



Degrees with a Difference

OAC Master's Destinations

Project
Overview

Pursuing a master's in OAC is a decision to pursue a highly sought-after degree that will help you Improve Life.

The pace of innovation and technology is ever increasing while labour shortages continue to grow in the agri-food, environmental and related sectors. The Canadian Agricultural Human Resource Council (CAHRC, 2021) stated that over 16k jobs in the agriculture sector alone went unfilled and estimates the shortfall to grow to 123,000 by 2029.

In Canada and around the world, organizations are seeking highly skilled and specialist employees that apply their knowledge to find solutions - to fill this niche, master's programs have become increasingly important.

This study illustrates the diverse career opportunities available to our master program graduates by highlighting the 2019 employment data of a 20-year cohort.

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Executive Summary

Knowledgeable and skilled leaders in the agri-food and associated sectors are vital to the Canadian and global economies. Significant efforts are being made by government and industry to attract and train people in the increasingly high-tech agricultural, food, and environmental sectors.

Seeking to gain insight into the career outcomes of master's alumni from the Ontario Agricultural College (OAC), the Master's Destinations Project documents the career status of individuals who graduated with a master's degree over a 20-year period. Data was collected using public information about employment sectors, job categories, and job titles of master's alumni. From 1999 to 2019, 3,351 master's students graduated from OAC programs. Successful census of their occupation in 2018-2019 was completed for 2,427 of these alumni.

This report provides an overview of the outcomes. Data analysis indicates that master's graduates found successful careers in all employment sectors. This wide representation demonstrates the multifaceted skill set of master's graduates and the need for, and applicability of, those skills outside of the traditional academic career path.



Study Numbers:

20

year period
analyzed



3,351

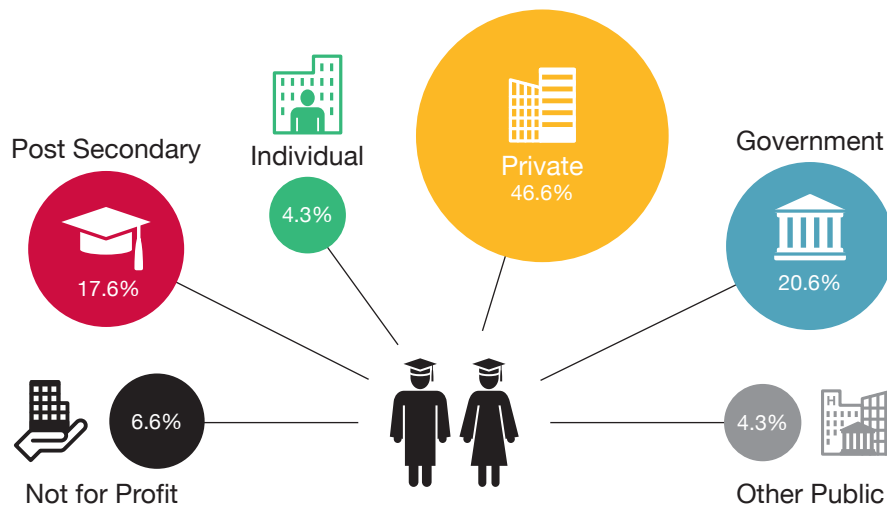
master's graduates
in the census

72%

of master's
graduates were
included in the study

Career Destinations of OAC Master's Graduates

2018-2019 by Employment Sector



Circles sized according
to number of graduates

Who is OAC?

The Ontario Agricultural College (OAC) is recognized domestically and internationally for our expertise in food, agriculture, communities, and environmental sciences. A founding college of the University of Guelph, our people are located at two campuses in Guelph and Ridgetown, Ontario. Our research is supported and strengthened by access to a province-wide network of field stations and research facilities.

OAC graduate students are inspired to engage in discovery, knowledge generation, problem-solving, and professional development.

University of Guelph's outstanding performance in domestic and international rankings reflect OAC's expertise and commitment to using science, ingenuity and a passion for plants, animals, people, and the land to enhance scientific understanding and improve life.

