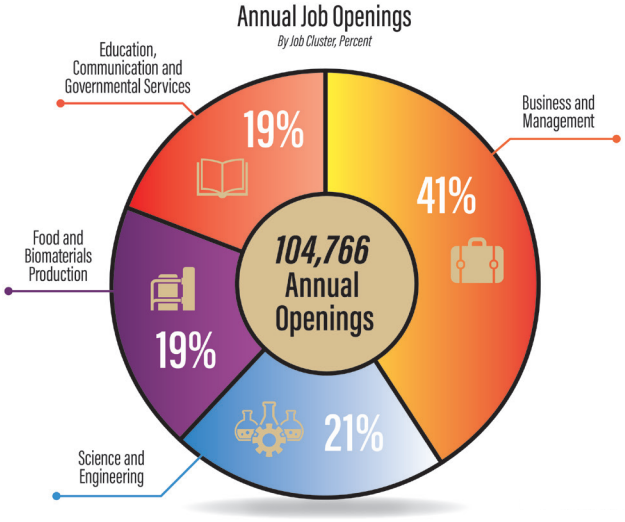
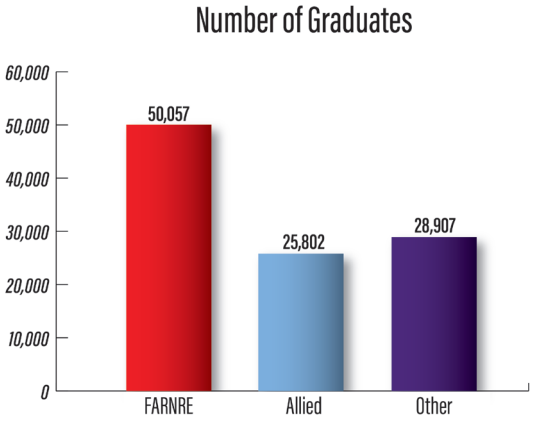
Employment Opportunities for College Graduates in Food, Agriculture, Renewable Natural Resources and the Environment — United States, 2025-2030

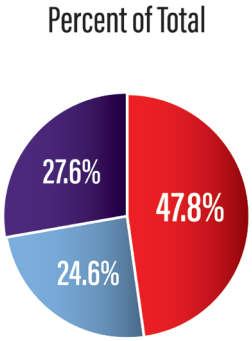
EMPLOYMENT OPPORTUNITIES

In the United States between 2025 and 2030, we expect employment opportunities to remain strong for college graduates with interest and expertise in food, agriculture, renewable natural resources and the environment (FARNRE). Drawing on Bureau of Labor Statistics and web-scrape data, approximately 104,766 openings annually are forecast across four broad job clusters: Business and Management (41%); Science and Engineering (21%); Food and Biomaterials Production (19%); and Education, Communication and Governmental Services (19%). About 90% of these 104,766 job openings are expected to prefer at least an associate degree.



On an Annual Basis, Expect 104,766 Job Opportunities in FARNRE





SUPPLY OF GRADUATES

Employer demand for graduates with FARNRE-aligned skills will dramatically exceed the number of available FARNRE graduates. Of the 104,766 positions, graduates earning FARNRE degrees will account for 47.8% (50,057) of the annual supply, while allied disciplines will comprise 24.6% (25,802). To meet total demand, employers will draw on graduates from other disciplines and additional allied majors for 27.6% (28,907). In addition, roughly 10% of the total annual FARNRE jobs will be filled by candidates without a degree.

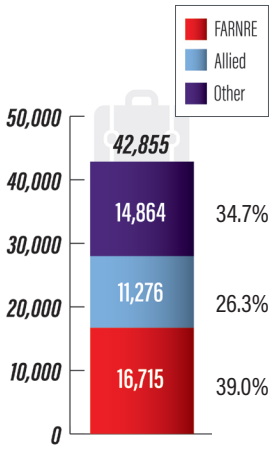
Of the 50,057 FARNRE graduates, 33% (16,715) will be in the Business and Management job cluster, 27% (13,510) in the Science and Engineering cluster, 23% (11,577) in the Food and Biomaterials Production cluster, and 17% (8,255) in the Education, Communication and Governmental Services cluster. **It is important to note that these Job Clusters are fluid and students majoring in one cluster may well take a job in a different cluster.**

Anticipate strong demand for graduates with expertise in the following areas and for these positions.

