Smith-Lever sections 3b and 3c) and the rest through competitive or special grants (Smith-Lever section 3d and other programs in USDA Budget Summary and Annual Performance Plans (multiple years, accessed in 2025)). The Federal share of total Extension funding declined from 42.4 percent in 1973 to 17.6 percent in 2024.

Figure 1
Total estimated national funding for cooperative extension from 1915 to 2024



Note: Total national Extension funding is the sum of Extension expenditures by all 50 U.S. States, the District of Columbia, and insular territories, by 1862, 1890, and 1994 land-grant institutions. Estimates of total and Federal Extension spending for 1915–94 are from Fred Woods (USDA, NIFA, retired), as reported in Alston and Pardey (1996), *Making Science Pay: The Economics of Agricultural R&D Policy*. Post-1994 national Extension expenditures are developed by the authors, assuming that spending per FTE in each State continued at 1990–94 average levels (in constant 2020 dollars, adjusted for inflation by the Biomedical Research and Development Price Index (NIH, 2024)). Total USDA funding and USDA formula funding for 1862, 1890, and 1994 land-grant institutions from 1970 onward are from USDA historical budget tables. Annual expenditures were adjusted for inflation by the Biomedical Research and Development Price Index (NIH, 2024) over 1950–2024 and extended back to 1915, using the agricultural research and development price index in Huffman and Evenson (2006), *Science for Agriculture: A Long-term Perspective*.

Source: USDA, Economic Research Service (ERS).

The total Extension funding after 1994 in figure 1 was based on the analysis of FTEs and an estimated funding per FTE per year. This approach was chosen because, while USDA, NIFA provides comprehensive data on Federal Extension funding, the data on total Extension funding or expenditures are sparse. Under USDA, NIFA's reporting guidelines, since 2006 States were required to report on their use of Federal funds and State matching grants. While most States reported expenditures in excess of the matching requirements, for many States this fell far short of total Federal, State, county, and non-government sources of funding used to support Extension activities. States' funding reports to NIFA are available for all states; but for a few states, our online search returned additional state Extension reports prepared for the State Governments, Extension stakeholders, researchers, or other audiences (see for example, Buchholz, 2018; California Legislative Analyst's Office, 2022; Iowa State University, undated; TEconomy, 2022; and Swanson et al., 2023). Comparison of the data from these two report types confirmed the finding: with a few exceptions, the Extension expenditures reported by the USDA, NIFA REEIS State Snapshots Data Mart are mostly unrestricted Federal and State funding and exclude

most projects receiving grant funding (including Federal competitive grant funding), see table 2. USDA, NIFA also collects project-level data for grant-funding projects and makes these data available as a part of their Data Gateway and Leadership Management Dashboard (not shown in table 2), but these data still exclude a portion of the funding provided by the States, as well as other sources of funding not directly tied to projects.

Overall, the funding structure for Cooperative Extension underscores the predominantly State and local nature of Extension, with its program priorities reflecting State and local demand for its services. It stands in contrast with the funding structure for agricultural research, where the Federal Government funds about half of the agricultural R&D conducted at land-grant universities and other State cooperating institutions (Nelson & Fuglie, 2022), compared to less than 20 percent of total funding for Extension.

Table 2
Funding sources for State Cooperative Extension: State financial reports and REEIS

State	State Extension Program Annual Reports						USDA-NIFA REEIS database					
	Year	Federal	State	Other	Total	Federal funding, percent of total	Year	Federal	State	Other	Total	Federal funding, percent of total
Alabama *	2020**	9.2	42.6	15.1	66.9	14	2018	12.7	10.7	51.7	75.0	17
California	2018–19**	19.4	72.6	122.6	214.6	9	2018	8.3	8.3	100.6	117.2	7
Colorado	2018	4.0	9.4	15.1	28.5	14	2018	3.0	3.0	0.0	6.0	50
Florida *	2020**	5.0	48.9	63.1	117.0	4	2018	6.7	5.9	0.0	12.6	53
Iowa	2014	9.4	24.6	64.9	98.9	9	2014	8.1	8.1	15.4	31.5	26
Ohio *	2016	11.2	24.2	33.5	68.9	16	2016	10.2	10.2	0.0	20.4	50
Texas *	2020**	39.2	70.6	24.8	134.6	29	2018	11.4	8.5	52.0	72.0	16
North Carolina*	2022**	14.8	47.0	75.1	136.9	11	2018	11.7	12.4	13.7	37.8	31
Missouri*	2018	10.8	23.2	42.1	76.1	14	2018	12.1	10.5	22.7	45.3	27
Tennessee*	2021**	16.2	38.9	30.3	85.4	19	2018	11.9	48.4	12.5	72.8	16

Note: The “Other” category includes funding from all other sources—including counties, grants, endowments, gifts, and user fees. The total may not equal the sum of the components due to rounding.

*These States have both 1862 and 1890 Land-Grant universities with Extension programs. The USDA, National Institute of Food and Agriculture (NIFA), Research, Education, and Economics Information System (REEIS) database includes funding of 1862 and 1890 land-grant universities. In contrast, the State Extension Program Annual Reports are only from the 1862 land-grant universities in that State.

**The last year of data in USDA, NIFA REEIS database is 2018. Therefore, the fiscal year that is referenced in State Extension Program Annual Reports is different from 2018 fiscal year for USDA, NIFA REEIS data.

Source: USDA, Economic Research Service using State Extension program annual reports for Alabama, California, Colorado, Florida, Texas, Ohio, and Iowa from Swanson et al. (2023), Overview of the United States University-based Public Cooperative Extension Services. State Extension program annual Reports for North Carolina, Missouri, and Tennessee are available from the North Carolina State University Extension, University of Missouri Extension, and the University of Tennessee, respectively.