 **1**  **12** **#1 in Canada and #12 in the world for agricultural sciences**

 **2**  **44** **#2 in Canada and #44 in the world for plant and animal science**

 **5**  **99** **#5 in Canada and #99 in the world for environment/ecology**

Source: <https://admission.uoguelph.ca/rankings>



The OAC community includes:

741

OAC graduate enrollments

(largest population of master's and PhD students in the university)

516

Master's enrolled

8,272

Master's alumni

147

Faculty

As of 2020/2021



MEET THE PROFS | Click to view videos of OAC faculty members

OAC Academic Units and Master's Programs



Course-based (or professional)

- 1-2 years to complete
- coursework focused
- development of mastery in a specific area of study
- may involve a major research project, or research project of a smaller scope, in combination with coursework



Thesis-based (or research-focused)

- 2-3 years to complete
- minimal coursework
- involves completion of a thesis that creates knowledge in a specific research area

Units and Programs



Department of Animal Biosciences

Focuses on the ethical and sustainable production of food, and other animal products, that improve the health and well-being of people. Graduate training focuses on basic and applied science related to the feeding, breeding, housing and care of animals used by humans.



MSc Animal Biosciences

Top ranked program with access to state-of-the-art training and facilities.



Department of Food, Agricultural and Resource Economics

Focuses on the economics of the food system and bringing research discoveries to bear on relevant policy issues. Graduate training focuses on emphasizing the application of contemporary theories and state-of-the-art methods to support evidence-based policy decision making.



Master of Food, Agricultural & Resource Economics

Professionally oriented master's using economic principles to address diverse problems.



MSc Food, Agricultural & Resource Economics

Applies contemporary theories and tools to train future research and policy leaders.



Department of Food Science

Combines microbiology, sensory analysis, biochemistry, chemistry, physics and engineering to enhance the quality, safety, functionality and nutrition of foods. Graduate training focuses on food safety, quality, sensory analysis, preservation, packaging and function.



MSc Food Safety and Quality Assurance

Home of the Canadian Research Institute for Food Safety.



MSc Food Science

Best food science program of its kind in Canada.



Department of Plant Agriculture

Applies plant biology in an interdisciplinary research environment focused on agronomy, horticultural science and turfgrass crops. Graduate training has four areas of focus: plant genetics and breeding, plant physiology and biochemistry, crop production systems, and bioproducts.



MSc Plant Agriculture

Canada's largest and most diverse plant biology department.



School of Environmental Design and Rural Development

Brings together academic fields concerned with creating strong communities: landscape architecture, rural planning and development, and capacity development and extension. Graduate training focuses on building communities where everyone plays an interdependent role.



MSc Capacity Development & Extension

Professionally oriented, the only MSc of its kind in Canada.



Master of Landscape Architecture

Accredited by the Canadian Society of Landscape Architects.



Master of Rural Planning & Development

Program can be used as part of the Prior Learning Assessment route to Accreditation.



MSc Rural Planning & Development

Accredited by the Canadian Institute of Planners.



School of Environmental Sciences

Integrates the life and physical sciences to address important environmental problems in forest, aquatic and agro-ecosystems. Graduate training focuses on critical environmental issues and processes related to the lithosphere, atmosphere, hydrosphere and biosphere.



Master of Environmental Sciences

Integrates both the natural and physical sciences.



MSc Environmental Sciences

Ranked as a top environmental sciences program in Canada.



Interdisciplinary Program

A new collaborative program between the Department of Food, Agricultural and Resource Economics and Department of Food Science launched in 2022.



Master of Dairy Technology Management

The first of its kind, a professionally oriented course-based program that combines aspects of dairy science and technology, management of operations, food safety and quality assurance and marketing and business management.



Additional programs are in development with career destinations in mind

Who are OAC Master's Alumni?

Between September 1st, 1999 and August 31st, 2019, there were 3,351 master's graduates from OAC's academic units.

