



Enhancing Displaced Workers' Literacy and Essential Skills

Literature Review

MARCH 2020

SHAWN DE RAAF | XIAOYANG LUO | MARIA MONTENEGRO | PATRICK WRAY

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For information on SRDC publications, contact

Social Research and Demonstration Corporation
55 Murray Street, Suite 400
Ottawa, Ontario K1N 5M3
613-237-4311 | 1-866-896-7732
info@srdc.org | www.srdc.org

Vancouver Office

789 West Pender Street, Suite 440
Vancouver, British Columbia V6C 1H2
604-601-4070

Calgary Contact

587-890-8425

Montreal Office

4126 Saint-Denis Street, Suite 302
Montreal, Quebec H2W 2M5
514-948-5317 ext. 234

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INTRODUCTION

The Enhancing Displaced Workers Literacy and Essential Skills project is a collaborative project that is managed by Decoda Literacy Solutions, and supported by the Social Research and Demonstration Corporation (SRDC). The overall goal of the project is to enhance knowledge and raise awareness of promising Literacy and Essential Skills (LES) interventions for displaced workers in Canada to improve their employability.

Today's labour market places significant emphasis on LES. Unfortunately, large segments of the available workforce do not have the necessary level of LES, which can intensify the impacts of job displacement. Data from the Programme for the International Assessment of Adult Competencies (PIAAC), as reported by Statistics Canada (2013), indicates that 49 per cent of Canadians aged 16-65 do not have Level 3 literacy while 55 per cent do not have Level 3 math skills. These gaps are particularly evident in specific population groups. For example, nearly 60 per cent of Indigenous peoples in Canada have a literacy level less than level 3. As well, average literacy and numeracy levels are lower for older workers age 45 to 65 than for 16 to 44 year olds. With low LES and digital skills, some displaced workers face increasing challenges to re-integrate into the labour market. There is a clear need to support displaced workers to become re-employed in more secure positions and sectors.

As part of this project, SRDC is working with Decoda Literacy Solutions and project partners to evaluate promising LES training interventions for displaced workers in Canada. The first phase of the evaluation is a literature review and best practices scan, which aims to provide an overview of displaced workers in Canada and identify best practices related to LES interventions. The focus of this review is, therefore, specifically on literature related to LES interventions; however non-LES related articles/reviews are also included if specifically identified by project stakeholders as relevant to the project objectives. The literature review is guided by three questions:

1. What are the demographics and re-employment outcomes of displaced workers in general and with respect to specific populations (e.g. women, older workers, Indigenous, and immigrant populations)?
2. What are current interventions and tools that utilize literacy and essential skills training to support the re-employment of displaced workers?
3. Which BC regions are experiencing significant levels of worker displacement?

It should be noted that there are a few limitations to this study. First, there is limited information about past labour market programs focusing on LES for displaced workers, as most program websites are no longer active. As a result, the review only includes past programs that have been captured in previous scans of the literature (Harwood, 2012; Hayes, 2013; Forum of Labour Market Ministers, Council of Ministers of Education and Skills for the Future, 2017). Second, publicly-available information on projects funded by national initiatives, such as the Canadian Targeted Initiative for Older Workers and the Dislocated Worker Program in the United States, is limited. While some information was available on these initiatives, it was challenging to find specific examples of the projects they funded, their innovations, and specific outcomes as captured through evaluative studies. Last, many LES programs have not undergone rigorous evaluations making it difficult to report on and compare effectiveness across programs.

There are four sections to this report. The first section provides an overview of displaced workers in Canada. The second section outlines examples of LES interventions. The third section provides an overview of the media scan. The last section notes considerations and next steps for the project.

METHODOLOGY

SRDC conducted an internet search of reports, journal articles, and other online sources related to the characteristics of displaced workers in Canada and interventions that include literacy and essential skills training that support displaced workers' re-employment. This review included interventions primarily based in Canada, but also in the U.S., that either specifically targeted displaced workers or that focused on a larger population that also included displaced workers. These interventions generally focused on specific sectors, industries, or populations of displaced workers, and included innovative components and promising practices. SRDC limited the search to recent materials produced in the last 10 years to focus on up-to-date programming and practice.

Searches were conducted using the following keywords and combinations: essential skills, literacy, LES, employment, training, programs, interventions, tools, support, assistance, displaced workers, job displacement, and Canada. We added search terms such as Indigenous, immigrant, francophone, women, and older workers to find specific information about these groups of workers and interventions that targeted them.

The Canadian National Advisory Committee (CNAC) associated with this project and staff from Decoda Literacy Solutions also provided input on literature and programs to include in this review. SRDC reviewed these documents and integrated material that supported existing evidence or provided new information for the purposes of this project.

To identify regions in B.C. experiencing significant levels of worker displacement, SRDC used Talkwalker, a social listening platform, to gather news articles about displacement events using a Boolean search. The search was limited to articles that were published during the original period of the scan between May and July 2019. Additional displacement events were identified by the Decoda team and their BC network of literacy outreach coordinators. The Boolean search contained the following search terms:

(BC OR "B.C." OR "British Columbia") AND (closure OR layoff OR layoffs OR "laid off" OR shutdown OR "displaced workers" OR "job displacement" OR curtailment OR bankruptcy OR downsizing OR "job loss") AND (mine OR firm OR company OR mill OR mining OR forestry OR plant OR factory OR manufacturing OR tourism) AND source:geo:ca AND lang:en

DISPLACED WORKERS IN CANADA

The following section provides an overview of displaced workers in Canada, including worker demographics, re-employment outcomes and overall implications.

DISPLACED WORKER DEMOGRAPHICS

Job displacement is defined by the Organization for Economic Cooperation and Development (OECD) as involuntary job loss due to economic reasons such as firm closure or downsizing (OECD, 2015).¹ In Canada, 2.2 per cent of workers with at least one year of tenure were involuntarily displaced each year between 2000 and 2010 (OECD, 2015).

According to research conducted by the OECD², displacement can have a greater impact on certain populations of the workforce, depending on their demographic characteristics, employment tenure, skill level, geographic location, and sector of the economy. Men (2.4 per cent) were slightly more likely than women (1.8 per cent) to be displaced. Displacement rates were also somewhat higher for young adults aged 20-24, particularly during the 2009-2010 recession. Displacement rates declined as educational attainment and job tenure increase. Finally, workers in the industrial sector also had higher rates of displacement, particularly in construction and to a lesser extent in manufacturing (OECD, 2015).

However, the rates discussed above do not necessarily have clear or established causal links. Using multivariate analysis to isolate causal affects, the OECD found that men and lower-skilled workers are more at risk of being displaced because they are more likely to be employed in higher risk sectors. Essentially, a male worker is not more likely to be displaced because he is a man, but rather because men are more likely than women to be employed in the high-risk sector.

The risk of job displacement also rises with age (beyond age 34); however, longer tenure actually decreases a worker's likelihood of displacement. In other words, the effect of longer tenures reduces the likelihood of displacement for older workers. On the other hand, older workers with shorter job tenure are particularly vulnerable to being displaced. Workers in the agriculture and manufacturing sectors are the most at risk of displacement, as well as workers in small firms with less than 20 employees (OECD, 2015).

¹ For the purpose of this project, the definition of displaced worker excludes workers who experience job loss due to seasonal work.

² Based on data from 2000-2010.

The OECD also found that provinces with higher-than-average unemployment rates are associated with higher-than-average displacement rates. This trend suggests that displaced workers are more likely to live in regions where job opportunities are scarcer. Provinces with higher displacement rates include Newfoundland and Labrador, New Brunswick, and Quebec (OECD, 2015).

Re-employment outcomes

Re-employment outcomes for displaced workers discussed in this report include the rate of re-employment, wage rate, job quality and job mobility.

Rate of re-employment

Approximately half of displaced workers in Canada find work within one year, and almost two-thirds are re-employed within two years. However, rates of re-employment vary depending on worker characteristics. The first-year re-employment rate for men is significantly higher compared to women. Further, workers with higher educational attainment, who are younger, and who have less job tenure also have higher re-employment rates (OECD, 2015).

However, when analysing causal relationships, only gender and age remain significant determinants of re-employment. Women are around 10 percentage points less likely to be re-employed within a year compared to men, while workers aged 55-64 are 14 percentage points less likely to be re-employed compared to those aged 25-34 (OECD, 2015). These discrepancies may reflect greater barriers to finding a job, but may also signify a greater tendency to exit the labour force. For prime-age workers (25-54 years old), long tenure increases their likelihood of re-employment, whereas the opposite is true for older workers. Only 32 per cent of older workers with long tenure are re-employed within one year of displacement, compared to 52 per cent of prime-age workers with long tenure (OECD, 2015).

