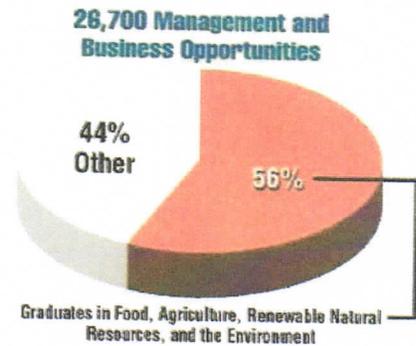


Trends and Forecasts

Trends

Between 2015 and 2020, expect an average of 26,700 annual job openings in management and business in the United States for new college graduates with expertise in food,



agriculture, renewable natural resources, and the environment. This represents almost half of the annual job openings.

Most graduates with bachelor's degrees in business management will enter sales and technical service jobs. Those with advanced degrees will more likely enter careers as economists, financial analysts, lending executives, marketing managers, and human resources specialists.

New jobs in agribusiness companies should remain relatively stable during the next couple of years with some increased hiring expected in the latter part of the five-year period. This follows expanded hiring by agribusinesses during the past couple of years. Expect to see some continued consolidation of agribusiness organizations.

Forest ecosystem management opportunities should remain strong in both the public and private sectors.

Anticipated increases in the housing and building construction industry will spur growth in forest biomaterials businesses as well as in landscape contracting and management.

As consumers purchase more fresh fruits, vegetables, and organic crops, related purchasing and marketing strategies and personnel will change.

Forest management companies and agribusinesses will continue to hire environmental consultants to ensure environmental quality and to comply with governmental regulations.

Growing e-commerce operations in all industries will increase employment opportunities for graduates with specialized skills in online marketing and social media.

Selected Occupations

- Sales and Service Representative
- Financial Analyst
- Forest Products Manager
- Agricultural Economist
- Land Use Manager
- Agricultural Loan Officer
- Farm Labor Specialist
- Landscape Contractor
- Forest Ecosystem Manager
- Marketing Specialist
- E-commerce Specialist
- Grain Merchandiser

Employment Opportunities 2015-2020

- Management & Business
- Science & Engineering
- Food & Biomaterials Production
- Education, Communication & Governmental Services
- Market Factors
- Sources and Methodology
- Characteristics of Graduates
- Acknowledgements
- Report Summary (PDF)



United States Department of Agriculture

SUMMARY

Employment Opportunities for College Graduates

in Food, Agriculture, Renewable Natural Resources, and the Environment

United States, 2015–2020

Employment Opportunities

During the next five years, U.S. college graduates will find good employment opportunities if they have expertise in food, agriculture, renewable natural resources, or the environment. Between 2015 and 2020, we expect to see 57,900 average annual openings for graduates with bachelor's or higher degrees in those areas.

According to our projections, almost half of the opportunities will be in management and business. Another 27% will be in science, technology, engineering, and mathematics (STEM). Jobs in sustainable food and biomaterials production will make up 15%, while 12% of the openings will be in education, communication, and governmental services.

The projections in this report are based on data from several sources. The Bureau of Labor Statistics forecasts a 10.8% increase in the U.S. labor force between 2012 and 2022 due to job growth and openings from retirement or other replacements. We expect employment opportunities in food, agriculture, renewable natural resources, and environment occupations to grow more than 5% between 2015 and 2020 for college graduates with bachelor's or higher degrees.

Graduates

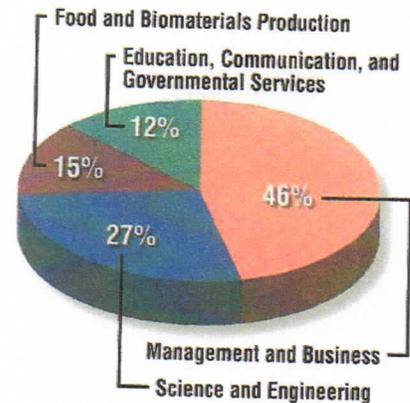
An average of 35,400 new U.S. graduates with expertise in food, agriculture, renewable natural resources, or the environment are expected to fill 61% of the expected 57,900 average annual openings. Most employers prefer to hire graduates with this expertise. However, because we anticipate more annual job openings than can be filled by these graduates, employers will need to look to other areas such as biology, business administration, engineering, education, communication, and consumer sciences to fill the remaining 39% of openings.