OAC Master's Graduates by Academic Unit

3,351 Graduates, 1999-2019

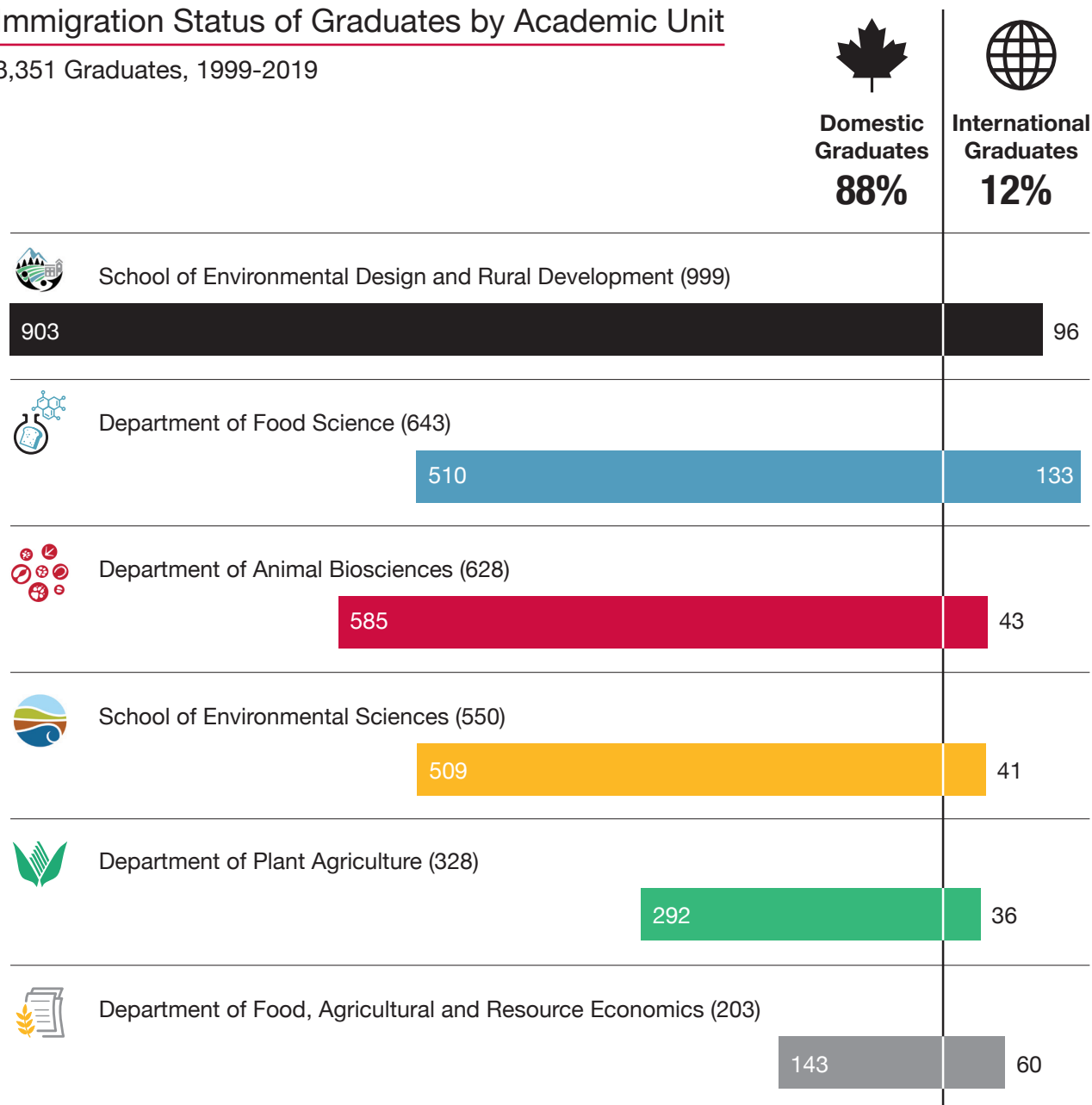


* Due to the limitations of available historical data, we regret that non-binary gender classifications are not reported in this study.

The proportion of international master's student enrolments in OAC has increased steadily from 9% in 2010 to 17% in 2021. The increase in international enrolment highlights OAC's excellent reputation and demonstrates the global value and applicability of skill sets gained from an OAC master's degree.