BUSINESS AND MANAGEMENT (41% of FARNRE job openings):

This cluster includes business and management occupations across all stages of the food and agriculture value chain — from inputs and production to food distribution and renewable resource management.

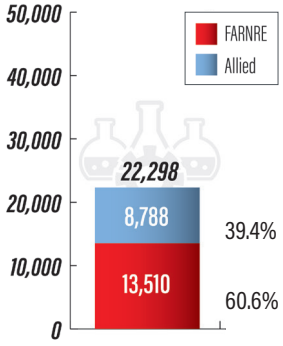
- financial advisors, lenders, credit and risk analysts, insurance, and operations and general managers
- technical sales and key account specialists, including integrated equipment-inputs-software solutions and data skills
- marketing, online sales, e-commerce, and CRM-driven performance marketing and strategy
- data and analytics skills for dashboards, Key Performance Indicators, and forecasting
- supply chain, procurement, and project and product management
- consulting and advisory services in transition planning, financial management, and marketing



Source to Fill Business and Management Jobs

USDA National Institute of Food and Agriculture
U.S. DEPARTMENT OF AGRICULTURE

PURDUE UNIVERSITY | College of Agriculture



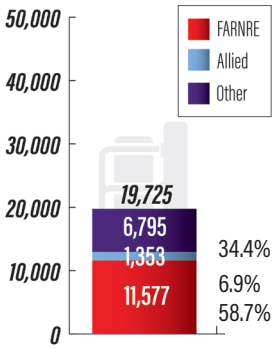
Source to Fill Science and Engineering Jobs

SCIENCE AND ENGINEERING (21% of FARNRE job openings):
This cluster includes life, physical, and social science and engineering occupations related to the production, transportation, processing, and distribution of food and fiber, along with roles at the intersection of food science, human nutrition, and health.

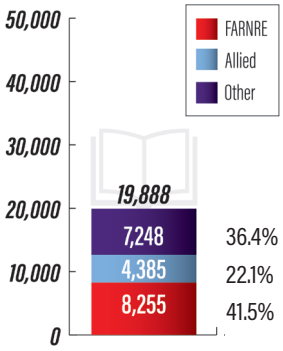
- agronomy, plant science, breeding/genetics and diagnostics
- biological/agricultural/environmental engineers and computer-based systems technicians
- food science and food process engineers
- automation, robotics, precision management, AI and geospatial analytics
- water and soil specialists
- large-animal veterinarians and rural veterinary practice positions

FOOD AND BIOMATERIALS PRODUCTION (19% of FARNRE job openings):
This cluster includes occupations focused on the production, operations, processing, and logistics of commodities used as food or biomaterials, including forest production, renewable energy, and environmental management.

- agronomists, horticulture specialists, crop consultants and pest management professionals
- commercial livestock and poultry management in health, nutrition and welfare
- biomaterials and bioenergy roles in feedstock logistics, conversion and sustainability
- data-enabled production and on-farm analytics



Source to Fill Food and Biomaterials Production Jobs



Source to Fill Education, Communication and Governmental Services Jobs

EDUCATION, COMMUNICATION AND GOVERNMENTAL SERVICES (19% of FARNRE job openings):
This cluster includes educators, communicators, and public relations specialists in both public and private sectors, with roles across local, state, national, and international agencies.

- agriscience and natural resources teachers in high schools and middle schools
- specialized, fixed-term faculty with emphasis on externally funded, workforce-aligned programs
- agricultural and science communicators with digital fluency and science-translation skills
- data science and analytics roles in governmental agencies and NGOs
- communication/policy positions with technical agriculture expertise/experience

REPORT SERIES

This tenth edition in the USDA's five-year employment projection series (initiated in 1980) introduces several new features. The 2025–2030 study includes associate degree holders and uses a more rigorous forecasting method that incorporates web-scraped job postings but limits direct comparison with earlier reports. Because many employers no longer specify degree requirements, about 10% of projected FARNRE jobs may be filled by high school graduates. Job openings are also disaggregated into 11 subclusters and five geographic regions, improving demand and supply estimates.

For more details, go to: purdue.edu/usda/employment/

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This material is based on work supported by the U.S. Department of Agriculture's National Institute of Food and Agriculture under Project Award No. 2024-38817-42354. Any opinions, findings, conclusions, or recommendations expressed in this presentation/publication are those of the author(s) and should not be construed to represent any official USDA or U.S. government determination or policy.