Wages, job quality and job mobility

Displaced workers are also impacted in terms of their re-employment wage rate, job quality and job mobility, with particular population groups, including long-tenured workers, older workers, and older immigrant workers, affected the most. Many displaced workers are forced to accept lower wages or more precarious employment. For example, one in five displaced workers face hourly wage cuts of 25 per cent or more, and real annual earnings fall by 60 per cent in the year following displacement (without taking into consideration work-related benefits). This loss in earnings is the combined effect of three components: a lower hourly wage in the new job (1.9 per cent decline compared to their previous wage), fewer annual working hours due to

unemployment, and fewer working hours in the new job. The last two components were equivalent to a loss of almost seven months of a workers' previous annual wage (OECD, 2015).

Job quality can also be reduced following re-employment. Displaced workers are less likely to have permanent contracts and are more likely to work part-time in their new positions when compared to their previous employment situations. They are also less likely to work in managerial roles, receive a supplementary pension plans, or work in unionized positions (OECD, 2015).

Displaced workers demonstrate a high degree of mobility across industries and occupations with 50 per cent moving to a different industry and 55 per cent changing occupations for their new employment. This shift may explain a significant part of the reduction in wages associated with re-employed workers as they lose the wage premium that they held related to their previous industry and occupation-specific skills. On the other hand, their geographic mobility is low, with less than one per cent of displaced workers moving to a different province (OECD, 2015).

Certain groups of displaced workers experience more challenging re-employment outcomes. They include long-tenured workers, older workers, and older immigrant workers.

Long tenured workers

Displaced workers with over 10 years of tenure face a higher wage loss compared to workers with between one and nine years of tenure (6 per cent vs. 0.8 per cent). On average, they experience a 61 per cent decline in annual earnings. Even five years after displacement, long tenured workers still experience annual earnings losses ranging from 10 per cent to 18 per cent of their previous income (OECD, 2015).

Older workers

Seniors and near seniors who become unemployed tend to remain unemployed for longer. The National Seniors Council states that this may be due to their accumulation of firm-specific, industry-specific, or occupation-specific skills, and the deterioration of more general, transferable skills. The Council also suggests that other barriers, including age-related discrimination and a shorter remaining career, may discourage retraining or relocation. Older workers also face higher earnings losses compared to workers under the age of 45. Their earnings also do not grow significantly in the years following re-employment. As a result, many older workers choose to retire early rather than accept a lower-paying job (The National Seniors Council, 2011). Similarly, Jones (2011) suggests that older workers' enrolment in schooling is lower post-displacement due to their fewer years to benefit from the training, their higher foregone costs, and the higher perceived difficulty of returning to school after being in the labour force for so long.

Older immigrant workers

It appears that older immigrants also face particular challenges in obtaining equivalent employment following a job loss. A case study investigating the 2008 closure of an auto-parts manufacturer in Toronto followed the re-employment trajectories of a sample of 78 workers who were displaced as a result of the closure. All of the participants were aged 45 and above, and 62 per cent were women. Further, almost all workers at the plant were born outside Canada (97 per cent) and spoke English as a second language (87 per cent), suggesting that the sample was made up of primarily immigrants.

The study found that participants struggled to find appropriate training and stable re-employment in the years after the closure. The researchers suggested that “the systemic barriers of race, gender and age further marginalize such workers” (Ng et al., 2013). Four years after the closure, only one third of participants secured permanent full-time employment, while the remaining participants were either in precarious employment or unemployed. Women were more likely to be working in precarious employment (42 per cent compared to 25 per cent) or not working (27 per cent compared to 10 per cent) compared to men. About three quarters (77 per cent) of participants' current wages were also worse compared to their previous wage. Over one third of participants reported a wage drop of \$5 per hour or more. Many participants (70 per cent) also believed that discrimination, specifically related to their age, race, and language, had been a barrier for them in finding work.

Implications

Displaced workers are not a homogenous group and their characteristics and identity factors influence their displacement rates and re-employment outcomes. Men, younger workers, and workers with lower educational attainment are overrepresented in sectors with a high risk of displacement. These sectors include construction, manufacturing, and agriculture. Older workers are more likely to experience displacement if they have short job tenures. Women and older workers are less likely to be re-employed and are more likely to exit the labour market entirely. Workers with long tenures and older workers face higher earnings losses, and immigrant and racialized workers may experience additional barriers to re-employment. The literature review did not produce information specific to Indigenous displaced workers, which presents an opportunity to ensure that this group is represented in future data collection activities on displaced workers.

There are also regional differences in displacement rates, with workers in Newfoundland and Labrador, New Brunswick, and Quebec experiencing higher than average rates of displacement. Considering that displaced workers are not geographically mobile following displacement, these regions may present opportunities for beta testing innovative programs. On the other hand,

displaced workers are highly mobile across industries and occupations, which demonstrates the potential for success in programs that reskill displaced workers for high-demand sectors.

LABOUR MARKET CONTEXT

Skill demands are changing due to automation and globalization, among other factors. While some jobs are becoming obsolete, other jobs often require candidates to demonstrate problem solving and critical thinking skills that require a foundation in literacy and essential skills. The following section outlines some of the characteristics associated with the LES skill level of Canadian workers.

The Canada West Foundation has identified essential skills shortages among 40 per cent of the workforce (Canada West Foundation, 2015). Additionally, more than 40 per cent of Canadian working-ages adults have literacy skills below the minimum level (Level 3) required for technical skills and knowledge to be applied in new ways or different situations (Canada West Foundation, 2018, p. 5). Meanwhile, 97 per cent of jobs created in the last 20 years require that workers have Level 3 or higher skills to be fully productive. These statistics highlight the importance of strengthening LES for displaced workers, the majority of whom are less likely to have used these types of skills in their pre-displacement job. Even such sectors as manufacturing are becoming more skill intensive and the ability for workers in these sectors to adapt to and use changing technology and processes is critical.

Compared to the average employee in Canada, displaced workers tend to use less interpersonal, verbal, and cognitive skills, and more craft and physical skills in their pre-displacement job. After displacement, 20 to 30 per cent of workers switch skills (OECD, 2015). About 6 per cent of re-employed displaced workers experience a skill switch along with professional downgrading while the same proportion experience professional upgrading.

There are variations in how displaced workers experience skill changes depending on their characteristics. Women are more likely to experience skill switches than men. Professional downgrading is more common for young workers compared to other age groups. Workers with lower educational attainment experience skill switches less frequently. Workers who change industries are more likely to experience both skills downgrading and skills upgrading.

Data from the 2012 Programme for the International Assessment of Adult Competencies (PIAAC) provide more insights on factors that contribute to lower LES and potential target groups for beta testing LES interventions through the DWLES project. The PIAAC assesses proficiency in literacy, numeracy, and problem solving in technology-rich environments in over 40 countries. The findings below are specific to Canada and complement the research that focused on displaced workers specifically. Many of the same factors that contribute to poorer re-employment outcomes among displaced workers are also related to lower PIAAC scores.

LITERACY

The PIAAC defines literacy as “understanding, evaluating, using and engaging with written texts to participate in society, to achieve one’s goals, and to develop one’s knowledge and potential” (Statistics Canada, 2013, p. 13). Based on the results from the 2012 PIAAC, the average literacy score was highest among those aged 25 to 34 (285 points). Those aged 55 to 65 had the lowest average score at 260. No gender differences were observed except for the 55-65 group, where men scored 6 points higher than women. Literacy scores increased with educational attainment: those with a bachelor’s degree or higher had an average score of 300, whereas those with less than a high school diploma scored 234 on average.

NUMERACY

Numeracy is “the ability to access, use, interpret and communicate mathematical information and ideas, in order to engage in and manage the mathematical demands of a range of situations in adult life” (Statistics Canada, 2013, p. 18).

Similar to literacy, those aged 25 to 34 scored the highest in the 2012 PIAAC (with an average score of 277) and those aged 55 to 65 scored the lowest with 251. Men had higher numeracy skills than women across all age groups, though the difference becomes more significant in older age groups. There was a difference of nine points for the 16-24 age group, which increases to 19 points for those aged 55 to 65. Numeracy skills also increased with educational attainment, with an average of 295 for those with at least a bachelor degree and 222 for those without a high school education.

DIGITAL SKILLS

According to the Media Awareness Network, digital literacy “guarantees [Canadians] will benefit from the digital economy and derive new opportunities for employment, innovation, creative expression, and social inclusion” (Media Awareness Network, 2010, p. i). Digital competencies include the skills and knowledge required to engage with computers and the Internet, the ability to understand and critically evaluate digital media, and the capacity create content and communicate using digital media tools. Today, information and communications technologies (ICT) are deeply embedded in the workplace and everyday life (Statistics Canada, 2013). Positions previously requiring low skills now entail digital skills such as the ability to access, use, and interpret digital information (Ontario Literacy Coalition, 2011).