Immigration Status of Graduates by Academic Unit

3,351 Graduates, 1999-2019



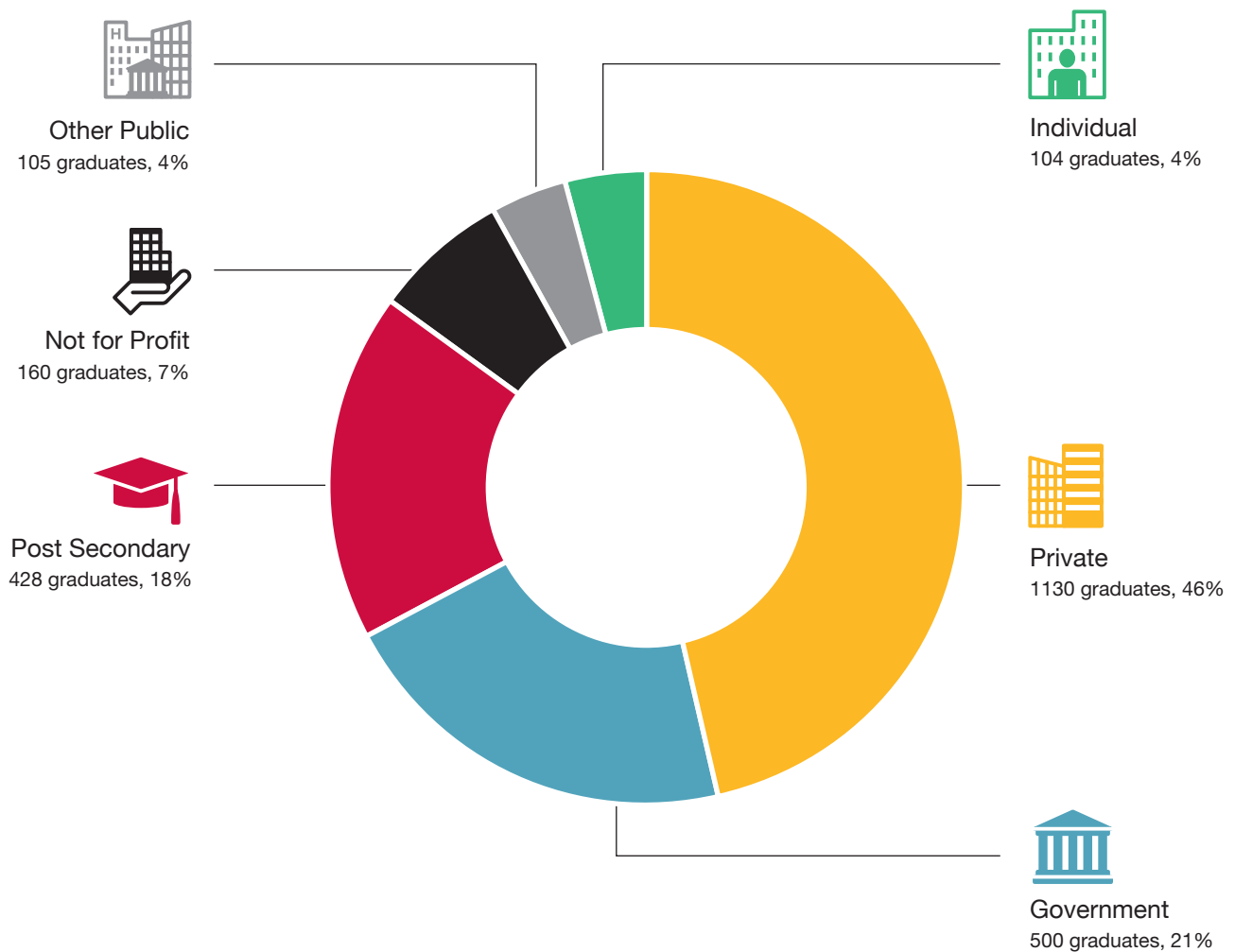
112% increase in international master's students over 11 years

Where Do They Work?

Identifying the career pathways of our master's graduates highlights their broad aptitudes and the many ways in which they have been able to apply their skills and expertise.

