

# Coronavirus halted years of research, and Canada needs a strategy to fight back

May 25 2020, by Loleen Berdahl, Jonathan Malloy and Lisa Young

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Credit: AI-generated image ([disclaimer](#))

Many graduate students across Canada are in limbo with their research after they had to end experiments in progress or abandon field work when coronavirus closures halted years of work in mid-March. These students are facing an uncertain future and huge stressors.

Canadian governments, [both provincial](#) and federal, have spent years creating incentives for [graduate](#) research training by [funding enrolment expansions](#), offering [scholarship support](#) and [increasing research funding, with an emphasis on the next generation of researchers](#).

They've invested in graduate training because research is the foundation of an innovation economy and informs our understanding of how our collective prospects can advance. Students pursuing questions and developing skills that are fundamental to our future society and economy are the very students whose training was just put on hold.

There are over [175,000 graduate students in Canada](#), 50,000 of whom are Ph.D. students. Graduate students provide [critical labour](#) for Canadian research and development. COVID-19 has massively disrupted their work and this system.

Research-based graduate education doesn't transition well to social distancing. Graduate training typically requires research laboratories, archives, libraries with specialized physical collections and services, and human or animal subjects. Access to these necessities has collapsed.

While some activities can be salvaged, [shutdowns make other activities impossible](#).

## **Financial crunch**

Adding salt to the wound, graduate students pay tuition fees whether or not they are able to conduct their research, and [this does not stop for a pandemic](#).

The pandemic also disrupts graduate funding. Graduate students are often university employees, working as research and teaching assistants and, in some cases, course instructors. University closures led to

unemployment for some students. While many graduate students receive scholarships, support is time limited.

A fortunate minority of students will benefit from [extensions to federal scholarship support](#) but many others may not have their funding extended.

In STEM disciplines, [many students are funded partially or wholly from their supervisors' grants](#). Funding for these students has continued in many cases, but this means that grant funds are dwindling even though research is stalled.

Funding disruptions are highly problematic as graduate students are even more financially vulnerable than undergraduates, being older, more likely to have families to support and often holding [student](#) debt from their undergraduate studies.

Here are three critical responses universities and governments should take to protect Canada's public investment in graduate training.

## **Protect current student interests**

Universities must find creative and flexible options to allow students to complete programs remotely, progress more slowly or take leaves of absence without penalty. Not all graduate programs will be able to make this transition. This is a good time for graduate programs [to be more flexible about the Ph.D. thesis](#) and how students can meet the requirements for their degree.

Students need financial security, which may include extending clocks on funding, finding work replacements for teaching and research assistant commitments and clarifying eligibility for programs like the Canada Emergency Response Benefit (CERB) and the Canada Emergency

Student Benefit (CESB), neither of which fully fit graduate student circumstances.

The federal government's [extension of scholarship funding](#) and additional [support for the research labour force](#) are steps in the right direction.

Many students enter Ph.D.s to pursue [academic careers](#). Prior to COVID-19, Canadian universities graduated far [more Ph.D.s](#) than they hired as faculty. The already [competitive academic hiring market](#) is about to get even worse. The economic impacts of COVID-19 will likely result in delayed faculty retirements, and cash-strapped universities will be doing limited hiring.

Ph.D. students were already sailing in very choppy waters. Now they face a perfect storm with respect to academic hiring, and many programs have prepared them for [little else](#).

Universities will need to ramp up existing [professional development](#) supports to address [concerns about professional prospects](#) particularly for Ph.D. students.

[Mental health support](#), already a [concern](#) for graduate students, will also be critically important for students struggling with disruptions.

Universities might also consider options to discourage faculty from working well beyond [retirement age](#), as this pattern reduces their fiscal capacity to hire junior faculty.

## **Plan carefully for 2020 entrants**

Canadian universities are increasingly planning to conduct much of [the fall 2020 term remotely](#). Some universities have tentative plans to allow small graduate classes to meet in person, and are grappling with the issue

of access to research labs.

It is not yet clear whether enrolments will be lower in some programs because of this uncertainty. If enrolments decline, there will be ripple effects, as graduate students contribute to the core research and teaching missions of the university.

## Embrace reform

Do not waste this crisis. COVID-19 reveals a number of vulnerabilities in our current graduate education model, and gives governments and universities an opportunity to reform their models.

The crisis shows that we need the federal and provincial governments and research universities to work together to develop a national [research training strategy](#). They also need to consider the implications of growing reliance on international graduate students as research and teaching assistants [as borders become harder to cross](#).

Domestic students may have a new interest in graduate studies as a way to ride out the recession, and universities must ensure programs have a clear [return on investment](#) for these students—and for [taxpayers](#).

The post-COVID era will require creativity, innovation and scientific acumen. Graduate students will play a critical role as we face these challenges. Canada needs to ensure that they are able to do so.

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