The 2012 PIAAC measures problem solving in technology-rich environments (PS-TRE), which it defines as “the ability to use digital technology, communication tools and networks to acquire

and evaluate information, communicate with others and perform practical tasks” (Statistics Canada, 2013). PS-TRE scores were highest among those aged 16-24, with 52 per cent scoring at Level 2 or 3. Those aged 25-35 achieved similar scores (50 per cent at Level 2 or 3). In contrast, only 29 per cent of those aged 45 to 54 and 17 per cent of those 55 to 65 scored at Level 2 or above. Men aged 55-65 were more likely to have higher digital skills than women in the same age group (19 per cent vs. 14 per cent). Nineteen per cent of those with less than high school education scored at Level 2 or above compared to 53 per cent of those with a bachelor degree or higher.

OCCUPATIONAL DIFFERENCES

The target group of displaced workers in the DLWES project are likely to fall within either the trade, production, and manufacturing occupations, or the manual and other service occupations. These two occupational categories scored the lowest across all proficiency scores. In literacy and numeracy, their average scores were 36-41 and 32-45 points lower compared to those working in managerial and professional occupations. In terms of digital skills, the proportion of workers who attained Level 2 or above was 24-28 percentage points lower. These findings indicate the need for LES and digital skills training for displaced workers. The difference in skill levels between younger and older workers is also more pronounced in less skilled occupations: for literacy, the difference between the youngest and oldest age cohorts in manual and other service occupations is 40 points. These findings indicate the need for LES and digital skills training for displaced workers and higher training needs for older displaced workers.

SKILL LEVELS OF SELECTED POPULATIONS

The PIAAC also provides information on the literacy, numeracy, and PS-TRE of Indigenous people, immigrants, and official-language minority communities.

Indigenous people

Indigenous people had lower scores in literacy and numeracy compared to non-Indigenous people. Their average literacy score was 260 compared to 274 for the non-Indigenous population. However, there are significant regional differences within these scores. In Ontario and B.C., there is a 7 and 10 point difference between Indigenous and non-Indigenous people, while in the three territories, the difference is over 40 points. For numeracy, the average score is 244 compared to 266 for the non-Indigenous population. There is again considerable regional variation: differences range from 15 points in Ontario to more than 50 points in the territories. Differences are slightly larger for numeracy compared to literacy.

For PS-TRE, there is also considerable regional variation in terms of differences between Indigenous and non-Indigenous populations. PS-TRE scores are lower nationally among Indigenous populations, which is driven primarily by lower scores in Saskatchewan and the territories, with no difference in Ontario, Manitoba, and British Columbia.

Immigrants

On average, immigrants scored lower than the Canadian-born population for literacy and numeracy by at least 20 points. There are no major differences between scores of recent and established immigrants. For PS-TRE, immigrants also had lower average scores than the Canadian-born population, while a higher proportion of recent immigrants scored at Level 1 and below.

Official-language minority populations

There were regional differences in the proficiency scores for official-language minority populations. Francophones have a lower average literacy score in New Brunswick compared to Anglophones (259 vs. 274) and the difference is the highest in this province. In Quebec, Anglophones have a higher average literacy score compared to Francophones (276 vs. 271). In Manitoba and Ontario, there was no difference between the two populations.

In terms of numeracy, Francophones in New Brunswick scored 10 points lower compared to Anglophones. In Ontario, Manitoba, and Quebec, there was no difference. For PS-TRE, Anglophones scored higher than Francophones in New Brunswick, Ontario, and Quebec. In Manitoba, there was no difference. Overall, Francophone minority populations were likely to have lower proficiency scores compared to Anglophones.

CURRENT RESEARCH ON LITERACY AND ESSENTIAL SKILLS AND DISPLACED WORKERS

The following section provides an overview of current research projects on literacy and Essential Skills and displaced workers. The focus is on the Office of Literacy and Essential Skills (OLES) of Employment and Social Development Canada (ESDC) and the Future Skills Centre.

OFFICE OF LITERACY AND ESSENTIAL SKILLS

The overall objective of OLES is to help adult Canadians improve their literacy and Essential Skills to better achieve their employment related goals. OLES' grants and contributions invest in research projects that aim to replicate and scale up proven approaches to skills upgrading and to develop innovative approaches to improve the quality of employment and training supports.

OLES projects are guided by the following three objectives:

- Address employability issues by developing LES knowledge and/or resources that help adults get jobs or improve their employment prospects;
- Address workplace issues, including digital skills challenges, by developing LES knowledge and/or resources that help adults perform better in their jobs and advance in the workplace; and/or
- Fill knowledge gaps by developing LES knowledge and/or resources for adults that improve our understanding of what works for adult LES (OLES, 2019).

Unfortunately, OLES' project database has not been updated since approximately 2010, and thus it is not possible to access a detailed list of all of OLES' currently funded projects. However, the following are a sample of OLES-funded projects of which SRDC is a partner. The goals of these projects range from increasing the capacity of Essential Skills practitioners, to conducting research in particular areas such as strengthening the Essential Skills of apprentices and mentors/mentees in the construction sector. Most relevant to this literature review, Alberta Workplace Essential Skills (AWES) is conducting a project that aims to integrate Essential Skills training with employment services. Below are the details of these research projects.

- **Framework for the Professional Development of Essential Skills Practitioners** – This project is developing and testing a new framework for professional development that standardizes the delivery of Essential Skills practitioner training in Canada. The framework

will provide broad guidance to allow regional flexibility and customization based on the needs of the ES practitioners, while ensuring greater consistency in the delivery of ES practitioner training. March 2019 – March 2023. Sponsor: SkillPlan.

- **Enhancing Pre-Apprentice and Apprentice Tools (EPATT) Project** – The EPATT project aims to develop and rigorously test a more structured approach to Essential Skills training for 14 of the Red Seal construction trades by enhancing pre-apprenticeship and apprenticeship programming. The enhanced model will be implemented across the country in five regions with 1,250 construction trades workers via union training schools and/or their partnering public post-secondary colleges. February 2019 – January 2023. Sponsor: SkillPlan.
- **Improving Productivity through Mentorship: A National Demonstration Project** – This project will undertake the development, implementation, and evaluation of an enhanced mentorship training model for Canada's construction and maintenance sector. It is being implemented as a pan-Canadian demonstration project in all regions of the country with up to 1,200 skilled tradesworkers and up to 80 contractors in four of Canada's skilled trades. June 2017 – May 2021. Sponsor: BuildForce Canada.
- **Guided Pathways: Integrating Essential Skills** – The overall objective of the project is to build, test, adapt, and systemize a robust training system in employment counsellor organizations in multiple jurisdictions that can be replicated across Canada to ensure employment counsellors can apply a firm understanding of Essential Skills to their work. AWES is seeking to equip employment counsellors with a methodology that will allow them to systematize how they gauge skills and provide services.
- **Skilling Up** – This project aims to learn if the benefits of workplace Essential Skills training and financial incentives to industry induce employers to invest more in training. This question forms the basis of this national project which involves research, development and training. Working with three national manufacturing companies, AWES is testing to see if making financial incentives conditional upon participants gaining skills improves the level of employer commitment.

FUTURE SKILLS CENTRE

The Future Skills Centre is dedicated to preparing Canadians for employment success through research and collaboration. A key function of the Centre is to work with stakeholders across the country to develop, test, and evaluate innovative approaches to skills development.

To date, the Future Skills Centre has committed over \$19M over the next two years in 16 innovation projects across Canada. The 10 projects funded through the Support for Mid-Career Workers Innovation Program are particularly relevant for this literature review.

Support for Mid-Career Workers Innovation Program

The Future Skills Centre has invested \$7.65M in ten mid-career workers innovation projects. These projects will test innovative approaches to training and mid-career transitions into higher-growth sectors and job opportunities. The following are the project details:

- **EDGE UP: Energy to Digital Growth Education and Upskilling Project** (\$1.5M over two years) –Led by Calgary Economic Development and a consortium of post-secondary and private sector partners, the project will design, implement and evaluate a digital upskilling pilot project with the goal of transitioning displaced mid-career Calgary energy sector workers to high-growth technology opportunities. Working with employers to identify the best upskilling pathways, the program will help transition participants who will be trained for hard and soft skills and be placed in specific positions in the IT sector.
- **Better Outcomes in Layoffs and Downsizing (BOLD)** (\$650K over two years) – Focusing on early engagement with employers, unions and workers at-risk of downsizing and relocation, the Canadian Skills Training & Employment Coalition, together with partners including the United Steelworkers of Canada, will retrain and upskill workers before their jobs are disrupted to minimize the negative impacts on both employers and workers. Project partners will test and evaluate this proactive program with four separate companies and 200 mid-career manufacturing and steel workers in Alberta and Ontario.
- **Transition to a New Tomorrow** (\$1.04M over two years) – NorQuest College will test a unique professional development program to support mid-career oil and gas workers by facilitating their transition to alternative career paths, whether through further education, or through connection with new industries. The project will take place in Alberta communities, including Drayton Valley, Whitecourt, the industrial parks of Leduc/Nisku, and Acheson and will impact a minimum of 120 mid-career workers.
- **Continuous Learning for Individuals' Mid-career and Beyond (CLIMB)** (\$754K over two years) – Northern Lights College has developed the CLIMB project to increase mid-career workers' interest in training and education and reduce their fears associated with the unknown. The goal of CLIMB is to help mid-career workers in British Columbia's North and South Peace River Service Region interested in a career change to take action towards obtaining additional education.

