

# 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 **20-25%** of recent PhD graduates work in the private sector

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

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

# ACADEMIC CULTURE CAN HELP (OR HINDER) PHD 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)



Modernize PhD program design and academic culture



Target programs to increase demand among non-academic sector employers

### PROMISING PRACTICES AND APPROACHES

Support supervisors to improve and expand mentorship for PhD students



Provide targeted professional development support to students and graduates

