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LIFELONG LEARNING

IMPROVING THE PARTICIPATION OF LOW-SKILLED ADULTS IN LIFELONG LEARNING IN CANADA

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2 Acknowledgements

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3 Executive Summary

This policy brief provides insights into the factors that motivate adults to participate in lifelong learning opportunities in Canada. The insights and resulting policy recommendations from this project are intended to assist Employment and Social Development Canada (ESDC) in its ongoing efforts to increase participation in education and training. This research is very important to support the most vulnerable in receiving the needed support to pursue learning activities. Learning is considered one of the most effective avenues to improve employability and earnings in the face of a rapidly changing labour market and the COVID-19 pandemic hitting the most vulnerable the hardest.

Lifelong learning is a broad concept. It is defined as the ongoing pursuit of knowledge for professional or personal reasons. It covers formal learning taking place in education and training institutions; non-formal learning taking place in non-educational institutions such as the workplace and through the activities of civil society organisations that do not lead to formal certificates; and informal learning which is nonintentional learning that is a natural accompaniment to everyday life.

In the context of this report, and as the project focuses on adults, lifelong learning pertains to people 24 years old or above who participate in training or education. To narrow the scope of this research, the project focuses on low-skilled adults, defined by the Organization for Economic Co-operation and Development (OECD) as individuals who did not complete their high school education or equivalent (OECD, 2019). This focus is aligned with the Social Research and Demonstration Corporation's (SRDC) report to ESDC which recommended that adult education policy should pay particular attention to less-educated individuals (SRDC, 2020). It is important to note that the denotation of 'low-skilled' is misrepresenting. It may convey a negative connotation that people performing jobs requiring lower levels of formal education may lack the skills "to realise their full potential" (Lowrey, 2021). We, therefore, recognize that the 'low-skilled' term is imperfect, and our use of the term is not intended to devalue the jobs that these workers do. However, since 'low-skilled' is the term used in the literature, and due to the lack of better terminology, the word 'low-skilled' is strictly used in this report to describe adults who did not complete their high school education.

Respecting education, Canada ranks the highest globally in terms of university and college attainment. Yet, 8% of Canadian adults – approximately 2.2 million adults – did not complete their high school education as of 2019 (Statistics Canada, 2019). The reason for focusing on this group is that they are the most vulnerable to changes in the labour market, but they are the least likely to participate in learning activities to reskill or upskill. According to OECD, below 35% of low-skilled adults participate in adult learning compared to more than 70% of high-skilled adults (Government of Canada, 2019). The low rate of participation in adult learning by low-skilled adults is attributed to three broad categories of barriers: situational, institutional, and dispositional (MacKeracher, Suart, & Potter, 2006). Situational barriers represent any situation or environment in which adult learners are living through and with, that prevents effective participation in learning activities. Examples include time and financial constraints. Financial constraints are understood broadly to include the inability to afford tuition, childcare, transportation, internet, and other learning tools. Institutional barriers refer to institutional practices and procedures that discourage learning. They may include prerequisites, irrelevant courses, and inflexible schedules. Dispositional barriers capture learners' negative attitudes and self-perceptions. Such negative perceptions have many sources. They could reflect a bad prior experience at school which results in a sense of fear or

failure. They could also be a reinforcement of generational or societal mistrust in formal education. Regardless of the type or source of the barrier, a key takeaway is that these barriers do not occur in isolation. Thus, among low-skilled adults, whether to pursue further learning is never a straightforward decision. It is this feeling of being overwhelmed by various steps and hurdles that can make adult learning seems like an impossible, and perhaps, a worthless endeavour.

Acknowledging the importance of adult learning and the plethora of barriers that adults face, both the federal and provincial governments have worked to address this issue. In Canada, education and skills development are under the jurisdiction of provincial governments. Therefore, each of the 10 provinces and 3 territories are responsible for the planning, development, and implementation of adult education programs in their respective jurisdictions. The departments or ministries of education in each province or territory undertake the management of organization, delivery, and assessment of education at the elementary and secondary levels, for technical and vocational education, and post-secondary education.

Despite education being a provincial mandate, the federal government through ESDC plays a major role in adult learning. ESDC administers 23 umbrella programs and sub-programs under two branches, namely the Learning branch and the Skills Development and Employment branch. This myriad of programs reflects ESDC's commitments to addressing the diverse needs among Canadians. Of the 23 programs, 6 programs primarily serve adult learners. They include Skills Boost Top-up Grant, Skills for Success, Union Training and Innovation, Labour Market Development Agreements (LMDAs), Workforce Development Agreements (WDAs), and the Canada Training Benefit. It then follows that most of our analysis and recommendations were built on our understanding of these programs. We also include some discussion about the Future Skills program due to its potential to apply a futuristic research approach and human-centred design to improve the responsiveness of current and future skills development programs. Further, we explored the Lifelong Learning Plan (LLP) even though this program is administered by Revenue Canada. The reason for this was that the LLP is intended to support adult learning by permitting eligible beneficiaries to use funds from their Registered Retirement Savings Plan (RRSP) to finance their own or spouse's education.

Despite ESDC's commendable efforts to support adult learners, existing programs fall short in addressing the barriers that many low-skilled adults face. The shortcomings partly stem from the inherent design of ESDC's skills development programs and partly from administrative procedures. Our research has identified features of skills development programs that could be hindering effective adult learning. First, the mandatory full-time enrolment or minimum time commitments as part of eligibility criteria as seen in Skills Boost and LLP programs. Such strict enrolment requirements ignore the fact that adults juggle work and familial responsibilities. Another form of hindrance arises when programs do not provide adequate or timely income support. The Canada Training Benefit and the LMDAs are examples. Related to the point above, the LMDA income support is inflexible since beneficiaries are expected to actively search and take jobs that come along. This conditionality implies that returning to the labour force is prioritized rather than the learning outcomes. Likewise, programs that do not support micro-learning or short courses go against the preference among adult learners to choose what they deem as manageable course load and intensity. Examples in this category include the Canada Student Financial Assistance and the Skills Boost grant. On the other hand, shortcomings in administrative procedures affect learning indirectly. For example, employers show less interest in the wage subsidy sub-program of the LMDA due to tedious paperwork and reporting requirements. The main concern with the Future Skills program is that misalignment between research and persisting gaps in the current programs means some shortcomings

are not addressed fast enough. Exacerbating this is a lack of open data sources which is key to fostering diverse analyses and solutions.

Against this backdrop, we recommend a policy framework that prioritizes the needs and barriers faced by low-skilled adults. Our proposed policy framework has two main parts. The first part comprises high-level suggestions on how ESDC can rethink, refine, create, and implement responsive programs. We call this a four-pillar approach – Anchor, Bundle-up, Definitive impact, and Evolve. Essentially, this approach calls for ESDC to base its support on few and durable programs, but with ample room to evolve the scope of support. Only where gaps persist, as we have demonstrated to be the case when serving adults with low educational credentials, ESDC should create a new program or sub-program. In line with the above observations, our team is proposing an all-inclusive program. For the purpose of this report, we call the program *Learning among Adults facing Multiple Barriers*, or LAMB for short.

The second set of recommendations provide detailed recommendations on how LAMB will function. Particularly, how ESDC can incorporate best practices geared to improve learning outcomes among adults. We lay out our approach by mapping the journey of low-skilled individuals from the initial stage of unwillingness to learn to successfully enroll in a learning activity. Below are the four stages where ESDC can intervene:

i. Reach out: Low uptake of some learning and skills development programs is partially attributed to the public's lack of awareness of their existence (ESDC, 2021). We recognize that ESDC cannot micro-target individuals by advertisement campaigns, and even if it decided to do so, evidence shows that advertisement campaigns are ineffective (OECD, 2019). In this regard, we recommend that ESDC considers making formal partnerships with non-governmental organizations (NGOs) to delegate the task of creating awareness. ESDC already uses this approach of depending on NGOs to support young students coming from low-income families, so we encourage ESDC to use the same approach with low-skilled adults, as well. NGOs already work closely with low-skilled individuals who are multi-barriered and likely seek assistance from NGOs. These organizations have strong relationships with the targeted individuals and enjoy their trust which makes them capable of effectively communicating with low-skilled adults. Through competitive bidding, it is recommended that ESDC select a number of NGOs. By supporting these organizations with funds (through the proposed LAMB program) and providing the necessary information, they will act as communicators between ESDC and the targeted group by organizing awareness campaigns, hosting information sessions, and offering one-to-ones to spread awareness about the importance of learning and the available support programs that ESDC offers to support learners. We advise that partnerships with NGOs should be long-term (at least 3 years) as it takes time to build expertise and relationships on the ground. It is also recommended that ESDC prioritizes collaboration with NGOs in regions hardest hit by major disruptions, such as automation, where people are in urgent need to reskill or upskill.

ii. Guide: After creating awareness, low-skilled adults may still be hesitant about enrolling in learning activities due to a plethora of barriers including lack of motivation, perceptions about learning, underestimation of education value, and lack of ability to clearly define their educational goals and skills deficit. Moreover, there are several learning pathways that an adult can pursue these days, and there are plenty of government support programs, making the search process a

daunting task. Therefore, they may require education-focused counselling to help them navigate the learning options and provide psychological support. The concept of education-based counselling was recently piloted in six European countries under Erasmus+ (EU's program to support education, training, youth, and sport in Europe), to test its efficacy in increasing the participation of less-educated adults in learning activities. Results of the project show that in Belgium, for instance, three out of four individuals receiving guidance successfully enrolled in a learning activity, demonstrating the effectiveness of educational counselling (Carpentieri, Litster, Cara, & Popov, 2018). Through the LAMB project, ESDC is envisioned to provide free education-based counselling services by recruiting educational counsellors. These counsellors are expected to offer personalized guidance sessions to define skills, diagnose barriers, and provide psychological support to ultimately help the client develop a tailored educational plan.

iii. Soft entrance to learning: After creating awareness through reach out and mitigating some behavioural barriers through counselling, low-skilled adults might still be hesitant about enrolling in a learning activity. This can be due to a negative experience as a student, which can lead to low self-esteem and nervousness about one's inability to succeed in education. They might also be away from school for a long time, making them unready for a learning experience. These barriers have prompted countries like Sweden and Switzerland to adopt 'soft entrance' techniques which aim to soften and ease the entrance to learning experiences for adults. Also, gamification – using games in the learning environment – has been recently adopted by corporations to motivate and make the learning experience more interesting. Through ESDC's Future Skills Centre, which is responsible for piloting futuristic ideas to help prepare Canadians for future jobs, we recommend experimenting with these soft entrance techniques to test its viability in the Canadian context. After testing and approving one or several soft entrance techniques, soft entrance can be integrated under LAMB, where it provides funding to individuals who wish to start their learning pathway with soft entrance.

iv. Remove barriers: Even when adults are motivated to learn, two major barriers may hinder their participation in learning activities: time shortage and lack of financial resources. To address these barriers, the proposed LAMB program will pay upfront for core (tuition fees) and ancillary support (e.g., transportation, childcare, books, and internet costs as needed). Further, in case learners decide to leave work to make time for learning, LAMB will provide a decent living allowance. LAMB also recognizes that other adult learners may not have the option of leaving work for a long time to enrol in a learning activity. Even if they could take time off work, family obligations may still get in the way. Thus, we envision that LAMB will address the time shortage barrier by granting flexibility. Funding eligibility for LAMB shall require neither full-time enrolment nor a minimum time commitment. We also envision that LAMB will fund micro-credentials (funding by credit hours to allow adults to take breaks if needed) and shorter duration intensive courses such as boot camps.

4 Introduction

Canada is a vast multicultural country with a total population of nearly 38 million people. Nearly 82% of the population is concentrated in the larger urban cities while the remaining 18% reside in rural areas across the rest of the country (Statistics Canada, 2020). Different provinces and territories hold reflections of strong regional identities of people, where their socio-economic background has a huge impact on the opportunities they receive in life. The economic differences between provinces are a result of many factors, like industrial and occupational structures, labour demand, and availability of natural resources. These differences affect the average income in these provinces which in turn affect the basic opportunities people receive in their life. Education is one such opportunity that is highly impacted by the inequalities that exist across provinces. Despite Canada's efforts to promote education and make it equally accessible for all, it is still evident that many Canadians financial, social, and economic backgrounds may create barriers (financial and non-financial) for them to attain higher education. The regional identities, socio-economic backgrounds, and inequalities have shaped the government policies that highly vary across provinces, including those pertaining to adult education (Shohet, 2001).

Recognizing the importance of education, Canada has been at the forefront of adult education as early as the 1960s. It has since been a field of practice in the nation with community colleges in all provinces and territories have offered technical and vocational certification (Shohet, 2001). However, there is a dearth of adult education infrastructure and the process of insufficient coordination across the institutions that have kept the Canadian adult education system from reaching its pinnacle (Walker, 2020). While Canadians are getting more educated over time, Statistics Canada estimates that 8% of Canadian adults, equating to approximately 2.2 million, have not earned a high school degree or equivalent (Statistics Canada, 2020).

For many people in Canada, sitting inside the comfort of their house, fulfilling their basic needs, or accessing the internet is a non-noticeable part of life. A part that is so easily taken for granted without realizing how it can be a luxury for many others who have never been able to access education or training. For example, access to good internet or the ability to commute to work or a learning institution. A proportion of Canadians cannot even fathom or dream of accessing advanced education. They often find themselves stuck in precarious, minimum-wage jobs. Several forms of barriers pose a huge challenge for many people who wish to learn but could never complete their post-secondary education (i.e., university, college, and trade). These barriers to learning have forced them to take unstable, minimum wage jobs, creating a vicious circle of poverty that encompasses their family, children, and many more generations to come.

Lagging educational and skills attainment also hurt the future growth and prosperity of the economy. With the rapidly changing labour market structures, automation, and the recent pandemic, more low-skilled workers are at risk of losing their jobs. They do not have the necessary skills and education to change their career or grow in their life. Despite being at the highest risk, less than 35% of low-skilled adults participate in adult learning compared to more than 70% of adults with high skills (Government of Canada, 2019). This participation rate in formal and/or non-formal education decreases with age, with adults aged 25 to 34 years having the highest rates at 70% and adults aged 55-64 having the lowest rates at 41% (Statistics Canada, 2017).

The Government of Canada acknowledges how changes in the labour market and the pandemic have affected the lives of many Canadians and how the economic impacts have been unequal across the population. Besides the specific groups being affected, the overall Canadian economy has also been affected by the loss of jobs and productivity. Education and literacy also need to be the focus of attention because of their positive impacts on the economy. It is estimated that a 1% increase in average literacy rates in Canada, over time, would increase the gross domestic product (GDP) by up to 3% and productivity by up to 5%. Investments in individuals with the lowest literacy levels would have the greatest effect on growth (ESDC, 2021).

Nevertheless, gaps persist in understanding and addressing the barriers for low-skilled adults in accessing learning and skills development opportunities. With the gaps that persist in understanding the barriers for these people to access adult educations, it is crucial to understand what challenges are faced by these individuals and how the government can review and reform its programs to address those challenges. It is important to note that the denotation of 'low-skilled' is a bit misrepresenting. It convenes a negative connotation that people performing jobs requiring a lower level of formal education may lack the skills "to realise their full potential" (Lowrey, 2021). Nevertheless, each profession, regardless of its educational requirement, has its own sophistication, and workers who are often characterised as low-skilled do possess skills and knowhow as any other professional skills. Thus, this classification of high-skilled and low-skilled seems arbitrary. But for the purpose of this report, and since 'low-skilled' is a term widely used in the literature and due to a lack of a better term, the term 'low-skilled' is used to describe adults who did not complete high school education.

The purpose of this report is to make policy recommendations on how ESDC can improve participation in lifelong learning in Canada, especially adults who come from families with low income, who are working at lower-skilled jobs, and those who may not be well-served by existing programming and supports. Along the way, this brief explores the landscape of adult education and learning in Canada and related dimensions. We also hope to inspire ESDC to realize why prioritizing learning among low-skilled adults is timely and the right investment for the future of Canada.