- **Supporting Mid-Career Workers with Disabilities through Community-Building, Education and Career-Progression Resources** (\$651K over two years) – UOIT (Ontario Tech University), together with partners including the National Education Association of Disabled Students, Manitoba League of Persons with Disabilities and Quebec Association for Equity and Inclusion in Postsecondary Education, has designed a project to assess MCWD needs and develop and evaluate tools and resources to increase their ability to make key decisions about career transitions.
- **Building the Skills of the Trucking Industry** (\$693K over two years) – The Trucking Human Resource Sector Council Atlantic and its partners will develop a skills enhancement program to 1) improve productivity of drivers, and 2) prepare the workforce for future technological advancements. The project will leverage virtual reality technology to deliver training in a way that compliments varied learning styles. The project will offer innovative teaching tools to a minimum of 150 professional drivers in Atlantic Canada, with a goal of testing how to support the retention of the existing workforce and the recruitment of new workers to the sector.
- **Skilled jobs for Mid-Career Workers Through Work-Based Learning** (\$873K over two years) – The Work-Based Learning Consortium is partnering with Canadian Association of Mold Makers to explore how to upskill displaced workers, providing them with the training required to fill vacancies in the mold-making and injection-molding trades in the Greater Toronto Area and the Kitchener-Waterloo areas. The program will transition 24 mid-career workers who will either gain or be assured continuation of full-time permanent employment as skilled workers.
- **Preparedness of Learning (Learner Shock)** (\$366K over two years) – As a result of changes in the labour market, mid-career workers are suddenly facing the prospect of ‘returning to school’, often 20-50 years after their last educational experience. These workers may experience “Learner Shock” – the experience of frustration, confusion, and anxiety that comes with exposure to unfamiliar learning, teaching methods, and expectations. This experience can be a barrier to completing a training program and, by extension, to a successful transition to a new position or industry. This project will design, implement, and test strategies for addressing “Learning Shock.”
- **Supporting Mid-Career Workers in Retail and Meat Processing** (\$495K over 1 year) – The United Food and Commercial Workers Union (UFCW) represents more than 45,000 cashiers and 40,000 food manufacturing workers, many of whom work in meat processing – sectors that are both facing a huge displacement of workers due to automation. This project will test how to equip UFCW members across Canada with the requisite skills, trade certifications, and professional standards needed to thrive in strong growth rate occupations.

- **Be EPIC: Dementia Training for Mid-Career Workers** (\$419K over two years) – Researchers at Western University's Sam Katz Community Health and Aging Research Unit developed 'Be EPIC', a two-day dementia-specific skill development program. The training program teaches PSWs to use person-centered communication, incorporate social history of clients into care routines, and use the environment when caring for people living with dementia. This project will scale-up, test, and evaluate the Be EPIC training program, and will engage 48 participants in an urban setting (London, Ontario) and a rural setting (Northumberland County, Ontario).

The Future Skills Centre also recently issued a call for proposals (August 2019 deadline), with the objective to identify, test and evaluate innovative projects that have the potential to generate actionable evidence about how to better equip Canadians with the skills required to navigate a fast-changing labour market. The following three questions provide the basis for this research:

- How can we best support Canadians facing labour market disruption to transition to new jobs or industries?
- How can employers be more effectively engaged in developing and delivering demand-driven solutions to skills gap challenges?
- How can skills development systems be optimized, building up the capacity of service providers and encouraging collaboration between organizations?

BROADER RESEARCH CONTEXT ON DISPLACED WORKERS IN CANADA

There are two main studies that are helpful in providing a summary of Canadian research on displaced workers. Riddell (2009) examines what is known about permanent job loss and its consequences for older displaced workers, with a particular focus on how this research is applicable to Canada. Similarly, Jones (2011) surveys and assesses the various strategies that have been used to determine training effectiveness, again with a particular focus on the Canadian context. Although these studies are somewhat dated, they are helpful in terms of providing historical context on research related to displaced workers in Canada.

According to Riddell (2009), despite the financial and personal impact workers face as a result of losing their job, the subject of job displacement and its consequence is significantly under-researched in Canada. The main reason for this gap in research is the limited data available in Canada on the extent and consequence of permanent job loss. For example, the United States carries out a regular Displaced Worker Survey whereas Canada does not. This makes it very challenging to conduct longitudinal research on job displacement in Canada (Riddell, 2009).

Further, according to Jones (2011) most of the literature on the effectiveness of training programs is based on U.S. evidence, which has tended to focus on disadvantaged populations who do not have strong attachment to the labour market, and who generally have low wage and employment prospects. Lessons from such a population do not always apply well to the general population of displaced workers in Canada that exhibit strong attachment to the labour market, long tenure and strong earnings (Jones, 2011).

Nonetheless, the research that is available on the consequences of displacement provides a number of consistent findings, including:

- Earnings losses from permanent job loss are very large, especially for long tenure workers;
- A major part of the earnings loss arises not from post-displacement unemployment, but from re-employment at wages substantially below their pre-displacement levels;
- These substantial losses appear to be long-lasting (perhaps permanent) in nature;
- Losses are similar in magnitude to other catastrophic events (Riddell, 2009).

Unfortunately, the research also demonstrates that the returns to training for displaced workers are low, likely less for formal schooling which are in the 6-9 per cent range. Further, on a cost-

benefit basis, research suggests that training is not cost effective for most displaced workers (Jones, 2011). These findings, however, should be viewed in the context that there has been limited research on displaced workers in Canada, especially in the case of interventions targeting workers with lower LES levels.

RESEARCH RELATED TO LITERACY AND ESSENTIAL SKILLS INTERVENTIONS

The Government of Canada's Office of Literacy and Essential Skills (OLES) defines literacy and essential skills as “the foundation for learning all other skills” (Employment and Social Development Canada, 2015). They enable individuals to prepare for, obtain and retain employment, and to adapt and succeed at work. These skills include reading, writing, document use, numeracy, computer use and digital skills, thinking skills, oral communication, working with others, and continuous learning.

Most existing labour market programs that focus on literacy and essential skills target unemployed workers including displaced workers and/or EI recipients. The majority of LES and employment programs found in the literature provide funding for training and labour market projects that are usually delivered by employment service providers, school boards, post-secondary institutions, or temporary locations set up through labour adjustment initiatives. Most of these programs provide essential skills training in combination with employment services and other employment related training including occupation-specific skills and workplace essentials. There are also a few programs in Canada that provide financial assistance to cover the costs of training programs based on a set of criteria.

This review involved an Internet-based search of reviews and evaluations of interventions primarily based in Canada, but also in the U.S., that either specifically targeted displaced workers or that focused on a larger population that also included displaced workers. These interventions generally focused on specific sectors, industries, or populations of displaced workers, and included innovative components and promising practices. A selection of the most relevant interventions are discussed below (see Appendix A for a complete list of the LES interventions).

COLLEGE OF NEW CALEDONIA TIOU (BRITISH COLUMBIA)

Funded by the Canadian Targeted Initiative for Older Workers, the College of New Caledonia developed and managed an innovative LES project for displaced workers in Fort St. James. Fort St. James is a small northern BC community that is highly dependent on forestry, mining and exploration. Employment in the community is highly variable since these industries are dependent on world markets.

The Fort St. James campus of the college managed seven intakes of about 12 participants between 2009 and 2012. The first waves of participants had a high proportion of displaced workers from mill closures while participants in subsequent years tended to have social and health barriers to employment. The program reported successful outcomes including an overall completion rate of 93 per cent and over half of participants who completed the training were employed (Hicks, 2015). Three project intakes were approved for 2014-2016, with the premise of new job opportunities opening in the community, especially in construction. The program consisted of a 14-week schedule of 25 hours a week, which took place mostly in a classroom setting. Participants received a weekly training allowance of \$350. Classroom time was allocated among various employment related activities.

Two aspects of this project are worth highlighting. First, stakeholder engagement directly informed the program curriculum. Employer consultations ensured the training addressed the needs of the labour market. For instance, program time was specifically allocated to providing participants with information about pipelines since pipeline work was expected to be an important source of employment in the area. Since the program had a high proportion of Indigenous workers, First Nation Wellness councillors were included to reinforce communication skills and inform the program curriculum. Second, the program was focused on the individual. This is reflected on various aspects of the program's activities such as the inclusion of assessments to identify the participant's individual interests, aptitude, occupational preferences and learning readiness. Training also allowed participants to benefit from peer-to-peer support while meeting their individual needs with computer training offered in both group and individual settings.