Cooperative Extension Personnel Trends

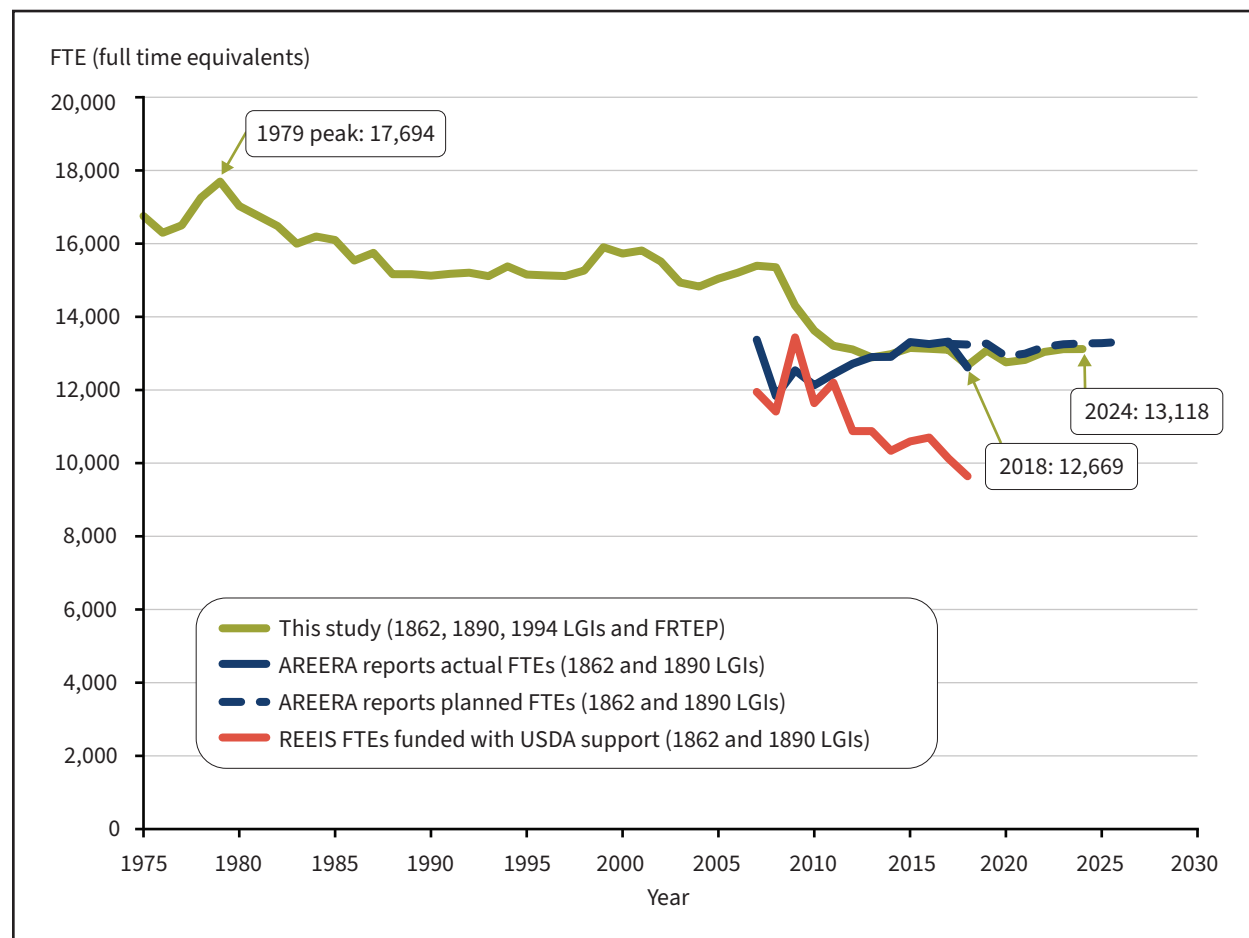
Changes in funding levels and sources can have direct implications for the number of Extension professionals and the types of programs implemented by Extension.¹¹ Figure 2 shows national trends in estimated full-time equivalent (FTE) professional Extension staff across the United States and insular territories since 1975. The figure shows three different estimates of Extension FTEs: one

¹¹ For example, Oklahoma State University reports that 88 percent of the Oklahoma Cooperative Extension budget is allocated to salaries and benefits (Oklahoma State University, 2018). Therefore, funding levels have direct implications for personnel number and programs.

reported by the USDA, NIFA REEIS system (red line), one from a compilation of actual and planned FTEs reported in annual plans of work and Results and Accomplishments reports submitted by States to USDA, NIFA (blue lines), and a USDA, Economic Research Service (ERS) estimate that uses multiple sources to adjust State-level FTE estimates for missing data, and in some cases corrected or more complete information from selected States (green line). Note that NIFA, REEIS generally reports the lowest number of FTE (see the red line on figure 2). As explained above, since 2006, States were required to report to NIFA on their use of Federal funds and State matching grants; therefore, FTE in NIFA, REEIS are expected to be largely limited to these two funding sources. In turn, the blue line on figure 2 is based on the AREERA Reports of Accomplishments and Results—the reports required from all 1862 and 1890 institutions receiving Smith-Lever funds. These AREERA reports generally include a higher FTE count than NIFA, REEIS database, and we assume that they comprehensively account for the total FTE irrespective of their funding source. Starting in 2019, these Reports of Accomplishments and Results do not include the actual Extension FTE data (per revised NIFA guidance). However, in each State, AREERA annual Plans of Work provides 5-year projections of planned FTEs (see blue dashed line on figure 2). Finally, the line labeled “This study” on figure 2 is our estimate of the extension FTE, and it is based on the actual FTE data from these Reports of Accomplishments through 2018, and planned FTEs for 2019-2024. To fill in some missing data, AREERA data are supplemented with FTE data from the NIFA REEIS “State Snapshots Data Mart”. REEIS provides Extension FTEs as well as other sources of Extension FTE (see table A.4).

The USDA, ERS estimate shows that the number of Extension FTEs fell from a peak of 17,694 in 1979 to 12,669 in 2018, or by 28 percent. States anticipated some growth to their Extension programs and planned for 13,118 FTEs by 2024, assuming funding goals are met.

