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COVID-19 Impacts on University Research, Past, Present, and Future: A Case Study at Wilfrid Laurier University

Charity Parr-Vasquez & Jonathan Newman¹

Abstract

University research is one of the main drivers of knowledge creation, innovation, and economic development. In this essay, we examine the impacts of the COVID-19 global pandemic on Wilfrid Laurier University's (Laurier's) research community. We provide a firsthand account of events and actions taken to support our researchers through this challenging time. We also reflect upon the near-term future and longer-term prospects for the recovery of research at Laurier. Our university's experience is not unique in either the Ontario or Canadian contexts. We offer this essay as both a historical accounting and a case study of the pandemic's impact on this sector of Canadian society.

Introduction

The COVID-19 pandemic created unprecedented disruptions to the Canadian university research enterprise, and the experiences of Wilfrid Laurier University (Laurier) were no exception to this. The crisis thrust upon university leadership and administrators challenges never before faced, requiring decisive action in an ever-evolving 'VUCA'² context. As an institution, we had to balance the desire to mitigate long-term impacts on our research programs and the graduate students who depend on them with the real threat of the health crisis. Our decisions about this balance were not always well-received. Still, they undoubtedly slowed the spread of COVID-19 and potentially saved lives while allowing research to be conducted under strict health and safety guidelines.

We, the authors, are the Assistant Vice President and Vice President for Research at Laurier. In this essay, we offer a description of, and some reflections on, Laurier's response to the pandemic as a case study. However, we should note that writing a historical narrative of Laurier's experience during the pandemic is challenging in part because the pandemic is not yet over. We wrote this essay in early June 2021, a time when our province is still experiencing an average of about 1,000 new cases a day. Still, on the positive side, nearly 60% of the Ontario population has received at least one dose of the vaccine. The reader should bear this perspective in mind to contextualize our comments (see Figure 1).

About Laurier

Laurier's roots trace back to the opening of the Evangelical Lutheran Seminary in Waterloo, Ontario, in 1911. In 1960, we became the Waterloo Lutheran University, and in 1973 our name changed to Wilfrid Laurier University. In 1999, we opened a second campus in Brantford, Ontario. We have approximately 550 faculty members and 20,000 students

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² VUCA: volatile, uncertain, complex, and ambiguous

spread across eight Faculties³ and one federated college, the Martin Luther University College.⁴ Our strategic research themes⁵ are:

- Environments and sustainability
- Governance and policy
- Psychological and social determinants of well-being
- Indigeneity, decolonization, equity, diversity, and inclusion
- Business, innovation, and technology
- Society, culture, and community

Laurier's Response

With uncertainty mounting, on March 17th, 2020, Laurier issued a 'work-from-home order,' effectively ceasing all research operations on campus. Faculty members were given until March 20th to close down their laboratories and research spaces, after which time we severely restricted access to all university facilities. We only permitted essential research activities to continue, including animal care, maintenance of cell lines (Kaur & Dufour, 2012) and equipment, and COVID-19 specific research. We also suspended all field research, requiring faculty members and their students to rapidly leave remote field locations, if safe to do so, as travel was becoming increasingly difficult. What followed was months of ongoing uncertainty as the university developed a framework to safely bring researchers back into its research facilities.

While working from home is, for many faculty, not an ideal environment for research, many of our social scientists and humanists were able to do some research throughout the pandemic. However, for our lab-based research programs and some community-based research programs, the work-from-home order effectively halted research activities. We had to decide what research could safely resume on and off-campus and under what conditions. These decisions were complicated by our lack of knowledge about the virus, its modes of transmission, and the severity of the disease it caused. Early in the pandemic, we thought that surface transmission was as important as airborne transmission. We now know that surface transmission is far less likely than airborne transmission (Lewis, 2021). Initially, we thought that air travel was likely to be particularly hazardous and made travel policy decisions accordingly. We now know that commercial airlines are perhaps less hazardous than we initially thought (Schwartz et al., 2020). And so on. As we learned about the virus and its modes of transmission, we adjusted our policies and procedures.

