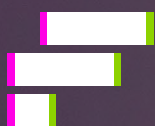


Bridging the school-to-work transition for youth: Insights and learnings

Learning bulletin



Future Skills
Centre





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Insights & Learnings

Canada has expressed its collective faith in education as a critical pathway for young people to obtain good jobs and economic prosperity. The Future Skills Centre (FSC) has made investments in 60 projects that work with youth populations on a variety of issues, many of which relate to challenges embedded in the school-to-work transition.

This learning bulletin explores seven projects that are tackling core aspects of school-to-work challenges in a concerted manner.

Learning questions

- *How can the skills ecosystem increase youth participation rates in education?*
- *How can educational institutions better prepare young people for the world of work?*
- *How can young people without experience gain relevant work experience?*
- *How can we encourage employers to hire and invest in excluded youth?*
- *How can we better integrate services to support young job seekers?*



Introduction

About 5.9% of national wealth is directed towards education, placing Canada near the top of the pack amongst comparator OECD countries for educational expenditure as a share of GDP. As in other countries where formal wage employment is the norm, the “returns to education” have been impressive by most standards.¹ Education level is one of the strongest predictors of young people’s ability to get a job, earn more, and achieve a higher quality of work. And as a result of investments in education, today’s youth in Canada are more educated than any previous generation.²

The school-to-work transition – that pivotal period when a student leaves education for the labour market – is a vital process in a young person’s life. As young adults seek out their aspirations and economic independence, this crucial transition time is dually entwined with opportunity and excitement on the one hand; challenge and trepidation on the other. Yet despite significant advances in educational attainment in recent generations, the school-to-work transition remains a notoriously difficult time. Some of the challenges to surmount include:

“The school-to-work transition – that pivotal period when a student leaves education for the labour market – is a vital process in a young person’s life.”

- **Disparities by level of education:** Since education is a key predictor of labour market outcomes, young people with lower levels of education are more likely to struggle with school-to-work transitions. In 2019, 88.9% of young bachelor degree holders not in school full-time were employed, much higher than those with no high school diploma (52.2%). Moreover, a survey conducted by the Environcs Institute, the Future Skills Centre and the Diversity Institute (2021) found that one in three Canadian youth had changed their plans for postsecondary education as a result of the pandemic, either discontinuing or postponing their studies, or returning to the classroom. **Indigenous, Black and disabled youth were much more likely than average to have stopped postsecondary education or skills training.**

1 Globally, it is estimated that one additional year of schooling yields an average private return of 9 per cent a year in earnings, or between 3 and 6 per cent in the OECD. The social returns are more difficult to quantify, but greater levels of education are often associated with improved health outcomes, lower levels of crime, and overall higher standards of living. Moreover, education is associated with economic growth; in the OECD, rising labour productivity accounted for at least half of GDP per capita growth in the period of 1994 to 2004.

2 The proportion of young Canadians aged 25 to 34 with a postsecondary degree is at an all-time high of 73%, up from 59% in 2000. Moreover, young Canadians aged 25 to 34 are attaining more advanced degrees (bachelor’s, master’s or doctoral) compared to older Canadians aged 55 to 64 (39% versus 24%).



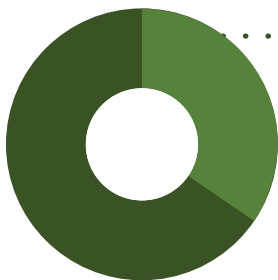
52% of youth with less than a high school diploma were employed



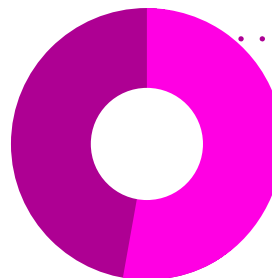
1/3 youth changed their plans for postsecondary education as a result of the pandemic

- Employer attitudes towards young people:** Some research has shown that young people, particularly those with lower levels of education or those from equity-seeking groups, encounter negative employer attitudes when seeking work. A [2015 global McKinsey survey of employers](#) found that only 34% of employers agreed that youth are prepared for the workplace. A [2013 survey](#) by Pathways to Education found that 54% of Canadians believed “youth are not even moderately prepared to meet the needs of the emerging job market”. Further, research conducted in Canada and in other global contexts has consistently shown that young people from equity-seeking groups are [more likely to encounter discrimination in hiring practices](#). There is some evidence that postsecondary completion improves employer perceptions, however. A [2016 survey by the Business Council of Canada](#) found that two thirds of private sector employers believed new postsecondary graduates are prepared to join the workforce.

“Research conducted in Canada and in other global contexts has consistently shown that young people from equity-seeking groups are more likely to encounter discrimination in hiring practices.”



34% of employers agreed that youth are prepared for the workplace



54% of employers believed “youth are not even moderately prepared to meet the needs of the emerging job market”

- Precarity and overqualification:** Young people leaving school often need to navigate trade-offs between finding immediate employment to meet pressing household-level needs versus



employment that fits their skills and ambitions, which may take longer to secure. Recent trends indicate that young people are increasingly choosing the former path. Since the 1980s, the nature of youth employment has grown more precarious, with young people and the less educated disproportionately represented in low quality, part-time and/or temporary jobs.³ Moreover, in 2015, the rate of overqualification among recent university graduates was 39 per cent and 33 per cent for recent college graduates. For youth from economically disadvantaged backgrounds, the urgency of finding immediate employment is amplified, with potentially negative implications for long-term career development.

- **The costs of a lengthy school-to-work transition:** As the length of a young person’s school-to-work transition increases, so does the opportunity cost of their education. Many young people may find themselves briefly unemployed after completing school as they search for the right job. When unemployment becomes prolonged, young people are at risk of longer-term consequences resulting from the delay in entering the workforce. Data from the province of Ontario suggests that after the 2008 financial crisis, the average length of the school-to-work transition for graduating classes increased slightly and has never fully recovered. In cases where a rough start segues into long-term unemployment, as was seen amongst many students who graduated into the 2008 recession, young people may experience long-term wage and employment scarring effects.
- **Labour market insecurity:** As labour market entrants, young people face an employment status that is perennially less secure than that of older Canadians.⁴ A survey conducted by the Environics Institute and the Future Skills Centre (2021) found that the pandemic exposed the economic insecurity of young Canadians as they were more likely to lose hours of work, become unemployed, or lose income as result of the pandemic. This mimics the trend of “last in, first out” seen in previous recessions whereby youth are disproportionately exposed to cyclical unemployment risk.
- **Rapidly changing career paths:** Today, young people are tasked with continual career planning in a labour market where the opportunity structure and skill demands are shifting at an unprecedented pace.⁵ A recent McKinsey report forecasted that by 2030, between 75 and 275 million workers will need to change careers. Already, technological disruption has disproportionately squeezed the types of opportunities available to youth by impacting entry-level jobs in the food services, tourism, accommodation and retail sectors – jobs that young people traditionally rely on as entry points into the labour market.⁶

3 “Low quality jobs” as measured through the quality dimensions of: income and benefits, career prospects, work intensity, working-time quality, skills and discretion, and social environment.

