The Conference Board of Canada spent five years examining the advanced skills and education challenges facing Canada today.

Through a broad collaboration of public and private sector stakeholders, we studied important themes and issues in education, with special emphasis on post-secondary education, from a pan-Canadian perspective to understand what drives change in education, skills development, and the future of work.

This document distills the challenges, barriers, best practices, and recommendations from our 40+ research reports, briefings, and events. Through our research and convening, we identified six cross-sectoral, multi-stakeholder platforms.

The next phase of our work will focus on continuing our education and skills research, informing evidence-based policy development and decision-making, and bringing together stakeholders to work toward strengthening Canada’s education and skills sectors.
Education and Skills in Canada

Aspiration
That Canada’s skills and post-secondary education (PSE) sectors are universally accessible, equitable, and representative of Canada’s diversity; produce, in partnership with early childhood, elementary, and secondary school systems, skilled graduates for the future of work; generate high-quality, socially, culturally, scientifically, and commercially relevant research; that they operate sustainably; and that evidence-based decisions are made in Canadian public schools and PSE systems.

Reach
All 10 provinces

Engagement
Over 130 past and current partners

Impact
A strong print, broadcast and online media presence
Featured in over 1,500 stories
Over 400 million media impressions

Platforms

Accessibility
Skills
Learner Pathways
Institutional Sustainability
Data
Knowledge Mobilization and Research Impact
Platform 1

Accessibility

Aspiration
Canada’s PSE systems are universally accessible, equitable, and representative of Canada’s diversity.

Disruptors and Challenges

Learners continue to face significant barriers to access and equity in PSE. To many, Canada’s PSE systems remain inaccessible, inequitable, and unrepresentative of Canada’s diversity.

The “traditional” student base of 18–22-year-old direct entrants from high school is shrinking.

The costs of attending PSE continue to rise along with student and household debt levels, making PSE less and less affordable.

Disciplinary and institutional impediments to racial, Indigenous, and gender diversity persist.

Women, while well-represented in PSE as a whole, remain under-represented in certain fields, including science, technology, engineering, and math (STEM) and trades.

Indigenous Canadians are one of the fastest-growing populations, yet remain under-represented in PSE and the labour market.

More students than ever before identify as having a disability. Lack of awareness of disability and stigma mean the needs of students with disabilities go unnoticed or are ignored.

More individuals are starting or returning to PSE later in life as job requirements increasingly demand PSE credentials or advanced skills.

Learners in rural and remote communities, especially those in the North, have limited access to PSE.

Technology is enabling new possibilities for learning and posing new challenges for faculty, influencing demands and preferences for technology-mediated education.

Goals

Canada’s PSE systems move beyond acceptance of diversity and understand, recognize, reflect, support, and defend the challenges and experiences of multiple intersecting identities.

PSE systems support the learning needs of under-represented populations and other marginalized groups (e.g., Indigenous, LGBTQ) through tailored initiatives.

Ancillary services that support student recruitment, retention, and achievement (financial aid, health, safe spaces, disability support, career transition) are based on best practices and achieve economies of scale across systems where possible.

Canadian PSE offers courses, accredited and transferable, that are accessible to Northern, rural, and remote learners.

Canadian PSE systems feature a range of types of programs—short duration, mixed distance/online/bricks and mortar—that are in balance with learner preferences and labour market needs.

Demographic and labour market data are collected and analyzed to provide insight into the demographics and PSE choices, needs, and expectations of learners.

PSE provides a reliable pathway to meaningful employment for groups previously under-represented in the Canadian labour force.

PSE programs deliver culturally and regionally relevant programming to develop in-demand skills for communities.
Platform 2

Skills

Aspiration
Learners have the advanced skills and knowledge they need to contribute as global citizens and to the future of work.

Disruptors and Challenges
Despite having one of the most educated populations in the OECD, Canada is not producing enough skilled graduates to sustain and enhance the country’s economic and social well-being or its innovation capacity.

Quality of education varies between institutions, programs, and sectors.

Skills development is not consistently defined, addressed, and prioritized across PSE systems.

Employers are spending less on employee training, expecting new hires to be job-ready and existing employees to upskill.

Too few students have opportunities to accumulate direct work experience and other non-classroom experience while pursuing their credentials—both to better prepare them for employment and to provide experiences for reflection and analysis when they return to the classroom.

