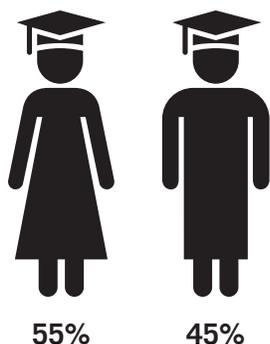


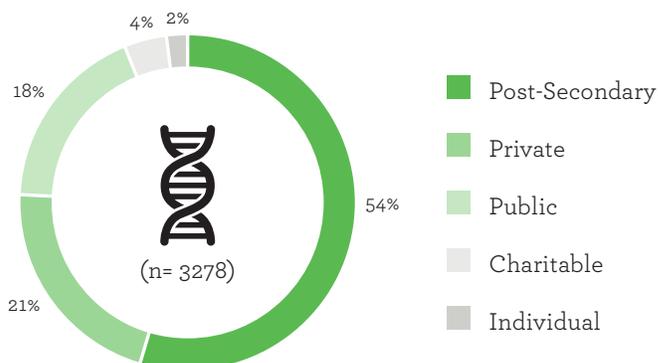
careerOUTLOOK: LIFE SCIENCES

Anatomy and Cell Biology / Biochemistry / Botany / Cell and Systems Biology / Community Health / Dentistry / Ecology and Evolutionary Biology / Exercise Sciences / Forestry / Health Policy, Management and Evaluation / Immunology / Laboratory Medicine and Pathobiology / Medical Biophysics / Medical Science / Molecular Genetics / Nursing / Nutritional Sciences / Pharmaceutical Sciences / Pharmacology / Physiology / Psychology / Public Health Sciences / Rehabilitation Sciences / Speech-Language Pathology / Zoology

GENDER OF PhD GRADUATES



EMPLOYMENT SECTOR BREAKDOWN



TOP EMPLOYERS BY SECTOR



Private Sector

- Janssen
- Sanofi Pasteur
- Genentech
- Private Practice
- Roche



Public Sector

- University Health Network
- The Hospital for Sick Children
- St. Michael's Hospital
- Sunnybrook Health Sciences Centre
- Health Canada



Charitable Sector

- Ontario Brain Institute
- Ontario Institute for Cancer Research
- MaRS
- Canadian Cancer Society
- Institute for Work & Health

Looking for data specific to a department or graduate unit?

Wondering how the employment sectors are defined?

Explore the interactive 10,000 PhDs dashboard on the SGS website: uoft.me/10KPhDs

Employment data exclude the 12% of all found PhD graduates for whom an employment sector was unknown. Departments listed under Life Sciences reflect the status as of 2016. Gender identification for all PhDs in this study was determined by 2000-2015 data reported in University of Toronto Web Services (ROSI) records.



UNIVERSITY OF TORONTO
SCHOOL OF GRADUATE STUDIES

LIFE SCIENCES PhDs AND THE 10,000 PhDs PROJECT: COMMONLY ASKED QUESTIONS

What is the value of a PhD in the Life Sciences?

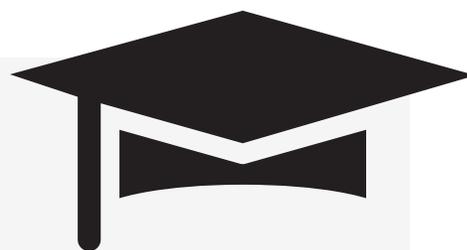
Data from the 10,000 PhDs Project indicate that doctoral degrees in the sciences lead to a broad range of positions. As of 2016, **just over half of all found graduates worked in a variety of roles in Post-Secondary Education**, and **46% of graduates worked in Industry, Government, Charities, and Independent Businesses**. Of the **21% of graduates who held jobs in the Private Sector**, almost 60% worked for Biotechnology and Pharmaceutical companies. Of the close to 20% of graduates who entered the Public Sector, 27% had obtained Government positions. These results offer compelling evidence to suggest that employers in all sectors understand the value of a PhD in the Life Sciences.

Does a postdoctoral fellowship align with my career goals?

In the most recent cohorts of Life Sciences PhDs (2012–2015), **29% of found graduates chose to pursue a postdoctoral fellowship**. Postdoctoral fellowships serve a very specific and critical function in preparing for a career in academia. They give PhD graduates additional experience applying for grants, an opportunity to hone or expand research interests and skills, and time to author and publish papers. However, some recent research indicates that different work experiences might be more advantageous for those considering a non-academic career path.¹ For instance, PhD graduates interested in careers in industry may find greater benefits from internships or going directly into entry-level positions. These positions develop skills that may hold greater value in industry. They enable PhD graduates to explore a broader range of job options, determining a position's "fit" before focusing on that career path. They may also offer higher salaries than postdoctoral fellowships.

