McGill | TRACE
TRACK REPORT CONNECT EXCHANGE

Executive Summary

The TRaCE McGill Project

TRaCE McGill is a university-wide project that tracks the career outcomes and pathways of McGill PhD alumni who graduated between 2008 and 2018. Led by a team at Graduate and Postdoctoral Studies and graduate student researchers, TRaCE McGill not only gathered **statistical information** on over 4,500 PhD graduates, but also **interviewed** over 300 of them across all faculties. TRaCE McGill's focus on both quantitative and qualitative knowledge shows how a doctoral degree can lead to a multiplicity of successful, socially valuable, and personally fulfilling careers in a variety of sectors both inside and outside academia. As part of its legacy, TRaCE McGill is also building a **mentoring community** of PhD graduates who are committed to helping doctoral students and recent grads find their own career pathways.

This executive summary presents the **main highlights** of the project's methods and findings. For more detailed information, please consult the full statistical report **here** and visit our website for all the **published narratives.**

TRaCE McGill's integration of statistical data, narrative knowledge, and community building is unique in the world among PhD tracking projects.

TRaCE McGill in Numbers

Over **4,500**
McGill PhD grads who graduated between 2008 and 2018 (inclusive) were tracked

Over **300**
PhD grads interviewed across all faculties

Over **100**
narratives published by spring 2021

Over **70**
alumni volunteers for webinars, workshops, and mentorship

Collecting the Data

> *As a research-intensive university, McGill offers close to 150 doctoral programs in 10 faculties. McGill also has the highest percentage of PhD students of any Canadian university.*

TRaCE McGill builds on the methodological know-how acquired during two previous nationwide projects, the TRaCE pilot project (2016-2017) and TRaCE 2.0 (2018-2019). Combined, these two initiatives tracked over 4,500 and interviewed over 330 PhD grads in the humanities, social sciences, and fine arts from 25 Canadian universities[1].

Quantitative study

The **TRaCE McGill** quantitative study successfully tracked over 88% of all 5,523 alumni who earned their PhD at McGill from 2008 to 2018 inclusive (the "cohort"). Reliable and complete data was collected for 4,446 graduates, and partial data for 191 graduates. No data was found for 616 grads, or about 12%.

The first tool used for data collection was a survey sent to our study cohort in the summer of 2019, yielding 645 responses[2]. Survey respondents gave us precious information about their current employment, location, and level of satisfaction with their professional situation. Building on this data, a team of 14 graduate student researchers representing each faculty tracked the PhD graduates by searching publicly available data from institutional and other professional websites.

Student researchers followed strict guidelines for their data collection and used a standardized taxonomy to categorize each graduate's employment. For instance, graduate researchers were instructed to categorize academic positions as non-tenure track by default if they had doubts about a position's tenure status. More information on our methodology can be found in our **complete statistical report**.

Narratives

The unique contribution of the TRaCE project rests with its focus on **telling the individual stories** of the PhD graduates and collecting qualitative information that goes beyond the numbers and statistics. Why did McGill grads choose to do a PhD in the first place? What was the role of their graduate studies? How did their career pathways unfold? These were some of the questions answered by over 300 PhD alumni who shared their unique stories with a graduate student from their respective faculty. The interviews were conducted by 17 graduate students over the winter and summer of 2020.

A team of four graduate student editors was in charge of transcribing and editing as many interviews as possible over the course of the study; they will complete over 100 published narratives by spring 2021. While we present a few excerpts in this summary, we encourage readers to appreciate the narratives in their full version **here**.

1 The TRaCE pilot project tracked 2,700 PhD grads in the humanities from 24 Canadian universities. TRaCE 2.0 expanded on the TRaCE pilot project by tracking 1,818 PhD graduates in the humanities, social sciences, and fine arts from 8 Canadian universities. Both projects conducted over 330 interviews combined. Click here for the full quantitative and qualitative reports. All the published narratives of TRaCE Pilot and TRaCE 2.0 can be found here.

2 The survey was elaborated and administered through the McGill office of Analysis, Planning and Budget (APB).

Key Findings

Global highlights

- 60% of McGill PhDs graduated in Medicine, Science or Engineering (see Figure 1).
- Most graduates work in academia (54%), followed by the for-profit sector (28%) and the government (8%) (see Figure 2).
- Among all the graduates who are employed (in any sector), 23% have tenure-track jobs.
- 59% of the study cohort work in Canada and 34% in Quebec.
- While domestic students are more likely to find work in Canada after they graduate (65%), a third (33%) of former international students now work for Canadian companies and institutions.
- A slight majority (54%) of PhD graduates are men.