For research that had to be conducted on campus, we took a three-phased approach to research resumption. We gradually brought faculty and graduate students back onto our campuses by first, in Phase 1 (June 29, 2020), allowing those whose research would be irreparably damaged by further delay and graduate students who were within three months of completing the requirements of their programs. Precisely what constituted 'irreparable damage' was, in some cases, admittedly, a judgment call on our part. However, we feel that researchers, for the most part, respected the spirit of the policy and put public health

³ Science, Arts, Business, Education, Humanities and Social Sciences, Liberal Arts, Music, and Social Work.

⁴ Consensus is co-sponsored by Martin Luther University College and Lutheran Theological Seminary in Saskatoon, Saskatchewan.

⁵ For more information see <https://www.wlu.ca/academics/research/index.html>

considerations above the impacts to their research. Phase 1 was divided into two parts to manage the opening of a few buildings at a time. To support researchers and graduate students returning to campus, as well as our essential workers, our Information and Communication Technologies office developed and implemented Laurier's COVID-19 Self-Assessment application in collaboration with AppArmor⁶ where individuals would have to pass a health self-assessment daily before coming to campus.

In Phase 2 (August 6, 2020), we expanded the number of individuals permitted to resume research by bringing back graduate students within six months of completing their degree requirements. In Phase 3 (August 21, 2020), we opened our campus research facilities to all individuals who required access and allowed researchers to resume some domestic field research. And finally, on September 21, 2020, we first began to allow face-to-face research with human participants to resume for some low-risk populations of participants. At all phases, strict health and safety guidelines were put in place including occupancy limits, physical distancing requirements, mandatory masking, frequent cleaning of high touch areas and the governing principle that no work which could be reasonably done remotely could be performed on campus. Given the power dynamics at play, we also paid particular attention to ensure that faculty members were not coercing graduate students to return to campus if they were not comfortable doing so.

Throughout all three phases of research resumption we required for each research activity approvals from: the dean of the relevant Faculty; our office of Safety, Health, Environment and Risk Management; our Facilities and Asset Management team; the Research Ethics Board or Animal Care Committee (where appropriate); and finally the Vice President for Research. In the roughly 12 months of operations in this manner, we experienced only one case of contagion in a research lab involving just two researchers.

While the research resumption framework successfully brought approximately 300 faculty and students back into research facilities, it was not without challenges. Firstly, our priority-based framework meant some faculty and students were required to wait longer than their colleagues to proceed with their work. Some struggled with the notion that their work was not a high enough priority to continue. Additionally, the guidance from the Provincial authorities was often ambiguous and difficult to interpret. For example, effective March 24, 2020, the Province of Ontario mandated the closure of all non-essential businesses, but "businesses and organizations that maintain research facilities and engage in research, including medical research and other research and development activities" were exempt from this order. Most of the Ontario university sector, including Laurier, believed that the spirit of this mandate meant that all research, except COVID-19 related work, must cease. However, a limited number of Ontario universities thought the mandate allowed for all research to continue, albeit under strict health and safety guidelines. This ambiguity created an environment where some faculty members felt that their research programs were being treated differently than their colleagues at other institutions (but see 'Ontario University Sector Response' below). In mid-May 2020, the Provincial Government clarified that only STEM⁷ research could be conducted on university campuses at that time. About a month later, the Province allowed non-STEM-based research to resume. Finally, at the time of writing this article, approximately 15 months after the pandemic declaration, there are

⁶ <https://apparmor.com/Safety>

⁷ STEM: Science, Technology, Engineering and Mathematics.

still some faculty members whose research has been deemed too high risk to resume. Unfortunately, international field research and face-to-face research involving populations at risk for severe COVID-19 infection have still not been permitted to resume, resulting in significant delays for the affected faculty and graduate students.