The remainder of the brief is organized as follows. Section 5 talks about the Methodology used, the ethical considerations and some limitations observed while preparing this report. Section 6 starts with setting the base and trying to understand the landscape of Lifelong Learning in Canada, while section 7 talks about major trends and disruptions necessitating adult learning in Canada, including technological advancements, decarbonization, and the COVID-19 pandemic. Moving on to section 8 of the report, we explore the efforts made by the Canadian government in the field of adult education. We touch upon some existing programs and policies for adult education at the provincial and federal levels in the country. In section 9, this paper attempts to understand the barriers faced by low-skilled workers to get adult education and the gaps present in the existing government programs and policies. With extensive research into several dimensions and understanding the discrepancies of adult learning infrastructure, section 10 outlines our recommended policy framework to assist ESDC in better addressing the needs of low-skilled adult learners. We outline how ESDC can provide more responsive programming, reduce the policy gaps, and effectively remove barriers faced by low-skilled adults to eventually help increase their participation rate in adult learning.

5 Methodology, Ethical Considerations, Limitations

5.1 Literature Review

This report is based on an array of sources including peer-reviewed journal articles, books, government and stakeholder reports, and newspaper articles. The academic sources were mainly gathered through the Google Scholar search engine using the following key phrases: “Lifelong Learning,” “Adult Learning,'' “Barriers to lifelong Learning,” “Lifelong Learning and Automation,” “Lifelong Learning and Artificial Intelligence,” “Adult Learning, COVID-19/Pandemic, Canada.” A vast body of academic research exists on these topics falling under different domains including education, skills development, training, public policy, psychology, and behavioural science. However, we relied on 41 academic and non-academic research papers and reports to build an understanding of the key concepts.

The debate on the need for adult learning emerged in the 1980s. Thanks to Malcolm Knowles’ work on the Adult Learning Theory also known as *Andragogy*. *The Adult Learner: A Neglected Species* children '' (Konwles, 1980) made an important contribution by introducing the concept of adult learning into modern teaching and learning discourse. He believes that the modern education system using pedagogy as the default method of teaching for adult learners has a fundamental paradox (Ibid). The root of the word pedagogy comes from two Greek words: *paid* meaning child and *agogus* meaning leading. So, it can be translated as “the art and science of teaching children” (Konwles, 1980). Naturally, the pedagogy of adult education is a paradoxical term since adult learners have relatively different ways of learning, chief among them characteristics such as self-directness, experiential learning, readiness to learning, and problem-solving learning. These four assumptions unique to adult learners justify the need for andragogy, which means *man-leading*.

It is worth mentioning that the concept of andragogy was already known to educators in countries like France, the former Yugoslavia, Germany, and the Netherlands. This concept has been helping educators and policymakers to develop new methods of education tailored to adult needs (Ibid). Adult education seemed to be fashionable until the invention of the Internet. Around this time, adult education got a new twist. Hase and Keyon (2001) coined the term heutagogy which can be translated to self-directed learning. They argue that the adult education concept suggested by Knowles does not meet the requirements of the 21st century, as it can be noticed in the following statement: *“Andragogy, and the principles of adult learning that were derived from it transformed face-to-face teaching and provided a rationale for distance education based on the notion of self-directedness. There is, however, another revolution taking place in educational circles that appears to go one step beyond andragogy, to a new set of principles and practices that may have application across the whole spectrum of the education and learning lifespan*” (Kenyon & Stewart, 2001).

Heutagogy or self-centred learning puts students at the centre of learning. It allows students to design their own learning experiences in a flexible way. In theory, this approach seems attractive. Yet, evidence from experiments with Massive Open Online Course (MOOC) shows that this method does not yield greater results in terms of advancing online education due to lack of supervision compared to traditional platforms such as schools, universities, or even workplaces. The COVID-19 pandemic has been providing us with new challenges and opportunities to revisit the interplay between online education and lifelong learning. Will the large-scale virtual education practices continue in the post-pandemic world? To what extent are adult learners and educators ready to abandon the pedagogical approach and embrace self-

directed learning? Two important observations can be made here. First, it is too early to evaluate results. Second, emerging evidence and arguments are mixed. Some expected immediate return to a traditional brick-and-mortar classroom. Others believe that disruption caused by the pandemic will widen the education gap between educated and less-educated people partly due to insufficient accessibility to high-speed internet as well as other situational barriers. For others, massive online education is a moment of change that will fundamentally reshape the world of education.

One important aspect of academic literature dealing with this subject is barriers to participation in adult learning. In our research, we focused on barriers facing low-skilled adults. These barriers are generally classified into three categories (MacKeracher, Suart, & Potter, 2006):

i. Situational barriers: those that limit adult participation in education due to the situation or environment in which adult learners are living through and with,
ii. Institutional barriers: resulting from institutional practices and procedures that discourage learning activities, and
iii. Dispositional barriers: originating from the attitudes and self-perceptions of learners about themselves.

Academic literature also confirms that these barriers do not take place in isolation. They are linked with broader social, economic, and personal contexts. In addition, acknowledging that a big part of the problem of low enrolment in learning by low-skilled adults is primarily psychological, the team focused on researching and understanding the psychological barriers, perceptions, and attitudes of the targeted group. We researched behavioural science literature to ensure that policy recommendations are evidence-based and deal effectively with the root cause of the problem.

Considering the policy-oriented nature of this project, the team also drew lessons from policy papers and evaluation reports from ESDC, OECD, and Erasmus+ (EU's program to support education, training, youth, and sport in Europe).

5.2 Expert Interviews

As part of the study, we interviewed 23 subject matter experts (SMEs) representing various institutions and organizations, including universities, policy think tanks, NGOs, and government departments (for the full list of SMEs, refer to Appendix 1). SMEs worked at various seniority levels and specializations which was critical for gathering insights at both, strategic and operational levels. Common titles and positions among the 23 interviewees were professors, policy analysts, program managers, directors, and chief executive officers. Our team collected insights on 5 key topics from the SMEs: (i) Canada's lifelong learning ecosystem, (ii) barriers to adult learning in Canada, (iii) the role of civil society organizations in adult education, (iv) the effects of the pandemic on lifelong learning, and (v) global best practices in adult and lifelong learning. SMEs were also helpful in introducing additional resources, including suggesting other SMEs that should be interviewed. All interviews were conducted via Zoom and Microsoft Teams platforms due to the pandemic.

5.3 Ethical Considerations and Limitations

This study did not involve direct consultations with the targeted beneficiaries – low-skilled adults. The study set-up is advantageous and disadvantageous at the same time. It is advantageous because it shielded our team from the risks related to inquiring about sensitive information. For instance, some of

our target population would have not felt comfortable talking to strangers about their low educational status. In addition, conversations that insinuate certain skills or jobs are more important than others could be upsetting to some. On the other hand, the disadvantage of this study set-up is that our understanding of the experiences of low-skilled adults came solely from secondary sources and stakeholder interviews. Therefore, there is a risk that we missed certain perspectives and lived experiences. Related to lived experiences, we are also mindful of our positionality during the project, including the fact that we are writing about the low-skilled population albeit we have never walked in their shoes.

Also, worth noting that the COVID-19 pandemic hindered physical access to libraries and led to most of the research being conducted online. Likewise, the research of this project was limited because interviews with SMEs were completed online. Some of the challenges we faced included working around different time zones, as well as disruptions from poor internet connectivity. During these interviews, we asked SMEs whether we could record them. We also sought their consent to reference their names in the report. We further ensured the interviewees were comfortable with how we intended to incorporate their views, including the use of direct quotes. After considering various factors, it was agreed that preserving the confidentiality of the stakeholders and their opinions was paramount, thus their insights have been primarily embedded into this brief. Only where relevant and value-adding, direct quotes obtained from interviews were used but without revealing the names of stakeholders.

6 Lifelong Learning in Canada

To understand the landscape of adult learning in Canada, it is important to start from the beginning and understand the structure of education. In Canada, there is no single federal ministry responsible for education and no single approach that applies to the entire country. In fact, it is the only OECD country that does not have a centralized body that organizes and manages education. Education is primarily a provincial responsibility, where each province has its own established curriculum and practices. Under its constitutionally guaranteed system, each province is responsible for planning, implementing, and evaluating policies for adult learning and skills development. There is also no formal definition of adult education or adult literacy that is followed in Canada. However, the provincial and territorial governments have collectively formed a common definition with respect to adult education and lifelong learning through the Learn Canada 2020 framework. Learn Canada 2020 is the framework that the provincial and territorial ministers of education, through the Council of Ministers of Education, Canada, use to enhance Canada's education systems, learning opportunities, and overall education outcomes. (Learn Canada 2020, 2008). Under this framework, lifelong learning is based on four pillars: (1) Early Childhood Learning and Development; (2) Elementary to High School Systems; (3) Post-Secondary Education; and (4) Adult Learning and Skills Development. The scope of this project is focusing on the last pillar, adult learning and skills development, which is defined as participation in education or training by individuals aged 25 and older. For this report, lifelong learning and adult education is used interchangeably.

The plans and programs related to adult learning are very different for each province, reflecting their diverse culture, socio-political and economic structures. In most provinces, a single ministry is responsible for educational policies and programs, but select provinces have more than one ministry involved in the process. Every province and territory designs adult education and lifelong learning programs catering to the specific needs of its own population. A few examples include basic skills programs, language learning programs (English and French), vocational education programs, workforce training programs, and others. This approach is beneficial in most cases as each province is able to cater to its needs and diverse communities. This said, a drawback of this diversity comes from the fact that the access and delivery mechanisms of adult learning in Canada differs starkly among provinces, leading to unequal development in the country.

While education is a provincial responsibility, the federal government is also involved in the entire process by providing support and funding for all these adult education and skills development programs through Employment and Social Development Canada (ESDC). The federal government plays a crucial role in supporting post-secondary, skills development, lifelong learning, and workforce training programs. It also provides special funds towards education and skills development for under-represented and marginalized groups, like people with disabilities, Indigenous peoples, marginalized communities, and old age workers.

The institutional structure of adult education in Canada forms the core of this entire landscape. Post-secondary education is often provided by institutions and universities that grant degrees and other community colleges that are non-degree providing institutions. They form an important part of lifelong learning across Canada as they provide a wide range of long-term and short-term educational and training programs often designed to cater to population needs. Universities and community colleges receive substantial funding from the provincial and federal governments to operate these programs, but the proportion differs across provinces and institutions. Private institutions and private colleges are on the

other end of the spectrum and are considered an important compliment to adult education and training in Canada. Private institutions in Canada provide certificates, diplomas, and degrees in various fields like technology, accounting, architecture, education, etc. They often have courses designed to cater to employment requirements more than the public institutions. There is also a huge network of non-governmental organizations and community-based learning organizations whose contribution to adult learning is important and effective. AFS Canada, Canadian Zalmi Society, Pathway to Possibilities (PTP), and other such organizations help adults to restart their careers through short- and long-term education and training programs. These organizations cater to more social issues and work with special sections of the population like immigrants, marginalized communities, people with special needs or disabilities, women, displaced workers, or adults with low income and low literacy. To continue their operations, they typically receive aid and funds from other organizations, funders, and the provincial and federal governments. It is worth mentioning that not all adult education takes place in a college or university. Adult education can also be offered by a private training institute hired by an employer to deliver skills training to a specific group of employees.

7 Major Trends and Disruptions Necessitating Adult Learning

7.1 Technological Advancements

Businesses are constantly turning to new technologies to increase productivity and market reach, as well as improve their products and services (Lamb, 2016). New technologies, like artificial intelligence and automation, are becoming increasingly accessible for even small businesses because of decreasing prices (Alini, 2017). The Brookfield Institute for Innovation + Entrepreneurship (2016) has estimated that, within the next two decades, almost 42% of the labour force in Canada is at a high risk of being impacted by automation. The individuals at the greatest risk include those who are less educated and hold occupations that earn less, including retail salespersons, administrative assistants, food counter attendants, cashiers, and transport truck drivers (Lamb, 2016). It is likely that regions that are very dependent on mining, forestry, agriculture, and manufacturing will feel the largest impact, such as in southern Quebec, southwestern Ontario, and the Prairies. Areas that are least likely to suffer include towns where the majority of jobs are in hospitals, universities, and the government. Cities are at medium risk because automation will impact a large proportion of the labour force, but many of the affected workers will find it easier to obtain new jobs in the urban setting (Alini, 2017).

In Fort McMurray, Alberta, 30% and 11% of jobs are in the natural resource sector and construction, respectively. Alarmingly, this means that automation could remove half of all employment in the town. In wider Alberta, jobs lost during a recession triggered by low oil prices may never be reinstated. For example, natural resource companies may choose to begin using self-driving vehicles in the oil sands and quarries, rather than rehire drivers that were laid off. This a current concern with the COVID-19 pandemic in which businesses may resort to new automation technology. In Woodstock, Ontario, the public is at a similar risk as Fort McMurray where 25% of individuals have manufacturing jobs and a further 7% work in the accommodation and food industry. By contrast, in Fredericton, New Brunswick, under 45% of employment could be automated and almost 40% are employed in the healthcare, education, and public administration sectors – all of which contain a high portion of jobs that require human interaction and managerial skills (Alini, 2017). While existing programs, such as the Labour Market Development Agreements (LDMAs) and Workforce Development Agreements (WDAs) can help mitigate cases like Fort McMurray and Woodstock, further policy development is required to sufficiently address the largescale concerns caused by automation.

A recent study conducted by Statistics Canada (2020) concluded that in 2016, 10.6% of Canadian workers were at high risk of automation-related job transformation and an additional 29.1% were at moderate risk. A large portion of the workers that were at high risk included those who were older (55 years old or above), did not have post-secondary credentials, were living with low income, had part-time employment, and had certain post-secondary credentials or employment (e.g., office support, manufacturing sector) (Frenette & Frank, 2020).

7.2 Decarbonization Policies

Another trend that increases the vulnerability of low-skilled workers to job loss is the introduction of decarbonization policies – measures to reduce carbon dioxide emissions. In an effort to meet climate goals, Prime Minister Justin Trudeau announced in 2020 that the carbon tax, originally promised to be capped at 2022 levels, would be hiked by $15 every year starting in 2023, resulting in a new cap of $170/tCO2e in 2030 (Tasker, 2020). In addition, in March 2021, the Supreme Court of Canada ruled in

favour of the federal carbon tax legality, ending the uncertainty of the issue (References re Greenhouse Gas Pollution Pricing Act, 2021). The Prime Minster has also announced in April 2021 that Canada will enhance its emissions reduction target under the Paris Agreement by 40-45% below 2005 levels by 2030 from originally committing to reduce emissions by 30%. In another big step towards mitigating climate change, Ottawa has recently passed the *Canadian Net-Zero Emissions Accountability Act* (Government of Canada, 2021). This marks the first time that the federal government enshrines in legislation the country's carbon emission reduction commitments. This act will require the government to set 5-year emissions reduction targets and plans to ultimately guide Canada's transition to net-zero emissions by 2050.

By design, climate policies aim to reduce demand for high-carbon products (crude oil, fuels, natural gas, etc.), disrupting Canada's large oil and gas industry. It has been estimated that 75% of Canadians in the oil and gas industry could lose their jobs by 2050 due to aggressive carbon reduction goals. This equates to as many as 450,000 of 600,000 individuals who are employed, directly or indirectly, in the industry (Graney, 2021). It has been further suggested that low-skilled workers will be the most negatively affected by this job loss (Chateau, Bibas, & Lanzi, 2018).

7.3 COVID-19 Pandemic

The COVID-19 pandemic has had a profound impact on many aspects of Canadians' life, chief among them is health, education, and the labour market. To manage the spread of the virus, lockdown measures have been put into place across the country. The beginning of the pandemic seems to be hard for traditional students and adult learners. Home-based education for less tech-savvy adult learners creates additional barriers to pursue their education. Likewise, adult educators must deal with extra stress and anxiety to upgrade their skills and learn new ways of teaching (James & Thériault, 2020).

Lifelong learning expert believes that the ongoing pandemic is a disjuncture (Bjursell, 2020). Defined by adult educator Peter Jarvis, a disjuncture is a challenge to an individual's worldviews that pushes them to acquire new knowledge and new ways of doing things (Bjursell, 2020). Traditionally, a disjuncture is considered a positive step in the lifelong learning process. Yet, the disjuncture caused by the pandemic may have negative consequences, too. By exploring the positive implications, the most obvious case of such a phenomenon in the context of this discussion is widespread remote education. Because of accessibility to high-speed internet in Canada – at least in the major urban areas – access to education seems to be mitigated to some extent. Lifelong learning expert believes that the ongoing pandemic is a disjuncture (Bjursell, 2020).