FIGURE 1
The proportion of McGill doctoral graduates by faculty

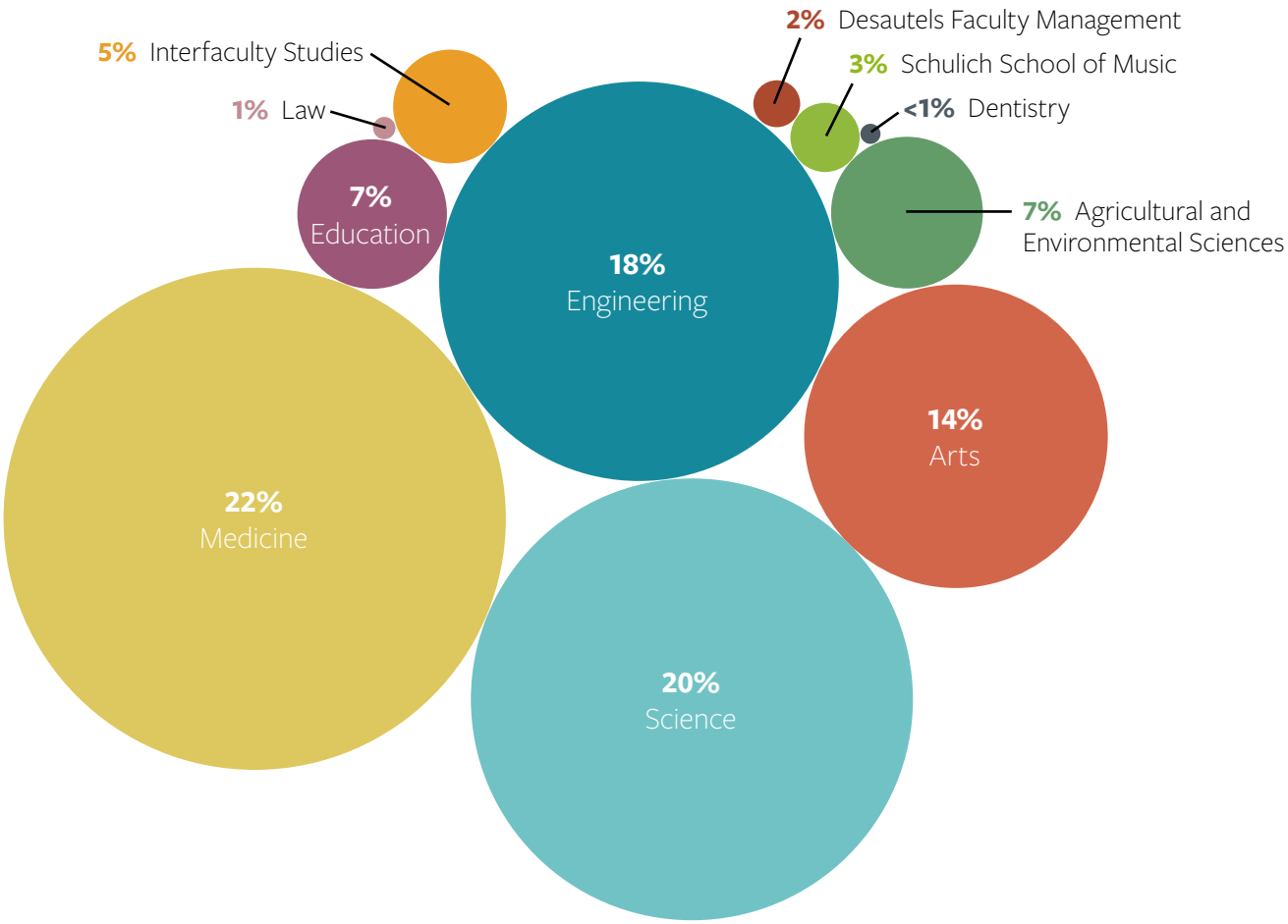
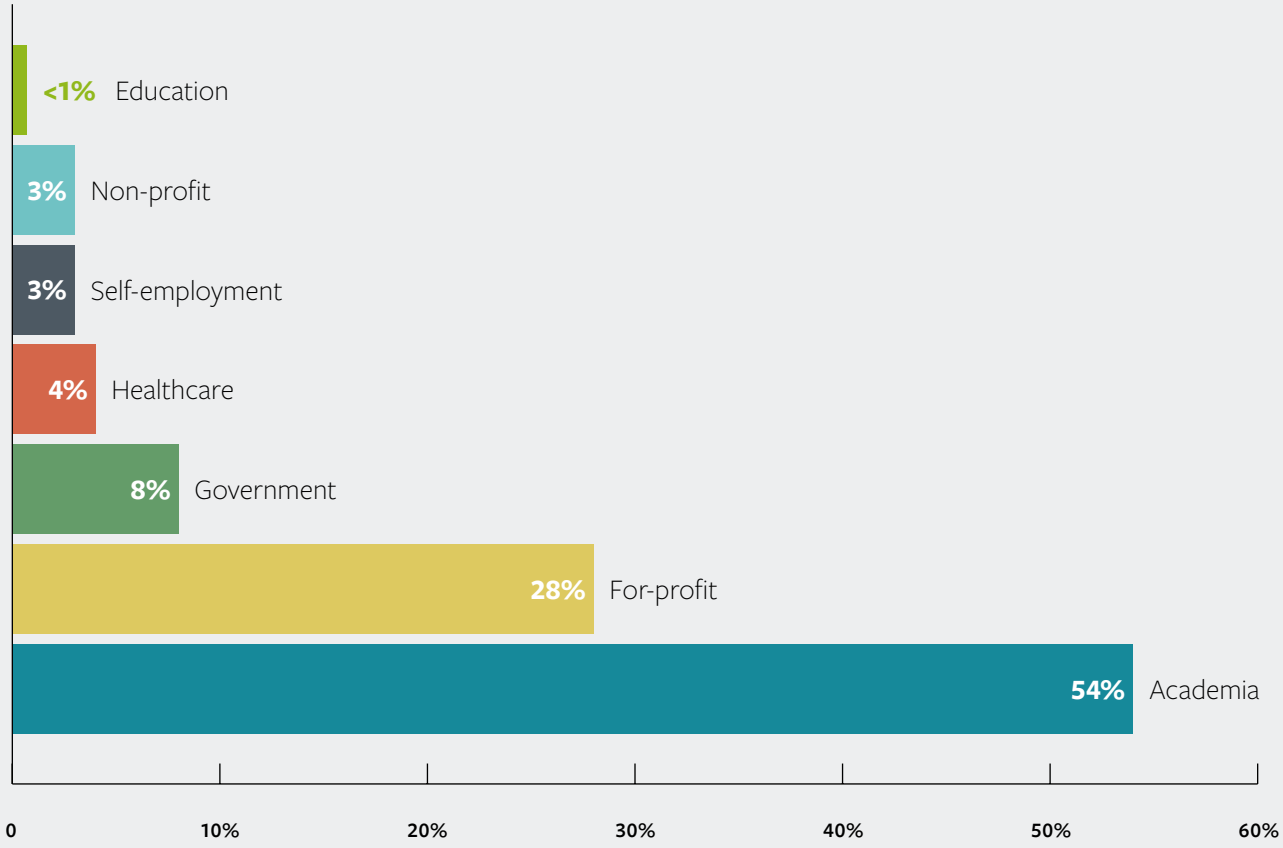


