

Western University

Career Outcome Public Report 2015-2020

The Value of Western's PhD:
Impact to Canada and the World

Western  Graduate & Postdoctoral Studies

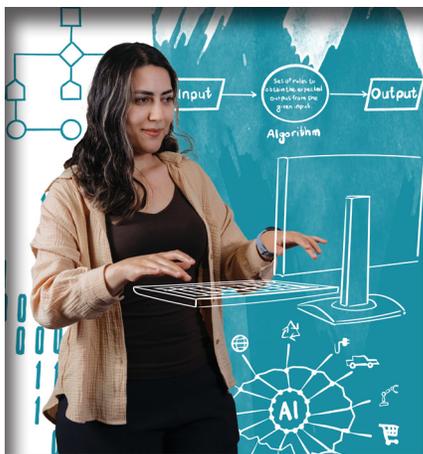
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Introduction

This report presents the findings from Western University's PhD Career Outcome Project, which examined the career trajectories of 1,986 PhD graduates who completed their degree between January 1, 2015, and December 31, 2020. Notably, about 15% of these graduates entered the job market just as the COVID-19 pandemic began, facing unprecedented challenges in their career search.

Western's PhD graduates spanned 51 PhD programs across 11 Faculties. The number of graduates remained consistent over the six-year period, ranging from 313 to 348 annually.



Purpose and Motivation

Western launched this project to better understand and communicate the career landscape of its graduates – both within and beyond academia. The insights gained will:

- Inform students, faculty, and graduate programs.
- Support graduate recruitment, curriculum development, professional development, and career planning.
- Highlight the value of Western's PhD across diverse sectors across Canada and around the world.

Broader Impact of PhD Graduates

In a rapidly evolving world, PhD graduates are highly qualified personnel who play a vital role contributing to the social, economic, and cultural well-being of society. This report adds to the national dialogue on PhD career outcomes, addressing key questions such as:

- In which sectors do graduates contribute and how does this vary by discipline?
- What percentage of PhD graduates obtain tenure-track academic positions?
- How are graduates geographically distributed?
- What proportion of graduates concurrently hold more than one job?

This final question emerged during data collection, as we encountered challenges in identifying a single 'primary' job for graduates reporting concurrent positions.

Methodological Approach

Our methodology was informed by Canadian PhD career outcome public reports created over the past decade, particularly those from the [University of Toronto](#) and the [University of British Columbia](#).

Our study protocol was reviewed by Western's Research Ethics Office and classified as a Quality Improvement/Quality Assessment project. The project did not include contacting any of the graduates, and relies on a combination of institutional data and publicly available online information.

The School of Graduate and Postdoctoral Studies provided the following institutional data for each graduate: name, gender, program, faculty, date of degree completion, convocation date.

Between July 2021 and February 2022, the Lead Data Analyst and Project Manager, along with a team of five paid research assistants (referred to herein as 'searchers'), conducted internet-based searches to gather career-related information for the 1,986 PhD graduates. The search excluded the small number of law PhD graduates as their number was so small that it was not possible to ensure anonymity, and individuals who had passed away.

A comprehensive training document was created to ensure reliability and consistency of search strategies and coding. A Microsoft Teams site was created to provide a venue for searcher questions and to note any discrepancies, both of which were addressed at weekly meetings. Regular audits were conducted by pulling random data from different searches.

The searchers were instructed to record the number of positions held by graduates concurrently at the time of collection (2021-2022) and, where possible, to identify multiple sources for each career outcome. In many cases, we were unable to determine if positions were full-or part-time or if one of the positions was considered 'primary'.

On average, the searchers spent approximately 30 to 60 minutes searching for evidence of career outcomes per graduate. Primary sources of LinkedIn, Google Scholar, and Research Gate provided most of the initial insights into graduates' career and educational paths. This information was then used to conduct more targeted searches, such as reviewing company directories and other online resources.