The future of working and learning will require new competencies and skills, such as social and emotional intelligence, virtual collaboration, sense-making, foresight, creativity, and adaptability, which will place new demands on the technology infrastructure, social and cultural makeup, and approaches to teaching in PSE institutions.

Goals
Canada’s PSE systems meet labour demands for graduates with advanced skills and knowledge.

There is broad coordination and collaboration among public and private sector stakeholders, enabling PSE systems to better serve the needs of learners, employers, and society in general.

Institutions, programs, and curricula have differentiated and coordinated approaches to skills development.

Early intervention: K–12 and PSE collaborate on future skills development, career options, transitions, and labour market information.

Every PSE learner has a significant experiential learning or work-integrated learning opportunity that is a recognized component of their study program and credential.

Employers provide significant and equitably distributed training and skills development opportunities to employees through firm-level, sectoral, and government-supported programs and initiatives.

E-learning and digital technologies are used effectively to include a wider population in PSE and improve achievement.

Graduates understand and are able to articulate their skills, including the transferability of their skills, to potential employers.
Platform 3

Learner Pathways

Aspiration
Canadá’s skills and PSE systems enable the fluid and efficient movement of learners between K–12 and PSE and through PSE to employment.

Disruptors and Challenges
Skills gaps persist in certain regions and industries, in part because of inefficient recognition of workers’ prior learning and in part because of mismatches and miscommunications between PSE systems and business/industry.

Learners’ ability to move between institutions and jurisdictions is hampered by limited awareness of credential and institutional transferability.

PSE institutions have uncoordinated processes for supporting student mobility, rural/remote students working in communities with marked labour needs, mature first-time students with work experience, workers needing retraining, internationally educated professionals, and working professionals.

Changing technologies, the automation of jobs, the emergence of new jobs, and globalization require PSE systems and labour forces to respond quickly to the movement of individuals out of obsolete jobs and into new and emerging jobs.

Internationally educated professionals are a potential source of labour to fill pressing skills gaps. Many are required to validate or repeat their education once arriving in Canada, which is inefficient and costly.

Apprenticeships play an important role in meeting Canada’s skills needs, but trade certification rates remain low owing to gaps in data about existing apprentice populations, skills gaps and opportunities, barriers, and labour market outcomes and mobility.

K–12 and PSE systems operate in separate spheres with few strong connections, leaving some students underprepared for PSE success and leading to imbalances in student demand for programs and labour market needs.

Goals
A national student tracking number to follow learners’ lifetime educational pathways through K–12 and PSE.

Students receive recognition and credit for their prior learning and experience in efficient and standardized ways across the country.

Opportunities to enter into and re-enter PSE are open throughout the lifespan.

There are clearly articulated, standardized pathways for progressing through PSE and learning throughout the lifespan.

Workers have the flexibility to relocate across the country to practice their vocation/trade at the same level without unnecessary additional training requirements.

National standards, endorsed by occupational bodies, are in place and widely accepted as the norm for validating domestically and internationally acquired education and experience.

Learners from groups marginalized in PSE and employment have access to supports to help transition into and between PSE and employment.

Immigration processes include learning recognition services as part of selection and settlement.

Longitudinal information on learner pathways to and through PSE and employment is collected and used to inform decisions about programs, recruitment, and retention.

Canadian PSE curricula, programs, and teaching are available to immigrant source countries.

Graduates are recognized as holding Canadian credentials prior to their settlement in Canada.

Partnerships and collaboration between K–12 and PSE are widespread and improve learner pathways and outcomes.
Platform 4
Institutional Sustainability

Aspiration
Governments and institutions collaborate and commit to sustainability frameworks that prioritize flexible funding regimes, education accessibility and quality, support for basic research, and a responsiveness to emerging challenges.

Disruptors and Challenges
Rising institutional operating costs exceed shrinking provincial per-student operating grants.

Government funding levels are likely to experience only modest growth due to ongoing financial pressures on provincial governments (such as health care spending needs) and rising debt loads.

Forecast growth is excessively optimistic in the face of serious competition and persistent deficits (not to mention infrastructure costs) at the provincial and federal levels.

Canada is entering a period of dramatic demographic change. The size of the cohort aged 18–24 will decline significantly over the next 10 years and is not expected to begin to rebound until 2020–30. As a result, enrolment from traditional student bases will decline along with tuition revenue.

