The 2018 Federal Budget:

An analysis from Higher Education Strategy Associates



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INTRODUCTION

On Tuesday, February 27th 2018, Finance Minister Bill Morneau rose in the House of Commons to deliver the Trudeau government's third budget. The macroeconomic conditions in the economy are better than we probably had any right to expect this time last year. The Trump administration has not yet taken drastic steps on NAFTA, and overall economic growth was slightly ahead of expectations, meaning that there was slightly more cash for new initiatives than was expected. But so too were the demands on the public purse. In the higher education sector, the big ask was the \$1.3 billion increase to fundamental research as recommended by David Naylor in his Review of Fundamental Science last year. This was all the more pressing given that in last year's budget, the councils received nary a mention.

The budget's direction was difficult to guess in advance. Sure, the middle class was going to be mentioned once or twice, and the importance of gender and Indigenous issues was clear in the lead up, but it was not clear how much would be left over for higher education. And we all know that the election is looming, so some additional spending was bound to happen.

The following pages detail the 2018 Budget, "Equality and Growth," as it relates to post-secondary education and related fields.



RESPONDING TO THE NAYLOR REPORT

Canada's Fundamental Science Review (FSR), chaired by former University of Toronto President David Naylor, finally got its day in Parliament. Any action on FSR recommendations was conspicuously absent from the 2017 Budget, but the 2018 Budget made significant investments into Canadian science and research largely in the spirit, if not the precise scale, of Naylor's recommendations.

The Granting Councils

The FSR placed a strong emphasis on expanding investigator-led funding and ensuring that researchers can access funds throughout the lifecycle of their careers, via the tri-councils' (NSERC, CIHR and SSHRC) grants. The Budget makes a deliberate effort to pursue this goal, providing a substantial increase in these tri-council funding streams with clear researcher discretion.

The table below compares 2018 Budget investments to FSR recommendations. The Budget establishes funding schedules over 5 years, but our report analyses these expenditure commitments until 2021-22 to be consistent with the FSR's 4-year schedules. Expenditures are reported below as annual increases over base funding (2017-18 levels).



Table 1: Fundamental Science Report and the Budget

	FRS Recommendations	Budget 2018		
Fundamental Research Grants	\$1.2bn over 4 years "devoted to granting councils' core 'open' competition programs"	\$690m over 4 years		
Canada Research Chairs Program	 Restoration to 2012 levels (\$35m) Adjust value for inflation (\$140m over 2 to 3 years) Cap number of Tier 1 renewals, focus of allocation on Tier 2 (ECRs) 	 \$160m over 4 years "The Government expects the granting councils to target new funding to [ECRs]" 		
Vanier and Banting doctoral and postdoctoral scholarships	"Total base increase of \$140m per year be phased in over four years, in equal increments of \$35m per year"	"Over the next year, the Government will be doing further work to determine how to better support students [] through scholarships and fellowships."		
New "Tri-Council Fund" for ad-hoc direct research projects	Funding to support international, interdisciplinary, fast-breaking, highrisk research	A new tri-council fund with \$210m over 4 years		
Research Support Fund (ie, indirect costs)	Increase RSF to 40% of value of research grants	RSF stays at 25%		
Major Research Facility and Small Capital Projects	Increase in funding for operating costs for MRF (\$140m over 4 years) and SCP (\$120m over 4 years)	\$160m over 5 years for MRF and no monies for SCP		
Canadian Foundation for Innovation	Stable base funding for CFI at minimum \$300m per year	Stable base funding for CFI at \$462m per year by 2023-24		
Equality and Diversity	"Development of better equity and diversity outcomes in the allocation of research funding"	\$19m over 4 years to implement programs "that support equality and diversity in academia" and "plans to achieve greater diversity among [tricouncil] research funding recipients"		

Broadly speaking, the government tried to tick most of the boxes that Naylor wanted ticked, though it notably chose to do nothing with respect to graduate scholarships and minor capital projects. Yet in most areas, the support came well short of what was requested—to nudge their figures closer to his, the government described all investments over a five-year period instead of the four-year horizon

requested in the FSR. An apples-to-apples comparison, however, suggests that in most areas, the funding granted between half and two-thirds of what was requested. The only areas where the FSR recommendations were met or surpassed was in infrastructure commitments (surprise - new buildings to open!) and in specialized direct funding (surprise - opportunities to micromanage!).

The table below offers a year-on-year breakdown of funding increases against base levels, where available from the budget.

