

AGRICULTURAL RESEARCH AND EXTENSION FUNDING SUMMARY

College Funding from All Sources

The College of Agricultural Sciences relies on the land-grant partnership between federal, state, and county governments for its agricultural research and statewide Penn State Extension educational programs. These programs drive progress by translating scientific research into real-world applications. They are not supported by undergraduate tuition or state-appropriated general education dollars.

The **state ag research and state extension** funding represent Pennsylvania's investment in agriculture and the food and fiber sectors. This support allows the college to **leverage more than \$100 million in other sources** of revenue for Pennsylvania, such as federal formula funding and competitive grants and county funding. Without these funds, extension would cease to exist and the college's capacity would be greatly diminished.

The University **state E&G/tuition** portion of the budget funds undergraduate/graduate education in the college. State appropriations and tuition combined represent approximately 12% of college funding.

The **federal** segment comprises the federal land-grant formula funding for both research and extension, which by law mandates matching appropriations. State research and extension appropriations are used to cover this required offset.

The **county** segment reflects the financial commitment the counties make to extension. Counties have

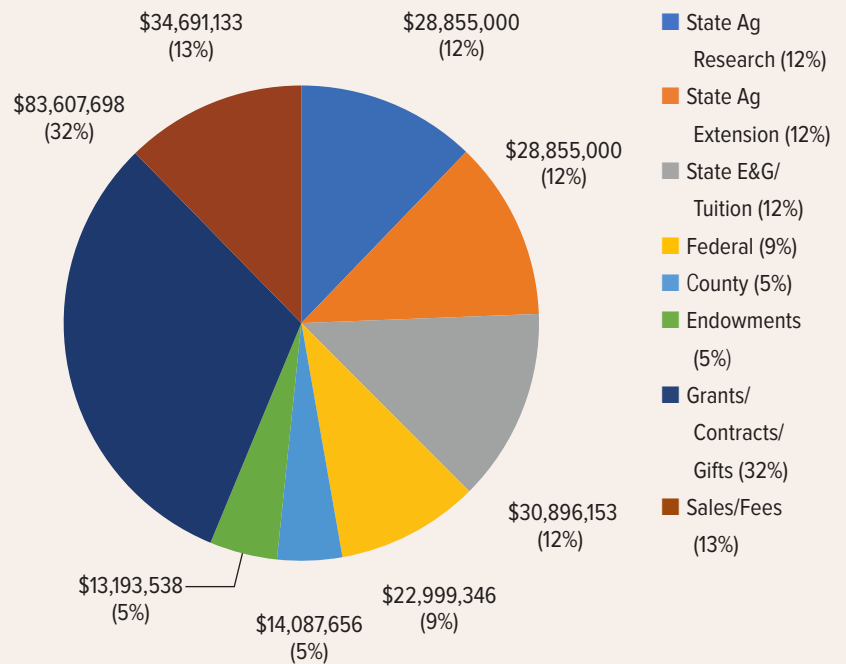
traditionally provided local office facilities, administrative support staffing, local program position funding, and general office operational funding.

Researchers and educators funded by state, federal, and county appropriations secure grant funding that equates to more than the entire state contribution. The current year's budget shows a projected \$83.6

million in **grants/contracts/gifts**. These funds, mainly from federal sources, come to Pennsylvania to solve problems and create jobs.

These investments reap huge dividends for the state, both in direct dollars leveraged from other sources and economic impacts from research and extension programs that support agriculture, create and retain jobs, and drive economic growth.

FY2023–2024 Total Sources:
\$257,185,524



COLLEGE BUDGET STATUS

Select College of Ag Sciences Program Priorities and Impacts

HIGHLY PATHOGENIC AVIAN INFLUENZA (HPAI) AND OTHER INVASIVES

An ongoing priority is to address invasive threats and deploy emergency responders when confronted with challenges such as the spotted lanternfly and HPAI. Responding to HPAI in Pennsylvania in 2022–23, the college participated on the HPAI Task Force and provided expertise related to biosecurity, surveillance, diagnosis, depopulation, disposal, and issues relevant to small/backyard flocks. The Pennsylvania outbreak slowed until December when an upland game farm with 98,300 birds tested positive, presenting unique challenges as these birds are raised outside. Experience gained from earlier outbreaks helped get control of the situation quickly.