Rapid mobilization of the education system to use virtual platforms is a promising trend in lifelong learning. Since the invention of the Internet, particularly after the emergence of the MOOC phenomenon, a massive change in the education domain was waiting to be materialized throughout the world before the pandemic. Such a change was further justified by "skyrocketing educational costs, the demand for skill- and competency-based education, the rise of the knowledge economy" (Blaschke, 2012). The pandemic was a tipping point that left the global community with no choice but to go online. EdX, a MOOC platform developed and managed by the Massachusetts Institute of Technology (MIT), had witnessed a 160% increase in its membership from November 2019 to November 2020 (Hess, 2021). Likewise, Coursera has been an attractive place for students and educators. Emerging evidence suggests that the

COVID-19 pandemic is accelerating the speed of digitization and digital ways of learning in higher education. Anecdotal evidence also demonstrates that people with mobility disabilities are particularly satisfied with online education, as in pre-pandemic times, they faced additional challenges associated with commuting to school. Connecting the classroom with people's homes removes such a barrier. A similar pattern of reasoning and conclusion can be made about the Canadian schools, colleges, and universities that are teaching remotely.

Peter Jarvis, a leading expert on lifelong learning and adult education, has made an interesting observation on the interplay between distance learning and lifelong learning. One of the key motivations for adults to engage in lifelong learning activities is the desire to meet new people. Virtual meetings certainly cannot substitute in-person meetings. Therefore, it can be concluded that remote education can make adult learning an isolated experience, denying the learners and educators the advantages of peer-to-peer learning at full-scale and the opportunity to build social capital and networks which are critical for finding jobs and ultimately, upward social mobility. Education in isolation may also create a generation gap between old and young learners, push the students to internalize a narrow mindset, and a rejection of collective learning and generational solidarity (Bjursell, 2020). Evidence from the first wave suggests that there was a significant increase in mental health challenges attributed to isolation measures, unemployment, economic uncertainty, loss of childcare, disproportionate and gendered caregiving, housing instability, and food insecurity (Jenkins, et al., 2021). The impact of the pandemic seems to be severe for aging adult learners since they have been subjected to intense isolation without having physical contact with their families, let alone lifelong learners' efforts.

The OECD is alarmed about how the pandemic has been deepening educational and social inequalities around the world, and Canada is not an exception. The Survey of Adult Skills indicates that "adults with lower levels of education, lower-paying jobs, and lack of or insufficient employment are least likely to participate in adult learning" (OECD, 2019). The Matthew effect deserves to be discussed. The Matthew effect is the predetermined outcome for the poor and the rich. In the context of education, it can be translated as follows: educated people become more educated and uneducated become less educated. Low-skilled workers often lack the prerequisite skills and competencies to engage in lifelong learning of any nature - formal versus informal, in-person versus online. So, the Matthew effect is very visible and real for them. The following table shows the capacity of telework and the level of education in the Canadian economy. Clearly, there is a strong correlation between one's level of education and working from home. From a lifelong perspective, low-skilled workers are less likely to participate in upgrading their skills because they are either busy or lack foundational skills to do so (OECD, 2019). Again, the Mathew effect is present in the unequal outcome of lifelong learning. This will widen the gap between the high and low-income segment of the population in the post-pandemic era, which necessitates swift action by the government to close the deepening education and social gap.

Education	Telework Capacity (%)
Less than high school	13
High school diploma	25
Some post-secondary	28
Trades certificate or diploma	19
College diploma	40
University certificate below Bachelor's	47
Bachelor's degree or higher	60

Table 1: Telework capacity in 2019, by selected characteristics (Deng, Morissette, & Messacar, 2020).

It is also crucial to cover the effect of the pandemic on the labour market. It was found that the pandemic has hit various sectors unevenly. Sectors that employ low-skilled workers, women, and youth were the hardest hit by the pandemic (International Monetary Fund, 2021). In addition, the pandemic has accelerated the development and adoption of automation technology (International Monetary Fund, 2021).

It is important to note how automation, the COVID-19 pandemic, and decarbonization policies intertwine, resulting in some low-skilled workers being at even greater risk of job loss. For example, if a driver in the oil sands does not lose their job to automation in general, they may lose their job to automation that resulted from COVID-19 or a future recession. Furthermore, if automation is not the cause of drivers' job loss, the implementation of decarbonization policies could lead to unemployment.

8 Learning and Skills Development: An Overview of Programs and Policies

8.1 Federal Programs and Policies

In Canada, younger students who are following a traditional educational path make the largest proportion of ESDC's clients. As such, the bulk of resources for training and educational programs support this demographic. As an example, the average beneficiary of the Canada Student Financial Assistance[1] (CSFA) program was 24 years old during the financial year 2018-2019. Whereas students aged 35 and above composed only 10% of total beneficiaries during the same year (Government of Canada, 2019). Beyond the CSFA program, younger learners may qualify for financial support to pursue various hands-on learning opportunities in Canada and abroad. Likewise, recently proposed measures aim to further strengthen support among young learners as detailed in the 2019 budget. With a budgetary commitment of an additional $570 million over the next five years, more youth can volunteer in community service, intern at local and international professional jobs, or acquire digital skills via Canada Service Corps, Student Work Placement programs, and CanCode programs, respectively. Likewise, the 2021 budget illustrates a continued commitment to young Canadian learners through a proposed investment of $721 million in on-job learning opportunities, for two years. The funds will be channelled to the Student Work Placement Program, Youth Employment and Skills Strategy, and Canada Summer Jobs (Government of Canada, 2021). The government also facilitates opportunities for parents to invest in their children's post-secondary education via Registered Education Savings Plans (RESPs) and learning bonds.

> *"And so again, you know who has got an RESP? Who is getting their learning bond? But this all stuff is geared to teens and young kids. They serve families with kids, teens, young adults, and the like, right, not the mid-career workers that are trying to learn."*
>
> - Stakeholder interview

However, a growing focus to support students whose educational path is far from traditional is also evident. As part of the CSFA program, full-time and part-time students with dependent children under the age of 12 can now claim annual childcare benefits of $2,400 and up to $1,900 per child, respectively. Further, the Skills Boost pilot program is linked to the CSFA and was launched in 2018 to support adult learners wishing to pursue post-secondary education. The program awards an annual top-up grant of $1,600 to full-time post-secondary students who are eligible for standard CSFA, provided they completed high school over 10 years ago at the time of application. The Skills Boost program also includes employment insurance flexibility (EI), meaning receiving EI does not disqualify an eligible adult student from claiming a Skills Boost top-up grant. To strengthen the pilot, the 2021 budget has allocated resources to cover another two years of the Skills Boost pilot (Government of Canada, 2021).

The Canadian Training Benefits program is another recent initiative to encourage learning amongst working adults seeking to upgrade their skills. The program's benefits are three-fold as they include tuition credit, guaranteed study leave, and employment benefits during the study duration. In addition, ESDC is providing unions with $25 million per year as part of the Union Training and Innovation Program (ESDC, 2020). The funds can be used to purchase modern training equipment as well as to fund innovative

[1] The Canada Student Financial Assistance program was formally known as The Canada Student Loans (and Grants) program.

solutions that improve the uptake and the quality of apprenticeship courses, especially among underrepresented groups. Aside from these nationally administered programs, the federal government supports skills development through financial transfers to provinces and territories. Such transfers allow provinces and territories to design and implement skill development interventions that are relevant to their labour market needs. The two prominent contribution programs are the Labour Market Development Agreement (LMDAs)[2] and Workforce Development Agreements (WDAs)[3] with a total annual budget of approximately $3 billion including EI provisions. As part of LMDAs and WDAs, provinces and territories must adhere to the national programming objectives and report on progress in line with the agreed frameworks.

There are also indications that programming approaches are evolving as illustrated by a growing appetite for complementing financial assistance with innovative approaches to monitoring and research. As an example, ESDC incorporated machine learning techniques to better estimate the impact of labour market programs. Additionally, ESDC combined several administrative data sources to measure the impact of Apprenticeship Grants. The datasets were shared with Statistics Canada which in turn facilitates access by provinces and territories (ESDC, 2021). Respecting research, the Future Skills Centre (FSC) is part of another recent initiative by ESDC called the Future Skills program. FCS employs human-centred design[4] to co-implement research and pilot projects that help to predict future skills and training needs, thus preparing Canadians for future jobs. FCS operates independently of the Government of Canada. Three organizations – Ryerson University, the Conference Board of Canada, and Blueprint – collaborate in operating the Centre (ESDC, 2020).

Beyond the forward-looking research approach, the Future Skills program has the potential to create value in promoting equitable opportunities for lifelong learning in Canada. As a first step, the budgetary allocation of the program prioritizes interventions with the potential to unlock barriers facing marginalized populations. The Future Skills Centre, as a case in point, spends 50% of its annual budget of $75 million to support research and community pilot studies with direct relevance to Indigenous peoples, racialized individuals, women, and people living with disabilities (Future Skills Centre, 2021). The Future Skills program can serve as an important source of quality information for small and medium businesses and learning institutions which under normal circumstances would not be able to afford the higher costs of conducting specialized research on labour markets. As such, businesses and learning institutions will have comparable access to the information they need if they wish to continue offering competitive skills and training. Similar benefits extend to provinces and territories lacking adequate financial resources to commission periodic skills gap analyses and labour market assessments. Thus, provinces and territories can focus on addressing current training and labour market needs, but with an option to incorporate the relevant insights arising from ongoing research and community pilots.

[2] Under the LMDAs, employment benefits enable eligible individuals – including current and former EI claimants as well as individuals who have made minimum EI premium contributions in at least 5 of the last 10 years – to gain skills and work experience with a combination of interventions such as skills training and wage subsidies.

[3] WDAs follows the principles of LMDAs with the two main exceptions. One, WDAs fund services that help Canadians without access to EI get training, develop their skills and gain work experience. Two, WDAs funds a more diverse interventions including counselling services.

[4] Human Centred Design is an umbrella terms for mechanisms and approaches that embrace a fluid, diverse nature of humans so as to develop services and products that are centred around human needs and desires.

ESDC's responsive programming is also linked to the department's commitment to the principles of Gender-Based Analysis Plus (GBA+) which aims to make Canada a country of equitable opportunities. GBA+ is an umbrella term to capture various considerations for how differently women, men, and gender-diverse people may experience policies, programs, and initiatives (Government of Canada, 2021). The considerations go beyond the gender spectrum. They incorporate experiences of marginalized groups, such as racialized communities and people living with disabilities. GBA+ principles will also apply in monitoring and evaluation frameworks as indicated in ESDC's 2021 – 2025 reporting plan (ESDC, 2021). Targeted programs include the Indigenous Skills and Employment Training Program, the Youth Employment Strategy, LMDAs, and the Opportunities Fund for Persons with Disabilities.

Our takeaway is that the existing and diverse government-funded learning and training programs indicate Canada's desire to promote equitable access to quality education and in-demand skills. In recent years, the Canadian government has been spending approximately $7.5 billion annually to support 23 umbrella programs and over 100 skills development programs, ranging from basic literacy and essential skills to more flexible upskilling programs available to working adults. Beyond the various fiscal support tools which include grants, loans, tax credits, and loan payment assistance services, the government has revised eligibility criteria or removed outdated ones as a way of eliminating systemic hurdles that prevent Canadians from learning. Some examples of recently proposed or adopted changes include: (i) permission to pursue full-time studies while receiving EI benefits, (ii) loan rehabilitation for students facing precarious financial situations, and (iii) extended access to educational loans and grants, regardless of an outstanding loan balance, if a student is living with severe disability and must undergo prolonged medical treatment (Government of Canada, 2019). Also, worth noting, Canada's 2021 budget proposed a radical permanent change where eligibility to financial assistance will be based on the current year's income instead of the previous year's income. This change, if adopted, means previous work incomes will no longer jeopardize Canadians' access to financial assistance.

ESDC Skills Development Programs Catering to Adults Learners	
Primary Focus on Adult Learners	**Complementary Focus on Adult Learners**
Skills Boost Top-up Grant (part of the Canada Student Financial Assistance Program)	Future Skills Program
Skills for Success (formerly known as Literacy and Essential Skills	The Canada Student Financial Assistance
Union Training and Innovation Program	Apprenticeship Grants
Workforce Development Agreements (WDAs)	Skilled Trades Awareness and Readiness Program
Labour Market Development Agreements (LMDAs)	Opportunities Fund for Persons with Disabilities
The Canada Training Benefit	Skills and Partnership Fund
Lifelong Learning Plan (LLP)[5]	Indigenous Skills and Employment Training Program
	Enabling Fund for Official Language Minority Communities

Table 2: A summary of umbrella programs funded by ESDC. Source: GC InfoBase

[5] Lifelong Learning Plan (LLP) is neither funded nor administered by ESDC. The program is under Canada Revenue Agency.

8.2 Provincial Programs and Policies

While we are focusing on the federal level programs, it is also important to touch upon the current programs and policies at the provincial level. These policies and programs differ in each province as they are specifically designed to cater to the needs of the local population. Almost all provinces have education departments involved in planning and disseminating knowledge towards adult education. In some provinces, several ministries are involved in the entire process, including education and labour departments that help form more effective and integrated policies and programs. Some jurisdictions have separate departments or ministries, one having responsibility for elementary-secondary education and another for post-secondary education and skills training. Important to recognize that while the federal government provides loans and grants for adult education, so do the provinces and territories within their own jurisdictions. Below are provincial programs from four provinces – British Columbia, Ontario, Manitoba, and Nova Scotia – that were chosen based on the income of the provinces. In comparison to Manitoba and Nova Scotia, British Columbia and Ontario are more prosperous provinces with a higher capacity to invest in their learning infrastructure. We also selected them based on geographical diversity, covering the eastern, central, and western regions of Canada.

British Columbia

British Columbia (BC) has several pieces of legislation that support adult learning and education. The pre-post-secondary programs in BC include Adult Basic Education (ABE), Adult Special Education (ASE), and English Language Learning (ELL) (also known as English as a Second Language) which is delivered by 18 pre-postsecondary programs in the province (Ministry of Advanced Education, Skills and Training - BC, 2018). The Adult Basic Education (ABE) and English Language Learning (ELL) programs are made tuition-free for domestic students in post-secondary institutions in BC. To support the students in Adult Special Education (ASE) programs with their tuition fees and other educational costs, the BC government has made Adult Upgrading Grant (AUG) available for eligible students (mostly low-income students enrolled in ABE, ELL, and ASE) (Ministry of Advanced Education, Skills and Training - BC, 2018). The province has also made recommendations for the public post-secondary institutions to help and create formal education plans for adult learners to help form a pathway for them to follow and complete their education. The programs and plans are specifically designed to capture the easy transfer of their students, courses, and credits across institutions. Finally, the BC government also collaborates with the school, Indigenous communities, institutes, and community-based organizations to provide effective Adult Education programs.

Ontario

In Ontario, The Ministries of Advanced Education and Skills Development (MAESD), Education (EDU), and Citizenship and Immigration (MCI) share stewardship for adult education programs (The Ontario Public Service, 2017). The Ministry of Labour, Training and Skills Development (MLTSD) funds programs related to adult literacy, skills training, and academic upgrading. The agencies work together to provide a full range of services including basic skills review as well as college and apprenticeship preparatory courses. These courses provide strong components of essential skills training for the workforce, apprenticeships, and employment preparation. Literacy and basic skills meant for adults who are 19 years or older are to develop their basic reading, writing, computer, math, and other skills. English as a second language and French as a basic Language focuses on adult learners and immigrants who want to learn or improve their

English or French. Ontario high school diplomas help adults who need academic credits for moving to post-secondary education and, finally, the Academic Career Entrance Program helps adults who want to improve their skills to enter Ontario college programs. Ontario recently announced that it would provide student financial assistance (SFA) for micro-credentials.