Table 2 Year-on-year funding (four-year horizon), millions of dollars

	FSR Recommendations				Budget 2018			
	2018-19	2019-20	2020-21	2021-22	2018-19	2019-20	2020-21	2021-22
Fundamental Research Grants	130	270	405	405	115	155	185	235
Canada Research Chairs Program	35	140	140	140	25	35	50	50
Vanier and Banting doctoral and postdoctoral scholarships	35	70	105	140	No funding committed			
New "Tri-Council Fund" for ad-hoc direct research projects	20	40	60	80	35	45	65	65
Equality and Diversity	No funding request				5	6	4	4

Perhaps the simplest bottom-line way to evaluate the spending is to simply take all the council-related funding and look at increases in base-funding at the end of the government's five-year horizon, ie: annual expenditures in 2022-23. That includes a \$235 million increase in fundamental research budgets, \$65 million for "ad hoc" directed tri-council grants (allegedly for things such as interdisciplinary projects, international projects, "fast-breaking" opportunities, etc), \$58 million in indirect research costs, \$50m for CRCs and \$4m for diversity projects – all for a total of \$412 million. With inflation though, that figure is actually about \$373 million in present-day dollars, or an increase of 14.3% in real terms. That's not nothing: but it's not paradigm-shattering, either. Any claims you see over the next few days about how this budget means "Canada is Back" in research funding need to be treated with extreme caution.

Canadian Foundation for Innovation



The Budget proposes providing \$763 million over five years starting in 2018-19, scaling up from \$32 million in year one to \$366 million in year five, with 88% of the money in the last three years (i.e. during the next government mandate). Whether this is on top of 2015 Harper Government budget commitments of roughly \$247 million per year from 2018-19 to 2022-23 is unclear. Of these funds, \$160 million will go to the Major Science Initiatives Fund that supports nationally important research facilities.

The FSR recommended that the Government of Canada provide the CFI with a stable annual budget scaled at least to its recent annual outlays. The 2018 budget proposes that the permanent funding for research tools and infrastructure eventually be set to \$462 million per year by 2023-24. This clearly exceeds Naylor's recommendation, although not until what would have to be the end of the Liberals' second term, assuming they won another majority mandate.

Digital Research Infrastructure Strategy

The budget proposes to provide \$572.5 million over five years, with \$52 million per year ongoing, to implement a Digital Research Infrastructure Strategy that will provide researchers across Canada with more open and equitable access to advanced computing and big data resources. Naylor had recommended that the Government of Canada create a new organisation with long-term funding and a mandate to lead the development of a national DRI strategy. The strategy was to begin this process by merging Compute Canada and CANARIE to consolidate the organisations that provide digital research infrastructure. The Budget indicates that the Minister of Science will determine how to incorporate the roles played by these organisations, as well as the CFI, to provide more streamlined access under one institution.

Third-party research organisations

The budget commits funding to a collection of third-party research organisations. The Institute for Quantum Computing and the Centre for Drug Research and Development each are promised three years of funding starting in 2019-20 (respectively \$5 million \$16 million per year), the Rick Hansen Institute is committed four years of funding starting in 2018-19 (\$6 million per year), and the Centre of Excellence on the Canadian Federation is promised \$10 million in a single year. The funding amounts for the Institute for Quantum Computing and the Centre for Drug Research and Development basically maintain nominal funding levels, but not after inflation.

In addition to these new funding commitments, the Budget makes a nod to the Naylor Report by stating it is going to review in full the funding arrangements in the sector. The exact commitment is worth reviewing in detail, to wit:

At present, the Government allocates funding to a number of third-party research organizations that study a broad range of topics, from quantum science to



regenerative medicine. The government will consider a new approach to determine how to allocate federal funding to third-party research organizations, as advocated by Canada's Fundamental Science Review. The three federal granting councils and the Canada Foundation for Innovation, for example, use a competitive model to determine funding allocations. To improve the adaptability and effectiveness of federal research funding, the Government will communicate in the coming year new competitive processes for research institutes and organizations

This commitment can be read two ways. The first – possibly – is that the government has ideas about how these institutions distribute their money and is going to be communicating these ideas to the third-party organizations. The second is that the government wants these organisations themselves to compete for federal funding. The latter seems more consistent with the actual phrasing, but is really hard to imagine – how would one adjudicate a funding competition between Brain Canada and MITACS? Further elaboration will be needed in this area before a final judgement on the budget is possible.