4 The rate of unemployment for youth aged 15 to 24 in Canada has been, on average, more than twice that of older workers (25+) since 1953, but since 1990, the gap has been growing. This gap persists even when excluding young people who are in school full time.

5 A recent McKinsey report forecasted that by 2030, between 75 and 275 million workers will need to change careers.

6 Recent research by the Brookfield Institute for Innovation and Entrepreneurship notes that entry-level service roles including retail salespersons and cashiers are most vulnerable to automation and that these jobs have been disproportionately filled by low-income workers between the ages of 15 to 24.



Understanding the school-to-work transition

Each of the seven projects explored in this learning bulletin address key problems youth face at different stages of their school-to-work transitions. Just as the potential challenges youth may encounter are many, so too are their systemic determinants. The macroeconomic context, availability of policy and service supports and social inequities all interact to shape the relative ease or difficulty with which a young person is able to carve out their individual school-to-work transition. While skills and the means of signalling them are core issues that hint at some potential solutions for youth, additional needs come to light when we consider the costs of building early human capital. For youth, career development takes a significant amount of time, work, upfront monetary investment in education and training, and the opportunity cost of taking early unpaid or low-paying relevant work experiences.



FSC's investments in school-to-work transition issues address the unique contextual factors affecting different segments of youth, while also recognizing the common challenges they all face. Projects supported by FSC are doing so in a variety of ways – by minimizing the costs of participation in education, addressing youth who face economic or discrimination barriers with targeted supports and incentivizing employers to make these transformative investments in young people.

To this end, the Future Skills Centre has focused its school-to-work investments on equipping young people with key enablers like information, guidance, skills and the means of signalling their skills so that they can capitalize on opportunities, and on collaborating with employers to create those opportunities. We are working closely with our partners to reveal critical learnings and insights around these issues as they arise. Projects discussed in this learning bulletin are outlined in Box A.

Facilitating connections to make change happen

[Join our community of practice!](#) This is a space to share your experiences, access curated products, case studies and tools, explore common interests, and network with others who are preparing Canadians for the future of work! Find out how others are working to support youth across Canada by joining the community of practice.



Box A. Learning through Innovation

We're testing different questions related to youth employment and skills through several innovation projects across Canada

1. How can the skills ecosystem increase rates of youth participation in education?

Relevant projects addressing this question:

Zero-Fee, University of Alberta: Free post-secondary education (including microcredentials).

Reboot Plus, Douglas College: Holistic support program for youth struggling with high school – incorporates essential skills training and experiential pathway exploration.

2. How can educational institutions better prepare young people for the world of work?

Relevant projects addressing this question:

Future Skills Innovation Network for Universities, FUSION: An innovative network of universities bringing professional development into the classroom via a skills-focused curriculum and skill reflection sessions.

Canadian Alliance for Skills and Training in Life Sciences (CASTL), PEI Bioalliance: Applied-learning STEM skills development program jointly informed by academia and industry.

3. How can young people without experience gain relevant work experience?

Relevant projects addressing this question:

ELITE, University of Alberta: Paid work-integrated learning and internship opportunities for Black youth in STEM with an entrepreneurial component – wage subsidized.

4. How can we encourage employers to hire and invest in excluded youth?

Relevant projects addressing this question:

Upskilling Canadian youth for in-demand tech careers, NPOWER: Employer-informed “pre-training” skills programming – does not leverage wage subsidies.

ADaPT, Technation Canada & the Diversity Institute: Skills development and work placement program to transition recent graduates with non-STEM backgrounds into digital roles.

5. How can we better integrate services to support young job seekers?

Relevant projects addressing this question:

Project Integrate, OTEC, MaRS & First Work: An integrated digital youth employment services pathway.





Box B. How have Canadian policymakers approached school-to-work transition issues?

- Budget 2021 announced \$5.7 billion over the next five years to boost training and job prospects for Canadian youth – roughly triple prior levels. It pledged to create 215,000 new opportunities for youth through the Student Work Placement, Youth Employment and Skills Strategy, Canada Summer Jobs, Mitacs and Canada Digital Adoption programs. These investments are part of a suite of [active labour market policies](#) that place job creation and work-integrated learning front and centre.
- Employment support mechanisms involve the collaboration of various levels of government, employers, educational and training institutions, non-profits and unions. Prominent among the “hub models” is the the Government of Canada’s Youth Employment and Skills Strategy (YESS) which has undergone several iterations. The program disperses funding to organizations to “help young people, particularly those facing barriers to employment, get the information and gain the skills, work experience and abilities they need to make a successful transition into the labour market.” Funding is available for employers to hire youth and provide work-integrated learning opportunities, skills training and/or career support.
- While supports are available for youth making school-to-work transitions, they are often laid out in a complicated and [dispersed network](#) which requires time and expertise for both employers and job seekers to navigate.⁷
- A number of policy interventions that have not yet been leveraged were recommended by the Expert Panel on Youth Employment in 2017. [These measures](#) include expanding EI eligibility to recent graduates looking for work and designating youth as a priority group in equity-based hiring.

⁷ As stated by the youth expert panel, “Navigating the system to identify the right support is complex and often requires a significant investment of time and expertise for all participants. Many of the policy levers connected to youth employment are provincial or territorial, complicating youth mobility, and programs are frequently available only to youth who meet very specific age/income/education criteria for short bursts of time. These rigid requirements mean that employers may be challenged to invest time and resources in accessing young workers through employment programs.”



What we are learning

1. How can the skills ecosystem increase rates of youth participation in education?

We know that education level is one of the [strongest predictors](#) of young people's labour market outcomes. Consequently, any strategy to address school-to-work transition issues must build participation in education into its foundation. These projects are testing approaches to increase youth's ability to participate in education, by reducing barriers of cost and by increasing enablers like essential skills, confidence and motivation.

“Free education for an inclusive economy”, University of Alberta

Drayton Valley is a small town in Alberta with a local economy primarily driven by oil production. Historically, the wide availability of high-paying jobs in the oil and gas sector in the town without any post-secondary credential requirements has provided a disincentive for young people to pursue higher education. Boom and bust cycles, however, have called into question the stability of a career in oil and gas; between 2001 and 2016, there was an [80% increase](#) in unemployment in the town.