Qualtrics was used by the searchers to record information collected, and the data were then exported to a Microsoft Excel spreadsheet.

We successfully identified the current (2021) employment status - employed, not employed, or pursuing further education - for 86% of the total number graduates (N=1,717). As with all career outcome studies, the accuracy of this information depends on graduates and other public sites maintaining complete, accurate, and up-to-date online profiles.

This report includes career information found on only one online site and that could not be substantiated by a second, independent online source. Single-source information amounted to about 10% of the career information collected. Our view is that we are using publicly available information, and it is not possible to establish the validity/accuracy of any of the information identified. Indeed, two independent posts could have obtained information from the same source, and we would never be able to ascertain that. Our approach to the use of publicly available information is to acknowledge the limitations and choose to respect the information provided at face value.

Portrait of Western's PhD Graduates

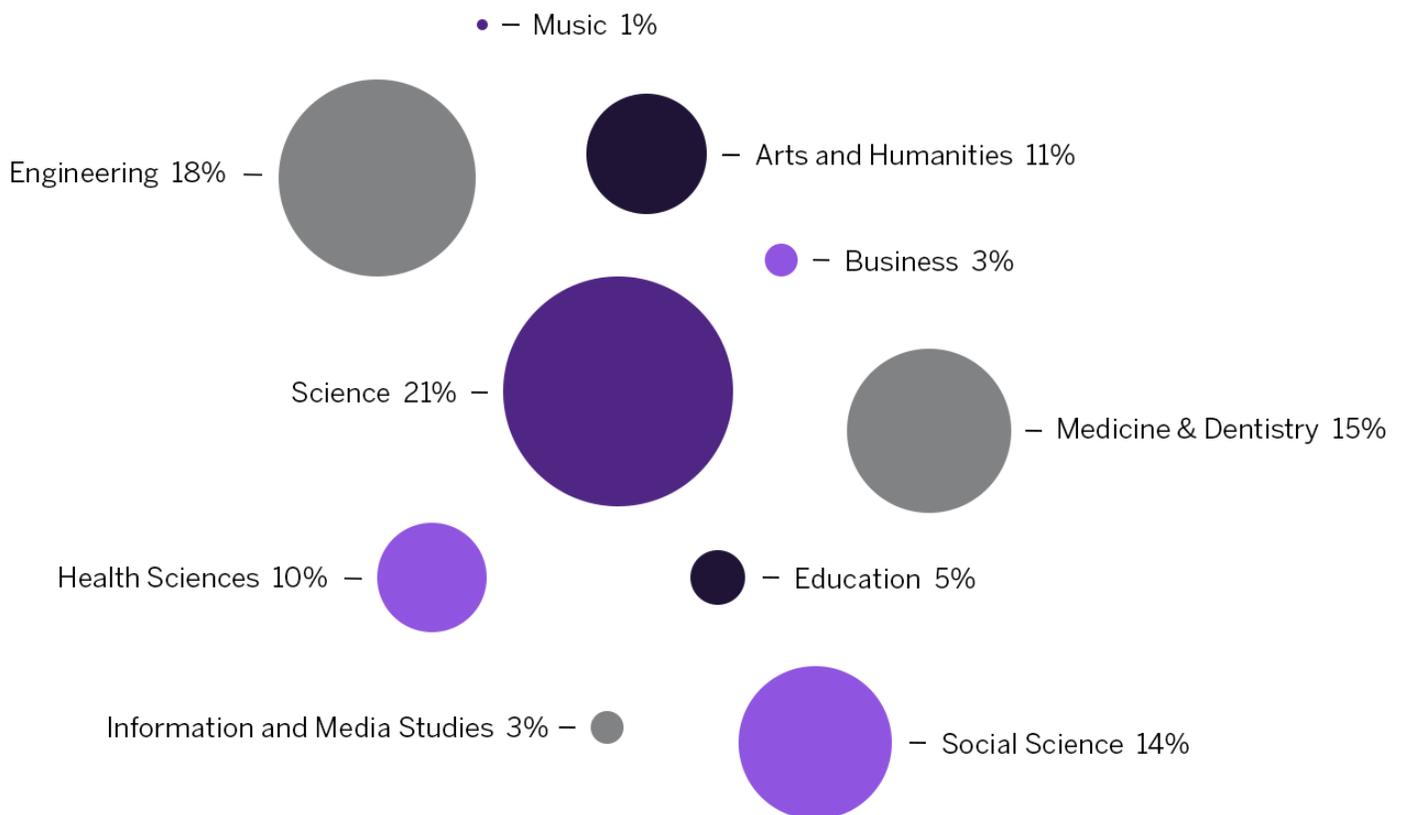
Below we provide an overview of our graduates, followed by a career profile that focuses on their current occupation(s).