WHAT IS THE 10,000 PhDs PROJECT AT THE UNIVERSITY OF TORONTO?

The 10,000 PhDs Project, an initiative of the School of Graduate Studies at the University of Toronto, used Internet searches of open-access data sources such as official university and company websites to determine the current and/or first (2016) employment status of the 10,886 PhDs who graduated from U of T between 2000 and 2015 in all disciplines. The study successfully located 88% of PhD graduates.



“

Of all the things I did for my transition, informational interviews were the most valuable, productive, and rewarding.”

– U of T Alumnus (Life Sciences PhD)

Early career planning, discussing career goals with your advisor, conducting informational interviews, and making use of career development programs will help you determine whether a postdoctoral fellowship, internship, or another option aligns with your career goals and help you plan accordingly.

What is in a job title?

Job titles are often deceiving in all fields, but especially so in the sciences. Consider the title of “Scientist,” for example. One can be a Senior Scientist, Data Scientist, Research Scientist, or Staff Scientist; without seeing a job description, it is not easy to understand the differences in these roles. Moreover, a certain role that may sound more “substantial” (such as Senior Scientist) may in fact involve less responsibility and be less challenging than others. In many cases, the work involved with each title depends on the employer. The best way to ensure that the title matches your own career goals is to ask your advisor, talk to other faculty members, reach out to alumni working for the employer, and search career websites such as LinkedIn. Conducting informational interviews in a variety of job settings is also extremely useful during your career exploration stage, enabling you to understand more broadly how and where titles may vary.

¹See H. Saueremann and M. Roach, “Why pursue the postdoc path?” *Science* 352, issue 6286 (2016): 663–664; S. Kahn and D. Ginther, “The impact of postdoctoral training on early careers in biomedicine.” *Nature Biotechnology* 35, no. 1 (2017): 90–94; Melanie V. Sinche, *Next Gen PhD: A Guide to Career Paths in Science* (Cambridge, MA: Harvard University Press, 2016).

YOUR INFORMATIONAL INTERVIEW: WHAT TO ASK?

- What career path did you take to get to this position?
- What are the most important skills you use in your work? How did you develop these?
- What do you wish you had learned that would be useful in your position today?
- What possibilities are there for advancing in this company/field/industry?
- How is your work-life balance?

TIP: On the day of your interview, follow up your meeting with a thank-you email. Include a LinkedIn invitation and ask any further questions.

“Having completed my PhD, I realize that perseverance trumps everything. Believing that enabled me to face and overcome challenges involved in pioneering an outreach program in aquatic education.”

– U of T Alumnus (Life Sciences PhD)

BUILD YOUR PROFESSIONAL SKILLS

Graduate Centre for Academic Communication (GCAC) uoft.me/GCAC

Graduate Professional Skills Program (GPS) uoft.me/GPS

Career Exploration & Education studentlife.utoronto.ca/cc/grad-students

Milestones & Pathways Program teaching.artsci.utoronto.ca/fundingopportunities/mp/

START YOUR CAREER SEARCH

Bio Careers, The Career Hub for Postgraduate Life Scientists biocareers.com

BioTalent Canada biotalent.ca

Career Trends booklets prepared by *Science* magazine sciencemag.org/booklets

PhD Career Stories phdcareerstories.com

Life Sciences Career Development Society lscds.org

Life Sciences Ontario lifesciencesontario.ca

Ten Thousand Coffees U of T Hub
alumni.utoronto.ca/volunteer/mentor-a-student/ten-thousand-coffees

Lee, Nana and Reinhart Reithmeier. *Success After Graduate School: A Guide for Professional Development for Graduate Students in the Biomedical Sciences*. Toronto: NR Publishing, 2016.

BOOST YOUR CAREER POTENTIAL

- Connect with upper-year grad students to learn how they started their job search.
- Recognize and build upon your transferable skills (e.g. writing, data analysis, critical thinking, presentation, teaching). Register for GPS courses/workshops at uoft.me/GPS.
- Share your CV with your supervisor and peers to gather constructive feedback.
- Create a LinkedIn profile and get feedback from mentors and peers.
- Request informational interviews with alumni and/or professionals in a variety of job settings.
- Explore salary ranges and career trajectories from databases such as payscale.com or salary.com.