SCIENCE AND INNOVATION

National Research Council

The budget announced a "reimagined" National Research Council and proposed a budget increase of \$540 million over five years starting in 2018-19. It is difficult to fully translate the goal of this "re-imagination" into English – this is among the most convoluted and jargon-laden parts of the budget – but they included \$30 million per year to fund NRC scientists to work with partners in post-secondary institutions and businesses, and \$12.4 million per year to lower access fees charged to post-secondary institutions and small and medium enterprises (SMEs) to access NRC facilities. These funds will raise the NRC's annual budget to \$1.1 billion. The NRC investments accompany a seemingly substantial investment in improving federal laboratories, although how to provide \$2.8 billion over five years on a cash basis but only \$58 million on an accrual basis requires accounting hijinks above my paygrade. The Government also plans to renew funding to the Council of Canadian Academies to the tune of \$9 million over three years starting in 2020-21.

College and Community Innovation Fund

The Budget expanded funding for the College and Community Innovation fund, which is administered by NSERC and designed to improve colleges' capacity to collaborate with SMEs in research and development. The base budget will increase by \$30 million over the next two years and remain at that level thereafter. Polytechnic Canada's <u>response</u> suggests approximately a 41% increase in program funding (once adjusted for inflation). This is a win for colleges and



polytechnics, but somewhere between 5% and 10% of what universities are receiving.

Other Innovation Programs

The main theme of the government's pronouncements on innovation appear to be based on the Barton Committee recommendation to "review and rationalize government innovation programs." Overall funding increases, but the number of programs is set to decline by up to two-thirds.

Of greatest relevance to the higher education sector, NSERC and CIHR are losing their respective Centres of Excellence for Commercialisation and Research and Business-led networks of Centres for Excellence programs to the Strategic Innovation Fund, along with funding associated with the centres. This change may add logistical challenges for post-secondary institutions looking to work with other innovation related programs under NSERC.

NSERC and CIHR will both still retain innovation programs, but also respectively consolidate these programs. On the CIHR side, the Industry Partnered Collaborative Research program will combine the eHealth Innovations Partnership Program and the Proof of Principle Program. On the NSERC side, the new Collaborative Research and Development Grant program is combining the Engage Grants, Industrial Research Chairs, Connect Grants, Strategic Partnership Grants for Networks and Projects, and Experience Awards Grants. The five NSERC programs are very different, so implementing this directive may prove disruptive (not in the good way).

Another relatively major decision was to consolidate the Accelerated Growth Service and the Concierge Service of the Industrial Research Assistance Program (IRAP) within Innovation Canada and provide \$13.5 million over five years starting in 2018-19, then \$3 million per year ongoing. The IRAP itself will receive \$700 million over five years starting in 2018-19, setting it up to receive \$150 million on an ongoing basis. Regional Development Agencies will receive \$400 million in additional funds on an accrual basis over five years, but the government will examine ways to simplify their suite of 22 programs.

In addition, the budget includes items aiming to enhance the governance of innovation. The Treasury Board Secretariat is receiving \$2 million per year to establish a central performance evaluation team to review innovation performance on an on-going basis, and Statistics Canada will receive \$1 million per year to improve its performance evaluation of innovation related programs (a fraction of Statistics Canada's overall funding increase of \$41 million over five years).

Patent Pools

This might be called the "get <u>Jim Balsillie</u> off our back" item. Within its proclaimed intellectual property strategy, the budget proposed to invest \$85.3 million over five



years starting in 2018-19, with \$10 million ongoing. The most remarkable aspect of this project is \$30 million in 2019-20 to pilot a Patent Collective, which pools patents so that Canadian SMEs can access intellectual property more cheaply to grow their businesses. This strategy firstly pools financial resources to protect domestic firms' patents from litigation by foreign companies or patent assertion entities, and secondly provides advantages to firms in the pool by allowing shared access to patented technologies, while supporting the maintenance of Canadian ownership. Patent pools could discourage sale to foreign investors, who would not gain access to the pool.

SKILLS

The biggest announcement here is an increase in funding the Youth Employment Strategy. In 2017, the Expert Panel on Youth Employment in Canada submitted their final report, "13 Ways to Modernize Youth Employment in Canada." The significant increase in funding for the Youth Employment Strategy can be read as a partial response to this report, which called for aggressive consideration of how to invest in and modernize Canada's youth employment strategy. This budget fulfills the former, significantly increasing investment in the Youth Employment Strategy by committing \$449 million in additional funds to the Canada Summer Jobs program. These funds are in addition to the increased commitment to the Youth Employment Strategy from the 2017 budget, which commits \$150 million in 2018-19 targeted particularly towards vulnerable youth and green jobs. The government has chosen to invest new money without taking action on any of the modernization issues raised in the report. The budget indicates in a general way that the renewed youth employment strategy will be announced over the year.