Career Destinations of OAC Master's Graduates

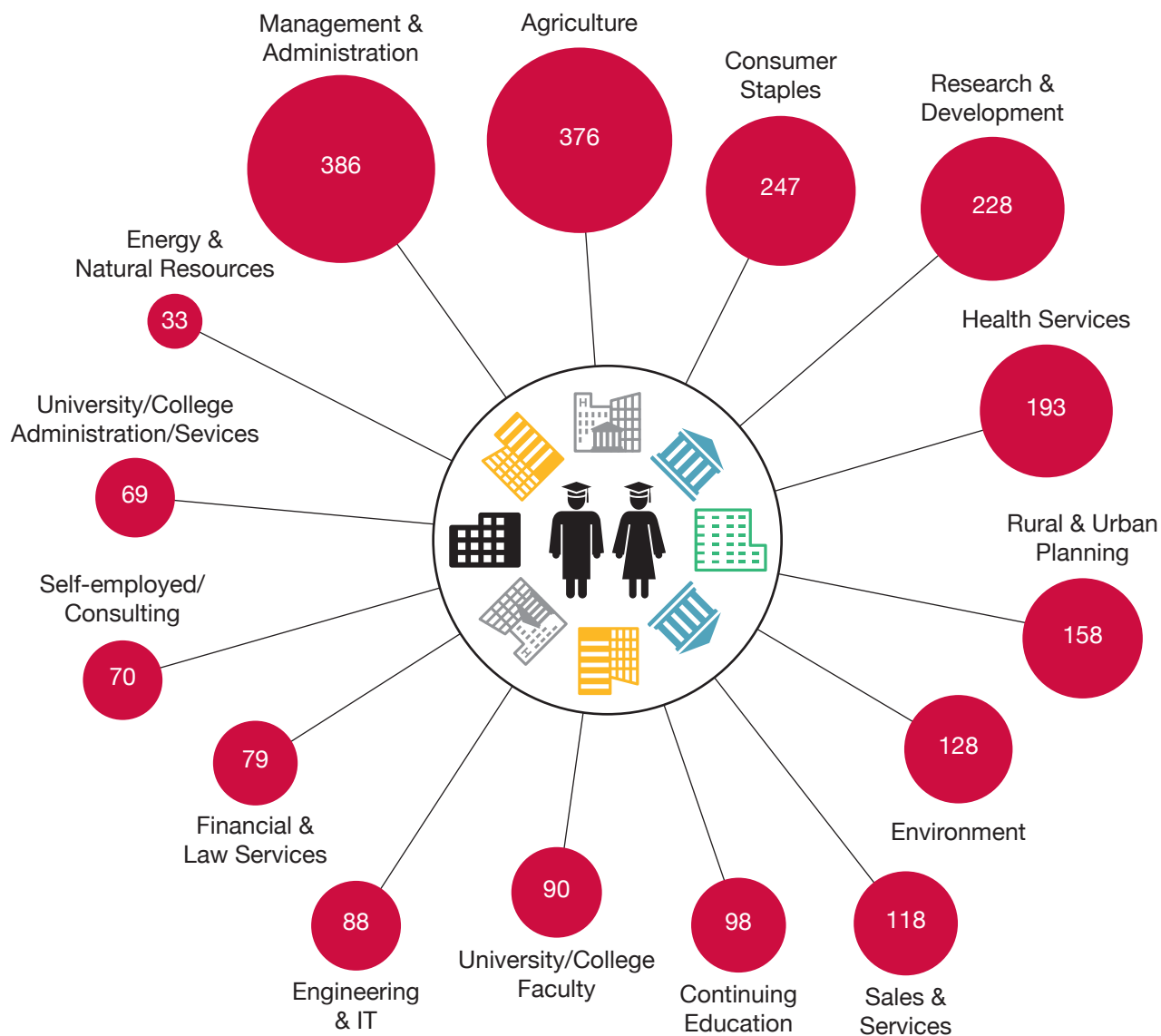
2,427 Graduates, 2018-2019 by Employment Sector



Master's graduates from all OAC academic units are employed in all 6 sectors.