FIGURE 2
Proportion of graduates in each sector of employment



In their own words

ON FINDING AN ACADEMIC JOB

"It was a long process. It took me about six years of postdoc work to land a faculty position. [...] If you look at the data, women make up such a huge proportion of undergraduates and graduate students. Then there are fewer women when you look at assistant professors, associate professors, and full professors. [...] I believe that you can achieve anything if you work hard and you do a good job and you do good science. What matters is the science, not who you are, what your name is, what you look like—that's all arbitrary."

Nafisa Jadavji (PhD in Human Genetics, 2012), Assistant professor at Midwestern University

In their own words

A PATH TO PROFESSORSHIP

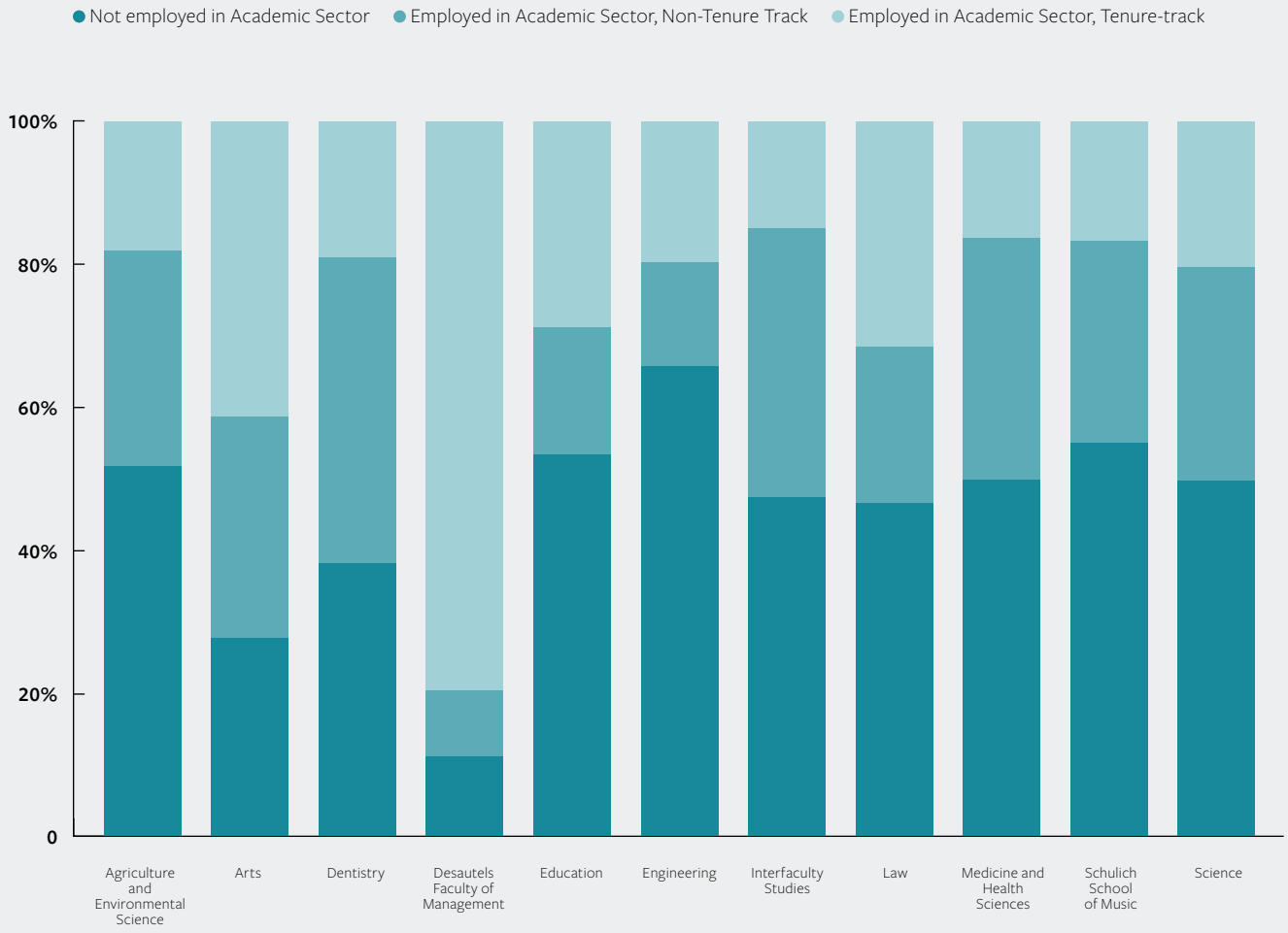
"I started getting requests to do sessional teaching at the University of Saskatchewan in music history and, as it turned out, I really, really enjoyed teaching. So I decided that, instead of trying to get a permanent higher-level arts administration job, I would do a PhD in musicology and see if I could actually become a professor."

Colette Simonot-Maiello (PhD in Musicology, 2011), Assistant Professor, University of Manitoba

Employment in Academia

- A slight majority of the cohort (54%) work in academia (including universities, colleges, CEGEPS and university research centres and institutes).
- Women are employed in the academic sector at slighter higher rate (57%) than men (51%).
- Of the grads working in academia, 43% are in a tenure-track position.
- The rate of tenure-track jobs is the same among men and women.
- The proportion of graduates in tenure-track positions is similar across faculties, except for the Desautels Faculty of Management and the Faculty of Arts, which both have higher rates of tenure-track placement (see Figure 3).