The [“Free education for an inclusive economy”](#) project is **testing whether offering free education (which can include microcredentials) to anyone in the town who wants to pursue it facilitates participation in postsecondary education that will broaden their employment options.** The program was launched by the Town of Drayton Valley, and with FSC's support, the University of Alberta has entered into a community-university partnership to explore its initial outcomes.

The project is testing whether removing the upfront cost of education leads to more youth pursuing employment outside of the oil and gas sector — decreasing the relative opportunity cost of going to school. Once in education, people gain relevant skills and credentials to signal their skills, easing their transition into jobs outside of oil and gas, while remaining in the community.

“The project is testing whether removing the upfront cost of education leads to more youth pursuing employment outside of the oil and gas sector — decreasing the relative opportunity cost of going to school.”



Drayton Valley, Alberta

- Population of 7,392
- More than 20% of population employed in oil and gas 2 (compared to 7% across Alberta, and under 1% Canada wide)
- Nearly 80% increase in unemployment from 2011 - 2016
- Median incomes 42% above Canadian median at \$100,034

Findings

This research project is at a relatively early stage. Interviews with students from the first cohort (n=20) indicate that zero-fee education was crucial in enabling their participation in post-secondary education. The number of participants in the program, however, has been lower than what was originally estimated by the University of Alberta. At this stage, it is unclear whether this is because not enough people were aware of the program offering, or if individuals opted out for other reasons.

Of the students interviewed from the first cohort, some in the health care aide program were able to work in the community as nurse's aides; others, such as those participating in the business administration program, have yet to find work. Stakeholders on the ground are reflecting on what this says about the jobs available within the region. With a retrospective survey of the first cohort, University of Alberta researchers hope to gain further clues about where the linkages between education and gainful employment can be strengthened.

The survey will also provide a better demographic picture of the first cohort, allowing for a deeper exploration of the role of free education for marginalized communities. As noted by Kirstyn Morley, the Research Coordinator, "We see quite a bit of gender inequality in Drayton Valley. The oil and gas sector is very male dominated, but there is a supporting service sector that employs women and immigrants in low quality jobs." As more data comes in, these dynamics can be further explored along with the role of education in mitigating them.

For upcoming cohorts of students, both pre- and post-surveys will be administered to gather information on employment, work quality, sense of hope, community belonging, and health, among other outcomes. We expect that the emerging findings will provide new clues about the relationship between participation in education and school-to-work transitions. The project will also generate knowledge about what it takes to develop and sustain a model for free education that could be mobilized into other Canadian contexts. FSC will continue to share results as the project unfolds.



“Young people facing personal challenges may also need additional supports that foster the development of social and workplace skills.”

Reboot Plus, Douglas College

Even though educational attainment has risen for the Canadian youth population as a whole, about 6% of Canadians aged 25-34 have not completed high school. Through Reboot Plus, B.C.-based Douglas College is experimenting with approaches that can support at-risk youth to re-engage with education to improve their long-term labour market prospects. For many years, the college focused programs that targeted at-risk youth on essential skills such as reading, writing, and numeracy, to help them finish high school and pursue formal post-secondary education. The college then theorized that young people facing personal challenges such as depression, anxiety, bullying, gender identification, poverty, autism, racism, diagnosed and undiagnosed learning disabilities, may also need additional supports that foster the development of social and workplace skills.

With FSC’s support, Douglas College is now **testing whether an experiential program that builds up not only essential skills, but also hope, confidence and motivation, can support at-risk youth aged 17-24 to re-engage with education and improve their long-term labour market prospects.** In addition to receiving 16 weeks of essential skills training, participants complete career development workshops to uncover workplaces of interest, develop their resumes and portfolios and practice job interviews. When they are ready, students perform informational interviews with professionals in their areas of interest. Finally, students are issued a student number and library card and visit Douglas College twice a week to get a glimpse at what life is like as a college student. Central to the delivery model, according to project lead Peter Wilkins, is its “high performance, low pressure” approach that seeks to “expand people’s comfort zone rather than push them out of it”.

Douglas College believes the essential skills training will provide participants with the skills they need to get through high school, but the socialization with professionals and immersive college experience will inspire them to continue their education.

Findings

To date, Reboot Plus has worked with more than 60 youth and nearly 200 professionals who do informational interviews with the youth participants. Participation in the program has exceeded Douglas College’s expectations, and has been bolstered by close engagement with school districts, which refer students, and boards of trade, which refer professionals.



Preliminary pre- and post-program self-assessment survey data suggests students' self-efficacy, interpersonal communication competence, and job search clarity have all been positively impacted through program completion. Additional qualitative data points are being collected from interviews with students and school staff as well as participant diaries completed during class time. This data will be analyzed to better understand how participants experience different activities throughout their class time.

On the employer side, of the 31 professionals surveyed, most reported feeling motivated to help program participants find work and would be willing to participate in further programs. Further, most said they had developed an improved understanding of the importance of supporting youth entering the workforce. Anecdotally, the project notes that employers have been more enthusiastic than expected, often wanting to provide multiple informational interviews.

The improvements in youth participants and high amenability of employers to this demographic have led FSC to expand this project with additional funding. The expanded [Reboot Plus](#) will reach an additional 240 youth in Metro Vancouver and three new jurisdictions, and engage up to 2,000 employers and professionals. The increased sample size will allow us to complement the qualitative results that have emerged from the project so far with more robust quantitative data for evaluation. The expanded geographical scope of the larger project will also allow us to investigate whether the program can be effectively replicated with fidelity in other communities in Canada. If proven successful, the program will provide a model for engaging with a hard-to-reach youth population facing tenuous school-to-work transition pathways.





2. How can educational institutions better prepare young people for the world of work?

While enabling youth participation in education is a critical step towards unlocking smoother school-to-work transitions, it is also important to ensure that youth gain the right skills and means of signaling them to employers once they are out of school. A [2019 longitudinal study by the Higher Education Quality Council of Ontario \(HECQO\)](#) concluded that educational credentials and skills both exert independent and statistically significant positive effects on employment outcomes. Indeed, [national data indicates](#) that higher levels of educational attainment combined with higher levels of skill are associated with better labour market outcomes. It follows that the more we can strengthen the association between the attainment of educational credentials and skill, the more likely that graduates will be able to [secure good employment](#) outcomes with time efficiency. These projects are testing approaches to enhance skills development in post-secondary institutions by balancing the focus on content with that of skills in curriculum design, and by incorporating the inputs of employers.