While the budget had somewhat limited commentary on steps towards modernizing youth employment services, it did earmark \$27.5 million over five years for the Education and Labour Market Longitudinal Linkage Survey, designed to provide ESDC with support for tracking labour information (which will presumably include youth employment). We see this as in part helping support the important work under Prof. Ross Finnie at the Educational Policy Research Initiative.

Apprenticeship training for under-represented groups, including women, Indigenous peoples, and disabled persons also received some attention. There were two modest programs directed towards improving outcomes in these areas. The new Pre-Apprenticeship Program, designed to encourage people from these groups to explore careers in the apprenticeships, was provided with \$46 million over 5 years. Further, the government announced the Apprenticeship Incentive Grant for Women, allocating 19.9 million to provide women in Red-Seal trades up to \$6,000 over two years for their training. Finally, the Women in Construction Fund provides ESDC with \$10 million to develop and refine mentoring and support



strategies for helping women succeed in their training. Collectively, the grants are somewhat reminiscent of the efforts of the previous Conservative government to improve recruitment to the skilled trades, though these efforts are more targeted, and rely more on grants than loans. However, the Conservative experience demonstrates that there are open questions around how effective these sorts of targeted grants of this size are for actually persuading people to change careers.

Budget 2018 contained a short update with regards to the FutureSkillsLab, originally announced in the 2017 Budget, designed to develop innovative ways to foster skills training. While the FutureSkillsLab received a mention, we are in a wait-and-see mode for what form the lab will take. The budget did not indicate that it would take the suggestion of Andrew Parkin, Erich Hartmann, and Michael Morden, that the lab should become "a model of federal-provincial-territorial 'coownership'." The budget simply announced that the lab would launch and it an unnamed council would lead it.

Two other minor notes—for all of the attention it received in the last budget, the absence of any reference to Work-Integrated Learning (beyond a mention as part of Canada's Cyber Security Strategy), which was one of the core recommendations of College and Institutes Canada, was rather striking. Presumably this was largely due to the considerable amount of funding received by MITACS for this last year, though its absence may be a bit disappointing in some quarters. Secondly, while perhaps too large a policy point for this year's budget, some movement towards the Canada Lifelong Learning fund proposed in the Advisory Council on Economic Growth will be most welcome in next year's budget.

INDIGENOUS PERSONS

One of the themes of the budget is Reconciliation, and as with last year, Indigenous postsecondary received a reasonable about of attention in this year's budget. Reflecting updated language, the Aboriginal Skills and Employment Training Strategy (ASETS) is now the Indigenous Skills and Employment Training Strategy. This new program, which largely continues the previous strategy's mission of providing quality training for Indigenous peoples, is being funded to the tune of \$447 million over the next five years, with \$66 million in 2018-19 and over \$90 million for the remaining years. This represents an increase of approximately one-third in funding from its equivalent program in 2017-18.

An interesting change the budget offers is how money is allocated to Indigenous peoples. Recognizing challenges between different groups, the government now proposes to provide the training funding in four distinct streams: First Nations, Inuit, Métis, and Urban/Non-Affiliated. It is not precisely clear how this will operate on a nation-to-nation basis, but it indicates the establishment a somewhat more flexible framework. The budget also indicates that it will ensure this funding provides Indigenous women with equal access to these funds. Further, as part of their



commitments to the Canada-Métis Nation Accord, the government committed \$10 million specifically to post-secondary funding to the Métis Nation. This might be seen as a temporary measure to ensure funding until the Post-Secondary Student Support Program runs out of funding next year.

The budget does not explicitly mention two major features of the previous budget, the Post-Secondary Student Support Program or for Indspire, which was a beneficiary of an increased grant in last year's budget but did not receive the sustained increase in permanent annual funding that they sought in their prebudget brief.

VARIA

Accessing the Canada Learning Bond

Expanding on the commitment from last year's budget to improve access to the Canada Learning Bond, this year's budget includes a provision, building on a model launched in Ontario, that allows parents to open an RESP during the online birth registration service when registering for other essential documents like a birth certificate. Once the RESP is opened, parents can then begin to receive the CLB, to a maximum of \$2,000. Given that public awareness of the CLB can be a bit limited, this more streamlined process is a positive development.

Sexual Assault on Campus

An important, if easy to miss, piece of the gender-based budget was a commitment on the part of the Government of Canada to spend "\$5.5 over five years starting in 2018–19, to work with stakeholders, including provinces and territories, towards developing a harmonized national framework to ensure consistent, comprehensive and sustainable approaches in addressing gender-based violence at post-secondary institutions across the country." This is a somewhat left-field proposal, given that several provinces (notably Manitoba, Ontario and British Columbia) have already introduced policy and/or legislation of their own in this area and so it is not entirely clear what additional federal action in this area is meant to achieve.