FIGURE 3
Percentage per faculty of graduates working in and outside academia, with and without tenure-track jobs



For-profit sector

- Among the employed graduates, 28% work in the for-profit sector – 44% as experts, 26% as non-academic researchers, 18% in management or policy positions, 5% in administration and 6% as artists, in communication, sales, as teachers or post-docs in for-profit organizations.
- Graduates from the Faculty of Arts are the least likely to work in the for-profit sector while graduates from the Faculty of Engineering are the most likely (see Figure 4).
- Overall, within the for-profit sector, most of the graduates are working for employers whose main fields are related to STEM or health and life sciences.

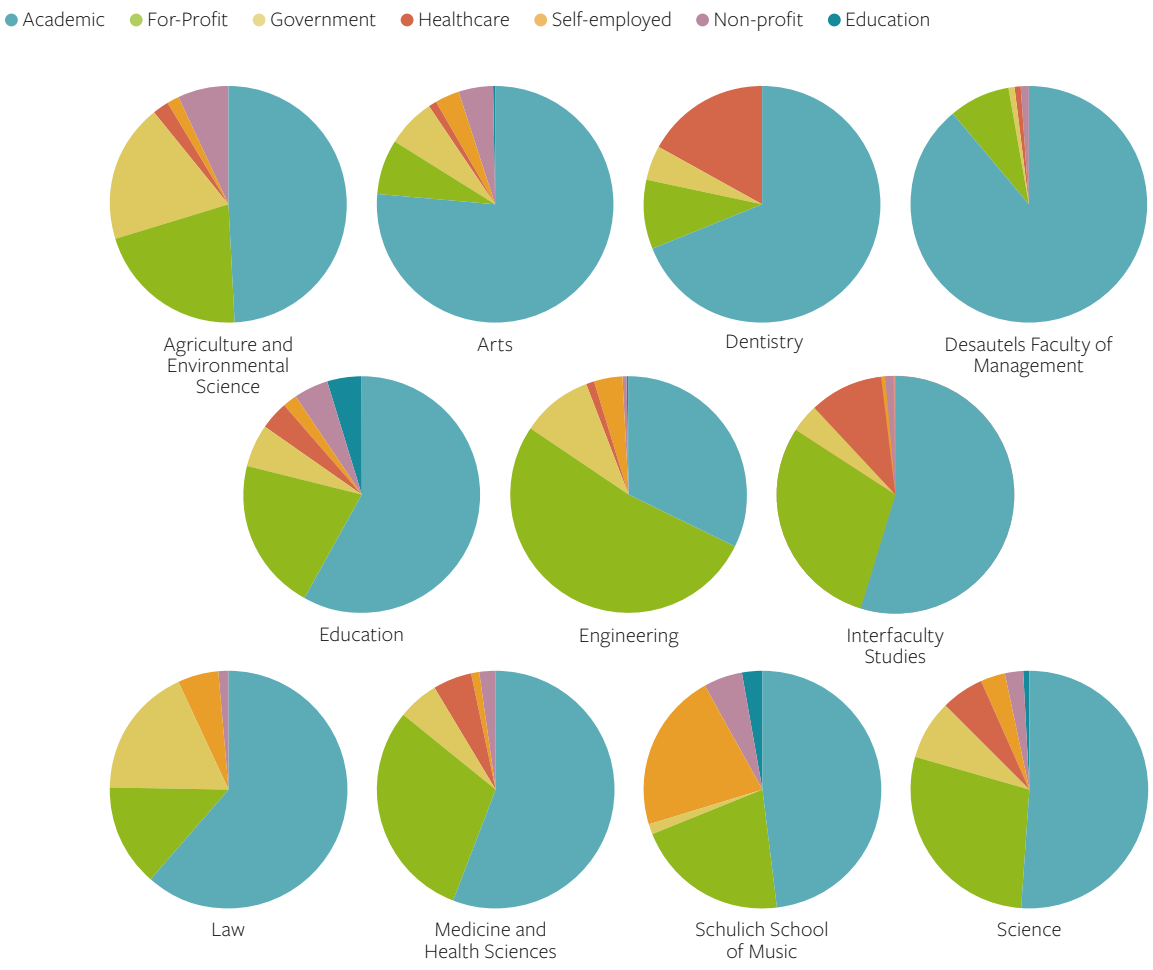
In their own words

SCIENCE AND THE LAW

"In my field, we work with experts to help explain the patented technology to the court. It's important that the court understand the science and the technology so that a legal decision may be made. My scientific training helps me understand the science and technology at issue, and work with my team so that we all understand. I also use my scientific training to communicate with experts and help them understand the legal analysis."