FUSION

[The Future Skills Innovation Network \(FUSION\)](#) has noted that in many university contexts, the classroom is where students go to advance their knowledge while professional development offices are their destination to develop their professional skills. According to FUSION, the siloing of disciplinary knowledge development and professional development could have negative implications for student's employability. In response, FUSION is **testing whether its curriculum that embeds skills development as an explicit postsecondary course outcome can enhance the employability of students.**

The FUSION innovation network includes six universities: Simon Fraser, Calgary, Saskatchewan, Carleton, Concordia, and Memorial. While the FUSION program was initially meant to be delivered as a stand-alone internship program, universities in the network co-innovated on an experimental approach based in the classroom itself. The FUSION curriculum was born, and it explicitly embeds three in-demand and transferable skill domains into classroom learning: metacognition, problem solving and communication.

FUSION's team has theorized that if students are given the opportunity to learn, develop their skills and then solidify the gains by signaling their competencies as they would with potential employers – all within the same context of the classroom – then disciplinary knowledge and skills can be brought into closer alignment, thus enhancing student employability within their respective fields.



Findings

The FUSION curriculum has been delivered to 1,500 students to date. In recent quarters, enrollments in the program have exceeded FUSION's expectations. Pilot data collected from 693 students through research-validated assessment tools at the start and end of the program demonstrate statistically significant gains in all three skill domains. Among these students, the overall completion rate of the program was 72%.

Students who completed the program overwhelmingly rated each module of the program as “beneficial” or “very beneficial” on end-of-term evaluation surveys. Students also generally rated their experience “somewhat helpful” or “very helpful” for finding future employment, and were likely to recommend participation in FUSION to their peers. In student interviews, many indicated that the program not only improved their job prospects, but other aspects of their lives, such as lowering anxiety levels.

The high level of participant enrolment and satisfaction observed are early signs of the relevance of the offering, and the skill gains experienced point to its potential effectiveness. Pilot data will soon be linked with data from Statistics Canada to assess the rate of employment, earnings and sectors of employment of FUSION graduates.

With FUSION, we want to learn what value embedding skills development as an explicit classroom learning outcome adds to students' school-to-work transition outcomes. [The findings](#) will be all the more relevant at a time when universities appear to be under rising scrutiny about the value-for-money they provide. An evaluation is planned for Spring of 2022.

CASTL, PEI BioAlliance

The Canadian bioscience sector is growing rapidly, creating the need for a steady pipeline of job-ready STEM graduates to sustain it. But through its consultations, [The Canadian Alliance for Skills and Training in Life Sciences \(CASTL\)](#) has found that academia and industry often have different priorities⁸ when it comes to training people in STEM, which can result in gaps in theoretical knowledge, technical skills and professional competencies for postsecondary STEM students. **In response, CASTL is testing whether academic programming jointly informed by academia and industry can enhance the employability of STEM graduates and create clearer school-to-work transition pathways into bioscience industries.**

⁸ Note from CASTL: Academic institutions have a responsibility and obligation to uphold rigorously high standards; any curriculum change, for example, must go through various layers of iteration and approval, resulting in longer timelines. Bioscience companies are highly regulated and likewise must meet a high level of quality compliance; but in order to scale products, they must produce on a quicker timeline. Thus, while academia and industry ultimately want the same thing, academia is focused on providing students with quality learning, whereas the bioscience industry is focused on the need to expand the talent pool faster to keep pace with the global demand for its products and services.



“The hope is that by facilitating a continuous feedback loop between academia and industry, the training will better meet the needs of both.”

To do this, CASTL has convened a “constellation” model of collaborators; 60 bioscience companies, three universities, one college, and educators within the K -12 school system through their partner, STEAM PEI. CASTL administers surveys and facilitates dialogue between the collaborators to better assess their respective needs, and continuously builds them into their curriculum offerings.

The companies have expressed that life science graduates demonstrate excellent theoretical knowledge, but they show varying degrees of technical skills and professional competencies (such as problem solving, collaboration and conflict resolution). In response, CASTL has embedded work-integrated learning opportunities and enshrined theoretical knowledge, technical skills and professional competencies as central learning pillars of its offering. The hope is that by facilitating a continuous feedback loop between academia and industry, the training will better meet the needs of both, creating [smoother school-to-work transition pathways](#) for graduates. CASTL aims to become a flagship skills and training model in Canada for life sciences.

Findings

With CASTL’s support, the University of Prince Edward Island just launched its Minor in Biotechnology program, and Acadia University plans to launch new specialized Core CASTL programming as part of its Bachelor of Science degree offering in September 2022.⁹ The curriculum embeds all three of CASTL’s learning pillars, and students will apply their learning through hands-on training at a CASTL training facility. Anecdotally, CASTL notes that the pace at which these programs were developed is “commendable when considered in the context of the accepted internal timelines for new academic program development within academia”.

Although results are not yet available for CASTL’s post-secondary offerings, the programs integrate the same learning pillars and opportunities for work-integrated learning that have been tested through other CASTL programs targeting students at different points of entry. K-12 programming has been delivered in 15 schools, in 23 classrooms, to 500 students. Survey responses from teachers indicate high satisfaction with the workshop content, delivery format and alignment with curriculum outcomes and strong interest in booking future workshops. And 100% of teachers agreed that they would be interested in booking life science workshops in the future.

⁹ Learning outcomes have been developed for both specialized biotechnology streams under the following categories: knowledge of discipline, research skills, field/lab skills, and transferrable skills.



Additionally, the Reskilling Program, which is for anyone looking to transition into entry-level roles in bioprocessing, has been delivered to 23 participants. Survey data indicates that participants rated the program highly for preparing them for a career in bioprocessing, and employers generally ranked participants' learning outcomes as either meeting or exceeding expectations. Moreover, roughly three quarters of participants received job offers upon completion.

These early indications suggest that CASTL programming resonates with participants and instructors, but evaluative analysis of additional data will be needed to assess what is working and what is not, for whom, and under what conditions – especially as the postsecondary programming rolls out this year. Additional data on student experiences, skill gains, employment outcomes, job satisfaction, industry outcomes and industry satisfaction are being collected and will be analyzed through ongoing formal evaluation and outcome measurement.





3. How can young people without experience gain relevant work experience?

While in school, students have limited means of signalling their skills to employers; they don't yet have their educational credential, and they don't have a resume full of relevant work experience either. But in the absence of demonstrated experience, employers are more risk averse and less likely to take chances on youth. In an effort to break this classic trap, governments have made major investments in work-integrated learning (co-op, paid or unpaid work placements). Data from the [National Graduates Survey](#) suggests that these investments have yielded positive labour market returns for students who have been able to access work-integrated learning opportunities.