(1) Who are our graduates?

As shown by other outcome projects, the disciplines offered by a particular university influence the scope of graduates' career outcomes. As such, we have looked at outcomes by Faculty or discipline-cluster.

Our total sample of PhD graduates varies considerably in terms of disciplinary representation, with only 1% of the sample being graduates of the Faculty of Music and 21% being graduates of the Faculty of Science. Just over half (54%) of our graduates are from more traditional stem disciplines found in the Faculties of Science, Engineering and Schulich School of Medicine & Dentistry, with the remainder enrolled in a variety of graduate programs across the arts, humanities, social sciences, and business disciplines.

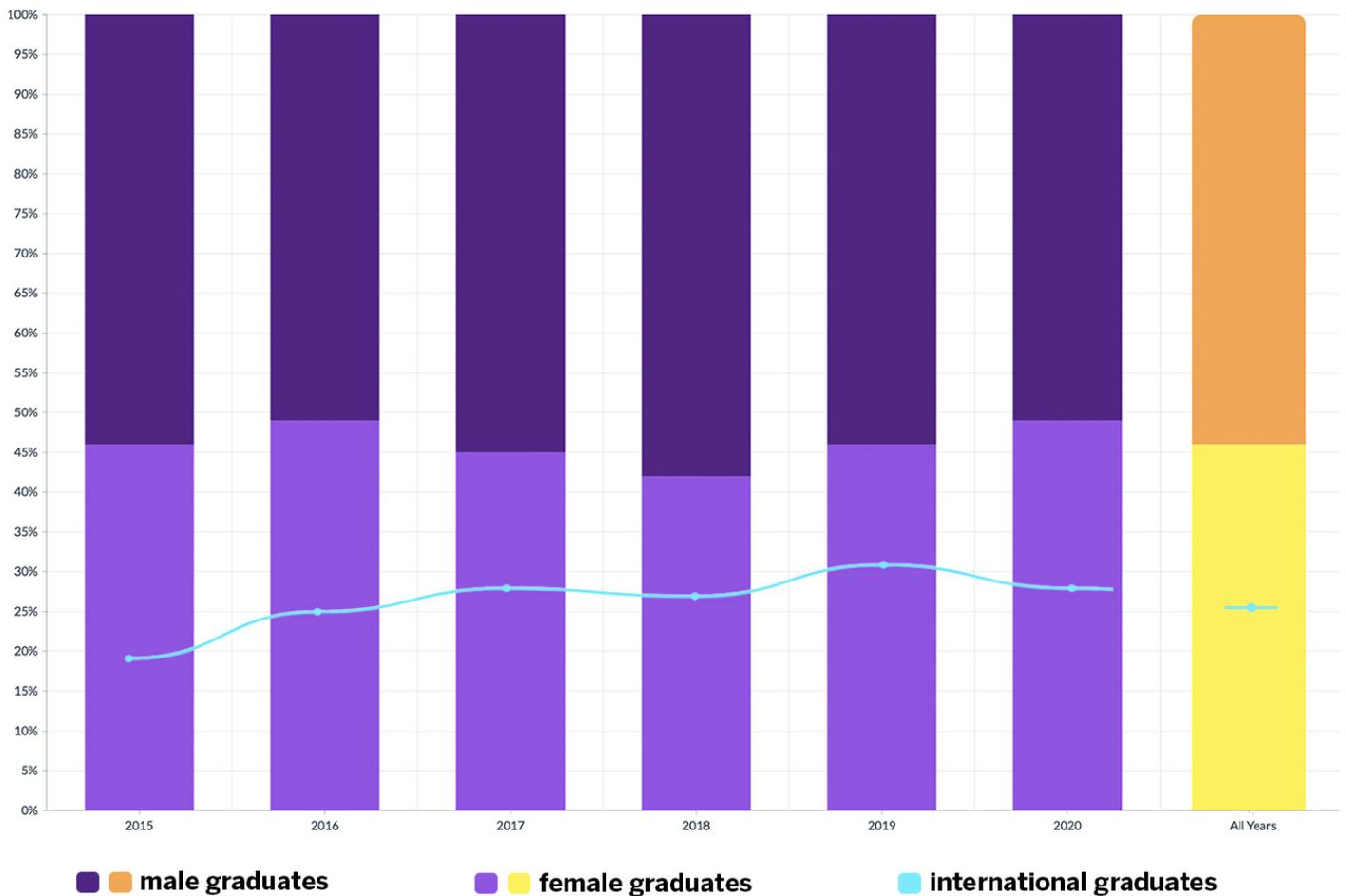
Distribution of PhD graduates by Faculty