Kaitlin Soye (PhD in Experimental Medicine, 2011), Intellectual Property Litigation Lawyer

FIGURE 4 Proportion of doctoral graduates employed in each sector by faculty



In their own words

GLOBAL IMPACT OUTSIDE THE LAB

"Sometimes, when students do a PhD, they think that they need to look for a job only in a lab. And it's true—they can get a job in a lab. [...] I was happy that I was able to do something different and still contribute to science without being in a lab. Overall, I feel really proud to be working in a place where I can see the effects of what I'm doing, because when I walk into a pharmacy and I see a label, I see the work that we did."

Michel Ntemgwa (PhD in Experimental Medicine, 2008), Senior Clinical Reviewer at Health Canada

In their own words

BEYOND ACADEMIA AT THE SPACE AGENCY

"To be honest, the reason I did a PhD in the first place was to get a research position at the space agency. [...] When I got here, I gave myself three to five years to figure out if it was what I really wanted to do, or if I wanted to go back into academia. After being in school for decades, I wanted to branch out for a different perspective. And I miss doing experiments and figuring things out, but I think what I appreciate the most about my position now is that I'm involved in projects that I never, ever would have if I stayed in my own discipline."

Tim Haltigin (PhD in Geography, 2010), Senior Mission Scientist for Planetary Exploration at the Canadian Space Agency

Other sectors of employment

- Among the 19 % of graduates who are employed in other sectors, 8% work in government, 4% in healthcare, 3% for non-profit organizations, 3% are self-employed and 1% work in education (primary and secondary schools).
- Those working in government tend to work as non-academic researchers (45%) or in professional expert practice (24%). Expert practice in our data brings together occupations which require a professional designation, such as lawyers, doctors, architects, engineers, librarians, and other fields.
- The self-employment/entrepreneur/freelancing sector is a very diverse group. The most common job titles in this sector are the following: consultant, musician/composer, co-founder/founder, and writer/editor/translator.

In their own words

CRAFTING ONE'S OWN JOB

"I thought I wanted to be a professor and go into academia full time. [...] As I got into my doctorate, I saw that the academic culture [...] is very intense and competitive. I just kind of realized I don't want this for my life. I do love research and I do love being in an academic environment, [...] I really still love teaching music, I love teaching students, I don't want to give that up. So, I sort of crafted a job for myself that would allow me to do all the things that I wanted to do."

Erin Parkes (PhD in Music Education, 2015), Founder and Executive Director of Lotus Centre for Special Music Education

In their own words

A PATH TO LEADERSHIP

"I have absolutely zero regrets about doing a PhD [...] going through the PhD was like being on a stretching rack for my brain. My mind was completely contorted and forced into making new connections to the point where I really think differently now. It has made me a better strategist. It has made me a better leader."

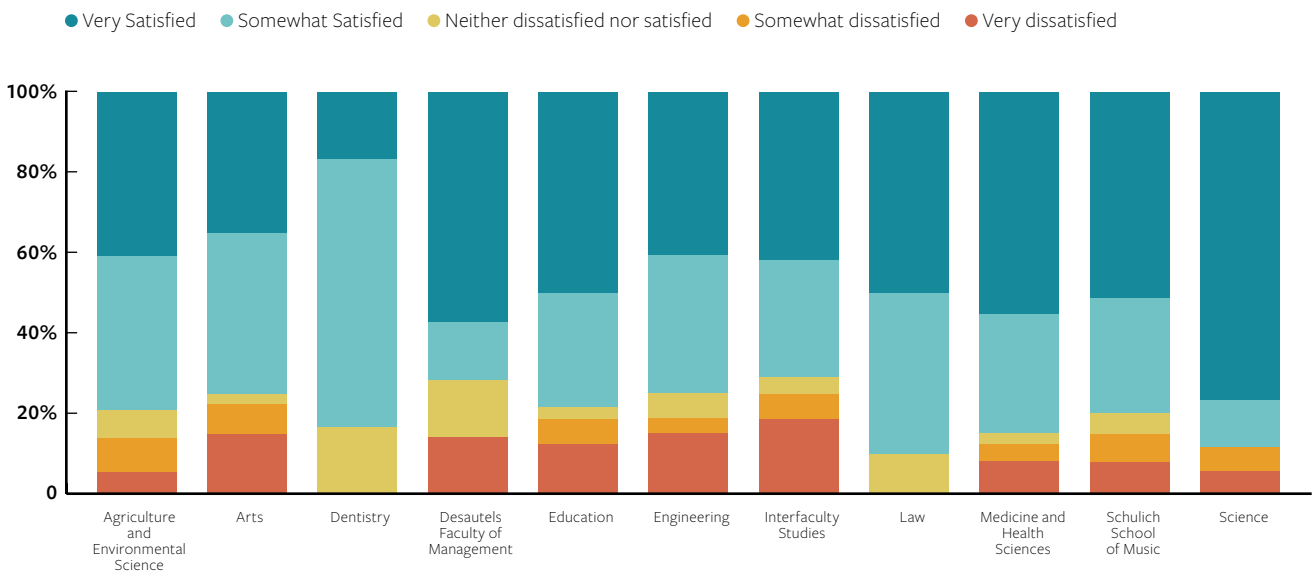
Malvina Klag (PhD in Organizational Behaviour, 2009), Independent Consultant