Employment Job Categories - Top 15

2,427 Graduates, 2018-2019 by Job Category



9 Circles sized according to number of graduates
 — Number of graduates in job category.

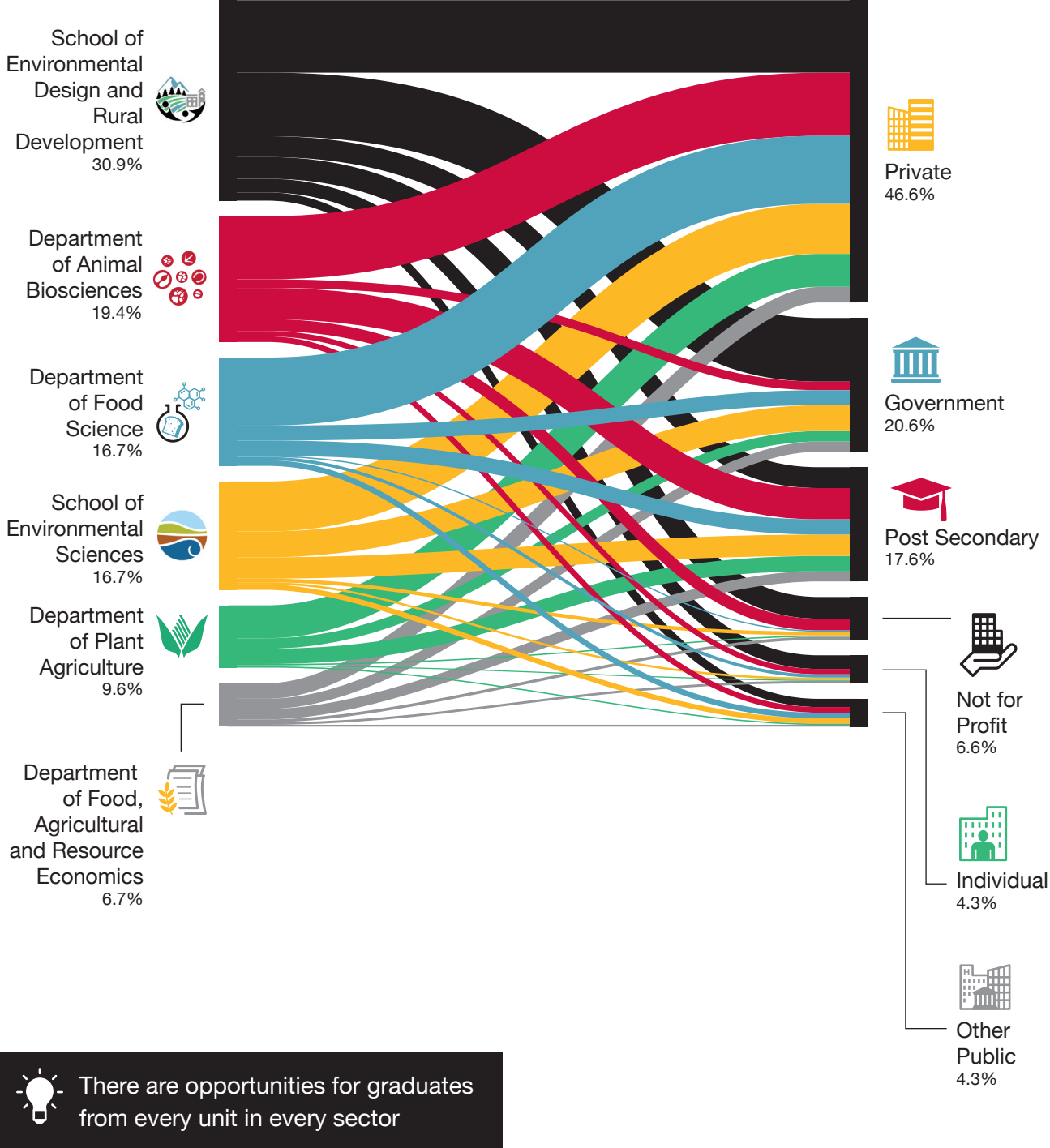
Top 10 Job Titles

2,427 Graduates, 2018-2019

- Manager
- Research Associate
- Planner
- Specialist
- Director
- Technician
- PhD Candidate
- Consultant
- Landscape Architect
- Project Manager