CLIMATE-SMART FOOD SUPPLY CHAINS AND COMMODITIES

Agricultural sectors are facing challenges, and opportunities, around climate-driven issues. The college has unique expertise and was awarded a **USDA grant of \$25 million to help**

dairy farmers develop climate-smart practices and commodities, as well as a grant to **teach private forest owners how to adapt to climate change and take advantage of carbon markets**. The college is also doing research using remote sensor data collection on animal health, climate patterns, yields, and inputs to build models that can help producers make informed decisions to improve profitability under changing conditions and provide information for policy decisions.

IMPROVING WATER QUALITY

As part of the state Agricultural Conservation Assistance Program (ACAP), in FY 2023/24 Penn State Extension was awarded \$7.7 million over 3 years to create the Center for Agricultural Conservation Assistance Training. The center provides technical assistance to producers in the implementation of Best Management Practices (BMPs), as well as BMP training for County Conservation District employees, who work with farmers.

The center has hired a director, conservation educators, and a GIS specialist and a GIS

tech support/trainer is pending. The center has trained 181 district staff and delegates and has finalized a contract with Herbert, Rowland & Grubic Inc., an engineering consulting firm, to implement a new Job Approval Authorization program, which will facilitate the timely certification required for these projects to proceed. A Partners in Agricultural Conservation Excellence MOU was also recently created between Penn State, PA State Conservation Commission, and US Department of Agriculture.

To maximize the efficiency and ROI for riparian buffers, USDA NIFA is funding a college study to evaluate the performance of buffers and how to improve them. The PA Watershed Implementation Plan includes riparian buffers costing \$20 million annually. Faculty will be using GIS tools and drone mapping to develop modeling for runoff to determine best practices.

EXPANDING BROADBAND ACCESS

Extension was foundational in assisting the PA Broadband Development Authority in challenging discrepancies in FCC maps of broadband service availability in PA. Work resulted in PA successfully contesting 28,000 broadband service-availability challenges. The result was \$117 million more dollars coming to PA to enhance broadband in underserved areas.

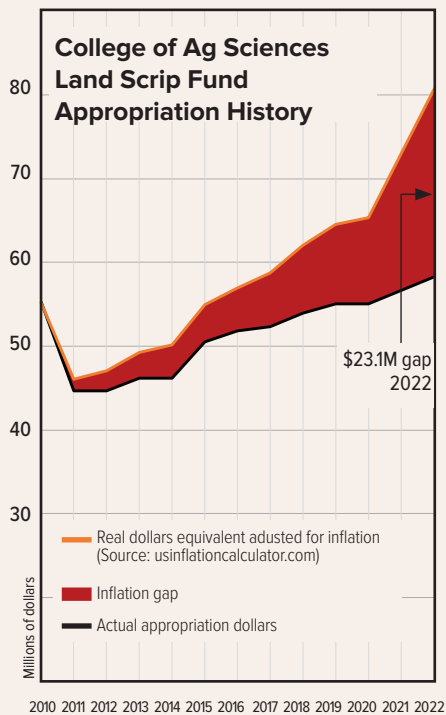
WORKFORCE DEVELOPMENT AND STACKABLE CREDENTIALS

Personalized education paths, such as online/hybrid short courses, micro credentials, and apprenticeships, present unique alternatives for educational institutions, industry sectors, and learners. Extension is working with industry sectors on these options, as well as employer bulk purchasing options and tracking of specialized employee education for ongoing training and advancement purposes. Working with the PA Landscape & Nursery Association (PLNA), extension completed three workforce training tracks. Most courses are approved for CEUs for the PLNA Pennsylvania Certified Horticulturist credential. In 2023 there were 1,747 course orders. The animal systems unit is developing learning modules and an apprenticeship program.

College of Agricultural Sciences Research and Extension Appropriation Request

The Penn State 2024–25 budget request proposes a 7% increase of \$4 million in the Land Scrip Fund, which represents the commonwealth's investment in agricultural research and Penn State Extension programs in support of Pennsylvania agriculture and rural communities. Due to the rising costs of doing business and funding levels that have not kept pace with inflation, this increase is critical to maintain our work on issues important and impactful to Pennsylvania.

The college is seeking an additional \$2 million for an Ag Tech and Innovation Initiative to assist agriculture in capitalizing on emerging digital technologies. Penn State faculty are engaged in diverse areas, including artificial intelligence, robotics, precision ag, remote sensing, gene editing, augmented reality, and geospatial mapping. The college is providing leadership for a robust and formalized collaborative strategy focusing on a holistic, landscape-level approach and the uniqueness of Pennsylvania agriculture.



PennState
College of Agricultural Sciences

Penn State College of Agricultural Sciences research and extension programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

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Code 5200 State Budget

UBR AGR 24-35

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