Research Ethics Board

Human participant research presented its own set of unique challenges during the pandemic. Human participant research in Canada must be conducted to the highest ethical standard possible, and the declaration of a public health emergency does not change this. Face-to-face human participant research was the last to resume during the pandemic, and when it was permitted,

it was done so with strict guidelines and exclusions.

All populations that had been deemed vulnerable to severe COVID-19 infection by the Government of Canada were not permitted to participate in research projects (see also 'Equity-Deserving Subjects'). Additionally, research involving Indigenous communities was only

allowed to continue with the explicit consent of that community. All face-to-face human

participant research had to cease any time the Government of Ontario issued a 'stay-at-home' order or 'lock-down' order (see Figure 1). As a result of the strict conditions and guidelines imposed on this work, a minimal number of researchers requested, and were permitted to conduct face-to-face human participant research.

Although there was a considerable decline in face-to-face human participant research, many researchers overcame the challenges by switching their research to a virtual platform. This required researchers to gain approval from the university Research Ethics Board to amend their previously approved protocols, creating administrative burdens and delays. Additionally, many researchers needed to learn new online meeting tools, obtain new computing equipment (e.g., webcams and microphones), and upgrade their internet services. The institution's Information and Communication Technologies unit rapidly sought to develop solutions and training modules to allow researchers to engage with human participants securely and reliably. At the start of the pandemic, researchers had two video meeting platforms available to them, Zoom™ and Microsoft Teams™. The security features on Zoom™ were not deemed adequate for collecting human participant research data. While

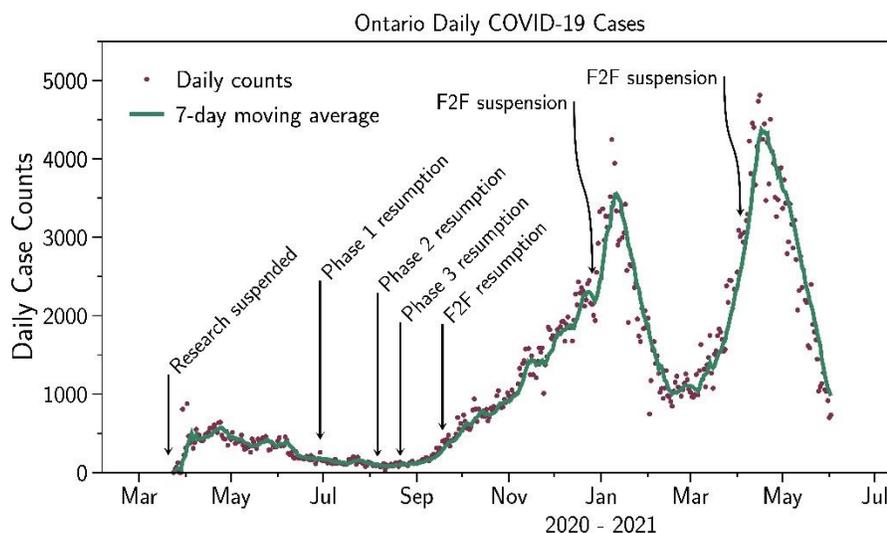


Figure 1 - COVID-19 daily case data from the Ontario Treasury Board Secretariat <https://www.ontario.ca/page/2019-novel-coronavirus>. Also shown are the significant dates for Laurier's responses. 'F2F resumption' denotes the first time we allowed researchers to work face-to-face with human participants. 'F2F suspension' denotes times when the public health situation was such that we had to temporarily suspend research involving face-to-face interactions with human participants. See 'Laurier's Response' for more details.