In total, between 2015 and 2020 just over three-quarters of the PhD graduates were domestic (i.e. Canadian Citizens or Permanent Residents)¹. The representation of international graduates was greatest in Engineering (42%) and Science (36%).

During this time, slightly more men (54%) than women (46%) graduated with their PhD degree. The percent of male and female graduates varied by Faculty: men dominated in Engineering (74%) and Science (59%), whereas women dominated in the Faculties of Education (78%) and Health Science (69%), while other Faculties were closer to having equal distribution.

Gender and Residency Status of PhD Graduates by Graduating Year

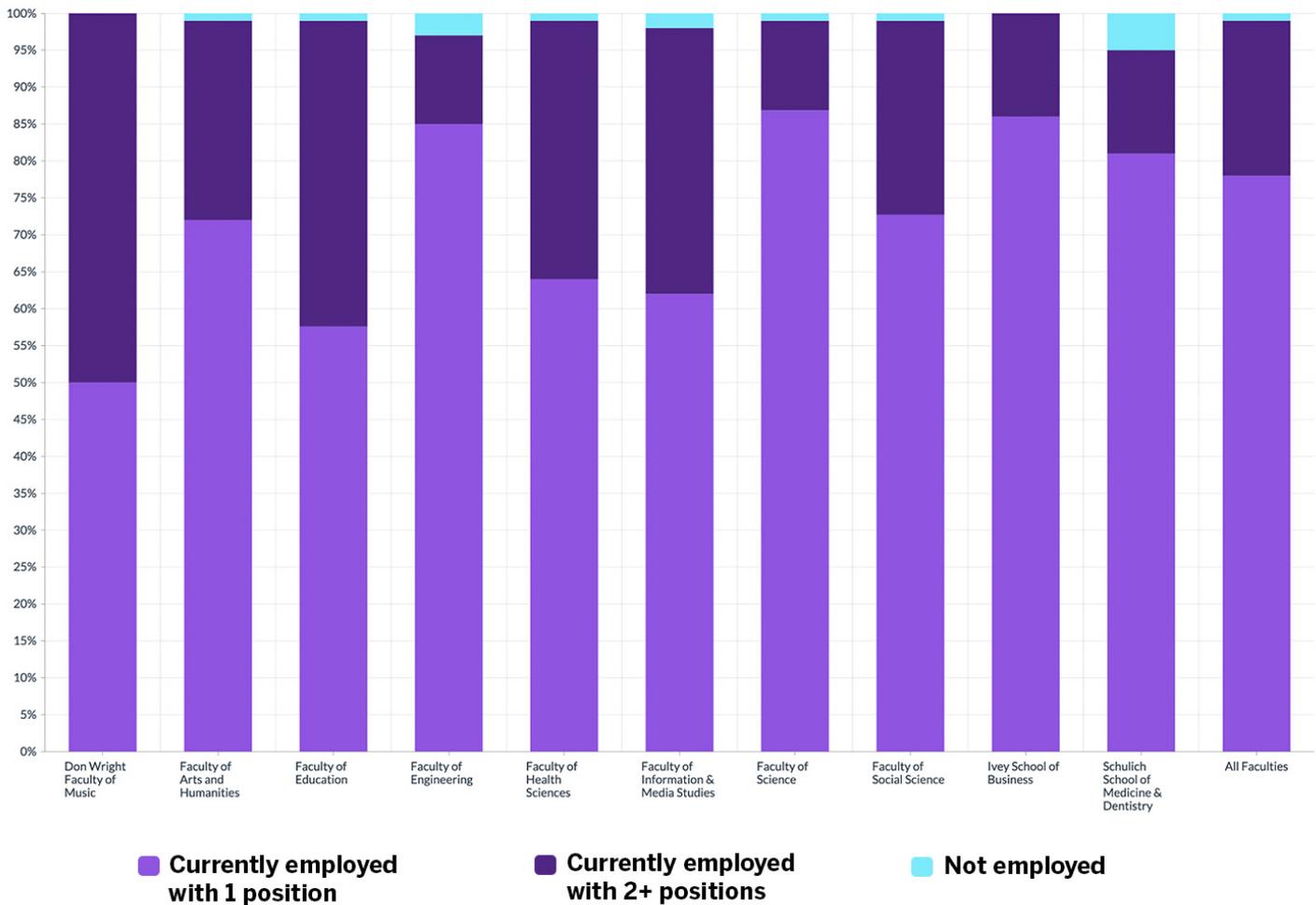


¹ Residency status was determined at the time of degree completion.

(2) What does the career landscape look like?