ONE JOURNEY INITIATIVE (NOVA SCOTIA)

The One Journey Initiative in Nova Scotia is another example of a skills development program whose success relied on labour market information and stakeholder engagement. This initiative is a partnership between the Ministry of Labour and Advanced Education, industry and the community that began in 1999.

This initiative intended to identify skill shortages in a particular industry, taking into account the challenges and opportunities in each targeted industry sector. An industry steering committee, with representatives from the government, provided ongoing advice on the program. All projects included essential skills training and may have also included workplace relevant activities such as job-shadowing. The success factor of the program is that employers committed to employing all participants upon entry into the program. This initiative has completed over 60 projects in a variety of sectors and has resulted in a 90 per cent employee retention rate in hard to fill jobs (Province of Nova Scotia, 2013).

FOUNDATIONS WORKPLACE SKILLS PROJECT (FWSP) (MULTIPLE SITES ACROSS CANADA)

Led by the Training Group at Douglas College, the Foundations Workplace Skills Project was a three-year initiative with the goal of testing the impact of a number of pilot projects on employment outcomes which could then be successfully applied across several sites nationally. The initiative was part of a randomized control trial, with half of the 500 recruited participants assigned to a control group. Skills development and upgrading programs were offered by various post-secondary institutions in British Columbia, Ontario, and Newfoundland.

The program was divided into two components. Participants first identified and documented their essential skills, researched the skill requirements of their occupations of interest, and built realistic career plans. This component took place over two weeks during 60 hours of classroom learning. The three sites used the same curriculum established by Douglas College. The second component involved a more targeted and individualized service. This component included individual learning plans to meet the participant's skills needs, mixed learning environments, learning materials relevant to the participants' occupation of interest and follow-up assessments and debrief. The second component took place over 2 to 10 weeks, depending on the participant's needs.

The evaluation findings suggest that project participants made large gains on career adaptability indicators. Participants of the Skills Enhancement component experienced larger impacts on improvements on numeracy, document use and reading skills. Program participants also reported higher participation on more intensive training or education than non-participants. As a result of these short-term outcomes, the program had the following impacts after 12 months: higher wages among two-thirds of employed participants, positive impacts on occupation skill level, reduced over-qualification rates, increased job satisfaction, and improvements on mental health (Palameta, Nguyen, Hui & Gyarmati, 2016).

The evaluation also found that recent immigrants with university degrees experienced the largest gains on skills and employment outcomes. In contrast, Canadian born participants with lower levels of education experienced the short-term outcomes, but not the positive employment outcomes after 12 months (Palameta et al., 2016).

GOVERNMENT OF ONTARIO LITERACY AND BASIC SKILLS PROGRAM

A primary goal of the government of Ontario's Literacy and Basic Skills Program is to integrate literacy and basic skill services with employment related services, using a network of primarily community organizations, but also school boards and colleges. This network of community

organizations would, therefore, have significant experience in linking community-based literacy services with employment related goals, including targeting displaced workers. The following video, although dated, provides an overview of the connection between Ontario's Literacy and Basic Skills Program and displaced workers:

https://www.youtube.com/watch?v=TkpV_pT26yw.

The Ministry of Training, Colleges and Universities (MTCU) manages the Literacy and Basic Skills (LBS) Program for adults who need assistance in developing literacy skills or who seek admission to Academic Upgrading. Through the LBS Program, individuals access five services that contribute to the successful completion of a learner plan:

- Information and Referral
- Assessment
- Learner Plan Development
- Training
- Follow-up

Services are free and are offered on-site at approximately 340 locations across Ontario, in directed and self-directed format, and online through e-Channel service delivery. Employment Ontario funds literacy agencies to provide the LBS training. Regional networks support service providers by facilitating the literacy services planning and coordination process in each community. Below is a list of these 16 regional networks.

- Metro Toronto Movement for Literacy (MTML) (Toronto)
- Ottawa Community Coalition for Literacy (OCCL) (Ottawa)
- Adult Basic Education Association of Hamilton-Wentworth (Hamilton)
- Literacy Network of Durham Region (Oshawa)
- Literacy Link of Eastern Ontario (LLEO) (Kingston)
- Literacy Network Northeast (Timmins)
- Literacy Link Niagara (Thorold)
- Literacy Link South Central (LLSC) (London)
- Literacy Northwest (Thunder Bay)

- Literacy Ontario Central South (Peterborough)
- The Mid North Network for the Coordination and Development of Adult Learning (Sudbury)
- Peel-Halton-Dufferin Adult Learning Network (Mississauga)
- Project READ Literacy Network (Kitchener)
- QUILL Learning Network (Quality in Lifelong Learning) (Walkerton)
- Simcoe/Muskoka Literacy Network (Orillia)
- Tri-County Literacy Network (Chatham)(Ministry of Training, Colleges and Universities, 2019)

One of the Regional Networks, Simcoe/Muskoka Literacy Network (SMLN), has recently completed a project called, “Formalizing Transitions between Employment Services and LBS”, which was funded by the Ontario Ministry of Training, Colleges and Universities. The purpose of this project was to research how employment services and LBS programs work together to promote transitions from employment services to LBS and from LBS to employment services. The project was initiative in response to discussions among local Literacy and Basic Skills (LBS) and Employment Services (ES) managers. They identified areas where they see a need and opportunity to work more closely and effectively together, including:

- What can each service provider offer the client/learner and when is the best time in the service/learning plan of a client/learner to transition from one service to the other?
- How can we support the client/learner to enhance his/her resilience as he/she moves through that transition, in ways that are effective for both clients and service providers?
- How best can ES and LBS service providers work with clients/learners who access services concurrently? (Simcoe/Muskoka Literacy Network, 2019)

The London and Middlesex County has also developed a Literacy and Employment Integrated Service Plan.

“This document [the Plan] is the result of this the project and presents a three year integrated service plan for those clients who have both literacy and employment needs. As a starting point, it focuses on the employment and literacy sectors and how these two service systems must work together to meet the needs of clients with both literacy and employment needs” (London and Middlesex County, 2010).

Finally, Essential Skills Ontario in partnership with Literacy Link South Central, Literacy Network of Durham Region, Literacy Northwest and funded by Employment Ontario, has developed a series of connected literacy, language and skills training programs, called “Career Ladders”. The following are details on this program:

- 'Career Ladders', are series of connected literacy, language and skills training programs that enable individuals to secure employment within a specific industry or occupational cluster, and allows them to advance to higher levels of education and employment.
- Career Ladders helps move those who have low educational attainment or may be vulnerable in other ways to fully participate in the labour market.
- Programs and agencies that are part of a career ladders system will often concentrate on sets of occupational skills related to a specific industry or occupation that is growing in their local community.
- Career ladders typically provide numerous entry and exit points in order to address challenges faced by part-time and itinerant workers (Essential Skills Ontario, 2019).

SECTOR-SPECIFIC AND TARGETED PROGRAMS

Some training programs did not focus on displaced workers specifically but concentrated on filling labour shortages or targeting specific disadvantaged population groups. A selection of relevant programs is discussed below.

Pre-Culinary Training Pilot Project (Ontario)

One example from Ontario is the Pre-Culinary Training pilot project for adults with barriers to learning and employment. It was delivered by PTP Adult Learning and Employment Programs in cooperation with FoodShare, a non-profit community food security organization. The program was delivered full time (30 hours per week) for 12 weeks. Its four core components consisted of literacy and essential skills development, pre-culinary skills development including training for a Food Handler Certificate, employability skills development with one-on-one counselling support, and a two-week paid work placement. The program included 17 hours of LES classroom time per week and 8.5 hours of pre-culinary training in the FoodShare kitchen. There was also one two-hour workshop on employability skills development every other week, alternating with training for the Food Handler Certificate. PTP's employment services program provided support with resume building, arranging the paid work placements, and supporting participants' ongoing job search. Staff included LES instructors, Employment Services counsellors and job developers, a cooking instructor, baking specialist, and kitchen coordinator.

Twenty-seven of 33 participants completed the program. Of the 27 students who completed the program, 78 per cent were female. They were between 21 and 57 years old with a median age of 43. Over half of the students were receiving income assistance. Other common barriers included extended time out of the labour force, ineffective job search skills, lack of Canadian experience and English as a second language. Sixteen of 26 students who wrote the final skills assessment (CAMERA) increased their scores. Twenty-three students obtained their Food Handler Certificates. Of the 22 students who requested paid work placements, 20 completed placements and two were pending. Four months post-program, ten participants were employed, nine were in training, and six were registered with Employment Services (PTP, n.d.).