More starling, though, is the sentence which comes next: "Starting in 2019, for those universities and college campuses that are not implementing best practices addressing sexual assaults on campus, the Government of Canada will consider withdrawing federal funding." Two things come to mind here. The first is that what constitutes "best practice" may vary quite a bit between institutions depending (mainly) on size and residential character. But second, and more important, is the threat of withdrawing institutional funding. As I understand this, the ambiguity about which funding might be withdrawn is very deliberate and is meant to get universities and colleges attention.



Might this money include research funds? Might it include student aid funds? The Government is silent, but want institutions to think very hard about the possibilities.

This measure is unlikely to draw a lot of criticism because most will be in favour of "putting teeth" on a measure to reduce sexual violence. But beware: what works for this issue will work for others, too. Recall Andrew Scheer's threat to withdraw funding to institutions which do not meet his preferred standards on free speech: this announcement has just shown him how to achieve that, should he ever gain power.



CONCLUSION

On the whole, this was a decent budget for higher education. It provided a 14% real increase over five years to the granting council budgets, concentrated (for the most part) in areas researchers wanted, and done in ways that don't compound current inequities in funding across the research lifecycle. That is good, not great, though the main sound you will hear on campuses for the next few days is Presidents falling over themselves to say thank you to Bill Morneau.

It is notable that the man behind the Fundamental Science Review, David Naylor, fairly pointedly did not endorse the budget. It's a good start, and repairs some of the damage done through neglect over the last few years. But there is no paradigm shift. Indeed, in some respects it replicates some of the same old problems we have seen for many years, choosing to put more money than requested into areas like infrastructure and the new "tri-council fund" for ad-hoc directed research projects.

Move away from funding though, and there is a lot of work to be done in the science realm. NSERC in particular seems to have its work cut out for it, transitioning Centres of Excellence for Commercialization and Research and the Business-led Networks of Centres for Excellence out of the organization, and having to fold five fairly different programs (Engage Grants, Industrial Research Chairs, Connect Grants, Strategic Partnership Grants for Networks and Projects, and Experience Awards Grants) into one single funding program. No one seems to have any idea how this is going to work, and there may be considerable disruption to certain types of private-sector partnership arrangements as this shakes out. Despite having had the Naylor Report for over a year, reviews of scholarships and arrangements with third-party research organizations have not been done and have been put off to some time in the future – maybe this year, maybe next. There may be many devils in the details.

The Government seems to have mostly taken a year off on skills and student aid – no surprise, perhaps, after the hyperactivity in these two fields over the last two budgets. The grants for women in apprenticeships seems in some ways to be a throwback to Harper-era incentives in this field. They weren't a particularly great idea then and they probably aren't a great idea now (curiously, this Government's desire for more of an evidence-based for policy does not seem to have extended to conducting even cursory examinations of recent policy initiatives' success or failures.) Of perhaps greater interest are some of the investments in skills for Indigenous Peoples; the \$10 million to the Métis Nation of Canada for post-secondary education is perhaps the most intriguing development here.

There is further evidence of the Government kicking the can down the road. Despite having had the Report of the Expert Panel on Youth Employment in Canada for nearly eleven months, there is almost no engagement with its



recommendations to be seen here – just more money in the same old programs, and maybe modernization in the future.

Weirdly, this budget may also be remembered for two very small items. The first is the change to the Canada Learning Bond and the new efforts to enrol more children at birth. And the second is the commitment on preventing sexual assaults on campus, which seems not to have been widely discussed beforehand. Not only does it appear to duplicate provincial efforts, but it inserts the federal government into institutional policies in a way which is arguably unprecedented. The cause in which this effort is being deployed is vitally important, but if similar tools are used in future, say against institutions which are deemed insufficiently zealous in promoting certain concepts of "free speech", this particular policy innovation may not be seen so favourably.

In sum, then, the budget shows some solid but not exemplary achievement in fundamental and applied research, skills training for Indigenous peoples, and a nice if overdue measure on the Canada Learning Bond. But there is also a lot of unfinished work here. It's most obvious in the areas of youth employment, third-party research organization, and graduate scholarships. Future Skills Lab remains an unholy mess due to the government's fundamental unwillingness to work with provinces in an appropriate way. The implied threat on withholding funding on sexual assault policies may become an unwelcome precedent. And we're all going to need to say some prayers for NSERC President Mario Pinto because those program mergers he's been ordered to effectuate look pretty daunting.

Ultimately, this budget did a good job of covering the bases, and will take some pressure off the system, but there are many incomplete points. We will have to look for the revisions and resubmissions over the year.