ELITE, University of Alberta

The COVID-19 pandemic [accelerated the adoption](#) of disruptive technologies and automation such as robotics, tissue engineering, and advanced manufacturing, stimulating demand for workers with skills in science, technology, engineering and mathematics (STEM). But according to the [National Science Foundation](#), fewer than 5% of undergraduates in engineering identify as Black. Moreover, [Black youth tend](#) to suffer from lower educational attainment expectations and aspirations, and tend to have lower academic and employment prospects than other racial groups. The [ELITE Program for Black Youth](#) describes the problem as “likely due to current lack of diversity in and exclusion from learning and training programs, specialized professional sectors, and employment opportunities.”

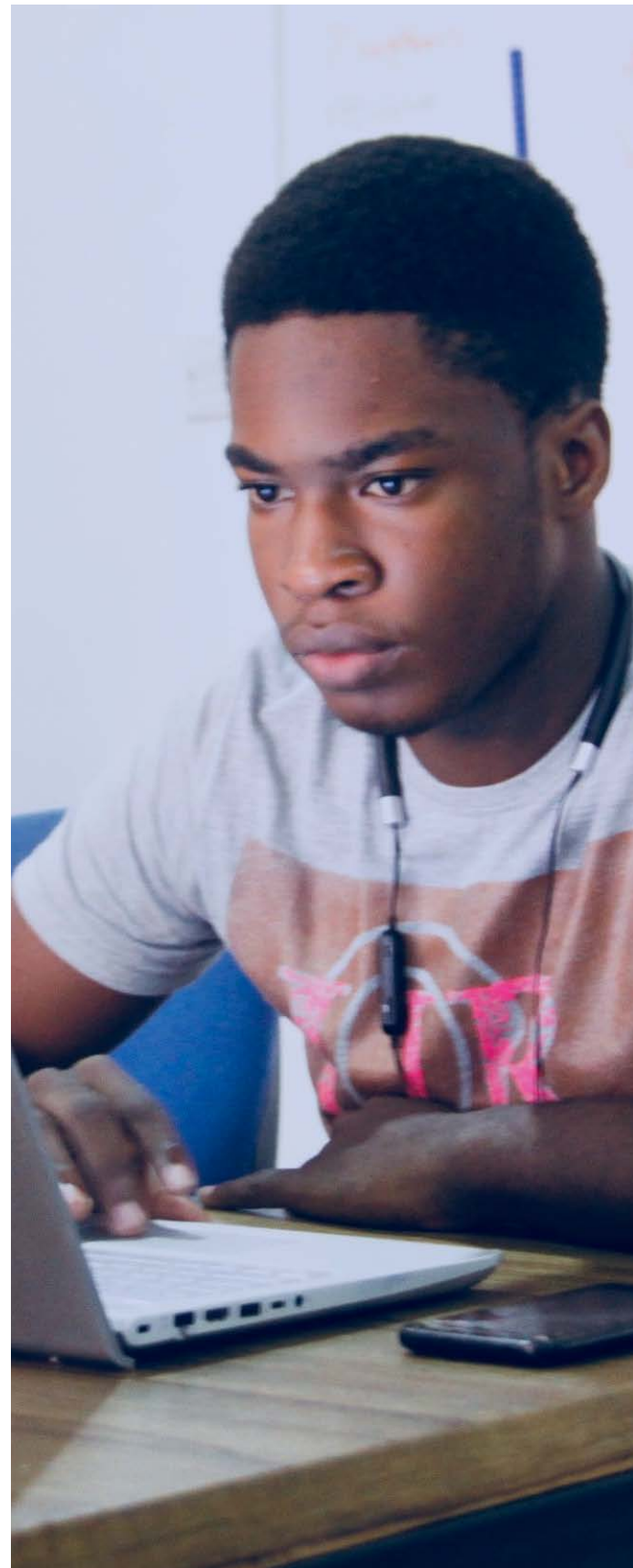
In response, the ELITE program is **testing whether its fully-paid internship program can create opportunities for Black youth to access experiential learning and work integrated training in STEM fields and entrepreneurship, and whether these opportunities will have an enabling effect on their transition into further education or employment.** Students are matched with internship hosts in the innovation ecosystem (university researchers, private companies and government agencies) for an 8- or 16-week internship period. Interns then work on an applied STEM project using cutting-edge industry-relevant equipment, and deliver technical pitch presentations. Additionally, interns receive wellness coaching on resilience and managing the demands of professional careers as well as entrepreneurship training to help cultivate an innovation and leadership mindset that they can carry with them into their chosen careers.



The ELITE program, which is offered in collaboration with the University of Alberta, Carleton University, the National Black Coalition of Canada Society, the Alliance Jeunesse-Famille de l' Alberta Society and the Royal Bank of Canada, theorizes that it can create opportunities for early work experience by appealing to employer incentives. Anecdotally, the project has noted three principle motivators amongst employer hosts: First, all of the financial costs are covered by the project. Second, hosts appreciated interning students for opportunities. Finally, hosts are looking to add diversity to their ranks. Through the internships, the ELITE program believes participants will acquire marketable technical and business skills that are directly transferable to work with disruptive technologies. In addition, they will gain demonstrable work experience to signal their skills, hone social-emotional skills and expand their professional network to secure future employment prospects.

Findings

In its first year of operation, this project is at an early stage of data collection. To date, the ELITE program has facilitated internships for one cohort of 43 students. Pre and post-internship surveys were administered to participants. Prior to program completion, few students felt that they had “real work experience”, whereas post-internship almost all reported feeling that they had it. Confidence in 21st Century skills like problem solving, critical thinking, communication and digital literacy improved, though confidence in financial literacy did not improve. The project noted future iterations of the project will explore how to provide additional financial literacy training.





The Royal Bank of Canada will also provide additional support to ELITE with survey design and evaluation. In the next cohort, a survey will be developed for intern hosts. Additional data is being collected on participant enrolment, retention and completion as well as future employment and/or enrolment in STEM fields. These datasets will allow FSC and project leaders to draw inferences about how students and employers gain value from the program. A formal evaluation is scheduled for Fall 2022.