Women-only Automotive Service Technician Pre-Apprenticeship Program (Ontario)

A community college in Ontario delivered a one-year, women-only Automotive Service Technician (AST) pre-apprenticeship program. This program was developed to address the gender gap in skilled trades and to alleviate the labour shortages in this sector. The program included 12 weeks of academic upgrading (English, mathematics, computer literacy, self-awareness, communication, assertiveness training, finances, and personal safety), 12 weeks of AST Theory, and a 12-week work placement. It also included trained, gender-aware instructors, trainers, and job coaches, coaching and mentorship, and a network of employers who recruit women apprentices. The 17 participants were aged 21 to 48 with a mean age of 29. All of the participants had at least high school education, with 41 percent having also completed college.

Fourteen out of 17 students completed the course. Thirteen students completed a Workplace Self-efficacy Survey at the start and end of the program to measure their perceived confidence in key competencies for workplace success. The mean scores increased from 77.3 to 89.2 out of 100 (Maher & Attack, 2011).

In interviews, all students reported positive experiences and most students appreciated the women-only aspect of the program. Students appreciated the support of the program coordinator and faculty throughout the program. One student mentioned that she realized how much growth potential women have in the automotive industry, and that the program “uncloud[ed] those myths about what this industry is like” (Maher & Attack, 2011, p. 35). While students enjoyed the ‘safe’ environment, the majority recommended that a co-ed component be introduced to prepare them for the workplace. Other suggestions included more lab practice time, more time to develop job search skills, monitoring of work placements to ensure they provide a worthwhile experience, and a component to prepare students for physically challenging work. While most students reported positive experience during the work placements, some students experienced challenges including derogatory comments from customers, issues with male coworkers, and minimal hands-on experience.

Public/Private Ventures Sectoral Employment Impact Study (United States)

The Sectoral Employment Impact Study aimed to determine whether sector-focused programs resulted in earnings and employment improvements for low-income, disadvantaged workers and job seekers. The first program provider was The Wisconsin Regional Training Partnership (WRTP), an association of employers and unions that provided a pre-employment training program in the construction, manufacturing and healthcare sectors. The second was the Jewish Vocational Service-Boston, a community-based organization that provided a training program in medical billing and accounting. The last provider was Per Scholas, a social venture in New York that offered a computer technician training program.

Although the three programs were different, they shared some commonalities. In two of the programs, employers of the targeted sectors were actively involved through committees and provided advice on the programs. The New York site did not have an employer committee, but the other activities of the social venture allowed staff to create relationships with employers and identify their needs. The three programs had an initial interview with participants to determine their career goals and participation challenges. Required reading levels ranged from sixth-to-tenth grade. The three programs provided certifications upon completion of the program. Lastly, all programs provided additional supports including job placements and postemployment retention services. Two projects provided additional supports to tackle participation barriers including childcare and transportation assistance. The programs in Wisconsin and New York had specific essential skills components.

A total of 1,286 individuals were recruited by the study across the three-sites in a two-year period. Half of the participants were randomly selected to participate in the program while the other half did not receive services by the providers. Most participants had been in an out of the labour market in the year prior to the study and about 40 per cent had received public assistance at some point.

An evaluation compared employment outcomes of program participants and control group individuals – those who were randomly chosen to not receive services by the three organizations. Overall, the evaluation found that the sector-specific trainings across the three sites resulted in significant increases in earnings, probability of working, probability of working in jobs with higher wages, and probability of working in jobs that offered benefits. Positive impacts on earnings were found for all demographic subgroups (Maguire, Freely, Clymer, Conway & Schwartz, 2010).

LESSONS LEARNED FROM NON-LES INTERVENTIONS

This section highlights findings from articles that were recommended for inclusion in this report to provide broader lessons for implementing programs for displaced workers. The sources referenced in this section are not necessarily LES-focused or based on a specific intervention for displaced workers, but still provide lessons that are applicable to LES interventions for displaced workers.

A U.S. study of displaced workers' participation in community college found that course content impacted future earnings. The study analysed administrative data for displaced workers between 1990 and 1994, of which 16 per cent had earned at least one community college credit by 1996. They found that students who had completed more quantitative coursework such as mathematics, science, technical trades, technical professions and health had higher earnings gains compared to students who studied humanities and social sciences, and vocational courses in less technical fields (Jones, 2011).

A recent publication based on interviews with 19 key informants working in the LES sector from the 1980s to the present day highlights the importance of starting “from the needs of learners, their experiences and the contexts in which they live” (Shohet & Coutant, 2019, p. 32). Key informants also emphasize the need for programs to be inclusive of learners with the greatest needs rather than only targeting learners at higher skills levels. Interventions should also be culturally safe and respectful of the language of the learners, including Indigenous, Francophone, and immigrant learners. The report also suggests that programs developed and delivered through partnerships with government, employers, and unions are the most effective in addressing basic skills needs.

Similarly, a report by the NWT Literacy Council (n.d.) outlines recommendations to facilitate learner success including: implementing prior learning assessment and recognition in adult education to start learners off from a position of strength; applying a holistic, “whole person” approach to learners' goals and barriers; and embedding learning in practical and real-world contexts, which is especially important for learners with higher skills needs. The report focuses on Indigenous learners in the NWT, but its findings can also benefit LES programs as a whole by making them more inclusive.

Although not focused specifically on LES interventions, an International Labour Organization (ILO) guide to worker displacement underlines the value of a coordinated community response that brings together employers, employment services, and workers' representatives to conduct a

community needs assessment and to deliver a rapid response, comprehensive worker assistance program. According to the Guide, worker assistance programs should take a holistic approach to supporting workers' needs, and include individual assessments and social and emotional support in addition to job search support, financial planning, and referrals to training (Hansen, 2009).

The ILO also completed a number of case studies of interventions for displaced workers. Below are some of the relevant findings from three of these studies:

- **Australia: Prioritizing community and personal well-being** – This intervention involved a network of agencies (both private and government-funded) that provided employment services on behalf of the Australian Government. The case study found that contractual incentives pushed the agencies towards getting job seekers employed in the short term rather than providing them with the training and skills necessary to meet local employers' needs. The review found that outcomes may have been improved if funding was provided for training to help workers find employment in other industries in South Australia. The review also found that the establishment of an education and skills task force could have helped to identify skills needs and shortages in the region. Finally, the case study found that there is a need for continued mentoring and financial counselling to support workers through their transition (International Labour Organization, 2013).
- **China: Training responses to industrial closures** – This case study emphasized that interventions must adopt a critical approach to retraining and recognise that unless training programs are carefully designed and targeted, there are no guarantees that impacts will be positive. The report noted the importance of job counselling and guidance with job search, good labour market information and action planning through the mediation of public employment services. Other lessons identified in this case study include: (1) training should focus on local labour demand by including employers in training course planning; and, (2) programs should be carefully targeted at groups that are most likely to yield a positive net benefit (International Labour Organization, 2013).
- **Egypt: The labour pool approach in the textile industry** – This intervention was unique as it provided a holistic package to workers, and in particular, extended training vouchers to family members. Approximately 50 per cent of the workers applied for the training vouchers, 40 per cent actually used them, including two-thirds by family members. Further, approximately 60 per cent of all the courses taken were attended by children of the workers. Another success factor for this intervention was that, although 70 per cent of the workers were illiterate, compulsory training courses (with strong emphasis on visual communications) when the workers were still employed was successful. (International Labour Organization, 2013)

The What Works Centre for Local Economic Growth conducted a review of evaluations of displaced worker interventions in order to develop considerations for designing such interventions. This review found that younger workers may benefit from interventions more than older workers, particularly given that younger workers are more likely to stay longer in the workforce. This ties into the research discussed earlier on the challenges of re-training long-tenured workers. However, it also raises questions about how best to support older workers. One study suggested that shorter courses (less than one year) have larger effects for more experienced workers and longer courses (more than a year) are better suited to less experienced workers. Evidence also suggests that technical courses provide larger benefits than non-technical courses.

It was also found that a targeted approach to training, based specifically on the individual characteristics of those receiving support, may be more beneficial. Finally, the research found that greater funding on individual case management leads to higher re-employment rates. This is a similar finding to other studies that recommend a holistic approach to case management that includes services such as counseling, and that extend beyond the worker to the family and community (What Works Centre for Local Economic Growth, 2020).

An article titled, “Clearer Sightlines to Employment” explores the needs and solutions for Ontario’s job-seekers with low educational attainment. This report argues that there is a disconnect between the policies and mandates of employment services that try to quickly get workers re-employed, and the adult literacy and essential skills interventions that focus more on a multi-year plan for the student. It is felt that in order to increase client persistence in literacy and basic skills delivery, there needs to be a stronger focus on immediate re-employment and a chance at a career.