Teams™ was considered adequately secure for most human participant research, it was very difficult for graduate students and participants to access. To provide more seamless access, the university took the challenging decision to migrate all of our graduate student accounts from Gmail™ to our Microsoft Office 365™ tenant, which provided these students with seamless access to Teams™. In January 2020, the university acquired licenses for select researchers to use the Zoom Healthcare™ application which was more accessible for researchers and participants to use and provided the level of privacy and security needed for human participant work.⁸

Animal Care

Animals are only used in Canadian research when the research is reasonably expected to benefit humans or animals and when no other alternative method exists to conduct the research. The welfare of animals involved in research is of paramount importance to the institution. In the early days of the work-from-home mandate, our initial concerns were the continuing care of the animals in Laurier's Animal Care Facility. The institution developed robust plans and schedules to ensure continuity of care for the animals and developed contingency plans involving layers of individuals who could perform this vital function should any animal care staff member or technician become ill and unable to work. At no point was the care of Laurier's research animals in jeopardy, and no animals were killed as a management response to the pandemic. Unfortunately, the same cannot be said for all institutions across North America. Some universities were forced to make the tough decision to kill some of their animals because their programs were too large to be maintained by the limited number of individuals who could safely operate in their facilities.

Library

For our humanities scholars, in particular, the closing of the Library was a major impediment. Furthermore, interlibrary loan services had to be suspended regionally, provincially, nationally and internationally in March 2020. The Laurier Library provided many of its core resources and services in digital format, even before the pandemic. Thus, the transition to online and remote delivery was not wholly new. Still, at the same time, the Library had to adjust very rapidly to the new reality and expand the existing range of digital offerings with the introduction of new services like 'Scan-on-Demand,'⁹ that allowed digitization and on-demand access to parts of our print collection.

The Laurier Library is a partner in both the Tri-University Group of Libraries (TUG) and the Ontario Council of University Libraries (OCUL). The Library worked collaboratively with partners to reinstate



Figure 2 - Laurier University Librarian, Gohar Ashoughian, outside the library's 'Books To Go' solution for supporting borrowers during the pandemic. Photo credit: Karin Schmidlin.

⁸ Laurier also contracted for and implemented ConsignO (for digital signatures) and Microsoft Lens (for mobile scanning) to meet other needs of researchers and staff operations in a virtual environment.

⁹ <https://library.wlu.ca/scan-on-demand>

resource-sharing services and interlibrary loan programs between Laurier and its neighbouring institutions, specifically with the University of Waterloo and the University of Guelph. TUG operations recommenced on November 9, 2020. The Library also established a new 'Mail-on-Demand'¹⁰ service to deliver print collections directly to users within Canada.

The Laurier Library faced another challenge, the curbside distribution of borrowed material, particularly in the early phases of the pandemic, without having architecturally convenient access points. The Library responded in July 2020 with an innovative approach to use a bookmobile (branded 'Books To Go,'¹¹ see Figure 2) to facilitate distribution. The Library also became a member of the Hathi Trust¹² gaining access to their Emergency Temporary Access Service (ETAS) program¹³ providing researchers electronic access to more than 350,000 print books and materials in the Laurier Library collection.

Faculty of Graduate and Postdoctoral Studies

Graduate students and postdoctoral fellows are much more vulnerable to the impacts of the pandemic than are more established researchers. Funding horizons are more immediate, and the consequences of a lapse in funding are more significant for these researchers. The Tri-Agencies¹⁴ responded fairly quickly by providing paid extensions for scholarship and fellowship holders of approximately three months duration. To date, no further extensions to these awards have been offered, even though the impact of the pandemic on many of these junior researchers will be far greater than a loss of three months.

Some graduate students and postdocs were able to change their research projects so that they could continue their work. For others this was not an option. We have seen a steady stream of 'petition requests' from graduate students for temporary withdrawal or a leave of absence in situations where they just could not adjust their research to public health restrictions. We attempted to ease the burden on our doctoral students, perhaps the most vulnerable subgroup of these junior researchers. The Office of Research Services, the Faculty of Graduate and Postdoctoral Studies, and the Vice President Academic's Office partnered to provide an additional \$180,000 in one-time support for these students (\$1,000 each). We also created a small research grant program for any graduate student in a research program who has incurred extra research expenses because of the pandemic. These grants ranged from \$500 to \$1,000 each.

Finally, over the summer of 2020, we opened some spaces that were otherwise unused due to the pandemic for graduate students to use while writing their masters theses or doctoral dissertations.