Figure 2

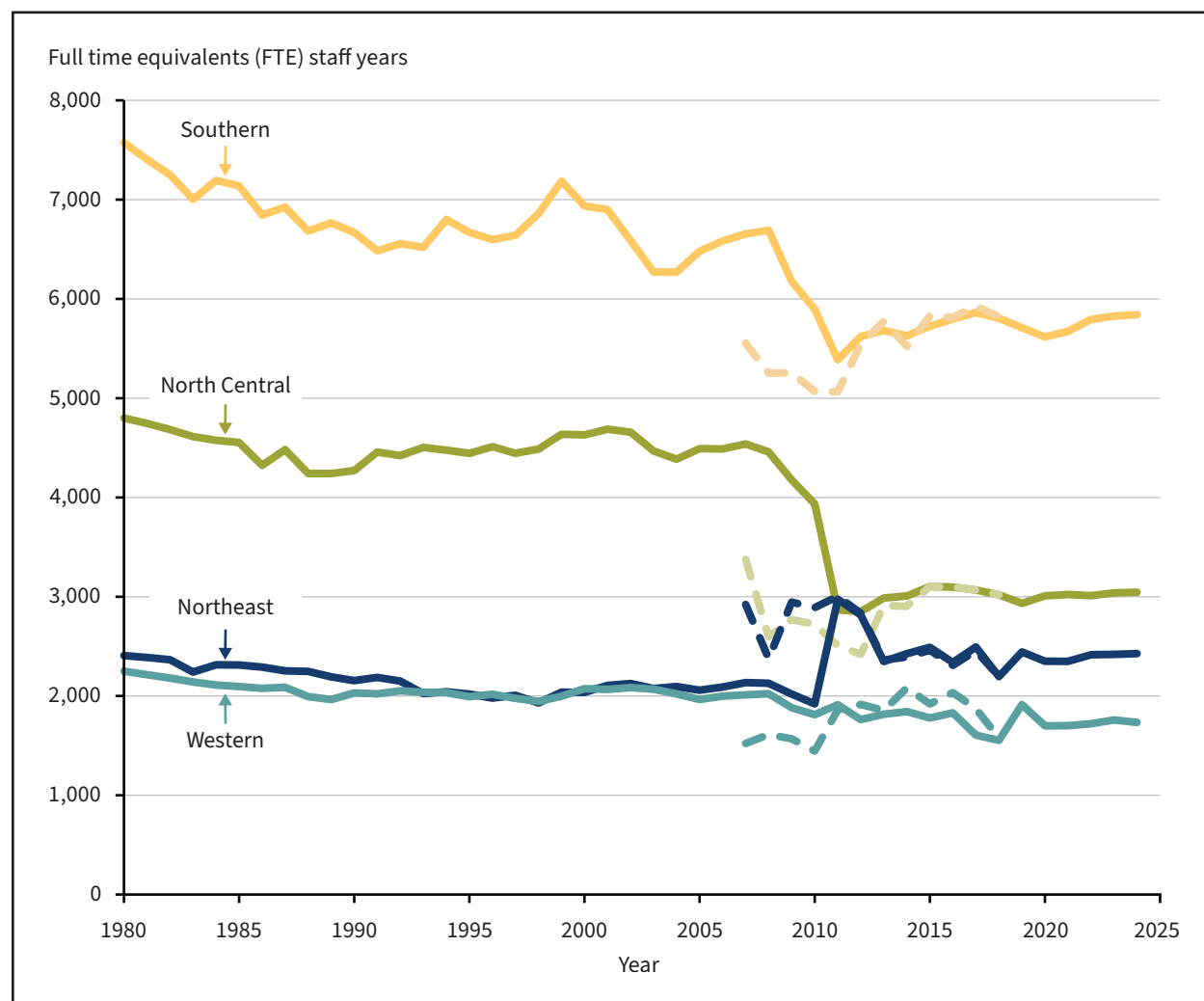
Total Professional Extension staff employed through land-grant institutions

AREERA = Agricultural Research, Extension, and Education Reform Act; LGI = Land-grant institution; REEIS = Research, Education, and Economics Information System; FRTEP = Federally-recognized Tribes Extension Program; FTE = full-time equivalents. AREERA Plans of Work provide planned FTE estimates through 2024, the final year available.

Source: USDA, Economic Research Service.

The national trend masks significant differences in Extension FTE patterns across regions. Figure 3 shows the regional breakdown of total FTEs (labeled as “This Study” on Figure 2), considering 1862 and 1890 land-grant institutions (combined). It demonstrates that most of the decline in Extension FTEs is due to reductions in the two largest Extension regions—the North Central and Southern regions. The North Central region appears to have had the sharpest decline in Extension FTEs. Comparing FTEs in 1980 with FTEs in 2018, the North Central region lost 37 percent of its Extension staff positions, shrinking from 4,800 to approximately 3,000 FTEs. In turn, the Southern region is estimated to have had a 23-percent FTE decline (from approximately 7,600 to 5,800 FTEs). Despite this drop, the Southern region continued to maintain the largest Extension presence among the four regions, with an estimated total of 5,841 FTEs planned in this region in 2024. There was a modest decline in the number of Extension FTEs in the Western region (approximately 700 between 1980 and 2018), although large in percent change (a loss of 31 percent). This region is the smallest in terms of the total Extension personnel (2,250 FTE in 1980, 1,553 FTE in 2018, and 1,734 FTE planned for 2024). Finally, the Northeastern region experienced the smallest decline, losing only approximately 200 positions between 1980 and 2018 (about 9 percent) and employing 2,407 FTE in 1980, 2,196 FTE in 2018, and 2,427 FTEs planned for 2024.

Figure 3
Estimates of professional Extension staff by region for 1862 and 1890 land-grant universities (1980–2024)



* Dashed lines indicate Extension full-time equivalent (FTE) data from USDA, National Institute of Food and Agriculture (NIFA) AREERA reports, while solid lines show USDA, Economic Research Service (ERS) estimates of Extension FTEs. After 2010, USDA, ERS estimates are primarily based on the USDA, NIFA AREERA reports, while prior to 2010 USDA, ERS mostly used USDA, Agricultural Research Service staff analysis reports assembled by Wang (2014a,b).

Note: North Central region: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. Northeast region: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and West Virginia. Southern region: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, Virginia, and the U.S. Virgin Islands. Western region: Alaska, American Samoa, Arizona, California, Colorado, Guam, Hawaii, Idaho, Micronesia, Montana, Nevada, Northern Marianas, New Mexico, Oregon, Utah, Washington, and Wyoming. Estimates include Extension staff at 1862 and 1890 land-grant institutions but not 1994 land-grant institutions or Federally-Recognized Tribes Extension Program (FRTEP) positions.

Source: USDA, Economic Research Service.

Changing the principal data sources of FTE between 2010 and 2011 from USDA, ARS Salary Reports to USDA, NIFA AREERA reports showed little impact on the national trend but did affect regional counts. Using AREERA reports resulted in a lower count of FTEs in the North Central region and higher FTE counts in the Northeast and Southern Regions. The reasons for these differences are unclear but could be due to changes in the FTE accounting, such as omitting county-funded Extension staff or including positions funded through restricted grants outside traditional Extension program areas.

Part of the decline in Extension FTEs around this time may also reflect funding shortfalls and Extension restructuring undertaken in some States. Economic recessions have sometimes provided an impetus for States to enact reforms to public service provisions, including Extension service, such as by closing or consolidating county Extension offices (Morse & Klein, 2006). Reforms consolidating county Extension offices into multicounty or regional offices and/or placing county-level agents solely under the responsibility of local governments have occurred in several States, including Iowa, Illinois, Michigan, Minnesota, Nebraska, Ohio, and Washington (Harker, 2009; Morse, 2006; Morse & Klein, 2006; Iowa State University Extension and Outreach, 2009; Harker, 2012; Holz-Clause et al., 2012; White & Teuteberg, 2015; Iowa State University Extension and Outreach, 2019). Most of these reforms took place in the 1990s and 2000s, sometimes occurring in several stages (Harker, 2009).