Manitoba

In Manitoba, it is the Department of Advanced Education and Literacy that is responsible for prioritizing and allocating funds to post-secondary institutions, adult learning, and student financial programs. The entire framework for adult literacy and education involves adult literacy programming which provides direct instructions to develop the skills and learning of individuals. The Workplace Essential Skills is the second component of providing skills required to be successful at work and are more technical and occupation-oriented learning. The Adult Learning Centres (ALC) help in upgrading literacy with programming for adults to secondary education courses and Apprenticeship provides strong skills for trade-related knowledge and certifications (Council of Ministers of Education, 2008). The Adult English as an Additional Language (EAL) Programming provided by the government of Manitoba is a language training program mainly for immigrants and labour force who move across regions and sectors (Minister of Advanced Education, Skills and Immigration, 2019). The Manitoba government also works closely with the federal government, universities, colleges, and territorial governments to provide literacy programs, occupational training, and certificates to achieve high levels of literacy.

Nova Scotia

The Nova Scotia School for Adult Learning (NSSAL) provides various free educational programs for adults across the province (Government of Nova Scotia, n.d.). Several programs are offered for adults with different education levels and requirements in both English and French medium of instruction. These adult education programs start from 'Adult Learning Program Level 1 and 2' and keeps increasing to levels 3 and 4. Level 4 includes courses to provide high school diplomas to students. Post-Level 4, adults can proceed to Public School programs for adults where regional centres across the province provide courses for grades 11 and 12, on successful completion of which the adults can attain the High School Graduation Diploma for Adults.

9 Barriers to Adult Learning

Many low-skilled adults do not seek skills development support because they are facing multiple barriers. Thus, among low-skilled adults, whether to pursue further learning is never a straightforward decision. It is this feeling of being overwhelmed by various steps and hurdles that can make adult learning seems like an impossible and perhaps a worthless endeavour. The remainder of this section discusses barriers to adult learning from different perspectives. We divide the discussion into two main categories: (i) barriers particular to low-skilled adult learners, and (ii) gaps in the existing programs.

9.1 Barriers Particular to Low-Skilled Adult Learners

Fear and a lack of navigational support

One barrier to learning among low-skilled adults is the general fear to approach government offices and community centres where one can obtain information on learning programs, career advice, and various related support. The fear could be a result of unsatisfactory outcomes from previous personal or third-party interactions with other formal authorities and service centres. As an example, adults who do not file taxes because they do not know how to will likely be scared to seek support from other government offices for the fear of being reprimanded.

In some other cases, less-educated adults feel intimidated by people with tertiary education. They dismiss the idea of ever returning to school because they do not believe they can succeed as students. Similarly, some individuals simply do not know that career advice services exist. This lack of awareness is exacerbated by the fact that the navigational support menu is not weaved in sufficiently among stakeholders that work closely with the low-skilled population.

> *"It is unlikely that a person who is a low skilled worker wakes up one morning and goes like: I got to figure out how to get me some new skills. But since community-based organisations that provide multi-services are reaching low-income populations through a variety of programs streams, they are important platforms to leverage reaching low-skilled adults."*
>
> - Stakeholder interview

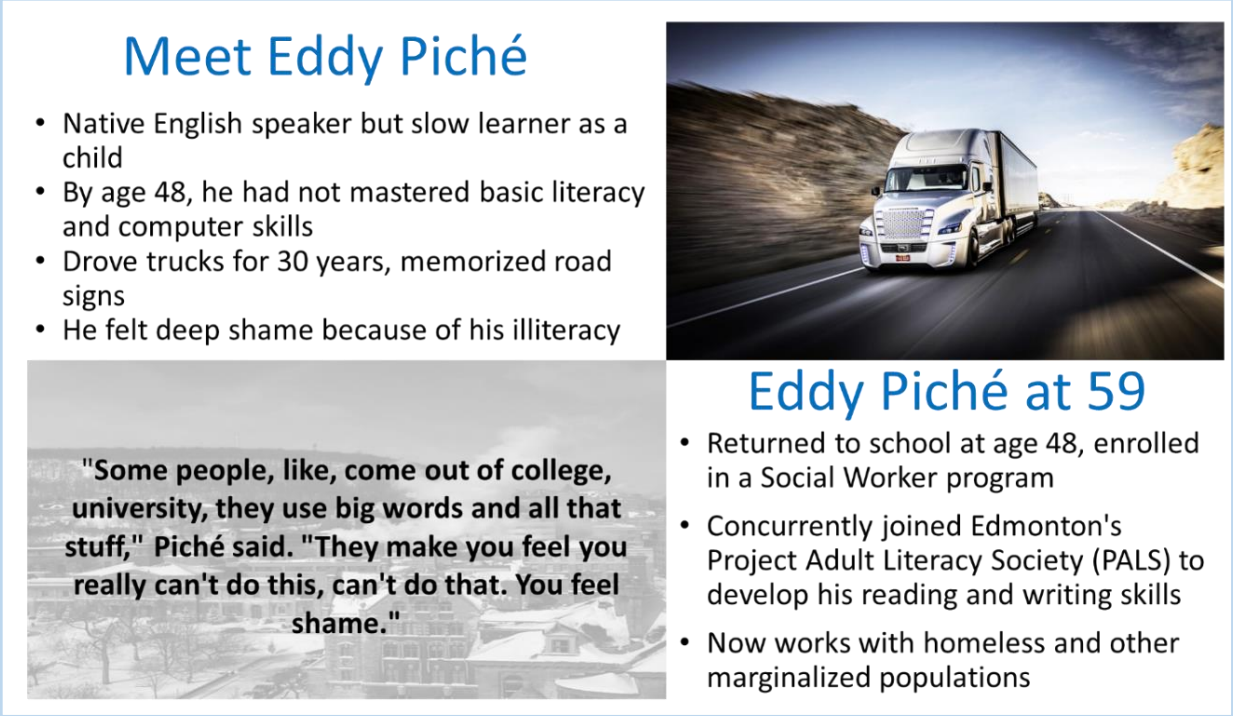


Figure 1: Eddy Piche - example of how learning is a life-changer - Source: News article from CBC Canada

Expensive tuition and the high opportunity cost of returning to school

Simply put, an opportunity cost is what one must forgo if they are to pursue a different option. Less-educated adults tend to work in low-paying and precarious jobs which, in turn, affects their ability to afford life necessities let alone save for emergencies and expensive tuition costs. Therefore, a decision to pursue additional training could mean an impossible trade-off. Even where one has income to fall back on, there are no guarantees for a better job following their studies. In some cases, adult workers, who have been in the same job for many years, might worry about leaving behind their colleagues if they are to take better jobs elsewhere. This is especially true in small or mid-sized towns where colleagues become close friends and family. This compounded fear of the unknown is the reason why many low-skilled working adults perceive upskilling as a risk rather than as an opportunity.

> *"Low-income, low-skilled adults tend to systematically overestimate the costs of formal education and training and underestimate what they're going to get in terms of improvement on their lifelong earnings as a result."*
>
> - Stakeholder interview

In rare cases, less-educated adults find jobs that pay a decent income. Those who are satisfied with the financial rewards do not prioritize further education. They only realize their predicaments once they lose their jobs. While some will strive to advance their formal education, the majority will stick with entry-level positions at precarious jobs until they retire because of the fear and lack of awareness explained earlier.

High opportunity cost also emanates from a lack of time off to pursue training opportunities. Low-skill adults are affected disproportionately because they tend to work multiple jobs or longer hours to afford

life necessities. Similarly, limited financial resources mean the inability to outsource caregiving and house chores. A combination of the two factors leaves very little to no room for one to engage in skills development and learning.

Inadequate access to ancillary services

There is one message that we heard repeatedly as we interviewed various experts and service providers. That is, learning is a luxury if people are worried about affording basic needs or support services (OECD, 2019). It is easy for top planners and upstream service providers to assume that everyone can commute to training institutions in time. Or that, everyone, can access a stable internet connection to facilitate online learning. However, such incremental costs matter a lot when one's disposable income is already low, and that person is living paycheck to paycheck. Likewise, high childcare cost, especially in big cities, is a major setback for adult learners. This is an interesting challenge because various government programs have started to provide grants to support parent students. For instance, the Canada Student Loans and Grants program is awarding an additional $1,600 per academic year, per child to student applicants with a child or children under 12. Similarly, the recently launched Workforce Development Agreement (WDA) is meant to fund a myriad of ancillary costs including childcare. Beyond childcare support linked to learning programs, the province of Quebec has been subsidizing childcare since 1997 whereas a similar initiative at a federal level was announced in the 2021 budget (Government of Canada, 2021). As such, at the time of concluding this study, it was unclear whether the root cause is excessive childcare costs or that childcare grant support is not available to every type of learner who needs it. Another culprit could be long waiting lines and/or limited spaces at affordable childcare facilities. Therefore, there is an opportunity for ESDC to probe this gap, identify areas of additionality and incorporate the value-add in its learning programs.

Lack of motivation

The aforementioned factors explain one side of the challenges that low-skill adult learners face, the other side relates to learners' psychology (OECD, 2019). The reality is, not every adult is enthusiastic about pursuing additional training for a variety of reasons. For one, traditional education and training programs do not work well for everyone. The idea of classroom learning for eight or more consecutive months, which is the standard post-secondary program delivery and duration, is daunting for some people. Even with options to learn trades that incorporate experiential learning, students must first master basic and other essential skills. Such skills are lacking among one in five working-age Canadians according to the 2015 survey (OECD, 2019). Likewise, online courses are not for everyone as they require self-initiative and discipline whereas evening classes only work for those who can still retain the necessary mental energy to focus on classes after a long day at work. It is also possible that some adults with low education levels give up on seeking additional training due to bad past experiences. Perhaps, they attended poorly funded schools that failed to provide quality education for students with special needs including counselling services to students coming from abusive families or rough neighbourhoods.

To recap, low-skilled adults do not experience barriers to learning linearly. To them, these barriers feel like a web of complex hurdles which in turn discourage them from taking a step forward.

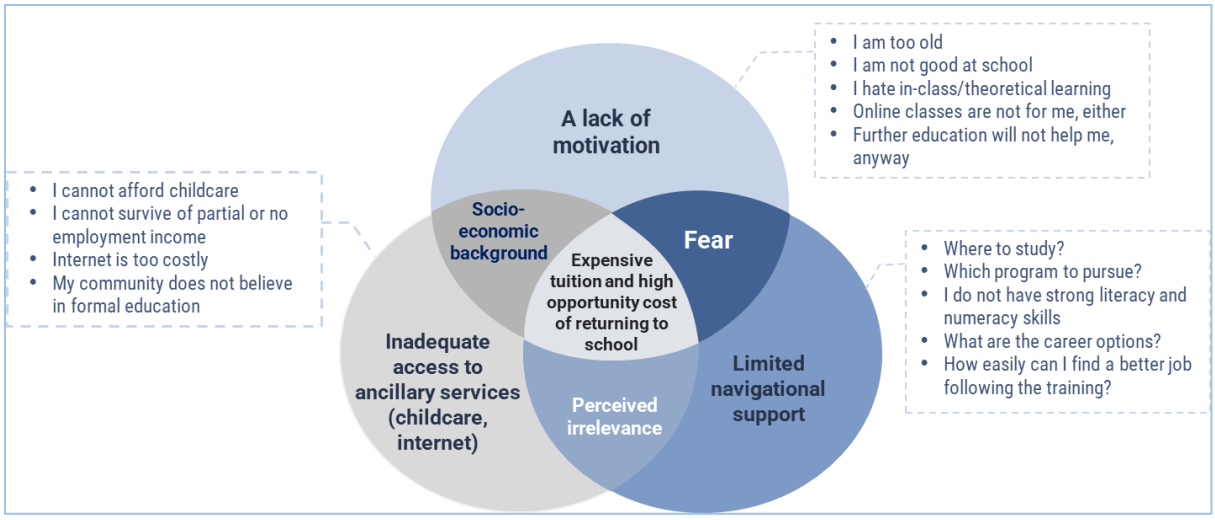


Figure 2: An illustration of multiple barriers to learning facing low-skilled adults. Source: Max Bell Team

9.2 Gaps in the Existing Skills Development Programs

Our research has also identified several gaps in existing ESDC funded programs. Some of these gaps are common across programs while others are unique to certain programs. The gaps can be procedural or inherent to the design of the program.

9.2.1 Common Gaps in the Existing Programs

Information gap and inadequate program monitoring

The most cited areas of improvement are information gaps and overall monitoring of the programs. The majority of experts we consulted are dissatisfied with the overall tracking of progress and results. From the quality of information and data collected to a lack of pre-defined targets for impact for different types of interventions. For example, while the best approach to work with people is through community-led organizations or organizations with strong ties to the community, some of these organizations lack the necessary competency for systematic data collection and overall progress monitoring. In other cases, training organizations have adequate tools although they struggle to obtain relevant information on potential beneficiaries. Some stakeholders said they see this gap, especially among organizations working with Indigenous communities as certain pieces of information are deemed sensitive, or because the information is simply unavailable.

> *"The challenge, however, for ESDC is that they don't do the direct delivery, right? They hand over buckets of money to organizations and the provincial governments and say, okay, provinces, you go deliver these services in your communities, and they can be from this menu, and you report back and tell us how it is going. And unfortunately, this has meant that ESDC has been struggling for several years to learn about what they are funding and what impacts they are getting for it on the ground. I think that they are aware of this, and they're trying to learn, but just in terms of something to highlight to them."*
>
> - Stakeholder interview

Indeed, ESDC is taking steps to improve the quality of data collection and overall program monitoring. Annual reviews of the Labour Market Development Agreement program indicate such efforts. Further, ESDC conducts periodic program evaluations every four to five years (ESDC, 2021). Additionally, our research also pointed to some improvements in impact monitoring and reporting with the Labour Market Development Program (LMDA) setting a strong precedent. Beyond tracking the number of beneficiaries participating in training and skills development, the LMDA reporting framework captures impact parameters such as gains in earning among participants and expenditure savings on employment insurance benefits. Likewise, a scan of the 2020 – 2025 departmental evaluation plan suggests ESDC's commitment to reliable and timely evidence along with innovative approaches for measuring impact. Some of the innovations are already underway. Specifically, ESDC leveraged machine learning to better estimate the impact of ESDC labour market programs. In addition, ESDC combined several administrative data sources to measure the impact of Apprenticeship Grants (ESDC, 2021). Therefore, the key takeaway is that interviewed experts recognize and even commend ESDC's efforts, they just worry the pace of closing identified gaps is not as fast, considering the rapidly changing labour market and subsequent learning needs.

Communication and information dissemination gap

Communication gaps occur partly because relevant information is not being collected. Other reasons are a culture of working in silos, and the fact that guidelines to external communications limit how EDSC can engage with the public. Such restrictions include the inability to advertise programs in manners that could be or are perceived as campaigns. As such, potential participants and stakeholders lack the necessary awareness about various ESDC-funded skills development programs. For instance, according to the Evaluation of the Canada Apprentice Loan report, the take-up rate for apprentice loans is under 35% partly because of a lack of awareness. According to the same report, 63% of apprentices are unaware of apprenticeship loans before registering with their training program (ESDC, 2021).

Another example of an information collection gap is the national, bilingual database for adult literacy – COPIUM – which was funded by the federal government (Gouvernement du Québec, n.d.). It provided data about adult learning for over 25 years, but according to a stakeholder interview, it was later defunded and discontinued.

Perception on formal education and training

Canadians tend to attain formal education at younger years and then they focus on work opportunities in adult years. Once in the labour market, many Canadians, especially those with low credentials, seldom seek more formal education. The proportion of working adults in Canada (aged 25 or older and working full-time) participating in formal education programs through high school, business or trade schools, college or university has not changed much in the past twenty years and has remained low, at 7% (Leckie, Hui, Tattrie, Robson, & Voyer, 2009; OECD, 2021). The data emphasize that formal and particularly academic programs do not attract many adult learners. Yet, such programs qualify for the most public funding especially via the Canada Student Financial Assistance. While it is understandable that formal (academic) courses offered at traditional learning institutions bear the highest potential for quality and accreditation, such limited considerations exclude many adult learners who seek flexibility in learning. Thus, the future of lifelong learning requires large programs such as the Canada Student Financial Assistance Program (CSFA) to provide more support for short-duration programs as well as micro-

credentials. Alternatively, resource allocations that specifically cater to the needs of adult learners with low education levels should be considered (more on this in section 10).