Field-based Research

Following the initial suspension of research activities (March 20, 2020) and the phased resumption described above, 'local' field-based research, defined as work that could be conducted without requiring an overnight stay, was permitted to resume on a case-by-

¹⁰ <https://library.wlu.ca/services/mail-on-demand>

¹¹ <https://library.wlu.ca/services/books-to-go>

¹² <https://www.hathitrust.org>

¹³ See <https://www.hathitrust.org/ETAS-Description> for details.

¹⁴ Much of the research funding in Canada comes from the Federal Government, in particular the Tri-Agencies, which comprised the Natural Science and Engineering Research Council (NSERC), the Social Sciences and Humanities Research Council (SSHRC) and the Canadian Institute for Health Research (CIHR).

case basis following the same phased criteria described earlier. At the time, travel and interaction with the local community were our most significant health concerns. Because most field-based research is time-sensitive, we worked hard to prevent researchers from losing an entire field season. Nevertheless, research that involved overnight travel was still seriously affected. This was particularly true for a myriad of research projects located in the Northwest Territories (NWT). Laurier has a formal 20-year partnership with the Government of the NWT and maintains two long-term field camps¹⁵ as well as a small office located in Yellowknife. Our researchers also work in many Indigenous communities throughout the NWT. Many of these research sites are not accessible by road, and the field camps are generally not occupied for most of the winter months.

On March 18, 2020, the Government of the NWT declared a public health emergency. On March 22, 2020, they closed the territory's borders to non-residents.¹⁶ This restriction was in place for many months, causing researchers to miss out on the entire 2020 field season. Data loss is problematic, particularly for graduate students, but the inability to perform necessary maintenance on the equipment and campsite also caused problems. We were fortunate that we maintain an office in Yellowknife that is staffed year-round. We were able to send research associates to conduct the most urgent maintenance, including overseeing a minor fuel leak clean-up at our Trail Valley site. Once the territory started to allow visitors, researchers had to gain approval from the Government of the NWT to enter and were then faced with two-week quarantine periods in Yellowknife accommodations, an expense not foreseen or budgeted for in research grants.

On the positive side, the inability of our researchers to get out in the field has, in some cases, led to stronger ties with some of our research partners. For some community-based research, our partners have been able to collect data for our researchers. For example, in some of our research with Indigenous communities, community members supported data collection. In another case, Parks Canada staff conducted sampling in the Peace-Athabasca Delta, where one of our faculty members has worked for years. Parks Canada collected the samples; Laurier researchers did the analysis and provided a report. These efforts have now contributed to the launching of a Parks Canada-led monitoring program. Similar arrangements are in place for 2021. In some ways, the pandemic accelerated this 'knowledge to action' transition.

Cybersecurity

Perhaps it is coincidental with the onset of the pandemic, but the university sector saw a significant increase in cybersecurity incidents explicitly connected to research. Cyberattacks increased 63% in 2020 compared to 2019. Computers used for research are prime targets for hackers. They frequently contain confidential or commercially valuable data. Research computers also tend to be much more powerful than systems used solely for administration or home systems. Attackers use this additional computing power to send out high volumes of spam or launch denial of service attacks against other systems. Research

¹⁵ The Scotty Creek field camp is located near Fort Simpson (62.5°N, 112.8°W), and the Trail Valley field camp is located near Inuvik (68.7°N, 133.5°W). Additionally, we have 46 other research sites and 74 active research projects in the NWT as of June 2021.

¹⁶ There were exceptions made for visitors providing essential services, etc. See <https://www.gov.nt.ca/en/newsroom/chief-public-health-officer-orders-travel-restrictions-and-self-isolation-those-entering>

computers are frequently left running unattended for long periods, allowing hackers to penetrate systems and get out before being detected. We will not detail Laurier's actions in response to these threats for operational security reasons, but we did not suffer any significant data breaches during this pandemic period.