4. How can we encourage employers to hire and invest in youth who are marginalized?

Employer attitudes about young people are a critical factor affecting young workers. Due to limited access to education and skills training, early work opportunities, and professional networks, excluded youth may encounter greater levels of risk aversion from employers. Labour market entry is a hurdle for any young person to surmount, but for low-income youth facing systemic barriers, the challenge can be overwhelming. Many have not had a chance to pursue postsecondary education at all due to deep financial constraints and the associated urgency of finding work. Others have earned a postsecondary credential but have not been able to leverage it to find employment either because their educational program lacked an experiential learning component, or because they have endured poverty and other socio-economic barriers and lack the professional networks that other postsecondary graduates possess.

Racialized, disabled and newcomer job seekers are likely to have faced discrimination in hiring practices in the past. These barriers can lead to unemployment and underemployment in low-wage survival jobs with minimal career prospects.

While [research shows that Work Integrated Learning \(WIL\) programs](#) such as co-op, are associated with improved employment outcomes for university students, these programs also present barriers to equity deserving groups. They are more costly (requiring additional terms of study) and often associated with engineering and programs where women and other equity deserving groups are less likely to be present. For example, persons with disabilities [are more likely](#) to take Arts and Humanities programs which seldom have co-op placements associated with them. Additionally, research suggests that many postsecondary institutions

“Racialized, disabled and newcomer job seekers are likely to have faced discrimination in hiring practices in the past. These barriers can lead to unemployment and underemployment in low-wage survival jobs with minimal career prospects.”



do not have strong support [for students from equity deserving groups](#) who may lack the social capital, experience and skills needed to secure placements. Currently, most WIL programs and the subsidies associated with them are part of the formal curriculum and require students to return to their studies after completing their placements. Research on the needs of Small and Medium Enterprises (SMEs) (which accounts for almost 90% of private employment in Canada) indicates that because of the structure and overhead associated with [traditional WIL programs](#), SMEs have unmet needs and prefer programs that allow learners to transition directly into employment when they complete their work term.

Upskilling Canadian youth for tech careers, NPower Canada

NPower Canada is working to demonstrate the value proposition for hiring young people by working with employers to create direct sightlines to employment. NPower Canada's program, [Upskilling Canadian youth for tech careers](#), is **testing the scalability and replicability of its Information and Technology (IT) workforce development programs across Canada, launching growing numbers of underserved youth into employment pathways with strong growth prospects through deep engagement with employers at every step of the program.** These steps include professional and technical skills training, direct job placement and five years of post-hire services, including mentorship and continuing education for career advancement, all provided at no cost to participants.

NPower Canada's Industry Council includes employers from management consulting, financing and IT. The training is continually reverse-engineered based on employer feedback about where junior level roles exist in their organizations and what skills they seek in an ideal candidate. After program graduates transition into employment, employers are engaged once again to help youth study for higher education and/or to advocate for their hire to receive a promotion or other advancement opportunities at work.

The project does not leverage any wage subsidies to secure placements. Rather, it seeks to support placement in employment by "pre-training" participants based on the immediate needs of employers, thus increasing employer confidence to hire. Although the vast majority of program graduates transition directly into full-time employment, some also choose to pursue postsecondary education, including those who faced barriers to accessing higher education in the past.



“NPower Canada consistently met or exceeded its target of 80% employed or in education or training 12 months after program exit.”

Findings:

In December 2020, an outcomes [evaluation](#) of the NPower Canada program was performed by Blueprint, FSC’s evidence generation partner. The evaluation analyzed the outcomes data of participants who graduated from NPOWER’s programs between January 2014 and November 2020. It found that NPower Canada consistently met or exceeded its target of 80% employed or in education or training 12 months after program exit. [According to the evaluation](#), this is “an ambitious target relative to other comparable workforce development training programs that target youth facing barriers to employment.”

Among those who graduated more than 3 months before the onset of the pandemic, a 90% placement rate was reached at 6 months after graduation, on average. For those who graduated 3 months past the onset of the pandemic (May 2020), the rate falls to 79% at 6 months past graduation. However, among those who graduated further past the onset of the pandemic (September 2020), rates surpass those of May 2020 graduates at each successive time interval after graduation date. This improvement “[provides preliminary evidence](#) to suggest that the adaptations NPower Canada has made to programming in response to the COVID-19 pandemic have been effective.”





Additional positive signs emerge when looking at job quality indicators. At 6 months past graduation, those who graduated before pandemic onset were achieving full-time employment and employment within the tech sector at high rates (92% and 96%, respectively). Most (64%) were able to secure permanent employment. Those who graduated after the pandemic were as likely to achieve full-time employment within the sector, but were less successful at securing permanent jobs (52 %). NPower Canada provides its graduates with five years of post-program support, including job placement services in cases where contractual work does not convert to permanent employment. More than 80% of NPower Canada graduates remain employed at 12, 24 and 36 months post-program. Moreover, over 90% of employers responded that they would recommend NPower Canada as a talent solution to other employers in their network.

FSC has scaled the project with additional funding based on the model's demonstration of effectiveness during its first phase. In the second phase, a Randomized Control Trial (RCT) will be performed with a sample size of 1,600 to determine the extent to which graduate outcomes can be directly attributed to the program intervention. Blueprint and a team of academic researchers will conduct an impact evaluation analyzing both short- and long-term employment outcomes. Preliminary findings from the impact evaluation are expected in 2023.

ADaPT, The Diversity Institute and TECHNATION

Many employers cite skills gaps among recent graduates and shortages of specific skills as a topline recruitment challenge, and are particularly pressed to find “hybrid candidates” with both digital and “skills for success”, including communications skills. Yet employers often restrict their search to established pools and are investing less than ever in training and development. At the same time, they are losing skilled workers due to an aging population.

Advanced Digital and Professional Training (ADaPT) is **testing whether its skills development and work placement program, with an emphasis on digital competencies, professional skills and ongoing career coaching and wraparound supports can help transition post-secondary graduates with non-STEM backgrounds, and/or from equity-seeking groups, into employment in digital roles.** Responding to skills gaps identified by employers, the program also explores ways to support employers in accessing diverse new talent pools and developing inclusive workplaces.

“Many employers cite skills gaps among recent graduates and shortages of specific skills as a topline recruitment challenge.”



The program emerged from research conducted for the 2014 Ontario Human Capital Research and Innovation Fund (OHCRIF) as well as a series of pilot programs and extensive research on employer needs, particularly at SMEs. It is facilitated by the Ted Rogers School of Management's Diversity Institute and TECHNATION. ADaPT targets recent graduates under the age of 30 from equity deserving groups underrepresented in digital-related roles. The program is designed for students who do not have work integrated learning embedded in their curriculum and participants typically complete the program after their formal study, allowing them to transition into full time employment. Program candidates are pre-assessed for skills and employability.