> *"But if you continue to frame education as being something that must be for at least a year, if not two years, three years, full time. It must cost 1000s of dollars. Must result in a diploma or degree. And that is the only education or training that matters. Then, no wonder people in an economy where they have a shot at finding full-time work are very disinterested."*
>
> - Stakeholder interview

Moreover, such widespread perceptions ignore the fact that low-skilled workers do participate in some form of learning, notably acquiring new skills and knowledge through learning-by-doing at the workplace. Yet, Prior Learning Assessment and Recognition (PLAR) does not consider a wealth of knowledge accumulated via certain work experiences particularly of the blue-collar workers. Now more than ever, Canada needs to identify and systematize skills obtained through unconventional learning mechanisms. As discussed, major changes are on the way for Canadian labour including restructuring resulting from the pandemic shock, aging population, energy transition, and advancement of automation. Workers running these industries do have certain skills and knowledge, yet their expertise will be disposed of in the wake of industry bankruptcy or major and extended shocks. If anything, the COVID-19 pandemic has emphasized the importance of flexible pathways for skills recognition and upgrading to address pressing needs in the labour market. One could argue, Canada missed a full opportunity to repurpose displaced labour from the industries hit hard by the pandemic (aviation, hospitality, and retail) to support essential sectors as the much-needed flexibility is lacking. Going forward, Canada must embrace the likelihood of similar disruptions in the future. Thus, flexibility in recognizing informal learning is not only imperative but also a timely endeavour.

A prevailing assumption that tuition fee is the only financial barrier

Many programs focus on funding or subsidizing tuition, while inadequately addressing access to ancillary services such as transportation and childcare needs. Further, when ancillary services are considered, this is not done across all programs and therefore does not cover all types of learners. For example, parent students qualifying for the Financial Assistance Program funding are also eligible for an additional grant per each dependent child under 12 years of age. However, similar benefits are not explicitly defined in other programs that are relevant to adult learners such as the LMDA, Skills for Success, and Language Skills Program. Similarly, the proposed Canada Training Benefits program while it comes with EI benefits, it does not account for day care, internet, and transportation costs.

9.2.2 Gaps Specific to Programs Catering to Adult Learners

Several programs, directly and indirectly, support adult learning in Canada. Collectively, these programs seek to improve tuition affordability, ease the burden of childcare, as well as provide time away from work. This section, however, will focus on why these programs fall short in their efforts to improve the participation of less-educated adults in training and learning activities. The description incorporates information from the literature review and the opinions we gathered from the interviews that we conducted as part of this research. We acknowledge that ESDC is aware of some of these gaps, and they have been making some improvements. Some developments include providing grants to parent students who are studying part-time (initial scope covered full-time parent students only). Likewise, a recent

introduction of the Canada Training Benefit is an attempt to solve the three key hindrances to adult learning (i.e., funding, time, and employment income), albeit with some persisting limitations to be explored further. Against the backdrop, this section attempts to bring attention to the gaps that we believe require urgent or more consideration and action with regards to the targeted group. The section also focuses on selected programs as we were limited in our ability to obtain detailed information which is crucial for formulating an informed opinion. For a summary of these gaps, refer to figure 3 at the end of the section.

Labour Market Development Agreements

Labour Market Development Agreement (LMDA) comprises eight sub-programs. Sub-programs fall under two main clusters, namely employment benefits, and employment assistance. The former is available to active recipients of employment insurance benefits, while the latter is available to all Canadian citizens and residents. To our knowledge, the LMDA program is the only skills development program currently being reviewed annually by a joint ESDC and provincial committee. A typical review monitors four key impact parameters: (i) probability of being employed after participation in the program, (ii) gains in earning, (iii) expenditure savings on employment insurance benefits, and (iv) an average number of years to achieve full financial returns on initial investments. The following gaps were highlighted in the evaluation report (ESDC, 2017). Worth noting, the next evaluation cycle will cover the period between 2018 and 2023 (ESDC, 2021). In the meantime, provinces continue to track results that allow for intermittent assessments. As an example, ESDC recently conducted a recent assessment mimicking the 2017 evaluation framework. ESDC intends to present new findings at the 2021 Canadian Economic Association and Statistics Canada 2021 International Methodology Symposium. However, since these results are not yet available to the public, our understanding mostly relied on the 2017 evaluation along with the information provided by ESDC staff. The most prominent gaps are:

- **Delays in communicating information on the employment insurance beneficiaries** with provinces and territories. This significantly reduces the effectiveness of the program since better outcomes are observed when beneficiaries receive training and employment assistance during the first four weeks following a job loss. Likewise, delays in approving and paying out employment insurance benefits hinder the program's effectiveness since access to training and related support depends on whether participants are (due to) receiving employment insurance benefits.
- **The urgency to return to work may compromise the quality of jobs and educational outcomes.** The main objective of employment insurance is to maintain a sustainable system by getting clients back to work as quickly as possible. Beneficiaries must therefore demonstrate they are actively searching for work and must be willing to accept available job offers. In some cases, beneficiaries are expected to terminate their training if the program prevents them from taking full-time employment. Thus, it seems working takes precedent over learning which could, in turn, prevent beneficiaries from fully pursuing training and careers matching their aspirations. As a note, we recognize there are exceptions where adult learners can qualify for employment insurance as they pursue full-time studies. To our knowledge, these exceptions apply to selected recipients of the Skills Boost top-up grant and upon reference by provinces or Service Canada.
- **Tedious administrative procedures make certain programs unattractive to employers.** As an example, the frequent and time-consuming reporting requirements for employers have discouraged participation by employers in the target wage subsidy program. Consequently,

funding allocated towards subsidies has declined from 3% to 1% between the years 2002 and 2015.

- **Failure to comprehensively address skills development needs** due to inadequate funding resources, and because a significant proportion of beneficiaries face multiple barriers. According to the review, participants' ability to access and complete training is often limited by a lack of essential skills, learning disabilities, and other factors such as living in remote locations and lack of transportation. Thus, service providers must refer these individuals to other organizations and hope their other needs will be sufficiently addressed. Additionally, there is limited capacity to case manage and monitor individuals facing multiple barriers to employment.
- **The current design and delivery of the Self-Employment and Job Creation Partnership do not achieve the intended objectives.** There are also concerns that the performance indicators for these programs could be inappropriate. It was also unclear why the uptake of labour market partnership is low despite the program's potential to eradicate structural misalignments in labour markets. Per the evaluation report, only 10% of total LMDA funding went to the program which alludes to a lesser need for it.
- **Persisting low completion rates for apprenticeship programs.** While incentives such as apprenticeship grants and loans have generally improved enrolments, completion rates have remained stagnant at roughly 50% (ESDC, 2017). The apprenticeship evaluation report covering the period between 2007 and 2016 has identified unstable job opportunities for apprentices to learn practical skills, and inadequate employment insurance income as key hindrances to successful completion (ESDC, 2020).

The Canada Training Benefit

The Canada Training Benefit is theoretically an ideal program for working adults wishing to upgrade their skills. Beneficiaries not only receive up to $5,000 in tuition credit but they are also entitled to a paid study leave and job assurance after training (Government of Canada, 2019). In practice, however, the Canada Training Program ignores some of the most pressing financial barriers discussed earlier. The most important gap in the Canada Training Benefit is that financial aid is in the form of credit thus, beneficiaries must raise funds to pay for upfront tuition costs. Also, the tuition credit that one is eligible for, accrues over time, making it inconvenient among those wishing to start pursuing training sooner. Note, eligible participants accrue a $250 tuition credit and one-week study leave per year. There were also concerns that the employment insurance benefit currently set at 55% of the average weekly wage is insufficient considering our target population has generally low wages. However, the extent to which this is a constrain could not be established since the Canada Training Benefit is a statutory program, where half of the assistance is provided by the employer.

> *"Here is the problem with the Canada Training Benefit, though. It requires paying upfront, and I am sure in your literature review, you have found that low-skilled adults just have less disposable income. So, asking them to pay the upfront costs of the tuition is not right."*
>
> - Stakeholder interview

Canada Student Financial Assistance (Including Skills Boost Top-up grant)

The Canada Student Financial Assistance (CSFA) Program was formerly known as the Canada Student Loans and Grants program. The program has traditionally experienced greater uptake within a younger population following a traditional educational path, straight from high school to college or university. In 2018, as part of the Skills Boost pilot, a top-up grant worth $1,600 was introduced to support full-time students who qualify for standard CSFA provided the students graduated from high school over ten years at the time of application (ESDC, 2021).

At a glance, the top-up grant is a reasonable consideration and a positive step towards supporting adult learners. However, certain eligibility criteria hurt the very same people that the program was set to assist. To begin with, one must qualify for standard CSFA which as previously explained, only funds conventional post-secondary credentials such as diplomas and degrees offered by academic institutions. Likewise, while adult learners prefer shorter programs, CSFA offers more grants to students participating in longer duration programs (e.g., undergraduate programs spanning over two years).

Further, the requirement that one must have graduated from high school at least ten years at the time of application could be excluding potential adult learners. The obvious exclusion is of adults who never graduated from high school. The second exclusion is implicit, and it was unclear how ESDC addresses such cases. Consider an example of Ms. Anne who is 40 years old and obtained a high school diploma 5 years ago, in 2016. Technically, had Anne followed a traditional path, she would have had her high school diploma over ten years ago and therefore, qualify for the top-up grant. However, since Ms. Anne completed high school within the past ten years, she technically is not eligible for the top-up grant. Finally, the requirement that applicants must be full-time students is another roadblock since many adult learners either cannot afford to leave their employment or simply do not fare well in full-time formal study programs.

Future Skills

The Future Skills program is very nascent and exploratory by design. Thus, sufficient time must elapse before one can suggest major flaws and gaps. However, our preliminary assessment did reveal few concerns, or rather suggestions, that could be worth considering as the program is anchoring. One, the program is likely to face coordination, synthesis, and quality assurance challenges due to managing numerous projects at once. In just two years, Future Skills, via its research centre, has collaborated with 5,000 partners to launch 122 projects (Future Skills Centre, 2021). These engagements have generated over 55 published reports. Despite rapidly building evidence, the extent to which conducted pilots employ inclusive approaches that are also reflective of the pressing gaps in the existing ESDC programs is unclear.

To keep things in perspective, a scan of more than a hundred FSC's sponsored projects revealed roughly ten pilots that are linked to skills development among working-age Canadians. Of the ten pilots, the focus is on retraining and reskilling, albeit with little attention to comprehensive solutions for adult learners facing multiple barriers. We similarly found limited evidence for adequate and deliberate incorporation of 'soft entrance to learning' techniques (Future Skills Centre, 2021). This paper uses the term 'soft entrance to learning' to capture various approaches that make the process of learning less intimidating, especially among adult learners. Out of a sample of 50 FSC pilots we reviewed, only 2 projects are related to learning among adults. One project at Yukon University is identifying ways to improve access to learning

tools and training and another pilot project by an organization called Developing and Nurturing Independence. The latter project is called Virtual Inclusive Learning Academy and is testing online learning resources for people with disabilities. Evidently, research on effective learning is not prioritized if we extrapolate these findings over all 122 FSC projects.

Besides cases of misalignments, the culture of working in silos prevents effective information dissemination. Interviewed experts worry valuable raw data and information may not reach all the relevant stakeholders despite huge financial investments in tapping such data. Related to the problem of limited access, is subsequent limited analysis and perspectives. This occurs because collected raw data largely remains within ESDC and select government departments. As such, there is no room for external experts and scholars to conduct independent analyses, which in turn is preventing Canada from realizing the full potential for innovative solutions. This concern led some interviewed experts to suggest a shift towards an open data platform.

Skills for Success

Skills for Success program was formerly known as Adult Learning, Literacy, and Essential Skills. The program funds organizations, employers, provinces, and territories to develop tools for assessing and training essential skills at workplaces. The program focuses on approaches that improve learning outcomes among people with a disability, Indigenous, and racialized populations across Canada.

Our understanding of the gaps in this program comes from the evaluation report covering the period between 2011 and 2016. According to the evaluation report, major gaps include rigid funding criteria and weak impact monitoring. The latter is partly a result of lack of clarity and standard monitoring framework, and partly because of the funding objective which primarily focuses on tool development and dissemination rather than tool adoption. This also resonates with the findings from the same report, where roughly half of the funded organizations acknowledged the impact of the program on the labour market outcome is not evident following six years of program implementation (ESDC, 2018). As for funding rigidity, there was dissatisfaction that federal programming support strictly nine essential skills identified by the federal government, despite differing frameworks within provinces (ESDC, 2018). However, the report neither specifies the areas of divergence nor quantifies the implications on literacy skills levels. An additional complication in understanding the challenge of funding rigidity stems from the gaps in provincial and territorial representation during the consultation process to support the launch of the Skills for Success model. SRDC report noted limited participation by Quebec, Manitoba, Yukon, Saskatchewan, and the Atlantic provinces minus New Brunswick (Palameta, Nguyen, Lee, Que, & Gyarmati, 2021).

Workforce Development Agreements

Workforce Development Agreements (WDAs), launched in 2018, aim to facilitate skills development and provision of employment benefits among Canadians without attachments to the labour market. Attachment to the labour market refers to recent and sustained employment often linked to the ability to accrue minimum work hours required for employment insurance. Furthermore, WDAs are designed to provide flexible financial support covering various costs for childcare, transportation, internet, and mental health counselling services related to career development, among others. Like LMDAs, provinces and territories are fully responsible for the implementation of initiatives under WDAs including decisions of funding allocations across various initiatives. Since WDAs are nascent, no evaluation studies have been

conducted yet. In the meanwhile, the framework for collecting and assessing performance data is similar to the one currently used for LMDAs. In our view, it is too early to conclude whether WDAs have significant design or implementation flaws. However, some interviewees raised concerns around limited awareness about the program also evident among implementing provinces and territories. Particularly, an understanding of a plethora of interventions eligible for funding under WDAs is limited and some implementers are assuming similarly restricted eligibility as is the case for non-employment insurance benefits under LMDAs.

Lifelong Learning Plan (LLP)

Lifelong Learning Plan (LLP) is neither funded nor administered by ESDC, albeit it aims to promote learning among adults. The paper incorporates the discussion on the program to illustrate some shortcomings associated with funding educations through mechanisms that require upfront contributions. LLP is administered by Canada Revenue Agency. The plan allows Canadians to withdraw a maximum of $10,000 tax-free per calendar year from their registered retirement savings plan (RRSPs) to finance full-time training or education for themselves or their spouses/common-law partners. A maximum amount of $20,000 can be withdrawn within 10 years (Canada Revenue Agency, 2021). One can take additional funds after the initially withdrawn amount has been repaid in full. LLP is ideally a good initiative as it allows employees to leverage contributions by employers.

In practice, LLP has had limited success for various reasons. First, LLP only funds full-time qualifying studies – the requirement restricts the necessary flexibility that many low-skilled adult learners need. Likewise, the alternative requirement of a minimum time commitment of 10hrs/week course load and three consecutive months of study is equally prohibitive (Canada Revenue Agency, 2021). Second, many Canadians prioritize using RRSPs withdrawals for buying homes through the Home Buyers Plan, HBP (Bank of Montreal, 2019). Other top reasons Canadians withdraw funds from RRSPs include paying debt, living expenses, and emergencies. This prioritization emphasizes the fact that further learning is likely a non-priority if one has not sorted out housing, debt, or any urgent expenses. The third reason for the low uptake of LLP is a lack of clarity of repayment conditions thus, many borrowers incur unexpected tax burdens for unpaid amounts because they do not understand terms and conditions. Consequently, Canadians generally prefer withdrawing funds from relatively recent tax-free savings accounts (TFSAs). Besides, TFSAs are designed to favour low-income earners whereas RRSPs are the better investment vehicles for Canadians with higher income. This is to say, low-income Canadians are better off prioritizing TFSAs contributions than RRSPs if they want to maximize their returns on investments. At the same time, TFSAs do not leverage employer contributions and have lower annual contribution limits (i.e., $6,000 in the year 2021 compared to RRSPs annual limit of $27,000). Therefore, facilitating educational funding via RRSPs contributions simply does not align with what works best for low-income earners including adults with low education levels. Finally, and most importantly, many low-skilled either do not have RRSPs or cannot afford to contribute to RRSPs because they earn low incomes. This aligns with the research finding that 5.9 million Canadians or 29% of the labour force made RRSPs contributions in 2019 (Statistics Canada, 2021; The World Bank, 2021). Of which, the largest proportion of contributors were households earning over $80,000 per year (Statistics Canada, 2021).