Increasing global lifespans, or the longevity of people, means delayed retirement, multiple careers, upskilling, and adult learning. Institutional sustainability will require PSEs to expand continuing education and learning opportunities for non-traditional students along with the mechanisms and services to support a changing student demographic.

Rising student fees place a disproportionate burden on Indigenous, low-income, and at-risk students at a time when PSEs will need to recruit more heavily from non-traditional student bases.

Unionized faculty salaries plus benefits packages in provinces without mandatory retirement have forced PSEs to resort increasingly to part-time, contract, non-unionized teaching staff to reduce costs, leading to wide disparities in compensation and job security and negative impacts on the conditions and quality of faculty teaching and student learning.

Less than 25 per cent of research and development funding as a percentage of GDP comes from federal sources, forcing PSEs themselves to underwrite at least 50 per cent of these costs.

Funding arrangements can be biased in favour of research productivity at the expense of teaching quality and learner outcomes.

Deteriorating PSE structures and accumulated deferred maintenance impact education quality and pose an increasing financial burden on PSE institutions.

Goals
Government funding to provincial PSE sectors meets or exceeds the general rate of inflation and is tied to metrics other than enrolment.

Government funding formulas are based on clear expectations and allow for, and are tied to, institutional mandates, best practices, teaching quality, and learner outcomes, as well as research output and outcomes.

Institutions find new sources of funding beyond government grants, tuition, interest from endowments, ancillary fees, and research commercialization.

Stable public-private funding arrangements that encourage PSE institutions to undertake applied research, commercialization activities, and research with social and cultural value for end-users.

Expanded financial assistance for students with financial need.

Salaries, wages, and benefits are equitable and in line with trends in the broader public sector.

Faculty and institutions are supported and rewarded for excellence in teaching, innovation, and improving learner outcomes.

PSEs provide continuing education and learning opportunities for non-traditional students, along with the mechanisms and services to support a changing student demographic.

Existing campus spaces are optimized for year-round use. Campus spaces have alternate uses (e.g., community and commercial rental) to offset maintenance costs. Attend to deferred maintenance before building new projects.
Platform 5

Data

Aspiration
Stakeholders have access to high-quality, uniform, accessible data on the performance of Canada’s PSE systems.

Disruptors and Challenges

The volume of higher education and labour market data produced each year grows exponentially.

PSE institutions track a wide range of institutional data, but the data are ineffectively consolidated, aggregated, and connected with labour market information.

The sources, uses, potential uses, and risks of PSE data remain uncertain.

PSE interactions are increasingly mediated by technology, creating new challenges around capturing and analyzing data.

As provincial/territorial budgets face competing priorities and limited resources, there is a need to show evidence of the value of PSE programs and institutions.

PSE institutions face growing competition for students and private funding, both within Canada and internationally. PSE institutions must provide evidence of program quality.

There is a dearth of reliable demographic and diversity data on students, faculty, and administrators at PSE institutions.

Institutions struggle to ensure they are implementing strategies to meet the needs of all campus stakeholders.

Concerns about the employment outcomes of post-secondary graduates are increasing. Students and families want assurances that the labour market will recognize their investment in PSE.

Funders require evidence of the impact and value of academic research, but there is limited agreement on appropriate metrics and a lack of stakeholder buy-in.

Goals

Robust, comparable data are publicly available on all aspects of PSE performance and composition: revenues and expenditures, administration, course data, demographic and diversity data, labour market outcomes for graduates.

Data are leveraged to serve PSE institutions, systems, the people they support, and the labour market.

The learning pathways of individuals are tracked throughout their lifetime and across provincial jurisdictions, providing robust longitudinal data.

National longitudinal data are available on the impact of PSE on learners’ career outcomes. PSE data are granular enough to address differences in learners’ educational choices and individual characteristics.

Learners can easily access data on learning pathways, career outcomes for PSE programs, and detailed labour market information (e.g., on salaries, skills requirements, and growth areas) to help inform PSE decisions.

Quality assurance processes for PSE institutions are comprehensive; incorporate institutional differences due to system inputs; and include assessment of ancillary services, learning, and labour market outcomes. Indicators allow for national comparison of institutions.

PSE institutions track the career outcomes of graduates. Information on career outcomes and labour market trends is used to inform program enrolments and create new programs.

Comparable data are available on teaching resources and quality at PSE institutions (e.g., faculty workloads, use of contract instructors, class sizes).