The Benefits of a PhD

The narratives are a precious tool that allows us to capture the uniqueness of individual trajectories and the ways graduates make sense of their own career pathways. To complement this rich information, the survey conducted in the summer of 2019 provides statistical data about the graduates' level of satisfaction with their current job in relation to their doctoral degree.

- 79% of grads were either very satisfied (48%) or somewhat satisfied (31%) with their current job (see Figure 5).
- 94% of grads felt that their doctoral studies were at least partly relevant to their present employment.
- 83% felt that they were adequately qualified for their current job and 15% that they were overqualified.

FIGURE 5
Overall satisfaction with current job by faculty of survey respondent



In their own words

MAKING A DIFFERENCE IN THE WORLD

"You know, I never worked just for the salary. I have to have a vocation in life. Yes, I'm an agriculture engineer, but I need something else besides engineering. So doing the PhD was the master key for me, to open doors to see if I can do something to change the lives of the most vulnerable. Food security is more complex than just reducing it to independent lab work; different stakeholders like government, academia, private sectors, NGOs, have to work together on this global issue."

Patrick Cortbaoui (PhD in Bioresource Engineering, 2015), Managing Director, Margaret A. Gilliam Institute for Global Food Security

In their own words

BUILDING CONFIDENCE AND HAVING FUN IN GRADUATE SCHOOL

"Now in my professional life, people will often say things like 'you're so autonomous' or 'you're just very willing to figure things out for yourself.' I think some of that comes from needing to take the initiative and work autonomously in graduate school. [...] TAships gave me a sense of confidence in being able to assume positions of authority and voice my ideas. Also, a lot of the time, grad school was pretty fun. It was an opportunity to enjoy myself in ways that I certainly don't regret."

Danielle Barkley (PhD in English, 2015), Career Educator, University of British Columbia

Our Legacy – A mentoring community

Now that TRaCE McGill is in its final phase, our sights turn to building a large and growing mentoring community. Over 70 graduates (and counting!) from our study cohort have volunteered as mentors for current graduate students and recent grads, who can reach out to them individually via the TRaCE McGill website. In addition, a series of round tables, webinars and other events – such as speed mentoring sessions, in partnership with the Post-Graduate Student Society – bring students in contact with our PhD alumni. Open to all who wish to attend, these events feature graduates from all faculties who share their own career pathways, their successes and challenges, and their words of advice to current and prospective PhD students.

By reaching out to grads from their faculty, doctoral students have the opportunity to explore careers beyond the academy, get the mentorship they need, and make sense of their own narratives in the making.

The people behind TRaCE McGill

The TRaCE McGill project has been the work of many individuals:

Project Director: Prof. Paul Yachnin

Project Managers: Dr. Marie-Claude Felton and Dr. Chantelle Thauvette

Graduate student researchers: (data collection and interviews): Renzo Calderon Anyosa, Ashley Chin, Collins Chukwuma, Claudia Claros, Jarred Dunn, Claire Edrington, Sam Howes, Felicia Huang, Dongyun Jung, Gabrielle Kielich, André Liberati, Heba Madi, Sara Mahabadi, Helen Martin, Samuel Preston, Elena Corella Puertas, Joanne Smith and Hongyu Zhang

Narrative editors: Claire Edrington, Catherine Nygren, Sonja Soo and Willow White

Quantitative report: Martha Lee

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