Employment Sector of OAC Master's Graduates by Academic Unit

2,427 Graduates, 2018-2019



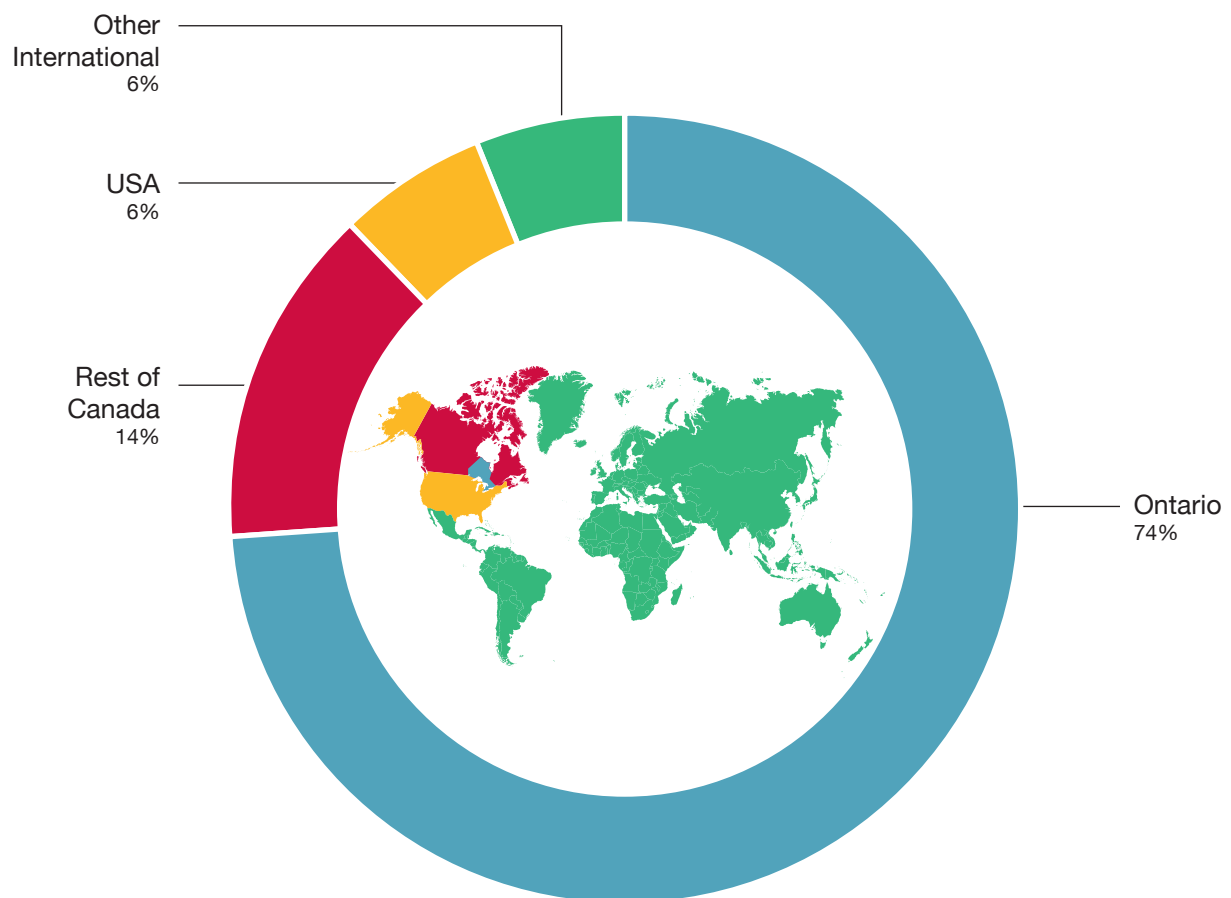
Of the alumni located in this study, 12% are working internationally in countries like China, New Zealand, Pakistan, the United Kingdom and the United States.

50% of internationally employed graduates are working in the United States, primarily based in California, Minnesota, North Carolina and New York.

Many graduates (74%) chose to remain in Ontario after graduation, however 14% have taken employment in other Canadian provinces.

Employment of Graduates by Location

2,427 Graduates, 2018-2019



Final Thoughts

Given the need for expert knowledge and the integration of research and innovation in all aspects of today's economy, the skills and expertise of our master's graduates are in demand in all sectors.

The breadth and depth of the career variation illustrates that our master's alumni have the skills to excel in academia, corporations, organizations, government and entrepreneurship.

Forthcoming reports from the OAC Master's Destinations Project will illustrate in more detail the distinct career pathways of graduates from each of our academic units and specific occupations within each sector.

OAC master's degrees enable students to engage with world renowned faculty, knowledge, and research to Improve Life.

OAC's master's degrees are designed to meet the rapidly growing demand for highly qualified critical thinkers and advance careers. Students build on their undergraduate degree and/or work experience with OAC's suite of diverse and valuable professional and research-based master's graduate programs.

Our graduate programs allow students to engage in agricultural technologies and sustainability, innovations in research, advancements in environmental science and practice, food science, food safety and quality assurance systems, and in creating sustainable communities.

Why Study at OAC?

There is growing worldwide demand for our graduates in agri-food and related sectors.

Five reasons why OAC is the place to pursue a master's degree:

1. Tackle some of the most important challenges facing our world
2. Job opportunities are in abundance
3. Work with innovative technologies
4. Study a range of interdisciplinary subject areas
5. Join a community with a shared vision to Improve Life



Find out more about the opportunities and experiences available to you through the [OAC Graduate Studies Viewbook](#).



Interested in our programs? Contact us at gradinfo@uoguelph.ca