Degrees of Success

Translating a PhD into meaningful work for graduates and a stronger, more competitive economy for Canada

In many disciplines, PhD programs are typically designed to produce the next generation of professors. But with the number of graduates outpacing the availability of tenure-track jobs, new grads in Canada face significant and growing challenges as they enter the current labour market.

*Degrees of Success* is an independent, evidence-based assessment of the barriers PhD graduates face as they enter the workforce.

The number of PhD graduates in Canada is increasing.

The number of open permanent professor positions is stagnant or decreasing.

**ALTERNATIVE CAREER PATHS AND DESTINATIONS HAVE NOT MATERIALIZED**

R&D spending in Canada is lower than in similar countries and shrinking, and Canadian industry does not create the same pull for PhD graduates as it does in other similar countries.

About half of recent PhD graduates are working in post-secondary institutions, but fewer than half of those are on a tenure track – suggesting they may be taking other, often temporary, roles.

About 20-25% of recent PhD graduates work in the private sector.

Compared to similar countries, R&D spending in Canada is more heavily concentrated in universities.

**OUTCOMES DIFFER BY GENDER AND AND ACADEMIC DISCIPLINE**

Overall, PhD grads have lower unemployment and higher earnings than those with master's or bachelor's degrees.

Women are more likely to be unemployed or work part-time, and earn less than men across disciplines.

Five years after graduation, business graduates have the highest earnings, while humanities and science graduates earn the least.

The economic payoff of a PhD is lower for younger graduates.
An "academia-first" mentality among students and professors can promote the idea that any career outside of a tenure-track position is a failure. Supervisors may be unprepared or unwilling to support students on a non-academic career path. PhD students experience more mental health challenges than the general population and mental health may decline the longer they remain in a PhD program. Fostering equity, diversity and inclusion at universities could support marginalized students and help shift academic culture over time.

PhD graduates may not have the skills employers are seeking

A "skills-awareness gap" may prevent PhD grads from understanding and describing their value. There could be a mismatch between what PhDs have to offer and what employers need. PhD grads may be lacking aptitudes required for 21st century work, including adaptability, and certain communication and teamwork skills.

Canada's PhD graduates are (and sometimes must be) globally mobile

Mobility is increasingly viewed as essential for PhD graduates to stay in academia. The share of PhD graduates in Canada who are international students is on the rise. Canadian PhD grads are more likely than those from other countries to want to return home to work. Evidence suggests a lack of non-academic opportunities drives graduates to other countries (usually the U.S).

Promising practices and approaches

Modernize PhD program design and academic culture. Support supervisors to improve and expand mentorship for PhD students. Provide targeted professional development support to students and graduates. Target programs to increase demand among non-academic sector employers.