Although the program was designed as an in-person series of workshops and coaching, since the onset of the pandemic, participants have taken part in either a self-directed online stream or an instructor-led virtual classroom stream. Participants receive a digital badge and certificate of completion to signal the skills they have gained, and career coaching to solidify their job search skills. The ADaPT team also engages with employers to understand their skills, training and hiring needs, and matches program participants to compete for those roles. Recognizing that the skills gap is a function of both supply and demand, employers also receive support in developing their equity, diversity and inclusion strategies.

Findings

ADaPT was initially launched in 2014 and has been offered in a variety of formats including intensive bootcamps, online and blended learning with curriculum tailored to industry needs serving over 1,000 learners with nearly 90% placed in paid employment. As part of an FSC funded pilot, six ADaPT cohorts were delivered to almost 300 learners in Toronto, Calgary and Halifax between September 2020 and June 2021. In April 2022, Blueprint, FSC's evidence generation partner, released its evaluation of the ADaPT program. The evaluation employed a mixed-method approach, analyzing administrative and participant survey data, participant interviews and program partner interviews collected from the recruitment stage until 9 months past program completion.

ADaPT was found to have achieved high rates of program completion and participant satisfaction. Ninety-three percent of participants completed the program. It was expected that the Toronto location would demonstrate the highest completion rates due to the pre-establishment of the program in the city, but rates were similarly high in the newer Calgary and Halifax locations as well. The Blueprint evaluation team deduced that "the high overall completion rates, as well as the similarity of completion rates across locations, could be attributed to the high-touch nature of the program and the intensive screening process in which participants discuss their ability to commit to the program in the interview. In addition, the screening process continued to be handled by the Toronto ADaPT team for all locations."



“The success of a training and work placement program – even one with high resonance with participants – remains tempered by the economic context and job opportunity structure it inhabits.”

Moreover, 91% of exit survey respondents reported they were somewhat or very satisfied with the program, with most indicating the program was fairly or very useful for improving their professional skills (87%), technical skills (87%), and providing career coaching and support (80%). Despite the high levels of program satisfaction, participants were less likely to report that they would recommend or had already recommended ADaPT to someone (66%). This rate was particularly low in Calgary (55%), a city which has experienced substantial economic downturn in recent years. This suggests that the success of a training and work placement program – even one with high resonance with participants – remains tempered by the economic context and job opportunity structure it inhabits.

In terms of skill metrics, participants self-evaluated their skills in six areas targeted by the program both before and after completion: written communication skills, oral communication skills, business financials skills, career planning and development skills, basic office digital skills, and advanced digital skills. The survey results indicated statistically significant self-evaluated skill gains in all domains except for communication.

Participants from the virtual program stream reported higher skills gains, on average. The difference may be attributed to participants in the virtual stream having more opportunities to practice skills with their fellow participants. This potential finding is triangulated by participant interviews, in which many participants in early online stream cohorts expressed that they would have benefitted from more interactive activities in digital workshops, particularly in coding modules. This suggests that experiential learning was a key success factor for participants. In response, the ADaPT team integrated more activity-based learning for future cohorts.

The ADaPT program set out an employment target rate of 80% at 3 months past completion. Survey results indicate that ADaPT succeeded in its goal, with 69% of respondents reporting being employed at program exit, 80% at 3 months past completion, and 93% at 9 months past completion. At baseline, the employment rate was 58%, indicating the overall employment rate rose by 35 percentage points on average throughout the full cycle of data collection.



As a result of Blueprint’s evaluation, ADaPT’s pre-established employer networks in Toronto were identified as a critical factor that explains the success rates of the Toronto locations of the ADaPT program.¹⁰

In Toronto, the ADaPT program achieved this by using a variety of tactics. Members of this ADaPT team stated that they have nurtured existing employer relationships by communicating the benefits of hiring ADaPTers, such as the “lack of recruitment fees and assistance in applying wage subsidy programs to help pay the cost of new hires.” ADaPT’s partner, TECHNATION, which has significant connections in the ICT sector, has been supportive in trying to secure employment partnerships and expand brand visibility. ADaPT also found success in performing a comprehensive assessment of employer’s hiring needs before program delivery, to help career counselors match participants with job opportunities.

A key objective of the ADaPT program was to assist graduates from equity-seeking groups underrepresented in digital roles through targeted outreach. The evaluation found that ADaPT surpassed its overall diversity reach targets; 92% of participants identified as being a member of one or more equity-seeking groups, compared to ADaPT’s original target of 75%.

Within some groups, however, the program fell somewhat short of its internal recruitment goals.¹¹ However, participants from equity-deserving groups experienced the largest increases in employment rates, particularly racialized individuals, newcomers and women. Due to systemic factors, individuals from these groups may have had less access to the resources including broadband and/or computers afforded to them by the program at baseline, indicating high relevance of the offering for these populations.

Based on the overall results of the program, FSC has supported efforts to expand ADaPT with additional funding. This funding is being used to “foster greater engagement with specific target populations and to support the development of their digital and professional skills, while addressing the ongoing shortage of skilled talent within the technology sector.” Furthermore, a randomized control trial is being launched to isolate the key enablers of the model and generate further evidence on the model’s impact. ADaPT plans to expand its reach with mid-career workers and newcomers, and is exploring technologies to enable scaling while remaining a high-touch program. Another evaluation is planned for Winter 2024.

10 Disaggregating these data by subgroups brings several learnings to light. It was found that the Toronto location achieved the highest employment rate increases, with a 39 percentage point increase (100% employed at 9 months post-program), vs. 34 points in Halifax and 27 points in Calgary. Employment outcomes, however, did not vary substantially between the Virtual and Online streams. Location was not a significant predictor of program completion, overall satisfaction rates, or learning outcomes - these indicators appear to have been influenced more strongly by the modality of the program itself. However, location appears to have been a foremost predictor of both likelihood to recommend the program to others and of likelihood of getting a job post-program. Possible explanations include the relative health of Toronto’s job market and, primarily, ADaPT’s pre-established employer network in Toronto.

11 The program had a goal of ensuring indigenous participants accounted for 5% of overall program participants, but these individuals accounted for 2%. It also fell short of its targets of ensuring 69% of participants were women, reaching 63% instead.



5. How can we better integrate services to support young job seekers?

In a labour market strained by tectonic shifts in technology, globalization, demography and environmental degradation, career carving is non-linear and unpredictable. [A McKinsey report \(2017\)](#) forecasted that by 2030, between 75 and 275 million workers will need to change careers and learn new skills. In response, FSC is leveraging technology to help young people make data-backed career decisions in the face of this uncertainty.