Allocation of Extension Resources Across Major Program Areas

Although improving farming and agricultural practices was the primary rationale behind the creation of the agricultural Extension system, it has also encompassed the broader goal of enhancing rural living conditions. Extension programs are an important vehicle for the informal education and outreach programs of land-grant universities. Usually housed within colleges of agriculture, Extension programs often draw upon a wider set of university expertise to respond to demands for knowledge services from rural and non-rural communities. Veterinary schools, colleges of forestry, institutes of public policy, and schools of public health and nutrition are frequently engaged in university Extension activities. Extension includes a wide range of programs, classified by topic areas, knowledge areas, subject of investigation, and field of science (USDA, NIFA, 2023).

Priorities and resource allocation in Extension services have evolved over time. Tables 3.A and 3.B break down the allocation of Extension FTEs into five major program areas and compares the allocation over time and across regions.¹² Table 3.A gives a general summary of Extension programs for 2007–18, that is, the most recent period for which the data are available from REEIS. The share of Extension FTEs focusing on agriculture was 27 percent nationwide, ranging from only 17 percent in the Northeastern region to 32 percent in the Western region. Natural resources were the focus of another 13 percent of Extension FTEs, giving agriculture and natural resources a combined total of 40 percent (the agriculture industry is generally the principal clientele for both agricultural and natural resource Extension activities).

¹² FTE allocation for 2007–18 (table 3A) is based on the USDA, NIFA REEIS State Snapshots Data Mart, which appear to mostly account for positions funded with unrestricted Federal formula funding and a State match. It excludes many activities that are funded under fixed-term projects (i.e., soft funding).

Table 3.A

Allocation of full-time equivalent (FTE) Extension staff to program areas, 2007–18 average

Region	Agriculture and natural resources	Family, community, and economic development	Human nutrition, health, and food safety	Youth activities and 4-H	Total FTE	Agriculture*
	Percent					
Northeastern	30.8	29.7	18.2	18.6	100.0	17.3
North Central	39.7	27.2	13.9	18.7	100.0	28.8
Southern	39.3	23.2	16.1	20.4	100.0	26.6
Western	49.6	17.9	13.1	18.2	100.0	32.5
United States (48 contiguous States)**	39.7	24.1	17.1	18.2	100.0	27.1

* Agriculture program area is included in “Agriculture and natural resources.” However, it is separately identified for the period 2007–18 and presented here for information purpose.

** Alaska and Hawaii are not included.

Source: USDA, Economic Research Service using the USDA, National Institute of Food and Agriculture Research, Education, and Economics Information System (REEIS) database.

Table 3.B

Allocation of Extension staff time to program areas, 1977–92 average

Region	Agriculture and natural resources	Community resource development	Home economics and human nutrition	Youth activities and 4-H	Total FTE*	Agriculture
	Percent					
Northeastern	40.8	7.7	25.0	26.5	100.0	NA
North Central	43.4	8.8	23.2	24.7	100.0	NA
Southern	44.2	5.4	24.2	26.2	100.0	NA
Western	50.7	5.8	18.4	25.1	100.0	NA
United States (48 contiguous States)**	44.3	6.8	23.3	25.7	100.0	NA

NA = not available; FTE = full-time equivalent.

* The sum of the columns may not add up to 100.0 percent due to rounding.

** Alaska and Hawaii are not included.

Source: USDA, Economic Research Service using Ahearn et al. (2003), Regional Trends in Extension System Resources.

To compare trends over time, table 3.B gives a breakdown of average Extension resource allocation across program areas during 1977–92 (Ahearn et al., 2003). Although not all program categories are consistent with those in table 3.A, it is possible to compare the share of Extension FTEs allocated to agriculture and natural resources (combined) and youth activities (4-H). As a share of total Extension FTEs, both program areas declined nationally and in all four regions between 1977–92 and 2007–18. It appears that Extension service missions have shifted somewhat from the traditional emphasis on agriculture to placing greater attention on non-farm issues like community development, nutrition, and health. Also, note that the 2007–18 figures do not capture the entire Extension activities of some States, since the REEIS data focuses on funding from Federal capacity grants and State matching grants (unrestricted funds). If non-reported activities supported by other funds are disproportionately focused on non-farm activities, then the total share of Extension resources on agriculture can be even lower.

Conclusion

Total funding for Cooperative Extension has remained relatively stable since the 1970s peak. Federal funding for Cooperative Extension in the United States has declined, in inflation-adjusted dollars, by more than 60 percent since its peak in the early 1970s. By 2024, Federal funds accounted for less than one-fifth of total national funding resources for Extension. However, a significant portion of this decline in Federal funding was offset by additional funds from other sources, including State and county governments, as well as grants, gifts, and user fees. Total FTE staff years working in Cooperative Extension are estimated to have decreased by 26 percent between 1979 and 2024. With Federal funding falling by more than 60 percent and FTEs by nearly 30 percent, this would imply that about half the reduction in Federal funds was made up by increased funding from other sources.

Extension programs have taken on a broadening program portfolio over time but still devote significant resources to traditional areas like agricultural advisory services and 4-H youth development. In some States, Extension staffing may have shifted toward regional or Statewide subject-matter specialists and away from the county agent model, although discussions with a few Extension personnel shows that Extension offices continue to maintain a presence in most counties. Program areas differ significantly across regions, reflecting State and local priorities.

The trends in Extension resources and their allocation exhibit diverse patterns across regions. The nationwide decline in Extension FTEs from the 1970s through the 2010s most significantly affected the North Central region, where FTEs shrunk by 36 percent over 1980–2024 (though some of this decline might be due to reclassification of some county Extension positions from land-grant university to county employees). Among regions, the Southern region retains the largest number of Extension FTEs compared to the smallest number in the Western region. The Western region, however, has a larger share of its Extension FTEs devoted to agriculture and natural resources, compared with the other regions. Extension programs not related to agriculture and natural resources and 4-H appear to be most prevalent in the Northeast, where programs focused on other topics such as community development and human nutrition account for approximately one half of all Extension FTEs.

The development of broadband infrastructure and social media has allowed Extension staff to distribute new knowledge to farmers, households, and communities at lower unit cost. Still, a number of studies have discussed the potential implications of a decline in resources for public Extension. One outcome is that the decline may mean less access to information for rural communities and limited resource farmers (Al-Kaisi et al., 2015; Norton & Alwang, 2020; Pannell & Zilberman, 2020). The shift to competitive funding for Extension programs may lead land-grant universities to focus more on research and teaching, rather than Extension (Al-Kaisi et al., 2015). The reduced share of Federal capacity grants in Extension funding may also increase funding instability, as State and local government funding sources can be more strongly affected by economic recessions.¹³ In our discussions with Extension staff, State personnel emphasized the importance of Federal formula funding, despite its declining role.