As other institutions have found, with few exceptions, our graduates are employed. In addition, we have found that many are employed in more than one position, a finding that varies across Faculties, with concurrent occupations being less frequent among graduates of the Faculties of Engineering, Science, the Schulich School of Medicine & Dentistry, and the Ivey School of Business.

Employment Status of PhD Graduates by Faculty²



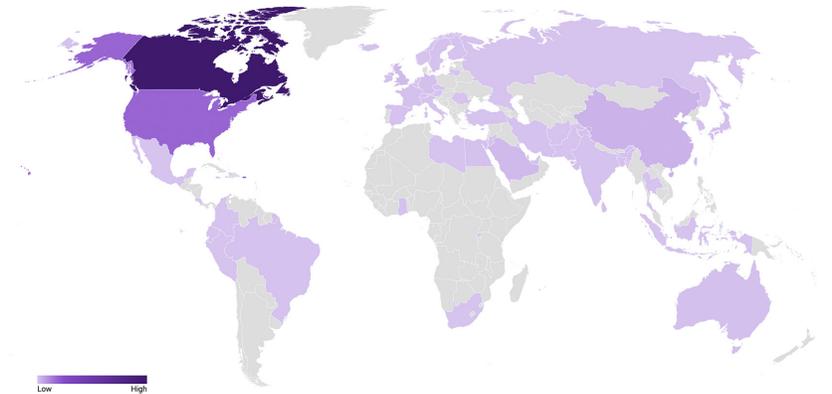
² Faculty of Law graduates and those who have passed away are not included. "Currently employed" includes full-time and part-time employment in any sector and postdoctoral positions. "Not employed" consists of graduates seeking employment, graduates who are retired, graduates engaged in family care only, and graduates pursuing further education.