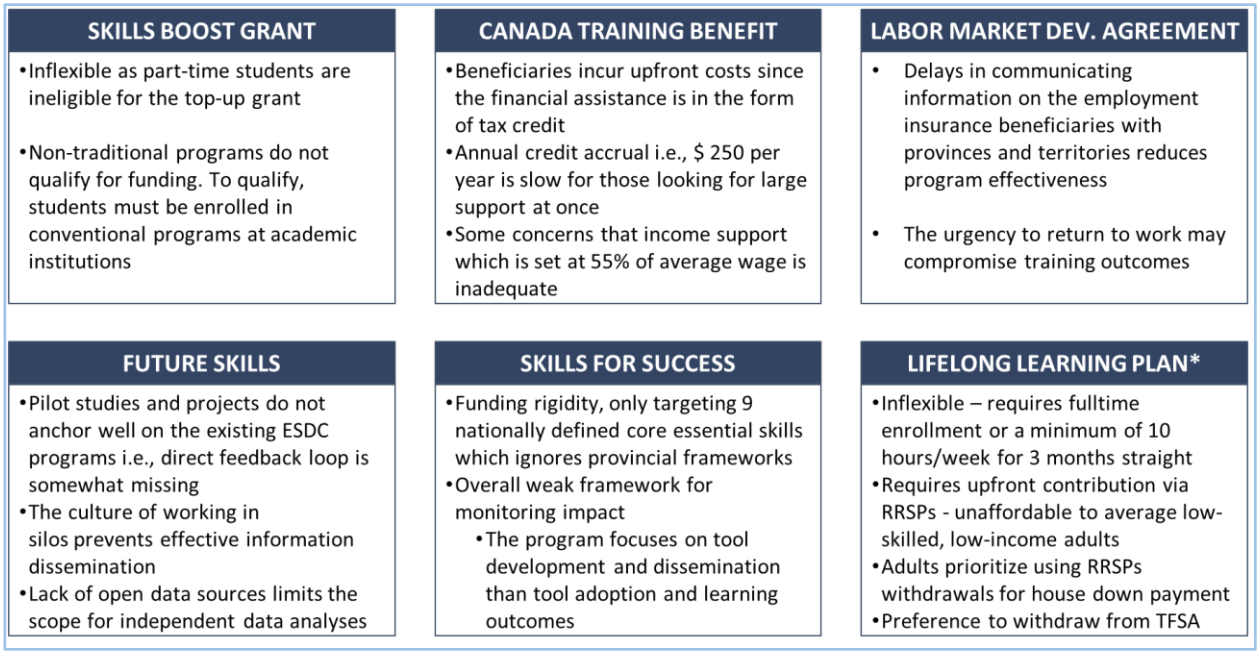


Figure 3: A snapshot of key gaps instituted in the current learning and skills development programs under ESDC. Source: Max Bell Team

10 Policy Framework

This section outlines our policy recommendations to ESDC to increase the participation of low-skilled adults in learning activities. As aforementioned, low-skilled individuals are the most vulnerable to labour market changes, which necessitate upskilling through education or training. Despite being the most vulnerable, they are the least likely to participate in learning activities. Low participation in learning is a result of a number of situational, institutional, and dispositional barriers that often co-exist together. While our team recognizes and commends the effort by both the federal and provincial governments to address these barriers, we still believe that there is room for improvement as we expand in the following sub-sections.

After conducting extensive research, consulting various stakeholders and experts in the field, and drawing on lessons from global best practices, the team hypothesizes the following theory of change:

> ***"If we are to improve low-skilled adults' skills, we have to develop a holistic, tailored policy framework that addresses the interplay of barriers, perceptions, and challenges that prevent low-skilled adults from participation in learning activities."***

The figure below summarizes and depicts our theory of change, outlining the sequence of **inputs**, **activities**, **output**, **outcomes**, and **final outcomes**. The **final outcome** is to improve less-skilled adults' life quality by enhancing employability, achieving higher and more stable incomes, and protecting them against future labour market changes. In this project, we focus on realizing the final outcome (improve well-being) through a key determinant: adult learning either through education or training (**outcome**). To achieve this outcome, we divided the targeted group (low-skilled adults) into two categories: (i) those who do not want / not willing to learn, and (ii) those who are willing to learn but face barriers. This categorization defined the **outputs** of the project. For those who are not willing to learn, there is a need for awareness campaigns to inform them of the importance of learning and advertise government programs that support adult learners. On the other hand, those who are willing to learn shall be offered wrap-around support to remove as many barriers as possible and pave the way for their successful enrolment in learning activities. We then mapped the journey of low-skilled adults from the starting point of not willing to learn, to being hesitant about taking the step into learning, to the willingness to enrol in learning activities but not capable of doing so, to successfully participating in lifelong learning. We synthesized a set of **activities**, where ESDC shall intervene to provide the support needed. In sequence, these activities are:

i. Reach out: ESDC is advised to consider actively reaching out to low-skilled adults through community-based organizations to increase awareness about the importance of learning and support programs offered by the government for adult learners,
ii. Guide: ESDC shall consider offering high-quality, personalized education counselling to low-skilled adults to address psychological barriers and guide them of the best educational options,
iii. Soft entrance to learning: we suggest that ESDC research various soft entrance techniques that help ease these adults back into the world of learning, and
iv. Remove financial and time shortage barriers: Once an adult is motivated to participate in learning, ESDC is recommended to remove the two major barriers of time shortage and lack of financial resources.

The proposed **inputs** needed to perform these activities are in firstly refining ESDC's current support programs to better reach the targeted group. We also recommend the creation of a tailored program for low-skilled adults that provide holistic support. ESDC is also going to need to initiate formal partnerships with employers, community-based organizations, and unions. Moreover, there is a need to recruit education-focused counsellors, whose role is imperative in providing the necessary guidance to low-skilled adults.

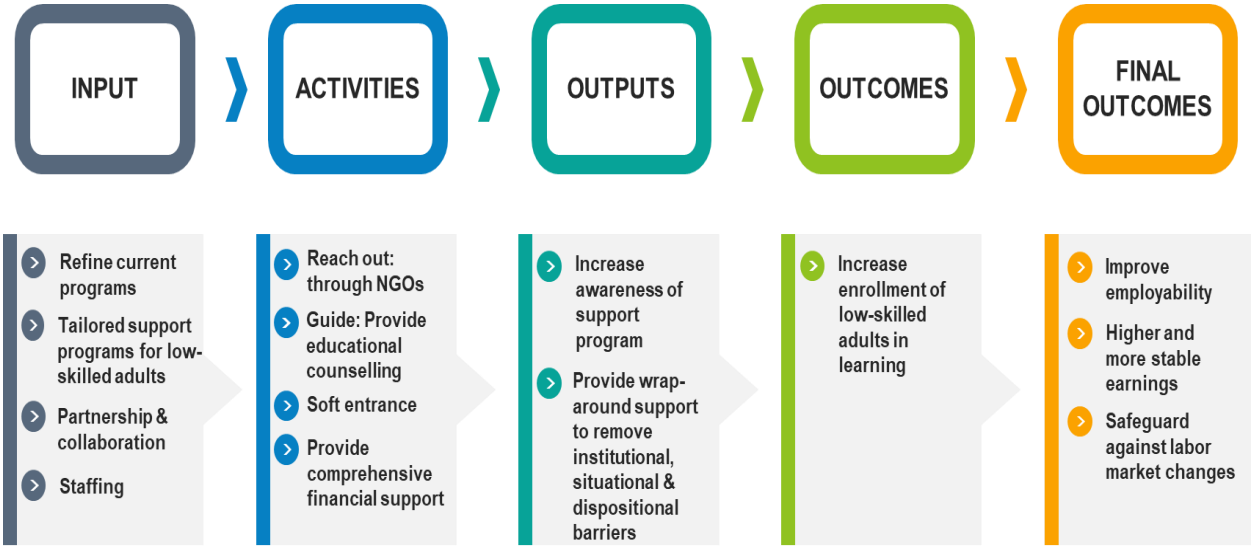


Figure 4: Results Chain outlining theory of change

10.1 Towards a more Responsive Programming: Rethink, Redesign and Recreate

10.1.1 Rationale and Findings

In section 9, we have attempted to demonstrate why existing learning and training programs fall short in providing the necessary support to low-skilled adults. From gaps in progress monitoring to shortcomings in program designs especially with regards to services covered and eligibility criteria. Other inadequacies are limited communication and dissemination strategies. Our team also noted Future Skills research topics do not explicitly prioritize what evaluation studies have identified as critical and/or persisting gaps. However, our research equally suggests that ESDC has strived to improve the scope and quality of its learning and skills development programs. It is against this backdrop that we suggest further improvements. Our recommendations call for ESDC to consider rethinking and refining select existing programs in ways that address the highlighted deficiencies.

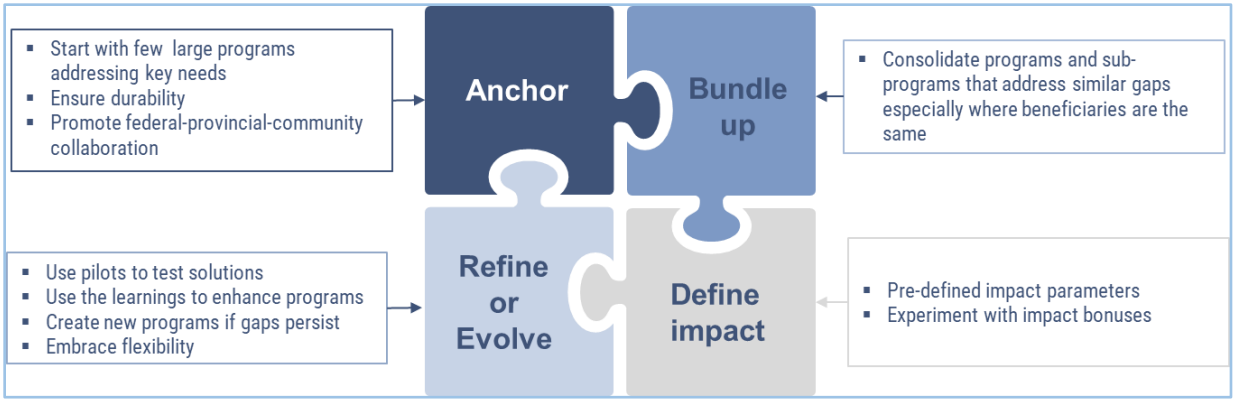


Figure 5: Max Bell Team's proposed approach for developing and implementing responsive programs

10.1.2 Policy Recommendations

Few but Durable Anchor Programs

ESDC could consider departing from a light-touch approach that has over the years generated a multiplicity of pilots and projects that have not always built into a larger ecosystem. Instead, ESC may wish to identify anchor programs and strive to improve on those programs. In fact, our research found some evidence suggesting anchoring and bundling approaches already exist. As an example, top-up grants have been incorporated into the CSFA to support parents and older students pursuing post-secondary education at designated institutions. We, however, see more opportunities for consolidation and refinement as detailed below:

i. Durability. As much as possible, anchor programs should be stipulated in the law for durability purposes. Durable programs also mean less confusion and administrative burden associated with deploying numerous programs or programs that are constantly phasing in and out.
ii. Leverage existing programs. Canada Student Financial Assistance Program (CSFA), Labour Market Development Agreements (LMDAs), Workforce Development Agreements (WDAs), and Aboriginal Skills and Employment Training Strategy are examples of large existing programs that can serve as anchors. Particularly, LMDAs and WDAs are designed for flexibility that should be explored further.
iii. Federal-provincial-community collaborations. We commend working arrangements and accountability mechanisms set in LMDAs and WDAs and therefore, we recommend similar approaches for all anchor programs. Such arrangements facilitate the necessary flexibility among provinces and territories to design and deliver demand-driven and tailored skill development programs. Preliminary promising results from LMDAs and WDAs are another reason for normalizing collaborative approaches. Beyond existing provincial and territorial collaborations, we believe existing community programs are equally important levers for ESDC to further solidify its support as explained in the outreach subsection.
iv. Improved impact monitoring and evaluation. Embedded impact monitoring and reporting requirements in LMDAs and WDAs ensure ESDC has adequate information to track progress and revise programs if need be. The same monitoring requirements should apply to all ESDC funded learning and skills development programs.

- ESDC is encouraged to go further to determine and apply minimum acceptable impact benchmarks or return on investments corresponding to various types of interventions. Known impact criteria coupled with stringent progress monitoring will also ensure funding is prioritized among programs and community collaborators demonstrating exemplary results.
- ESDC may also choose to apply 'impact bonuses.' This means ESDC provides funding only to the extent of potential or actual impact. An example of a performance bonus can be various cash bonuses to the program or organization for every low-skilled adult completing their general education, successful re-training program in on-demand sectors, reskilling that led to a permanent job, etc.
- ESDC may need to consider options for intermediary reporting to track key progress data. This will help ESDC make small adjustments to programs without having to wait for evaluation studies that take place every four to five years. We recommend ESDC starts by defining key data points to track, and manageable data collection frequency. For instance, ESDC can opt for high-level annual reviews and slightly deeper reviews every two to two and a half years. Ideally, ESDC and/or partnering provinces and organizations should aim for simple, system-generated reports that provide key progress against the set benchmarks.

v. For program consolidations, we outline potential considerations and approaches below:
   - One consideration is for CSFA to embrace proven but unconventional training programs such as bootcamps providing highly sought-after skills like digital and social media marketing. While they tend to be costly, boot camps have the potential to fast-track the attainment of valuable skills and therefore improve labour market outcomes.
   - Alternatively, boot camps should receive adequate recognition as important contributors to labour markets as is the case for apprenticeships under LMDAs and WDAs. As such, applicants pursuing in-demand skills and qualifications can benefit from full and patient support, free from the pressure to take the first job that comes along.
   - There is also an opportunity to repurpose Lifelong Learning Plan (LLP). As explained earlier, strict and complex administrative requirements have resulted in generally low interest and up-take among potential beneficiaries. Therefore, we recommend that ESDC converts LLP with a system of virtual credit accounts. Virtual accounts will apply to all adult Canadian citizens and residents and are designed to accrue funding credit from multiple public and private sources. Virtual accounts can also be designed to track non-financial credit and information including permitted study leave, training credit, and competencies gained. That way, any future financial and non-financial credit related to skills development can be added into the system, which in turn eliminates the need for implementing multiple credit-based programs. For instance, the benefits from the Canada Training Benefits Program and similar future contributions can easily accrue in this virtual account.

Strategic Alignment of the Research Conducted Under Future Skills Program

In some ways, ESDC is already centralizing research relevant to its mandate through the Strategic and Service Policy Branch and its newly established Future Skills Centre (FSC). However, we believe ESDC can

improve learning outcomes among low-skilled Canadian adults by ensuring research directly responds to persisting gaps. We take a special interest in FSC research because of its futuristic approach. Therefore, a strategic alignment between gaps in the existing ESDC programs and the focus of FSC pilots allows ESDC to identify and implement solutions that span current needs. Levers that ESDC can explore include:

i. Address high attrition rates among apprentices. This is key to improving the proportion of low-skilled adult learners because apprenticeship offers practical learning – a training modality that resonates with adults' learning preferences. As an example, since unstable employment opportunities among apprentices are a major hindrance to completion, FCS research pilots can test alternative apprenticeship models that will allow students to accrue competencies and experience from multiple jobs over a period.
ii. Improve ESDC communication and outreach strategy. Another area that could benefit from FSC human-centred design research is communication and outreach mechanisms. This is very crucial because evaluation reports have attributed low uptake of some learning and skills development programs to poor information dissemination. Similar concerns were raised repeatedly as part of stakeholder consultations.