Rigorous assessment of policy issues related to Extension financing, resource allocation, and program efficiency requires detailed information on trends in Extension funding, staffing, and activities. At present, each State has its own system for tracking Extension funding and personnel, while NIFA Extension data only cover a portion of state Extension activities. More comprehensive and comparable information across State Extension programs would allow greater opportunities for assessing trends and impacts of Cooperative Extension.

¹³ Perry (2023) also discussed how States consider funding allocation for Extension, as well as agricultural experiment stations and the other land-grant university programs, as a part of allocation decisions for the other funding priorities. The study found that State spending on medical programs and K-12 education was inversely related to the share of the State budget spent on Extension. In contrast, State funding for welfare programs was positively related to State's Extension funding.

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Appendix A: Data Summary

This report utilizes data from a range of data sources, including:

1. Salary Analyses for Cooperative Extension Service Positions annual reports by USDA, Agricultural Research Service (ARS) for 1975–2010;
2. State Agricultural Research, Extension, and Education Reform Act (AREERA) annual reports submitted by 1862 and 1890 land-grant universities to USDA, National Institute of Food and Agriculture (NIFA) for 2007–18;
3. the USDA, NIFA Research, Education, and Economics Information System (REEIS) State Snapshots Data Mart database for 2007–18, which is based on USDA, NIFA’s Leadership Management Dashboard;
4. USDA Budget Tables, NIFA Explanatory Notes for 2006–24; and
5. Data historically compiled by Fred Woods, a former USDA employee, and taken from two sources. The first source is Alston and Pardey (1996), which includes 1915–90 Federal and total Extension funding totals for the 48 contiguous States (note that these data are also published in Huffman and Evenson (2006)). The second source is unpublished 1944–94 Extension expenditure data for every State, based on the work plans and accomplishment reports submitted by the States to USDA, and historically compiled by USDA, ERS economists from USDA archives.

These main data sources are supplemented by other information and data, as summarized in the tables and the figure below.

The data source listed as (3) in the list above, the REEIS State Snapshots Data Mart database, is a public-facing summary of the data available from USDA, NIFA’s Leadership Management Dashboard (LMD). The data can be accessed from USDA, NIFA’s Data Gateway, where a user is able to run queries for the summary tables presented on the website, for example, by selecting a specific State or year. LMD also offers an opportunity to summarize funding data for USDA-funded projects and funding categories for Extension, research, and integrated projects for 2002–25 (when accessed in April 2025). Total USDA, NIFA Extension funding data from LMD are comparable with Extension funding from USDA Budget Tables, NIFA Explanatory Notes used in this USDA, Economic Research Service report. The data in USDA, NIFA’s LMD are based on individual project data, which are assembled by USDA, NIFA into a searchable database, accessible through their enterprise search after 2004. Specifically, the advanced search section allows users to search the database of projects submitted to USDA, NIFA, including the project’s award amounts, personnel, and other details.

Data used in this study are summarized in the tables below.

Table A.1

Price indices to account for inflation and adjust estimates to 2020 U.S. dollars

Time series/notation	Description
Extension price index RD_t	1888–1949: Agricultural research and development price index from Huffman and Evenson (2006). The index is rebased to equal the value of the Biomedical Research and Development Price Index (BRDPI) in 1950. Then, the time series is combined with BRDPI and rebased to base year 2020 = 100. 1950–2024: BRDPI (National Institutes of Health, 2024), with base year 2020 = 100.

Source: USDA, Economic Research Service.

Table A.2

Extension funding, including 1862, 1890, and 1994 land-grant universities in all States and insular territories

Time series/notation	Use in this report	Description
Total USDA Extension funding, 1915–2024, indexed to 2020 dollars $FEDEXT_t^{2020}$	Figure 1	This USDA, Economic Research Service (ERS) publication uses the total USDA Extension appropriation data, from the USDA Budget Summary and Annual Performance Plan (and Explanatory Notes for NIFA) for 1985–2024. We also use Huffman and Evenson (2006) for 1915–85. Specifically: 1915–85: Total Federal funding data for 1915–94 (in current dollars, not adjusted for inflation) were originally compiled from USDA, National Institute of Food and Agriculture (NIFA) reports by Fred Woods, former deputy administrator of USDA’s Extension Service. These data were published in Alston and Pardey (1996), as well as Huffman and Evenson (2006). This USDA, ERS study only uses a part of the time series, specifically, 1915–85 data, taken from Alston and Pardey (1996). 1986–2024: Total USDA Extension appropriation information was compiled from the annual USDA Budget Summary and Annual Performance Plan (and Explanatory Notes for NIFA). Total Extension funding includes formula and non-formula grants. Note that 2024 values are estimates, rather than actual values, as reported in the USDA documents. The values of $FEDEXT_t$ were indexed to 2020 by dividing the values by the Extension price index described in table A.1 (with 2020 = 100): $FEDEXT_t^{2020} = FEDEXT_t \times \frac{100}{RD_t} \quad (A1)$
USDA formula funds for Extension, 1970–2024, indexed to 2020 dollar $FEDFEXT_t^{2020}$	Figure 1	USDA Extension formula funds, were compiled from USDA Budget Summary and Annual Performance Plan (and Explanatory Notes for NIFA), specifically focusing on Smith-Lever 3b and 3c (1862 land-grant universities) and 1890s formula funding. Note that 2024 values are estimates, rather than actual values, as reported in the USDA documents. The values of $FEDFEXT_t$ were indexed to 2020 by dividing the values by the Extension price index described in table A.1 (2020 = 100): $FEDFEXT_t^{2020} = FEDFEXT_t \times \frac{100}{RD_t} \quad (A2)$
Total national Extension funding* (Federal, State, county, and nongovernment sources), 1915–94, indexed to 2020 dollars $TOTEXT_t^{2020}$	Figure 1	These data represent national total Extension expenditures* in 1915–94, as reported in Alston and Pardey (1996). These data, denoted as AP_t, are originally reported in current dollars. The expenditures are converted to constant 2020 dollars using the Extension price index (see table A.1): $TOTEXT_t^{2020} = AP_t \times \frac{100}{RD_t} \quad (A3)$