The report argues for a hybrid approach to workforce development that integrates Essential Skills with job-specific skills with the aim of securing more immediate employment. In Ontario, this means broadening the perspective of adult literacy, whereby essential skills training is embedded into skills training. The report sites evidence from a number of U.S.-based programs where this approach has been successful such as SkillWorks (Boston), Integrated Basic Education and Skills Training [I-BEST] (Washington State) and FastTRAC (Minnesota). There are a number of key features across these type of hybrid programs:

1. Blend work-specific technology skills with basic skills.
2. Make sure participants get what matters most— technology skills and an industry-supported credential.
3. Target occupations and industries that are projected to be in high demand locally.

4. Work with employers to purposefully design programs and provide wrap-around supports pertaining to the needs of those without a high school diploma.
5. Develop career ladders based on industry sectors.
6. Use data to measure participant labour market success and to determine ways of strengthening program design. (Essential Skills Ontario, 2012)

Recognizing the need to respond to the quickly growing numbers of unemployed workers in Hamilton, in 2009 the United Way of Burlington and Greater Hamilton, the Ministry of Training, Colleges, and Universities, and the Social Planning and Research Council of Hamilton partnered to create the Hamilton Jobs Action Centre. Key findings from interviews with clients from the Centre found that obtaining official certification of skills gained through work experience was viewed as important for gaining employment. Further, respondents who participated in diverse training felt that it qualified them for a wider range of jobs and would help them find work. Respondents also generally felt that the qualifications earned through the program either helped them secure their current job or that the qualifications would help them secure work in the future.

Further, a focus group with service providers that supported the Centre found that workshops offered through the program were valuable due to their short-term nature and specific skills focus. Service providers also felt that training needs to be targeted to workers' employment goals. However, some service providers felt that funding for training could be distributed to established employment service providers. Interviews also found that peer helpers offered valuable emotional support after job loss. Finally, service providers felt that much of what employment counsellors do is motivating and helping clients through personal issues. Therefore, peer support is not the only way to support workers through emotional challenges (Klassen & Fraser, 2011).

PROMISING PRACTICES

The following factors are identified in the literature as promising practices for successful interventions for displaced workers and/or workers with LES gaps:

- **Participant assessment** – An initial assessment is necessary to ensure the program is appropriate to meet participants' needs and to redirect participants to other programming if necessary. Ongoing assessment also allows service providers to adjust programming and services as necessary. Exit assessment supports program evaluation and should inform follow-up activities.
- **Clearly defined goals** – Clearly defined and realistic goals increase participants' confidence in the program outcomes. In addition, a focused job search can positively impact employment.
- **Program design that is focused on individual participants** – This includes addressing barriers faced by specific demographic groups within the program's target populations and including program activities that will meet the unique needs and goals of participants.
- **Identify and meet the local labour market needs** – Stakeholder engagement and partnerships with industry and community organizations can inform programming and ensure it meets local employer needs. Using learning materials and activities that reflect the kinds of tasks that workers need to carry out is also important. A focus on employability skills can facilitate the transition from learner to worker.
- **Build professional credentials and career ladders** – The potential to gain a certification at the end of the program further supports participants' employment and enhances their motivation, focus, and commitment.
- **Work placements** – Provide work placements to connect participants with employers and allow them to apply their learning in a workplace environment.
- **Financial assistance** – Provide financial compensation and support to ensure completion and participant commitment.
- **Provide peer-to-peer support** – Peer-to-peer support and mentoring allows participants to improve their communication skills and motivates participants.

- **Connect and integrate LES and Employment Services** – Bringing together staff from both sectors for joint planning to provide enhanced support for participants and integrate services whenever possible.
- **Holistic approach, such as providing support to clients' family members.** Offering support to clients' family members, through training, counseling or other services, can be an effective way of strengthening the clients' broader social network.

MEDIA SCAN AND LITERACY OUTREACH COORDINATORS SURVEY

In order to support the identification of appropriate regions for focus groups with displaced workers and service providers, SRDC undertook an online search of news media and reports to compile a list of events that indicate significant worker displacement. The scan excludes displacement events in industries where workers are likely to already have high LES and digital skills, such as ICT (see Appendix B for the media scan).

Forty-five displacement events were identified in news articles from May to July 2019, some of which were planned to occur in the coming months. The media scan revealed particular regions in B.C. experiencing more frequent displacement events. Eight events occurred in Cariboo and Fraser-Fort George, seven occurred in Bulkley-Nechako and six occurred in Peace River. Eight communities experienced over 100 layoffs: 100 Mile House, Fort St. James, Fort St. John, Mackenzie, Quesnel, Vavenby, 70 Mile House were all impacted by forestry related job losses, while the Mount Polley mine closure has displaced hundreds of workers.

The majority of events (91 per cent) were related to the forestry industry. This finding may be due to the fact that mill closures and curtailments are easier to report on and quantify compared to other types of events. There were also three events in tourism, two of which were due to fishing restrictions. One event occurred in the mining industry. The majority of articles did not specify the number of workers that would be displaced as a result of the events. After combining all the articles that specified exact numbers or estimated layoffs, a conservative estimate is that these events produced over 1600 displaced workers.

Decoda Literacy Solutions also gathered feedback from their Literacy Outreach Coordinators (LOCs) through a survey. The events that LOCs identified overlapped with the media scan to a degree, but also described long-term impacts from events that happened years earlier (see Appendix C for the LOC identified events). Some regions that experienced greater levels of displacement according to the data from the survey were East Kootenay, Central Kootenay, and Bulkley-Nechako. Common displacement events included closures of mills and mines, fishing restrictions, forest fires, and the decline of the oil and gas industry.

The below map superimposes the ten project teams that Decoda identified and the locations of displacement events captured in the media scan (see Appendix D for Decoda project teams). Communities impacted by LOC-identified displacement events were also included in the map.

Map Legend







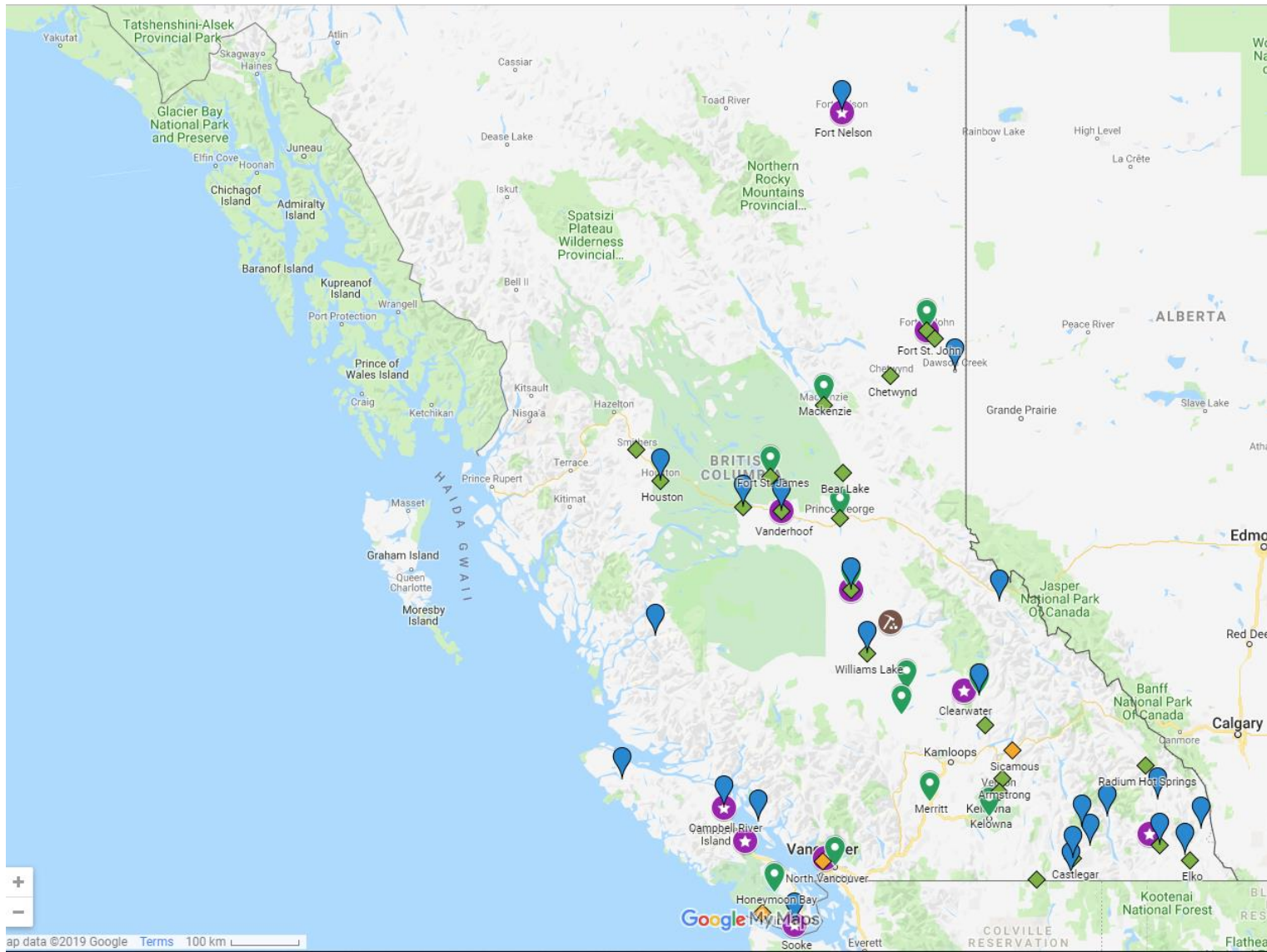
-  Project teams
-  Forestry sector events with confirmed layoffs
-  Temporary closures and curtailments in the forestry sector (no confirmed layoffs)
-  Tourism sector displacement events
-  Mining sector displacement events
-  LOC-identified event

Figure 1 Map of Project Teams and Displacement Events



CONSIDERATIONS FOR COMMUNITY SELECTION

As guided by the literature review and media scan, the following were some of the key considerations for selecting communities to participate in the project. They may also be considered in the selection of sites for beta tests.