The Canadian Centre for Cyber Security warned Canadian universities that hackers have developed enticing COVID-19-related content to trick victims into clicking on malicious links and attachments. For example, on 10 March 2020, phishing emails spoofing the Public Health Agency of Canada's Medical Officer of Health were used to deliver malware embedded in an attachment claiming to be a critical COVID-19 update. For more detail and further examples, see the CCCS website.¹⁷

Ontario University Sector Response

The Council of Ontario Universities has a standing committee of the vice presidents for research from all 20 public universities, called the Ontario Council of University Research (OCUR). In non-pandemic times, OCUR meets about once a month, typically in Toronto and occasionally in Ottawa. Starting on March 19, 2020, OCUR began holding virtual meetings weekly to share information and best practices for closing down and restarting research in a 'COVID environment.' OCUR continued to meet weekly through the beginning of May, switching to fortnightly through July 2020. Given the complexity of closing and reopening research activities, the collaboration of the Ontario universities was crucial because it meant that we all did not have to waste time 'reinventing the wheel,' and it also meant that researchers across Ontario were treated similarly. OCUR is always a valuable group for conveying the needs of the Ontario universities' research community to the Provincial and Federal governments. Still, this function was much more critical during the early phases of the pandemic.

Equity-Deserving Researchers

The pandemic has only exacerbated the inequities that existed between researchers before. On average, female scholars still provide the majority of family care. With long stretches of school children at home learning virtually, working from home has been challenging for parent-scholars, and these challenges have fallen more heavily on female parent-scholars. While the pandemic's impacts may be more visible for female parent-scholars, BIPOC faculty have also experienced pandemic-related effects that exacerbate the already present inequities (Staniscuaski et al., 2021).

There is now abundant evidence that the pandemic has had, on average, a more negative effect on researchers from equity-deserving groups than it has on white males. During the first ten weeks of the lockdown in the US, female researchers' productivity dropped by 13.2% compared to that of male academics (Cui et al., 2020). Another study conducted early in the pandemic found that total working hours decreased by 11%, and time devoted to research declined by 24%. Lab-based scientists saw even steeper declines, in the range of 30–40%. These impacts were even more significant for female scientists with young dependents (Myers et al., 2020). The proportion of female first authors in biomedical research dropped by 9.1%, and this decrease was even more remarkable for papers reporting COVID-19 research (Muric et al., 2020; see also Anderson et al., 2020). This pattern

¹⁷ <https://cyber.gc.ca/en/guidance/cyber-threat-bulletin-impact-covid-19-cyber-threat-activity>

of declining contributions for female researchers was even greater in the field of economics and especially for research on the economics of the pandemic where less than 2% of the authors were women (Amano-Patiño et al., 2020).

While the Canadian federal government has responded with an array of much-appreciated supports, from NSERC providing an additional year of funding for all Discovery Grant holders to supplemental funding to support all students, trainees and research support personnel funded through many Tri-Agency grants, all the supports provided to date have been what we might call ‘across the board.’ In other words, there have not been supports expressly provided to particularly disadvantaged target groups. Research suggests that across the board supports only further exacerbate the inequalities faced by equity-deserving groups.

Equity-Deserving Subjects

Within the context of human participant research, researchers should be as inclusive as possible when selecting participants for their projects. Unless there are valid scientific reasons for exclusion, a diverse pool of participants should include diverse cultures, races, sexual orientations, ethnicities, linguistic proficiencies, genders, physical abilities, ages, etc. As we noted in ‘Research Ethics Board’ above, from the start of the pandemic, face-to-face research involving human participants has been challenging. Researchers conducting this type of work quickly transitioned to virtual interactions as described above. However, many participant-based projects, particularly those working with marginalized populations (i.e., those who experience social, political or economic exclusion due to power imbalances), require the building of trust and mutual respect, which has proven difficult for some in the remote context. Additionally, for many marginalized individuals participating in research via virtual platforms was not an option. Due to economic insecurity, these populations often do not have access to reliable internet services, smartphones, or computers (Sevelius et al., 2020). Even for those that do have access to the necessary technologies, the educational disadvantages and linguistic proficiencies prevent many from navigating the technologies needed to complete self-administered studies, navigate remote video applications and sign electronic consent forms (Sevelius et al., 2020).