Project Integrate, OTEC, MaRS & First Work

Canada's workforce development ecosystem is relatively decentralized. Governments, employers, unions, educational and training institutions and community-based organizations offer a variety of microservices such as career exploration, skills training, job search assistance and placement services.

“In a labour market strained by tectonic shifts in technology, globalization, demography and environmental degradation, career carving is non-linear and unpredictable.”



But there is a lack of coordination and technological convergence of these services, with many operating in a complicated and dispersed network. With FSC's support, Ontario Tourism Education Corporation (OTEC), First Work and MaRS jointly launched [Project Integrate](#) to **explore the potential impact and feasibility of a single technology-enabled employment and training pathway for youth.**

Project Integrate theorized that in a fragmented service system, it becomes all the more difficult for young people exiting school to navigate an already complicated labour market in ways that bridge their education and skills with their career aspirations. A single technology-enabled pathway would simplify the process for youth job seekers and add value by integrating complementary stages of the employment pathway.

Findings

Project Integrate convened nine national roundtable consultations with employment service providers, youth and employers. Pre- and post- consultation surveys were administered and the qualitative results were analyzed to map out a youth employment pathway, consisting of five stages:

Youth employment pathway

1. **Discovery:** Youth engage in self-reflection, identify employment opportunities, and create plans (either explicit or implicit) for pursuing their employment goals.
2. **Development:** Youth seek to improve their eligibility for employment through the cultivation of a variety of skill sets. This includes technical skills as well as essential and employability skills. This phase may include robust forms of education and training, including formal degree and diploma programs. However, increasingly, youth are also incorporating more targeted and efficient training opportunities outside of traditional channels.
3. **Positioning:** Youth explore mechanisms to build their personal brand and communicate their value, aptitudes and skill sets. In this phase, youth generate their profile (including resumes, cover letters, business cards, portfolios and other tangible products) as well as engage in networking opportunities.
4. **Application:** Youth seek out and target specific job opportunities. This phase may include a wide variety of job search tools. Once opportunities are identified, job seekers engage in research on the target company and then refine their application before submitting it.
5. **Matching:** Youth engage in various styles of employer interviews and assessments. This phase [ranges in intensity](#), and increasingly includes both human and automated screening techniques.



Critically, Project Integrate found that the employment pathway is non-linear:

“The pathway could start at any stage for a given job seeker and not necessarily start with the Discovery phase. For instance, youth could begin their journey at the “Application” Phase before returning to the “Discovery” phase to clarify their goals and aspirations. Additionally, youth may simultaneously complete actions related to a variety of phases.”

This finding pointed to the potential use of complementary digital tools to support young people along the employment pathway, which was investigated through the field testing stage of the project. Two promising technologies were deployed, ALiGN and Planext. ALiGN is a psychometric, assessment and job-matching digital tool developed by OTEC. Planext is a career pathing tool developed by MaRS that leverages labour market information to help job seekers navigate the future of work.





In phase one, 300 youth job seekers in pre-employment programs field-tested a singular tool, either ALiGN or Planext. In phase two, 830 tested the integrated stack (ALiGN and Planext). Eighty-two percent of those who experienced both tools versus 75% of those who experienced a singular tool “walked away with more knowledge than they came in with; they were able to discover their personality strengths, discover career paths based on interests and plan career laddering.” 85% versus 78% “felt more motivated in their employment journey and towards finding an employment opportunity that is a good fit for them as result of using the stack of tools.” Project Integrate researchers interpreted the survey results as demonstrating that “complementary tools provide a holistic and value-added job seeker experience.”¹²

The findings of the project (summarized [here](#)) were used to inform Project Integrate’s final blueprint recommendation for a technology-enabled employment pathway. That blueprint lays out a prototype of a technology-enabled employment pathway meant to provide youth with lifelong support ranging from K-12 to postsecondary and beyond. This blueprint informed the design considerations for OTEC’s technology application, SkillsPath, an online platform launched to help workers in the hospitality and tourism sectors displaced as a result of the pandemic. SkillsPath was launched through the FSC-funded Tourism Hospitality Emergency Response (THER) project in 2020. User-testing feedback is being collected that will provide insight into the viability of Project Integrate’s early prototype of a technology-enabled employment pathway.

As we learn more about what works, what doesn’t, for whom and under what conditions, these micro-level innovative interventions will provide clues about how approaches to school-to-work transition issues may be scaled up and addressed institutionally. FSC is committed to continuing to work with our partners on the design of robust learning and evidence generation plans and evaluation. We will continue to share results and learnings widely as they arise.

12 Project Integrate: A Blueprint for a Technology-enabled Employment Pathway for Youth (L&ED)



Conclusion

Young people exiting school are tasked with crossing a gulf towards the world of work, but as these projects demonstrate, different youth begin at different distances from the labour market. FSC's interventions are attempting to build bridges for young people, so they can cross the gulf more easily, as well as working with employers so that young people can find opportunities on the other side. These projects are in the process of learning about factors related to recruitment, retention and completion; future work will explore the labour market outcomes and impact these programs will have. Here are some of the learnings which have surfaced thus far:

- Giving young people opportunities to develop in-demand skills can give them a competitive advantage and facilitate smoother transitions into the workforce - but the ability to manage individual stressors, to bear the costs of skill development and to signal one's skills to employers are important pre-conditions to realizing the full benefits of skill development.
- Skills development programs that create a continuous feedback loop with employers and their needs are well positioned to deliver in-demand skills to young people. Some programs have also found success at deepening partnerships and training quality by involving employers in the delivery of the program.
- Even if young people develop and signal in-demand skills, the broader economic context moderates the willingness of employers to invest in them. Programs and policies that engage strongly with employers to create incentives and a strong value proposition for hiring young people are better positioned to succeed in securing employment for their target populations.
- Young people face a labour market that is shifting at an unprecedented pace and need real-time information to navigate it. But the value of information is limited when it is siloed across a range of service offerings, making it difficult to access and act on. The integration of complementary career services may offer greater value to young people navigating school-to-work transitions.



The **Future Skills Centre (FSC)** is a forward-thinking centre for research and collaboration dedicated to preparing Canadians for employment success. We believe Canadians should feel confident about the skills they have to succeed in a changing workforce. As a pan-Canadian community, we are collaborating to rigorously identify, test, measure, and share innovative approaches to assessing and developing the skills Canadians need to thrive in the days and years ahead. The Future Skills Centre was founded by a consortium whose members are Ryerson University, Blueprint ADE, and The Conference Board of Canada, and is funded by the Government of Canada's Future Skills Program.



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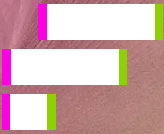
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