There is an established body of knowledge on best practices in public-private sector partnerships.

Best practices in Canadian and international PSE institutions are widely shared in an accessible format both within and between institutions.
Disruptors and Challenges

Canadian PSE is weak at translating research findings into a form that can be used by the public, private, and not-for-profit sectors.

Students and researchers are unaware of, if not resistant to, knowledge translation and research impact, and lack skills in applied research, knowledge dissemination, translation and/or commercialization, and social innovation.

Moving research from idea to implementation is financially risky.

The fast pace of technological and social change increases the likelihood of obsolescence.

The social contract between PSE and society is not well understood. In this age of austerity, governments are expecting returns and citizens are increasingly looking to governments to be transparent.

The dynamics of transparency and accountability between Canadians, the government, and PSE are changing.

The economic and social value of Canadian PSE research is not well understood or communicated to the various stakeholder groups that stand to benefit.

Reward, recognition, and advancement in PSE are often limited to a few measures of research output and discourage other measures of value, including collaboration with non-academic partners.

Canadian PSE institutions underinvest in knowledge mobilization supports as compared with supports for traditional notions of commercialization.

Traditional notions of innovation are being replaced by inclusive models of innovation that acknowledge the importance of all academic disciplines and all sectors for equitable economies, inclusive societies, and sustainable environments. Science is more than STEM. Partnerships are more than industry. Impact is more than commercialization.

Goals

Canadian PSE produces quality research with tangible uses for the public, private, and not-for-profit sectors.

Canadian PSE research and research funders embrace disruption, changes in direction, and failure as necessary, and welcome aspects of the research and commercialization process.

Funding opportunities support basic research as well as user-driven research that requires partnerships throughout the process.

Impact and knowledge mobilization are embedded within research and teaching categories and accommodate disciplines beyond STEM.

Researchers, funding bodies, non-academic partners, and stakeholders in the creation and curation of knowledge collaborate across sectors. Co-location, research clusters, and co-working spaces are examples and means to this end.

Various stakeholder groups (industry, government, non-profits, public) are engaged in research planning activities to encourage future practical application of research.

Canada’s research-commercialization centres/parks are recognized leaders in research partnership, skills training, and human capital exchange opportunities.

Funding formulas and performance measurement mechanisms fairly assess the value of research from different disciplines, including research with longer time frames and research whose outcomes and impacts are not captured using traditional measurement criteria.

Student learning involves participation in knowledge mobilization/translation activities, applied research, and community-based or industry-sponsored research, as well as work-enabled learning such as internships and co-op placements.

PSE institutions have in-house research-knowledge brokers that connect research to potential end-users.

Knowledge mobilization and/or research impact assessment is expected and funded as part of the research process.

Aspiration

Canada becomes a recognized leader at mobilizing evidence-based research for end-users in all sectors. Canada’s researchers span boundaries, collaborate, and connect their work to new services, products, processes, systems, public policies, and innovations with social, economic, cultural, commercial, and scientific value.

Knowledge Mobilization and Research Impact

Platform 6
Goals at a Glance

Effective system-wide recruitment, retention, and achievement initiatives are in place to target high-needs demographics and to diversify PSE campuses.

Improved PSE participation and achievement rates for non-traditional student bases, especially Indigenous Canadians, people with disabilities, and low-income learners.

Students can access PSE for a wider variety of program and credential types, including work-integrated learning opportunities, apprenticeships, professional programs, vocational training, PhDs, corporate and professional development, lifelong learning, and general interest.

Learners make informed decisions about their pathways into, through, between, and out of Canada’s PSE systems.

PSE institutions have sustainable operations in place to provide Canadians with access to quality education and produce world-class research.

Benchmarked data on PSE revenues and expenditures, staff and student demographics, and learning and labour market outcomes.

Faculty and institutional evaluation criteria incentivizes research with high-impact social, economic, environmental, cultural, and scientific value.

Increased collaboration between PSE, government, business, industry, non-profits, and community in research and teaching in order to maximize the economic, social, and environmental impacts of PSE research.

Where Do We Go From Here?

We’re looking for your help to inform and shape our work.

Possible next steps might include identifying and convening provincial, national, or international stakeholders; establishing working groups to examine best practices; or developing new research agendas.

Most importantly, we need your help to build new connections, commitments, and coalitions of the willing.
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