Allow or Improve Flexibility in ESDC-Funded Programs (the case of Skills for Success program)

Our research and stakeholder consultations suggest a reasonable amount of flexibility in the implemented ESDC programs. Flexibility, in this case, refers to the extent provinces and territories can design and execute programs that address the most pressing gaps. The flexibility also includes the ability to allocate more funds to interventions delivering the most impact. One notable exception was the Literacy and Essential Skills. According to the evaluation report covering the period between 2011 and 2016, there were resentments that federal programming support is inflexible because of the strict focus on the nine (9) essential skills identified by the federal government, despite differing frameworks within provinces (ESDC, 2018). However, the report neither specifies the areas of divergence nor quantifies the implications on literacy skills levels. Therefore, it is not possible to ascertain the nature of the challenge and how big the challenge is. Against the backdrop, we recommend ESDC collaborates with provinces to first examine this challenge. Then ESDC should consider funding provincial frameworks that are proven to work well in imparting adult literacy and essential skills, even if they do not fit neatly under the nine-key literacy and essential skills.

A New Composite Program Catering for Low-Skilled Adults

As explained earlier, existing programs fall short in supporting adult learners which is why our team proposes a new program. For the purpose of this brief, we will call this anchor program – Learning for Adults facing Multiple Barriers (LAMB). At the crux of LAMB is the funding that pays for a complete package of key and ancillary support which in turn will make learning attractive among low-skilled adults. In doing so, ESDC also draws attention to the needs of the target group. We anticipate LAMB will mimic implementation modalities bound in agreements like in LMDAs and WDAs. We also propose literacy and essential skills components become part of LAMB. This is the case because effective participation in lifelong learning is only possible and effective if Canadians have strong foundational skills, to begin with. According to the 2015 report by the Institute for Research on Public Policy, Canadians with high literacy scores were 5 times more likely to participate in learning activities than those with the lowest scores

(Drewes & Meredith, 2015). There are two potential ways for infusing essential skills in LAMB. One approach involves merging the Skills for Success program with LAMB. Another approach is to make learning essential skills a prerequisite for other LAMB support. This condition should only apply to low-skilled workers lacking basic literacy and digital skills. LAMB is also envisioned to be a central piece of ESDC's response to the issue of the low enrolment of low-skilled adults in learning activities. More details about LAMB's role along with features that make LAMB responsive and agile are provided in the following sections.

It is noteworthy that by proposing LAMB, our team does not disregard the usefulness of the myriad of learning and skills development programs in place. Rather, we hope to inspire ESDC to assemble the positive aspects of its existing programs and the best practices from around the world into a support system that works for low-skilled adults. And in so doing, ESDC will not leave behind the 2.2 million Canadians in this important journey of lifelong learning.

The remaining recommendations provide details on how LAMB will function, including guidance to ESDC on how to incorporate best practices from countries and jurisdictions that do well in some aspects of adult learning.

10.2 Reach Out

10.2.1 Rationale and Findings

There are several programs offered by the federal and provincial governments to support education and training for adults. Canadians are also served by a huge network of service centres, employment centres, and educational institutions that disseminate information about these programs, in addition to the information is readily available online. Despite this, individuals with low skills might still be uninformed about these programs and their benefits. This could be because the system is designed to give information when asked for. In other words, if an individual is unmotivated or does not know where to obtain necessary information, they will likely remain unaware and miss opportunities and incentives offered by the government.

For instance, according to the Evaluation of the Canada Apprentice Loan report, the take-up rate for apprentice loans is under 35% partly because of a lack of awareness (ESDC, 2021). The same report notes that 63% of apprentices are unaware of apprenticeship loans prior to registering with their training program (ESDC, 2021). Additionally, a significant proportion of apprentices who become aware of the apprentice loan after registration do not apply for the loans because they do not know that they are eligible. This does not consider Canadians who would perhaps consider apprenticeship had they known about the loan. Similar concerns were raised around the WDAs and LMDAs, where potential beneficiaries, and sometimes implementing provinces and territories, are not fully knowledgeable on the kind of support eligible for funding. According to an ESDC official interviewed:

> *"Many provincial officials are not aware that WDAs can fund mental health counselling for beneficiaries experiencing stress and anxieties related to training or job hunting."*
>
> - *Stakeholder interview*

To deal with the awareness issue, ESDC should consider an alternative approach where it actively tries to reach out to this group specifically, rather than wait for them to knock on its doors. Recognizing the

limitations of ESDC in microtargeting individuals, ESDC is advised to consider partnering with stakeholders who are much closer to the targeted group including:

i. Work-based out-reach (trade unions and employers), and
ii. Community-based organizations

We acknowledge that ESDC is already working closely with employers through LMDAs and WDAs, while it also collaborates with unions through the Union Training and Innovation Program. In this regard, we will focus on a community-based approach.

The targeted population is multi-barriered individuals who are likely to receive support from multiservice community-based organizations. Therefore, to effectively reach low-skilled adults, ESDC should leverage the relations and trust that these community-based organizations have established over the years. ESDC should proceed by partnering and supporting community organizations to disseminate information about its skill development programs to the targeted group. The approach could be among the communication channels that ESDC needs considering the limitation to deploy direct advertisements.

Community-based outreach has proven to be effective according to the "Guidance and Orientation for Adult Learners (GOAL)" project funded by Erasmus+(EU's program to support education, training, youth, and sport in Europe) that was conducted in six European countries from 2015 to 2018. The project aimed to increase participation in education and training among adults without upper secondary education. It concluded that the targeted group is best reached by developing long-term partnerships and networks with organizations working on the ground with these individuals (Carpentieri, Litster, Cara, & Popov, 2018).

10.2.2 Policy Recommendations

Through LAMB, funding will be provided for partnerships with community-based organizations. Our team recommends a competitive bidding process for selecting community-based organizations. These organizations will bridge the communication gap between ESDC and the targeted group. Through this partnership, these organizations will launch awareness campaigns, host information sessions, and offer one-to-one sessions to spread information about the available support programs that ESDC, as well as the provincial government, offers to support adult learners.

To have an effective outreach, experts interviewed have advised having long-term contracts (at least three years) as it takes time to build expertise and relationships on the ground. Shorter period contracts will not be enough to evaluate the effectiveness of the project nor to see results. We also acknowledge that government priorities might change due to elections, or any other reason, so it is advised to add clauses to allow the government to end the contract at any time. Also, it is advised to prioritize partnerships with organizations in regions hardest hit by major trends as described in section 7 (e.g., oil-dependent areas and regions expected to be hardest hit by automation).

10.3 Guide

10.3.1 Rationale and Findings

Dispositional barriers such as low self-esteem about the ability to succeed in learning, lack of educational goals, and inability to determine skill deficit are all barriers that may hinder low-skilled adults from enrolling in learning activities (OECD, 2019). Even if an individual has overcome dispositional barriers, they

may find the process of navigating a myriad of learning and skills development programs overwhelming. Therefore, a combination of dispositional barriers and a lack of clarity on existing choices make the counselling service a paramount part of the support provided.

While adults in Canada have access to counselling — mostly through employment services agencies and mainly focusing on career guidance — there is a deficit in education-focused guidance. The Guidance and Orientation for Adults Learners (GOAL) pilot project — conducted in six European countries and funded under ERASMUS+ (EU's program to support education, training, youth, and sport in Europe) — tested whether dedicated educational guidance services targeting low-skilled adults is effective in increasing the participation of the targeted group in learning activities. Like Canada, these countries also have well-established career counselling services, but education-focused counselling is not widely available.

The GOAL pilot project ran from 2015 to 2018 and an evaluation report was published by the end of the project. The evaluation report concluded that education counselling has effectively increased progress into adult education by low-skilled adults. In Belgium, for example, data on progress into learning activity showed a 74% success rate (Carpentieri, Litster, Cara, & Popov, 2018). In other words, three out of four low-skilled adults receiving educational counselling successfully participated in a learning activity. To optimize educational outcomes, the evaluation report advises that counselling should be (Carpentieri, Litster, Cara, & Popov, 2018):

i. An individual-centred rather than institution-centred counselling. Unlike career counselling that mainly focuses on achieving targets such as getting unemployed individuals into the job market swiftly, it is advised that educational-focused counselling should ultimately assist individuals in taking learning steps that are most appropriate to their situation.
ii. Personalized counselling sessions. Counselling sessions should be one-on-one and face-to-face as personal interactions are more persuasive and effective in changing behaviour. Through these sessions, counsellors are expected to devise learning plans that are tailored to the client's needs and personal circumstances.
iii. Holistic in nature. While some clients are expected to demand only information about educational opportunities, the GOAL project shows that low-skilled individuals seeking counselling might require achieving intermediate outcomes before pursuing a learning activity. These intermediate outcomes can be building motivation or enhancing self-esteem. Also, it should be expected that some clients might need extra support. For instance, filling applications or specialized psychological counselling, which needs referrals to other experts and organizations. This highlights the need for building cross-sectoral partnerships and the importance of collaborating with multiservice community-based organizations to effectively serve the clients.
iv. Multi-session model. Evidence from the GOAL pilot project shows that countries initially adopting the single-session guidance model revised their stance and switched to a multi-session one after recognizing its limitations. As mentioned in the point above, some clients might require achieving intermediate outcomes first which necessitate more than one counselling session. In addition, experience from the GOAL project indicates that to ultimately achieve enrolment in a learning activity, there is a long journey of building trust and then pacing guidance sessions so that clients received 'manageable bits' of information. The number of sessions and frequency should be based on the counsellors' contextual judgement.

v. Conducted by skilled counsellors. Counsellors should be competent in:
    - Knowledge domain: including information about available adult education options (educational centres providing literacy and basic skills, skilled trades schools, training centres, community colleges, etc.), job market, learning difficulties, and disabilities that are common with the targeted group.
    - Guidance domain: comprises psychological counselling skills including understanding client's needs, psychological barriers, interests, skills, and abilities. In addition, counsellors should be able to guide clients towards solutions and offer moral support and motivation.
    - Communication domain: including effective communication that allows the client to open and trust the counsellor. It also involves being open to cultural diversity and respectful of cultural differences and values. Moreover, counsellors should be able to simplify and navigate the client through a complex range of learning options.

vi. Guided with appropriate tools. Various tools were used in the GOAL project, but the most relevant ones are:
    - Data monitoring tool: this software is used to gather, input, and organize relevant data about clients, such as sociodemographic data, where each client has a profile. Counsellors use this software to access data about clients and record information about their clients during guidance sessions as well as use it to input their reports and action plans. There are numerous benefits to this software. Firstly, key information is stored in an organized way, which leads to a better and stronger relationship with the client. Secondly, counsellors can easily keep track and review client data, which is crucial especially with clients requiring multiple sessions over long periods of time. Thirdly, the software aggregates data about all clients which is a crucial feature for program monitoring and evaluation stages. Aggregated data can later be used for research purposes to guide future interventions and improve the service provided.
    - Manuals: the development of counselling manuals providing methodological guidelines for working with clients has proven to be highly useful, where experienced counsellors who worked with the targeted group disseminate their knowledge and best practices to less experienced ones. It is worth noting that these manuals should not be followed precisely, but rather they should be treated as generic guidelines.
    - Standardized tests and questionnaires: these standardized tools immensely help counsellors swiftly assess clients' skills level (literacy, math, computer, etc.). This streamlines the counselling process and helps to guide the counsellor in proposing the appropriate course/training.

Also, by applying concepts from behavioural science, and by understanding how the targeted group makes decisions in the real world, the efficacy of the guidance process in 'nudging' the targeted group can be significantly improved. From our research, we found that applied behavioural research in education is still nascent, and it is mainly focusing on youth rather than adults. However, we found a few effective principles and examples that could be considered:

i. Handholding support. A study found that helping low-income high school students in filling a long and tedious application called the 'Free Application for Federal Student Aid" in the United States

has increased attendance in post-secondary education (Oreopoulos & Ford, 2016). On the contrary, providing only information and encouragement to apply for college financial aid had no impact on the enrolment rate. In this vein, providing support in registration for services and application filing should be considered while providing the counselling service to the targeted group.

ii. Make it easy. As coined by the noble-prize behavioural scientist and author of the well-known book "Nudge," Richard Thaler, "*if you want to get somebody to do something, make it easy*" (McKinsey & Comany, 2011). In this regard, the process of booking a counselling appointment should be made as easy as possible. ESDC should also prioritize offering counselling services in locations that are close to clients.

iii. Reminders. A study concluded that simply sending text message reminders to complete key tasks over the summer to high school graduates can help keep college-accepted youth on track to begin their program (Castleman & Page, 2015). This approach can also be used by counsellors to remind the client of applications deadlines, appointment times, and help to keep them on track with required tasks, etc.

iv. Personalized letters from learning institutions. Behavioural research found that personalization in messaging attracts people's attention and can significantly nudge their behaviour. A study found that high school students from low-income backgrounds who received packages promising free tuition if accepted (which most would have qualified for anyway) and a cover letter from the president encouraging them to apply more than doubled the application and enrolment rate compared to a control group receiving only postcards with application deadlines (Dynarski, Libassi, Michelmore, & Owen, 2018). Similarly, in an advanced stage of counselling, and after validating the suitable learning activity for the client, counsellors can ask learning institutions, that would accept the client, to send a personalized letter to 'nudge' the client to apply.

10.3.2 Policy Recommendations

If adopted, LAMB will fund an education-based counselling service. The following should be considered:

i. Recruit education counsellors and ensure that the counselling service is available all across Canada.
   - Counselling service shall be offered as close as possible to the targeted group. To maximize geographical presence across Canada, it is suggested to base counsellors in Service Canada offices (administered by ESDC). There is a huge network of these single-point-of-access offices throughout Canada, offering a wide range of government services and benefits. Alternatively, counselling sessions can be provided in Employment Services Agencies (under provincial government). These agencies also span all over Canada and they have long provided career counselling to adults.
   - While it is advised to prioritize physical meetings, the option of virtual sessions shall be provided to cater to individuals in rural/remote areas who are geographically far away from service centres.
   - Prioritize recruiting counsellors from the area where the counselling service is provided to account for the cultural aspects of clients. Locals are also more likely to better understand the local environment (job market, educational options, etc.) which is crucial in providing proper advice to the client.

- Develop an online, user-friendly booking system to ease the process of booking appointments.

ii. Adopt lessons learned from the GOAL project to maximize the effectiveness of counselling sessions (highlighted in section 10.3.1). This includes:
   - An individual-centred,
   - Personalized counselling sessions,
   - Holistic in nature,
   - Multi-session model,
   - Conducted by skilled counsellors, and
   - Guided with appropriate tools.

iii. Provide counselling to targeted clients regardless of their employment status. Most career counselling services are only available for unemployed adults, but the recommended solution is based on the idea of providing upskilling opportunities as a mitigation process to avert the problem of redundancy or unemployment before it happens.

iv. In collaboration with the Behavioural Research team at ESDC, counsellors can develop, test, and adapt nudging techniques to steer clients towards the desirable outcome – enrolling in a learning activity. Our team suggests testing the nudging techniques mentioned above (section 10.3.1).

10.4 Soft Entrance to Learning

10.4.1 Rationale and Findings

Low-skilled individuals may have had a bad experience with learning. They may also feel nervousness or apprehension regarding their inability to succeed in education. In addition, many adults have not attended any learning activities for a very long time. Therefore, they may require a segue, or a soft transition, to formal education to overcome such barriers and get motivated.

Soft entrance to learning is still a learning activity, but it does not include exams, grades, or attendance requirements. Soft entrance is considered a teaser or an orientation course to the formal course(s) that an individual intends to enrol in. The concept of soft entrance has been successfully applied in various forms, including study circles in Sweden and Norway, the Migros School Club in Switzerland, and gamification in corporations (OECD, 2019).

Study Circles

A study circle consists of a group of people and a coach who come together to discuss a shared interest. The study circle approach was developed in the nineteenth century and has proven to be very successful in Nordic countries (Bjerkakera, 2014). In Sweden, for example, nearly three million individuals enrol in over 300,000 study circles every year. These study circles are partly funded and subsidized by the government, but they are not controlled by the government (Bjerkakera, 2014). This model is based on the idea that learners are circle members, not students, and they are participating in a circle, not a class. This is imperative as it is intended to remove any associations with bad school experiences and to avoid the traditional class setting that might be unfavourable to adults.