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Time series/notation	Use in this report	Description
USDA, ERS estimate of national Extension funding* (Federal, State, county, and nongovernment sources), 1995–2024, indexed to 2020 dollars $ERS_TOTEXT_t^{2020}$	Figure 1	The total nationwide Extension expenditures* are estimated as the sum of the three components: Extension funding* for 1862 and 1890 land-grant universities, funding* for the Federally-Recognized Tribes Extension Program (FRTEP), and funding for 1994 land-grant university's Tribal Colleges Extension Program, as follows: $ERS_TOTEXT_t^{2020} = ERS_TOTEXT_1862_1890_t^{2020} + ERS_TOTEXT_1994_t^{2020} + ERS_TOTEXT_FRTEP_t^{2020} \quad (A4)$ For 1862 and 1890 land-grant universities, total Extension expenditures* are estimated as the sum of Extension expenditures in each State, Washington, DC, and insular areas. We multiplied the total full-time equivalents (FTE) by the average 1990–94 estimated annual expenditure per FTE, indexed to 2020 dollars. Denote FTE number by FTE_{ij}, where i refers to the year and j indexes States, Washington, DC, or insular areas. Next, denote the average 1990–94 expenditure per FTE, indexed to 2020 dollars, as $aver_ \\$_per_FTE_{90_94j}^{2020}$. Then the total Extension expenditures for year t for 1862 and 1890 land-grant universities is the following: $ERS_TOTEXT_1862_1890_t^{2020} = \sum_{j=1}^{50\ states, DC, and\ Ins. Territories} (FTE_{tj} \times aver_ \$_per_FTE_{90_94j}^{2020}) \quad (A5)$ The State-level expenditures per FTE, $aver_ \\$_per_FTE_{90_94j}^{2020}$, is based on the total State-level annual Extension expenditure compiled by Fred Woods (Woods, unpublished) and FTE estimates for the same period from USDA, Agricultural Research Service (ARS) salary reports, as reported in Wang (2014a). The assumption is that the State-level average funding per FTE for 1990–94 applies for the remaining part of the time series, growing only with inflation. Note that FTE_{ij} estimations are further discussed in table A.3. For two tribal Extension programs—Federally-Recognized Tribes Extension Program (FRTEP) and 1994 land-grant universities' Tribal Colleges Extension Program—it was assumed that the Federal programs are the sole source of funding, and that FRTEP FTEs are not accounted for in the total Extension FTE for 1862 and 1890 land-grant universities discussed above. The following information was used: • FRTEP provides competitive grants to land grants (1862s, 1890s, 1994s) for Extension programs serving tribal communities. The analysis relied on the following two data sources: • The annual Federal expenditures* in 1991–2005 are reported in Tribal Extension: Indian Country Extension Development Under the Revised Federally-Recognized Tribes Extension Program (Report of the Indian Country Extension Commission, 2022). • For the rest of the time series (2006–24), data from USDA Budget Summary and Annual Performance Plan (and Explanatory Notes for NIFA) are used.

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Time series/notation	Use in this report	Description
USDA, ERS estimate of national Extension funding* (Federal, State, county, and nongovernment sources), 1995–2024, indexed to 2020 dollars $ERS_TOTEXT_t^{2020}$	Figure 1	- The Tribal Colleges Extension Program provides grants to 1994 land-grant universities for Extension programs, and its funding* was first authorized by Congress in 1998, with the funding appropriated and data available starting in 1997 (USDA, NIFA, 2015). Two data sources were used to estimate the Extension expenditures:* - For 1997–2005, we derive the data from The First 20 Years of 1994 Land-Grant Institutions (USDA, NIFA, 2015). - For 2006–24, annual Federal expenditures are from USDA Budget Summary and Annual Performance Plan (and Explanatory Notes for NIFA). Note that USDA, NIFA (2025f) provide comparable estimates. - Note that for the overlapping years (2006–14), the two data sources result in similar annual funding values. The expenditures for the two tribal Extension programs were indexed to 2020 dollars using Biomedical Research and Development Price Index (NIH, 2024; see table A.1).

* This report discusses long-term trends. Therefore, we assume that on average, the annual Extension funding is equal to Extension expenditures.
Source: USDA, Economic Research Service.

Table A.3

Extension personnel (FTEs) for 1862, 1890, and 1994 land-grant universities

Time series/Notation	Use in this report	Description
This study (1862, 1890, 1994 land-grant institutions and FRTEP) These are actual or estimated FTEs, total for United States, including 50 States and insular territories, 1975–2024	Figure 3	Total full-time equivalents (FTE) are estimated as the sum of FTE in 1862, 1890, and 1994 land-grant universities and FTEs funded through Federally-Recognized Tribes Extension Program (FRTEP). The time series are assembled using different approaches for different time periods and groups of land-grant universities: Extension FTE in 1862 and 1890 land-grant universities: 1975–77 and 1980–2010: For all States and all territories, these data are the actual FTE from USDA, Agricultural Research Service (ARS) salary reports, as presented in Wang (2014a). 1978–79: Planned FTE data from Ahearn et al. (2003) are used. These data were originally assembled from work plan and accomplishment reports historically submitted by each State to USDA to meet the agency reporting requirements. Later, these reports were replaced by the reports required by Agricultural Research, Extension, and Education Reform Act (AREERA). 2010–18: Data sources differ by the State/territory, as summarized in the table A.4. For most States, USDA Research, Education, and Economics Information System (REEIS) appears to undercount the positions and only report FTEs that are at least partially funded with formula funds. In contrast, AREERA appears to give a more complete FTE count including all funding sources. Therefore, by default, AREERA data are usually used.

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Time series/Notation	Use in this report	Description
This study (1862, 1890, 1994 land-grant institutions and FRTEP) These are actual or estimated FTEs, total for United States, including 50 States and insular territories, 1975–2024	Figure 3	2019–24: The only source of data for this period is the planned FTEs from USDA AREERA Plans of Work Reports submitted by each State. The only exception is 2019–23 Montana data, which are actual FTE from Montana State University annual reports (not including positions classified as support staff). Extension FTE For FRTEP: It is assumed that FRTEP program's FTEs are not reflected in the reports used above to calculate the Extension FTE in 1862 and 1890 land-grant universities. Therefore, they have to be calculated separately and added to the total. The first year of funding and FTE for FRTEP is 1991, based on Indian Country Extension Commission (2022). 1991–2005: FRTEP nationwide FTEs are from Tribal Extension: Indian Country Extension Development Under the Revised Federally-Recognized Tribes Extension Program (Indian Country Extension Commission, 2022). This publication assumes one professional staff Extension FTE per funded project. 2006–2022: While Indian Country Extension Commission (2022) includes nationwide FTE data for this period, USDA, ERS economists rely on State-level project funding data from USDA, NIFA (shared through an internal USDA data request). The assumption of one FTE per project is applied. The total FTE for the nation which is estimated through this method is cross-verified with the national data reported in Indian Country Extension Commission (2022). 2023–24: FRTEP FTEs are assumed to be equal to the number of USDA, NIFA-funded FRTEP projects. FRTEP project data were provided by USDA, NIFA through internal USDA data request. No cross-comparison with Indian Country Extension Commission (2022) is possible, because the last year of data in this report is 2022. Extension FTE in 1994 land-grant universities: Given that the program funding was initiated in 1997 (USDA, NIFA, 2015), we assume that the FTE data should also span 1997–2024. FTE are estimated as follows: First, for 2015–24, we use the FTE's reported in workplan and accomplishments reports submitted by each 1994 LGI that has a grant from the USDA Tribes College Extension Program in that year. However, for years prior to 2015, the reporting of FTE was incomplete. Second, for 1997–2014, we assume an average expenditure per FTE (in constant 2020 dollars) of \$150,000. The BRDPI is used to adjust average expenditure per FTE to nominal dollars. Total FTE and FTE per funded project is then derived from the annual allocation of NIFA grants from the Tribes College Extension Program divided by this average expenditure for FTE. The figure of \$150,000 per FTE is the observed average expenditure per FTE for grants allocated over 2015–24.
AREERA reports actual FTEs (1862 and 1890 land-grant institutes)	Figure 3	Data are digitized from AREERA annual reports submitted by the States and insular territories for their 1862 and 1890 land-grant universities, with a few missing data interpolated or replaced by values from REEIS.