(3) What is the domestic and global impact?

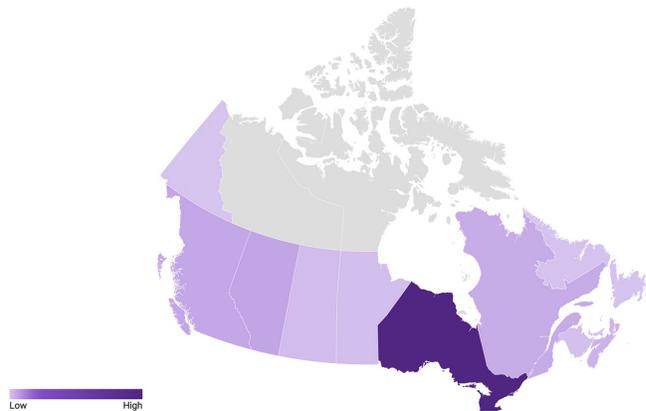
Our graduates are employed across the globe, with most remaining in Canada. Almost half of our international graduates are employed in Canada

Within Canada, our graduates are spread across the country with the exception of the Northwest Territories and Nunavut. Most continue to stay in Ontario.

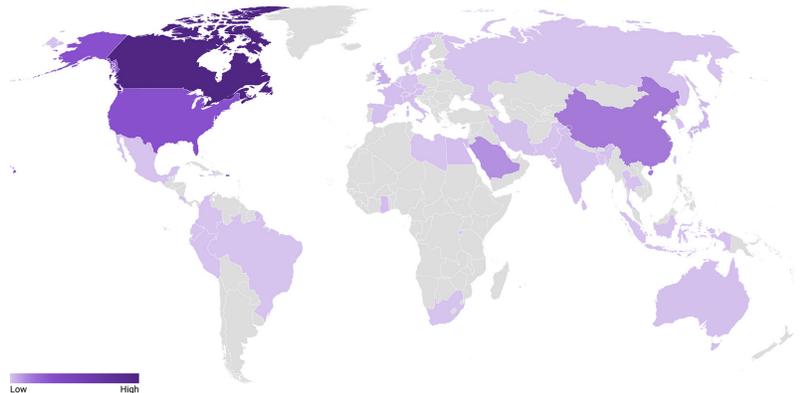
Current Employment Location by Country



Current Employment Location within Canada



Current Employment Location of International Graduates



(4) What sectors of the labour market are Western's PhD graduates contributing to?

Over half of our graduates report working in the Post-Secondary Education (PSE) Sector, and the remaining are distributed across the Public, Private, Charitable, and Individual Sectors. (See Appendix for definitions.)

The PSE Sector dominates across all Faculties. Notably the Private Sector dominates for Faculty of Engineering graduates and is a strong secondary employment sector for graduates from the Don Wright Faculty of Music, the Faculty of Arts and Humanities, Science, Social Science, and the Schulich School of Medicine & Dentistry. For the Faculty of Education, the secondary sectors are the Public and Individual. The Individual Sector is a secondary employment sector for graduates from the Don Wright Faculty of Music, and the Faculty of Arts and Humanities.