During the soft entrance stage, it is likely that the targeted individuals could be motivated by the learning process and break their negative perceptions of education. Study circles have been described as “a

human, easy, and fearless way to learning for adults with low self-esteem and self-confidence" (Bjerkakera, 2014). While a study circle may be enough of a learning experience for some individuals, those that desire to continue with the learning process can subsequently be connected to training centres and community colleges with the help of their educational counsellors (mentioned in section 10.3). Once enrolled, individuals could use their friendships and connections from study circles to support one another.

Migros School Club

The Migros School Club provides another template through which new learners can have a soft entrance to learning. As the largest adult education institution in Switzerland with 50 centres across the country, approximately 400,000 participants enrol in more than 600 courses per year. These courses include languages, culture and creativity, health, management and economy, and information technology. Again, offering these types of courses could help new adult learners have fun and learn how to learn. This can include setting very low expectations to ensure that new learners do not become frustrated and discouraged. In fact, low-skilled adults may have endured bad experiences of failing assessments when they were in elementary or secondary school. Therefore, courses without grades can help ease these adults back into the world of learning.

Gamification of Learning

Another soft entrance area is gamification – the incorporation of games into the learning environment. This can include the use of different challenges, points, and levels. This new approach has begun to gain traction amongst corporations in which training courses are gamified to make the experience more engaging and enjoyable for employees. While gamification is in its early days, evidence suggests that it is an effective technique, particularly for young adults.

OECD (2019) specifically recommended that gamification be used to make learning more fun for low-skilled adults, especially younger generations. Gamification provides a tool in which learners can feel less intimidated and more comfortable given that many people play games outside of learning every day. As above, gamification can be used to lower individuals' negative attitudes towards education. Within the context of COVID-19 and the increasing prevalence of online learning, the interactive nature of gamification may be particularly useful in online settings for keeping learners engaged and motivated to complete their studies.

10.4.2 Policy Recommendations

Soft entrance to learning is a nascent concept in Canada. Generally speaking, education and curriculums might not be under the jurisdiction of ESDC. Also, ESDC is more focused on formal education (require certification). Nevertheless, soft entrance can be deemed an innovative idea that can be piloted by Future Skills Centre. Future Skills Centre was actually founded to research innovative and futuristic ideas that help Canadians gain the skills to thrive in the future.

Through the Future Skills Centre, ESDC may consider piloting soft entrance best practices such as study circles, Migros School Club, and gamification to evaluate their viability in the Canadian context. In case one or several approaches were found effective in increasing the participation of low-skilled individuals in formal learning, then soft entrance to learning should be integrated into LAMB, where tuition fees and

related expenses would be covered. It is worth noting that some low-skilled individuals may not be interested in a soft entrance as they might perceive it as an unnecessary additional time lost or they might prefer immediately beginning their career-related training. Thus, soft entrances to learning should remain an option that counsellors can recommend to clients based on their contextual judgement.

10.5 Remove Barriers During Learning

10.5.1 Rationale and Findings

Based on our findings, once the targeted individuals are motivated to participate in a learning activity, two major barriers may persist, namely lack of financial resources and time shortage.

Lack of Financial Resources

An average low-skilled adult works in a low-paying, precarious job which affects his/her ability to save for expenses that are not direct life necessities. Therefore, programs that require upfront tuition payment or a form of upfront saving and contributions ignore the fact that the majority of low-skilled adults live paycheck to paycheck. For the same reason, programs that do not provide timely or adequate income support will prove less attractive to low-skilled adults. The challenge of financial barriers is also linked to the fact that low-skilled adults underestimate the return of education. Where this is the case, one would deem cutting back on an already lean budget to self-finance education not only undesirable but also, unreasonable.

Time Shortage

Adults often juggle family and work responsibilities. Thus, they are likely facing time constraints. Additionally, adults with low-skilled adults are likely working many hours to compensate for their low wages which further constraints their free time. Yet, existing support programs do not adequately address time shortage barriers as illustrated in section 9.2.2. It is commonplace for such programs to require full-time enrolment or minimum weekly attendance hours, which end up excluding the very people they target. Likewise, the course load and intensity associated with full-time studies or strict minimum attendance hours do not match learning preferences among low-skilled adults. Specifically, adults with low educational credentials have less desire to participate in time-intensive training compared to high-skilled ones (OECD, 2019). They also prefer having more control over the course of their learning activity and flexibility to allow them to progress at their own pace (OECD, 2001).

10.5.2 Policy Recommendations

LAMB – Provide comprehensive Financial Support

We envision LAMB as an amalgamation of core and ancillary support paid upfront to encourage low-skilled adults to pursue advanced skills. LAMB goes beyond tuition assistance because it factors in some of the most pressing barriers and their complex interactions. LAMB will also fund tailored educational counselling including extensive coaching services and handholding support as discussed in section 9.3.2. In addition, LAMB will ideally provide (co) finance childcare support[6], subsidize internet and transportation costs as needed. Also, it should cover a decent living allowance, a crucial factor that hinders many from leaving their jobs to go back to school.

ESDC can draw inspiration and learn from the *Second Career Program* implemented in Ontario. The program allows adults seeking a transition to a second career to apply for up to $28,000 which can cover tuition, a weekly living allowance of $410, books, transportation, and childcare (Government of Ontario, n.d.).

Overall, the value-add of LAMB is to make learning interesting, affordable, and accessible to low-skilled adults. LAMB also strives to create space for low-skilled adults to learn without the fear of stigmatization. As more and more Canadians acquire advanced skills and the culture of lifelong learning grows, the LAMB program can fuse with the WDAs. Alternatively, LAMB can remain as an anchor program and evolves its focus to address the learning needs among the poorest and underserved adults.

Flexibility in Courses and Training Eligible for ESDC Funding

It starts with recognizing the growing appetite for competence (Future Skills Council, 2020). As the nature of work changes and tasks are increasingly smaller and more specialized, employers are more interested in competencies rather than credentials. This in turn is shaping how we learn which in turn calls funders like ESDC to reconsider some of their criteria for courses, institutions, and initiatives eligible for funding.

i. Generous financial aid to students pursuing bootcamps programs. Towards greater funding flexibility, we recommend formal recognition of bootcamps along with the institutions that provide such courses. Of course, robust due diligence and certification will be required to verify the legitimacy of the training institution and the quality of the training offered. ESDC has an option to fund bootcamps under the Canada Student Financial Assistance program, LMDAs and WDAs, or the newly proposed LAMB program. Regardless of the funding source program, ESDC should ensure adult learners enrolled in legitimate bootcamps that can fast-track skills development while improving employment opportunities and receiving the necessary financial assistance.
ii. Financial support that is based on the unit of study credit (micro-credentials). Micro-credentials offer greater flexibility than part-time enrolments as there is no pressure to complete a pre-set number of course credit per term or per year. Instead, the curriculum is divided into several

[6] A note on childcare support: We recognize that some provinces have piloted or are implementing various versions of childcare support. Quebec being the icon, has had its own heavily subsidized childcare system for 25 years, under which parents currently pay around $8.35 a day (Ljunggren, 2021). Likewise, the federal government is already on a path to universalize childcare as announced in the 2021 budget.

smaller modules, where each module has its learning outcomes and certification. Leveraging the idea of virtual accounts explained earlier, individuals can complete modules and accumulate credits until full certification once the whole course is completed. Through LAMB, low-skilled adults enrolled in modules receive financial support prorated on the module's study credits. This way, learners decide the right amount of course load they feel comfortable managing. This kind of learning arrangement aligns with the flexibility needs of low-skilled adults, in contrast with obligating them to be full-time or part-time students to get the aid. Alternatively, micro-credentials can be funded using existing skills development support under LMDAs and WDAs. This, however, requires relaxing the 'unemployment' and 'almost unemployed' eligibility requirements as these criteria restrict support among unemployed adults or adults at the edge of losing their jobs. In other words, the top criteria for funding a course among low-skilled workers should be the likelihood that the training will lead to sustained, better employment opportunities in the future.

Hypothetical Example: How Does LAMB Work?

Born and raised in Athabasca, Alberta, Paula left high school at the age of 15 because of a lack of family support and negative school experiences, including poor academic performance. Moving from Athabasca to Fort McMurray, Paula has been a labourer in the oil sands for the past 10 years.

Paula is now a 31-year-old single mom with a 4-year-old son, Liam. After talking to co-workers during her lunch breaks and watching the news at night, Paula became increasingly concerned that her job was at risk due to automation and the federal government's efforts to fight climate change. While Paula has worked in the oil industry for a long time, she does not have a high school diploma and feared many of her skills acquired in the industry would not help her find a new job. She was mainly worried about ensuring the well-being of Liam's future.

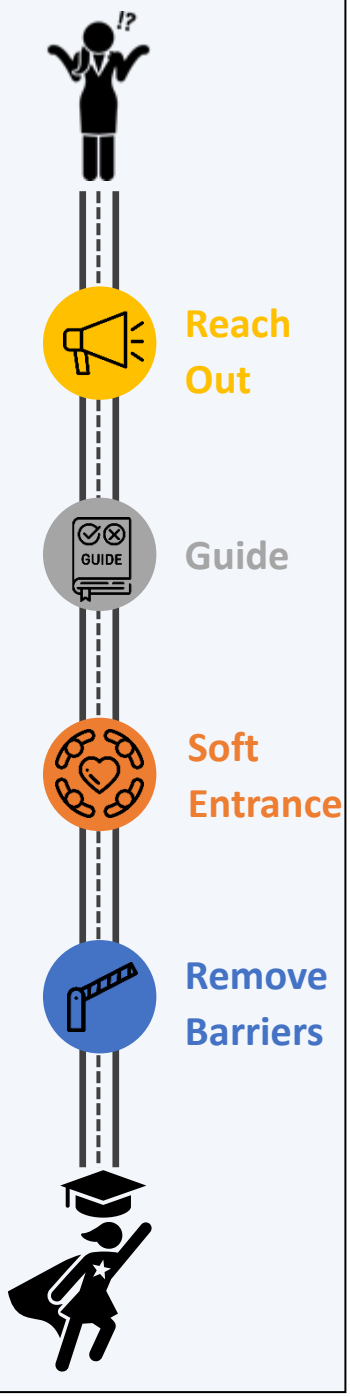
Paula was approached by a local NGO that ESDC partnered with to publicize its educational support programs. After talking to Paula, the NGO convinced her to begin free education counselling at the nearest employment services agency.

Following several sessions, the counsellor managed to convince Paula that she needs to upskill, as well as provided her with a compressive educational plan tailored specifically to her circumstances. Applying a nudging technique, the counsellor contacted Keyano College, a community college in Fort McMurray, and requested that the President's office send a letter encouraging Paula to apply.

Paula was still hesitant about returning to school because of her previous bad experiences. she was offered a soft entrance to learning funded by LAMB. This allowed Paula to ease back into her education, become a more confident learner, and begin to develop positive attitudes towards school – prior to actually enrolling in her career-related training.

Paula does not have enough savings and lives paycheck to paycheck. So, she was worried that she could not leave her job as she would not be able to provide for her family. But she was assured that all tuition and other auxiliary fees are covered through LAMB. She was also offered a decent weekly living allowance to make up for the lost income from leaving her job. Also, LAMB would cover the costs of childcare support.

Paula applied to Keyano College and was accepted. Beginning her education in the fall, Paula feels much better about her future and ability to provide for Liam. It is Paula's hope that, with a higher level of educational attainment, this will lead to a more stable career, upward economic mobility, and allow her to support Liam in receiving an even higher level of education than herself.



11 Conclusion

Low-skilled adults are disproportionately impacted by major trends such as automation and decarbonization, intensifying the need for reskilling and upskilling. Despite being the most vulnerable, low-skilled adults are the least likely to participate in learning activities. Moreover, the COVID-19 pandemic has worsened their situation and widened the social and educational gap. Low-skilled adults are multi-barriered, and they need to be served by multiple service organizations spanning over a range of policy areas, making it a 'wicked' policy problem. After examining current government programs that support adult learners against barriers, perceptions, and challenges faced by low-skilled adults, it became evident that there is a dire need for a tailored intervention by the government to support learning among low-skilled adults.

In the pursuit of increasing the participation of low-skilled workers in learning activities, the recommended framework aims to address current gaps in government programs and accommodate the needs and barriers of the targeted group. We divide our recommendations into two main parts. The first part comprises high-level suggestions on how ESDC can rethink, refine, create, and implement responsive programs. We call this a four-pillar approach – Anchor, Bundled-up, Definitive impact, and Evolve. Essentially, this approach calls for ESDC to base its support on few and durable programs, but with ample room to evolve the scope of support. Aside from promoting responsiveness, the approach helps with consistency, and it eases the administrative burden. Only where gaps persist, as we have demonstrated to be the case when serving adults with low educational credentials, ESDC should create a new program or sub-program. In line with the above observations, our team proposed an all-inclusive program: LAMB.

This led us to the second set of recommendations where we provided detailed recommendations on how ESDC can incorporate best practices geared to improve learning outcomes among adults as follows. Firstly, ESDC should consider actively reaching out to the targeted group through community-based organizations, addressing one of the most important barriers of communication between the government and the targeted group. Secondly, ESDC should consider offering high-quality, personalized education counselling to those adults to address psychological barriers and guide them to the best educational options. Thirdly, ESDC can further research various soft entrance techniques that succeeded in promoting education for adults in other jurisdictions. Lastly, ESDC should address the two major barriers of time shortage and lack of financial resources. This can be achieved by devising a tailored anchor program – Learning for Adults facing Multiple Barriers – that would financially support tuition costs as well as auxiliary costs such as childcare, internet connection, and transportation cost.

Adopting the recommended framework is believed to direct government support to address the barriers that hinder one of the most vulnerable groups in Canada from participation in learning activities. This will promote upward social mobility, close the social and educational gap between the high- and low-skilled adults, guarantee the low-skilled cohort more stable and higher earnings, and help them adapt to a rapidly changing labour market.

Finally, we acknowledge our limitations in which we were not authorized to survey or conduct interviews with the target beneficiaries. Because our brief relied on secondary research and stakeholder interviews, it is recommended that adequate consultations with low-skilled adults are completed prior to the implementation of our recommended policies. This will ensure that the policy measures are aligned with low-skilled adults' lived experiences and perspectives.

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13 Appendix 1: Stakeholder Interviews

Interviewee Name	Position
Amanda Troupe	Program Manager at Employment and Social Development Canada (ESDC)
Amea Wilbur	Assistant Professor, Faculty of Education at University of the Fraser Valley
Barbara McFater	Chief Executive Officer at PTP Adult Learning and Employment Programs
Brooke Struck	Research Director at The Decision Lab
Carola Weil	Dean of Continuing Studies at McGill University
Danielle Chassin de Kergommeaux	Manager at Employment and Social Development Canada (ESDC)
Elizabeth Mulholland	Chief Executive Officer at Prosper Canada
Geneviève Kroes	Manager at Employment and Social Development Canada (ESDC)
Gorges Awad	Manager at Employment and Social Development Canada (ESDC)
Harry Kavallos	Dean, Faculty of Science & Technology at Vanier College
Ilham Abdo	Policy Analyst at Employment and Social Development Canada (ESDC)
Jeni Markova	Policy Analyst at Employment and Social Development Canada (ESDC)
Jennifer Robson	Professor at Carleton University
Katharina Angler	Acting Manager at Employment and Social Development Canada (ESDC)
Kelly Wang	Behaviour scientist at Employment and Social Development Canada (ESDC)
Ken Boessenkool	Policy Analyst at C.D. Howe Institute
Liam Lynch	Senior Policy Analyst at Employment and Social Development Canada (ESDC)
Monica Soliman	Behaviour scientist at Employment and Social Development Canada (ESDC)

Murray Rowe	Chief Executive Officer at Forrest Green
Parisa Mahboubi	Policy Analyst at C.D. Howe Institute
Rola Helou	Director General at First Nations Adult Education Council - Quebec
Safia Amiry	PhD candidate, Department of Education at McGill University
Suzanne Smythe	Associate Professor, Faculty of Education at University of the Fraser Valley