Compounding these technical challenges was the university’s ethical obligation to protect ‘vulnerable populations,’ such as the homeless, people suffering from substance abuse disorders, sex workers, etc. In line with the practices at other Ontario universities, the Laurier Research Ethics Board suspended face-to-face interactions with members of such vulnerable populations. While this move undoubtedly disadvantaged the affected researchers, it also had the unfortunate knock-on effect of further disadvantaging the members of these vulnerable populations. The result is that many vulnerable people have been denied the benefit of research that did not proceed. And human participant work that has proceeded in the remote context may not reflect the voices and experiences of the diverse population. By unintentionally excluding marginalized populations, research results cannot be generalized.

Near-term Future and Recovery

As of the writing of this article, Ontario remains under a ‘stay at home order.’ Nevertheless, with the proportion of the population now vaccinated rising rapidly, universities are looking forward to resuming normal operations. Since most research at

Laurier has been able to continue, albeit with restrictions, throughout the pandemic, the near-term future for research at Laurier will involve the incremental loosening of restrictions rather than the restarting process described above. We remain hopeful that all research will be able to proceed, without any conditions, by January 2022.

For Laurier and universities worldwide, the real challenge will be helping our researchers recover ground lost during the pandemic. This will be a difficult task. Universities across Ontario are reeling financially from a Province mandated 10% tuition cut in 2019, followed by two years of a tuition freeze in 2020 and 2021, compounded by the added expenses and lost revenue from the pandemic. Additionally, there is growing concern that Federal research funding cuts will further impact research in the years to come. Since the beginning of the pandemic, the Federal government has invested over \$400M in COVID-19 university research.¹⁸ However, it is anticipated that in the years to come the Federal government will have to deal with the pandemic related debts and consequently that cuts to research funding will be part of the solution. These financial hardships are, generally speaking, worse the smaller the university. Indeed, pandemic-related expenses were probably a contributing factor to Laurentian University declaring that there were financially insolvent on February 2, 2021.¹⁹ This difference in available resources to help researchers recover will, undoubtedly, exacerbate the inequities already prevalent.

In addition to the lack of resources, designing interventions that have the desired effect is also challenging. Like most universities in Ontario, Laurier extended the 'tenure clock' for all untenured faculty members. However, this is an example of an 'across the board' intervention that entrenches the inequities already present (Cui et al., 2020). What is needed is targeted supports aimed at those most negatively impacted. Such supports might include:

- flexible deadlines, contract extensions and workplace adjustments,
- education for chairs and deans on the impacts of COVID-19 on research productivity,
- support for childcare and other targeted accommodations,
- discussions with funding agencies regarding overall imbalances and biases, but particularly those caused or exacerbated by the pandemic,
- creation of pandemic response units within governing bodies to address these issues.²⁰

Conclusions

The research enterprise at Laurier has been through considerable disruption over the past 15 months. Unprecedented challenges, for many, were overcome, and research resumed at a reduced level through the decisive decision making and the tireless efforts of university administrators, faculty and graduate students. And yet, we must acknowledge those that have been left behind to varying degrees by the pandemic, including our equity-deserving researchers, parent-scholars, vulnerable and marginalized human participants and those who conduct international field research. In the coming months and years, Laurier will seek

¹⁸ <https://www.ic.gc.ca/eic/site/151.nsf/eng/00010.html>

¹⁹ See e.g., <https://www.cbc.ca/news/canada/sudbury/hache-zoom-meeting-laurentian-1.6034931>

²⁰ These and others were highlighted by OCUR's COVID-19 Recovery EDI Working Group co-chaired by L. Riggs, Vice President Research at Western University, and T. Eger, Vice President Research at Laurentian University.

to bring research back to pre-pandemic levels while navigating the long-term and lasting impacts of this period.

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