	Post-Secondary Education	Public	Private	Charitable	Individual
Don Wright Faculty of Music	Primary	Tertiary	Secondary	Tertiary	Secondary
Faculty of Arts and Humanities	Primary	Tertiary	Secondary	Tertiary	Secondary
Faculty of Education	Primary	Secondary	Tertiary	Tertiary	Secondary
Faculty of Engineering	Primary	Tertiary	Primary	Tertiary	Tertiary
Faculty of Health Sciences	Primary	Secondary	Tertiary	Tertiary	Tertiary
Faculty of Information and Media Studies	Primary	Tertiary	Tertiary	Tertiary	Tertiary
Faculty of Science	Primary	Tertiary	Secondary	Tertiary	Tertiary
Faculty of Social Science	Primary	Tertiary	Secondary	Tertiary	Tertiary
Ivey School of Business	Primary	Tertiary	Tertiary	Tertiary	Tertiary
Schulich School of Medicine & Dentistry	Primary	Tertiary	Secondary	Tertiary	Tertiary
All Faculties	Primary	Tertiary	Secondary	Tertiary	Tertiary

 Primary sector³
 Secondary sector⁴
 Tertiary sector⁵

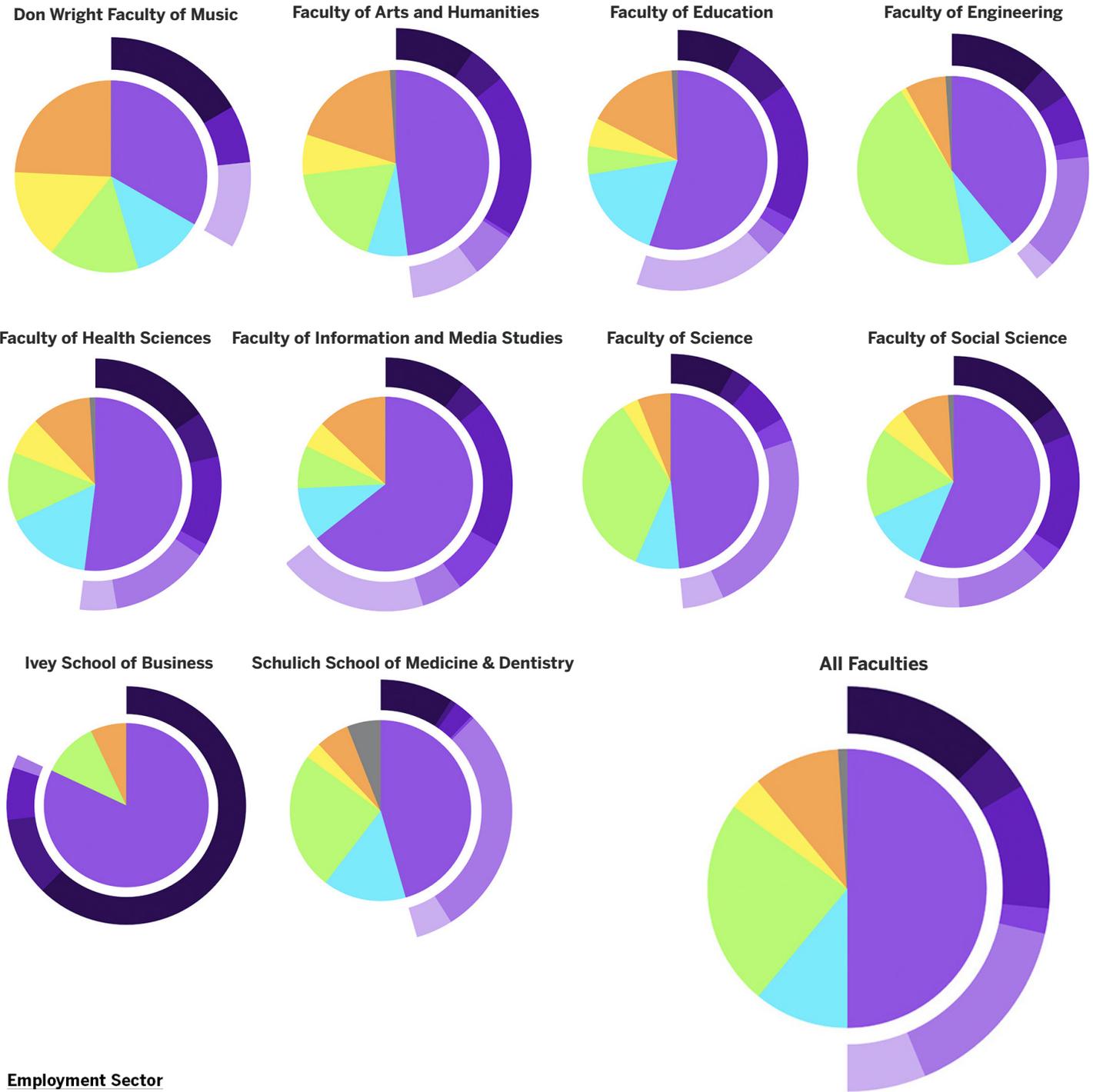
³ Primary sector refers to sectors in which more than 40% of graduates are employed.