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Time series/Notation	Use in this report	Description
AREERA reports planned FTEs (1862 and 1890 land-grant institutes)	Figure 3	Data are digitized from AREERA plans of work, submitted by each State and insular territories for their 1862 and 1890 land-grant universities. Exceptions are: - New Mexico 2018 and 2019 FTE are interpolated for 1862 land-grant university - Ohio 2019 FTE values are interpolated for 1890 land-grant university
REEIS FTEs funded with USDA support (1862 and 1890 land-grant institutes)	Figure 3	Data are downloaded from the USDA, NIFA REEIS database with a few missing values interpolated.

Source: USDA, Economic Research Service.

Table A.4

Data source chosen to estimate Extension personnel full-time equivalents (FTEs) for 1862 and 1890 land-grant universities for 2010–18

State	NIFA, AREERA	NIFA, REEIS	Other	Notes
Alabama	X			-
Alaska	X			-
Arizona		X		-
Arkansas		X		-
California	X			-
Colorado	X			Exception: FTE values for 2011, 2013, and 2014 are from NIFA, REEIS
Connecticut	X			Exception: FTE value for 2011 is from NIFA, REEIS
Delaware	X			-
Florida	X			-
Georgia			X	2011–18 data are based on information from University of Georgia Extension presentations
Hawaii	X			-
Idaho	X			-
Illinois	X			-
Indiana	X			-
Iowa	X			-
Kansas	X			-
Kentucky	X			Exception: FTE for 2011 is from NIFA, REEIS
Louisiana	X			-
Maine	X			-
Maryland	X			Exception: FTE values for 2011 are from NIFA, REEIS; FTE values for 2014 for 1862 LGI are also from NIFA, REEIS; FTE values for 2014 for 1890 LGI are the average for 2013 and 2015
Massachusetts	X			-
Michigan	X			-
Minnesota	X			-
Mississippi	X			Exception: FTE values for 2011 for 1890 LGI are from NIFA, REEIS
Missouri	X			Exception: FTE for 2011 is from NIFA, REEIS

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State	NIFA, AREERA	NIFA, REEIS	Other	Notes
Montana			X	Data for 2008–23 are actual FTE from Montana State University annual reports (not including positions classified as support staff)
Nebraska	X			-
Nevada	X			-
New Hampshire	X			-
New Jersey	X			-
New Mexico		X		-
New York	X			-
North Carolina	X			-
North Dakota	X			Exceptions: For 2011–14, FTEs are a simple interpolation based on observations from North Dakota Extension Service and the assumption of no major drop in FTE during that period
Ohio	X			Exception: 2009 FTE values are from NIFA, REEIS; values for 2011–12 are interpolated, since AREERA shows significantly lower values for these years
Oklahoma		X		-
Oregon	X			-
Pennsylvania	X			-
Rhode Island	X			Exception: FTE values for 2011 and 2012 from NIFA, REEIS
South Carolina	X			-
South Dakota		X		-
Tennessee	X			Exception: FTE for 2011 is from NIFA, REEIS
Texas	X			Exception: FTE for 2014 is from NIFA, REEIS
Utah	X			-
Vermont	X			-
Virginia	X			-
Washington	X			-
West Virginia	X			-
Wisconsin	X			-
Wyoming	X			Exception: FTE for 2018 is from NIFA, REEIS
District Of Columbia	X			Exception: FTE for values for 2014, 2016 from NIFA, REEIS
American Samoa	X			Exception: 2015 value is interpolated
Federated States of Micronesia	X			-
Guam	X			Exception: FTE for 2011–12 are from NIFA, REEIS
Marshall Islands	X			Note: FTE values in both NIFA, AREERA and NIFA, REEIS are zero
Northern Mariana Islands	X			-
Palau	X			Note: FTE values in both NIFA, AREERA and NIFA, REEIS are zero
Puerto Rico	X			Exception: FTE for 2011 is from NIFA, REEIS
U.S. Virgin Islands	X			Exception: FTE for 2011 and 2012 are from NIFA, REEIS

AREERA = Agricultural Research, Extension, and Education Reform Act. REEIS = USDA, NIFA Research, Education, and Economics Information System.

Source: USDA, Economic Research Service.