College graduates with expertise in food, agriculture, renewable natural resources, and the environment are essential to our ability to address the U.S. priorities of food security, sustainable energy, and environmental quality. Graduates in these professional specialties not only are expected to provide answers and leadership to meet these growing challenges in the United States, but they also must exert global leadership in providing sustainable food systems, adequate water resources, and renewable energy in a world of population growth and climate change.

Look to graduates of food, agriculture, renewable natural resources, and environment higher education programs if you are seeking to hire female graduates with STEM degrees. While other U.S. higher education programs have encountered challenges enrolling women in STEM specialties, women make up more than half of the food, agriculture, renewable natural resources, and environment higher education graduates.

Many food, agriculture, renewable natural resources, and environment graduates will have interests, skills, and experiences that lead them to employment in other industries. This will further widen the gap between numbers of graduates with expertise in these areas and the growing number of employment opportunities.

Employment Opportunities





Employment Opportunities for College Graduates

in Food, Agriculture, Renewable Natural Resources, and the Environment
United States, 2015–2020

MANAGEMENT AND BUSINESS

Between 2015 and 2020, expect an average of 26,700 annual job openings in management and business in the United States for new college graduates with expertise in food, agriculture, renewable natural resources, and the environment. This represents almost half of the annual job openings. Graduates with the best prospects have a strong background in life sciences and business, excellent communication skills, and work experience.

Selected Occupations

- Sales and Service Representative
- Forest Products Manager
- Land Use Manager
- Farm Labor Specialist
- Forest Ecosystem Manager
- E-commerce Specialist
- Financial Analyst
- Agricultural Economist
- Agricultural Loan Officer
- Landscape Contractor
- Marketing Specialist
- Grain Merchandiser

SCIENCE AND ENGINEERING

Food, agriculture, renewable natural resources, and environment higher education programs will continue to produce a growing number of graduates in science, technology, engineering, and mathematics (STEM) disciplines in the next five years. About half of these graduates will be women. Expect 15,500 annual job openings in these areas as demand for these graduates grows in many areas.

Selected Occupations

- Food Scientist
- Veterinarian
- Biological Engineer
- Environmental Scientist
- Insect Biologist
- Fisheries Biologist
- Plant Scientist
- Watershed Scientist
- Dietitian
- Irrigation Engineer
- Animal Scientist
- Soil Scientist

FOOD AND BIOMATERIALS PRODUCTION

Expect 8,500 annual job openings in food and biomaterials production between 2015 and 2020. More individuals filling these jobs will have bachelor's degrees, but production experiences will still be very important. Some growing job opportunities will be available in production of fresh and locally grown foods, poultry and swine production, crop production, forest management, and precision agriculture.

Selected Occupations

- Farmer
- Rancher
- Poultry Production Manager
- Range Manager
- Precision Agricultural Specialist
- Fruit and Vegetable Grower
- Forest Manager
- Crop Management Consultant
- Organic Crops Grower
- Viticulturist
- Swine Production Manager
- Aquaculturist

EDUCATION, COMMUNICATION, AND GOVERNMENTAL SERVICES

Anticipate 7,200 annual job openings in education, communication, and governmental services in the next five years for graduates with expertise in food, agriculture, renewable natural resources, and the environment. Graduates will find opportunities in agriscience education at all levels, government service, forest recreation, and agritourism. They will also find opportunities in marketing, event planning, and public relations.

Selected Occupations

- High School Agriscience Teacher
- Rural Development Specialist
- Plant and Animal Inspector
- Agricultural Extension Educator
- Farm Services Agent
- Natural Resources Conservation Specialist
- Technical Writer
- Social Media Specialist
- Outdoor Recreation Manager
- Environmental Science Teacher
- Food and Agricultural Science Editor
- Event and Meeting Planner

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For more details, log on to:

<https://www.purdue.edu/usda/employment>

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