⁴ Secondary sector refers to sectors in which 20%-39% of graduates are employed.

⁵ Tertiary sector refers to sectors in which less than 20% of graduate are employed.

PSE Graduates by Employment Sector and PSE Position Types

(See Appendix for definitions.)



Employment Sector

- Post-secondary education
- Public
- Private
- Charitable
- Individual
- Other

PSE Position Type

- Research-intensive faculty
- Teaching-intensive faculty
- Term faculty
- Associate researcher
- Postdoctoral fellow
- Other

Summary

Our career outcome report contributes to the growing body of evidence affirming the strong employability of PhD graduates. It highlights not only their success in securing employment, but also their domestic and global impact across all labour market sectors.

The distribution of career outcomes—within the post-secondary and other sectors—is closely tied to the disciplinary makeup of PhD programs within the institution, with distinct patterns emerging across different Faculties. A key insight from our report is the proportion of graduates engaging in concurrent careers. The concurrent careers trajectory merits greater attention in future analyses of PhD outcomes.



APPENDIX

Definitions

PhD Graduates or Graduates – individuals that were awarded a doctoral degree from Western. The date of their completion is based on the date they completed their degree requirements (not the date of their convocation).

Year – year based on the date the student completed their degree requirements.

Employment Sectors

Charitable Sector – also known as not-for-profits, employed at an organization whose primary function is philanthropy, are based on charitable donations, and rely heavily on volunteers. Cannot be owned or operated by the government but can be funded by the government. Some American hospitals are considered not-for-profit (typically Children's hospitals).

Individual Sector – the individual either owns the business, gets independently contracted by other businesses (i.e., self-employed).

Other Sector – employment with no sector information available, or employment in an internship/residency, or an employment jointly tied to a post-secondary institution and a university-affiliated hospital.

Post-Secondary Education (PSE) – employed at a university or college.

Post-Secondary Education Subsectors:

- **Associate Researcher** – a research-focused position typically working in collaboration with, and receiving direction from, a supervising faculty member.
- **Research-Intensive Faculty** – tenure-track position with evidence of research at a PhD granting institution.
- **Teaching-Intensive Faculty** – tenure-track positions in which teaching constitutes the core responsibility, either within PhD-granting institutions where the focus is primarily instructional, or at institutions without PhD programs where research expectations are limited but still present.
- **Term Faculty** – faculty positions that are not permanent and include evidence of teaching. Adjunct appointments were included if there was evidence (e.g. through the collective agreement) that the institution pays individuals in an adjunct position. It does not include adjunct positions that are considered honorary, or those where a small remuneration/honorarium is provided.
- **Postdoctoral Fellow** – a temporary research position after completing a PhD in order to receive additional training and research experience, usually under the supervision of a researcher or professor, before moving on to a more permanent academic, industry, or government research role.

Private Sector – employed within a profit-driven organization that is owned and operated independently of government.

Public Sector – employed at a government, government-funded agency, a Crown corporation, public hospital, non-hospital health care that is explicitly stated to be publicly funded (e.g. OHIP or equivalent covered).

Acknowledgements

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