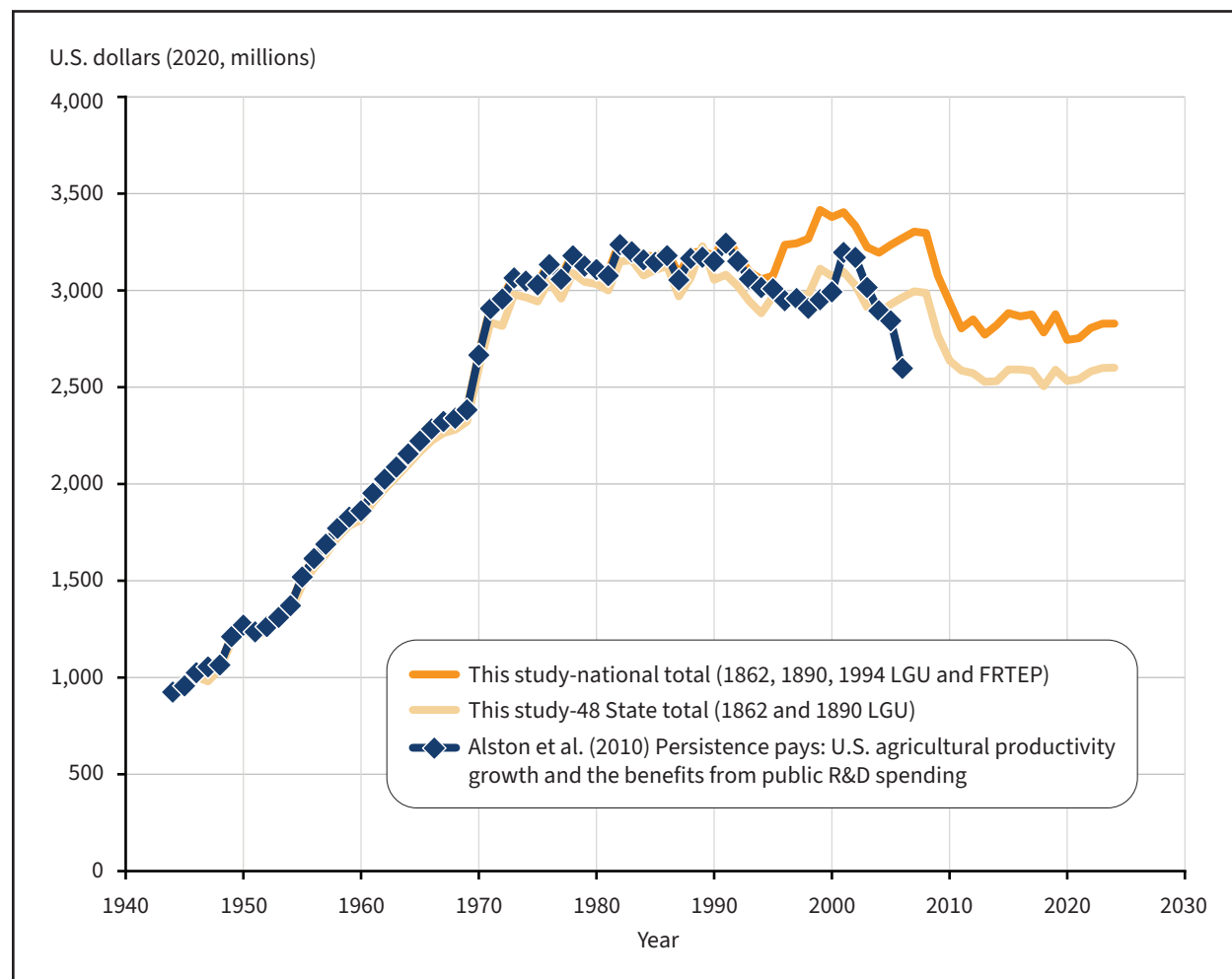
Appendix B: Sensitivity Analysis for the Total Extension Expenditure

In this report, total national Extension expenditures for 1995–2024 were estimated by the authors by multiplying the number of full-time equivalents (FTEs) in each State by an estimate of expenditures per FTE. This information is based on data assembled by former USDA, National Institute of Food and Agriculture (NIFA) program leader Fred Woods, which included FTE and expenditures for each State for the 1990–94 period. Using Woods’ data, this information implies the national average expenditure per FTE of \$203,000 (in 2020 dollars, adjusted for inflation, using the Biomedical Research and Development Price Index, (BRDPI), see NIH, 2024), but with wide variation among States (between a high of \$417,000 per FTE in Alaska to a low of \$110,000 per FTE in West Virginia).

In this appendix, we compare our estimates of total national Extension expenditures with estimates from two other sources. One source is Alston et al. (2010), who estimated Extension expenditures in the 48 contiguous States for 1902–2010. They cite Woods for their figures for 1915–94 and unspecified State sources for other years, so it is not possible to replicate or extend their estimates for years past 1994. Figure B.1 plots our estimates of national Extension expenditures with those of Alston et al. (2010), shown in constant 2020 dollars, over 1944–2024. The estimates are virtually identical for 1944–94 (both sources rely on the Woods data), except that the Alston et al. (2010) estimates appear to be closer to the total value that includes 50 States and insular territories, rather than our total value for 48 States only. For the years from 1995–2006 (the last year for which estimates are available from Alston et al. (2010)), our estimates for the 48-State total are very close to theirs. The difference appears to be largely due to our broader coverage to include extension at all land-grant universities (including 1994 land-grant universities and Federally-Recognized Tribes Extension Program (FRTEP)) in all 50 States plus insular territories.

A second source of comparison is the unpublished results of a survey of 1862 and 1890 land-grant universities conducted by the Extension Committee on Organization and Policy (ECOP) of the Association of Land Grant Universities (APLU) in 2023. This survey received information on Extension expenditures and total personnel employed in Extension from 65 of the 76 land-grant universities (1862s and 1890s only). Their estimate of total “core” funding, which includes Federal capacity grants, State, and county grants but excludes Federal competitive grants and non-government funding sources, was \$2.132 billion in 2023. This compares with this study’s estimate of total extension spending by all 76 of these land-grant universities, which includes Federal competitive grants and nongovernment funding sources, of \$2.62 billion in 2023. The difference can easily be explained by the inclusion of additional land-grant universities and funding sources in our study. For example, in the detailed budgets of Extension funding by 10 States listed in table 2, non-“core” funding sources (i.e., funding from competitive grants, endowment income, and other sources), on average, accounted for 30 percent of total Extension funding by the land-grant universities in these States (25 percent as the median, ranging between a low of 12 percent and high of 54 percent).

Figure B.1
Alternative estimates of national Extension expenditures



LGU = Land-grant university; FRTEP = Federally-Recognized Tribes Extension Program.

Source: USDA, Economic Research Service (ERS), developed data from Alston et al. (2010), Persistence Pays: U.S. Agricultural Productivity Growth and the Benefits from Public R&D Spending, and USDA, ERS estimates calculated for this report. These calculations are based on USDA Budget Summary (and Explanatory Notes for NIFA); Huffman and Evenson (2006), Science for Agriculture: A Long-term Perspective; Alston and Pardey (1996), Making Science Pay: The Economics of Agricultural R&D Policy; Indian Country Extension Commission (2022), Tribal Extension: Indian country Extension development under the Revised Federally Recognized Tribal Extension program; USDA, National Institute of Food and Agriculture's (NIFA) (2015), NIFA 1994s: The First 20 Years of 1994 Land-Grant Institutions; USDA, Agricultural Research Service salary reports; Ahearn et al. (2003), Regional Trends in Extension System Resources; USDA, NIFA Research, Education, and Economics Information System (REEIS) information; the Agricultural Research, Extension, and Education Reform Act (AREERA) data; and Montana State University annual reports.