- **Timeframe of the displacement event.** It will be important to be consistent, or at least consider, the timing of the displacement events. Workers who are currently unemployed due to events that occurred a number of years ago will have different characteristics than workers who more recently lost their jobs. For example, workers who have recently lost their jobs would include individuals with a broad range of employability skills. On the other hand, in terms of events that occurred many years ago, many of the more employable workers may have already found jobs resulting in a more challenging group of unemployed workers that would be involved in the project.
- **Number of Industries.** The greater the diversity of industries involved in the project, the more the project will be able to extrapolate the research results to a wider range of situations. For example, if the project mainly used examples from the forestry industry, the results would mainly be applicable to the forestry industry. On the other hand, if the project involved a number of different industries, the research would be able to make stronger generalizations across a greater number of sectors of the economy.
- **Number of workers displaced.** Similarly to the number of industries, it will be important to include events that involve a range in the number of workers displaced. This will again allow for greater generalization to a range of displacement events.
- **Worker characteristics.** As mentioned throughout the literature review, certain groups of displaced workers experience more challenging re-employment outcomes. When choosing communities to be involved in the project it will be important to understand the demographics of the displaced workers. The project will need to determine the desired demographic makeup of the project, including how much focus should be placed on vulnerable groups such as Indigenous groups, women, older workers, new immigrants, etc.
- **Number and type of support systems already available in the community.** Another key element will be to understand what support systems are already available in the communities. Communities with different levels of support systems are impacted differently by a displacement event.

- **Regional diversity.** It will be important to be as regionally diverse as possible to ensure that regional variations are taken into consideration.
- **Project partner strengths.** In addition to the above points, it is also important to consider project partner strengths. For example, a consideration in determining which communities participate in the project could be whether communities or regions already have a Decoda Project Team or a strong support network for displaced workers in place. Strong community ties are critical to project success.

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APPENDIX A: LES PROGRAMMING

Program	Country	Region	Target Population	Program Description	Eligibility Criteria	LES Component	Digital Literacy Component	Additional Training/Support	Outcomes
Canadian Targeted Initiative for Older Workers	Canada	National	Older workers between 55 and 65 years old in small communities with high unemployment	<ul style="list-style-type: none"> Customised interventions to meet needs of participants and local labour market needs At least 25 hours of programming a week 		Yes (basic skills upgrading can be one of 2 required employability improvement activities)	Not a requirement	<ul style="list-style-type: none"> Other employability activities including: Direct marketing to employers, Employer-based and community based work experience 	<ul style="list-style-type: none"> Participants more likely to find employment. No difference in earnings between participants and non-participants.
Training for Work Program – Integrated Training	Canada	Alberta	<ul style="list-style-type: none"> Unemployed and marginally employed adults Recipients of EI and other income supports Under-represented groups 	<ul style="list-style-type: none"> Funding provided to service providers Offers participant a unique blend of trainings 		Yes		<ul style="list-style-type: none"> Occupation-related skills Employability, applied academic and ESL training Work placements 	
Training for Work-Workplace Training	Canada	Alberta	<ul style="list-style-type: none"> Unemployed and marginally employed individuals 	<ul style="list-style-type: none"> Participants can choose between On-the-Job training or a Paid Work Experience Employers hire and train individuals on-the-job 	18 years or older and experiencing barriers to obtaining and maintaining employment. Completion of Employability Assessment	Yes		<ul style="list-style-type: none"> Supplemental training provided by an independent school or organization 	

Program	Country	Region	Target Population	Program Description	Eligibility Criteria	LES Component	Digital Literacy Component	Additional Training/Support	Outcomes
Foundations Workplace Skills Program (FWSP)	Canada	British Columbia, Ontario and Newfoundland	Unemployed workers, including displaced workers	<ul style="list-style-type: none"> Three-year initiative led by Douglas College Develops general skills for labour market attachment Program model divided into two components: Portfolio Development and Skills Enhancement Skills enhancement was customised to address gaps at individual level and was occupation focused 		Yes		<ul style="list-style-type: none"> Initial and post essential skills assessment Connection of skills to occupations and career planning 	<ul style="list-style-type: none"> Higher hourly wages among employed participants and reduced over-qualification rates Increased job satisfaction Largest employment impacts on university graduates, most of whom were immigrants
Fort St. James TIOW Project	Canada	British Columbia	Unemployed individuals of which a high proportion were displaced workers and individuals of First Peoples ancestry	<ul style="list-style-type: none"> Employers and community stakeholders highly involved to make sure program meets needs of local labour market 14 week schedule, 25 hours a week 		Yes	Yes	<ul style="list-style-type: none"> Weekly training allowance Employment related training Specific information regarding pipeline work and other occupation-specific skills training Peer-to-peer mentoring and support 	<ul style="list-style-type: none"> 93% of participants completed the program More than half of completers found employment Increased sense of belonging
Workplace Essential Skills Program	Canada	New Brunswick	Adults who are employed or seeking employment	<ul style="list-style-type: none"> Free courses with learning activities focused on individual's current or desired job 		Yes	Yes	<ul style="list-style-type: none"> Work placement 	
One Journey Initiative	Canada	Nova Scotia	Unemployed or underemployed individuals	<ul style="list-style-type: none"> Partnership between provincial government, industry and community Initiatives address identified skill shortages in specific industries Employers agree to employ participants 	Must have barrier to employment and have a Return to Work Action Plan	Yes			<ul style="list-style-type: none"> 90% employee retention in hard-to-fill jobs

Program	Country	Region	Target Population	Program Description	Eligibility Criteria	LES Component	Digital Literacy Component	Additional Training/Support	Outcomes
Ready to Work Program	Canada	Saskatchewan	Unemployed or underemployed individuals	<ul style="list-style-type: none"> ▪ Focused on helping individuals find and retain employment or return to school ▪ Occupation specific training with focus on food and beverage and accommodation industries 		Yes		<ul style="list-style-type: none"> ▪ Workplace essentials ▪ Life management 	
Adult Basic Education-Essential Skills for the Workplace	Canada	Saskatchewan		<ul style="list-style-type: none"> ▪ Delivered by post-secondary institutions in partnership with First Nations/Metis organizations, community organizations, and employers 		Yes	Yes	<ul style="list-style-type: none"> ▪ Comprehensive intake assessment to assess academic and career goals ▪ Workplace component 	<ul style="list-style-type: none"> ▪ 66% completion rate ▪ 91% aboriginal participation ▪ 27% employment rate
Second Career	Canada	Ontario	Displaced workers	<ul style="list-style-type: none"> ▪ Financial assistance for skills training ▪ Individuals expected to also contribute to costs 	Been laid off and either not working or working in temporary job	Yes			<ul style="list-style-type: none"> ▪ A year after completion, 80% of clients found employment , 73% in areas related to their skills training program ▪ 95% said the training helped them with future employment
Pre-Culinary Training Program	Canada	Ontario	Adults with barriers to learning and employment	<ul style="list-style-type: none"> ▪ LES development, pre-culinary skills development and training for food handler certificate, employability skills development ▪ 12 weeks 	Interest in gaining employment in food services and desire to learn reading, writing and math skills	Yes		<ul style="list-style-type: none"> ▪ 1:1 counselling support, 2-week paid placement, ongoing job search support 	<ul style="list-style-type: none"> ▪ 27 out of 33 completed the program ▪ 16 out of 26 students increased their ES scores ▪ 23 out of 27 obtained food handler certificates ▪ 20 out of 27 completed paid work placements, 2 pending 4 months post-program ▪ 10 participants employed 4 months post-program, 9 in training, 6 registered in employment services

Program	Country	Region	Target Population	Program Description	Eligibility Criteria	LES Component	Digital Literacy Component	Additional Training/Support	Outcomes
Women-only Automotive Service Technician Program	Canada	Ontario	Women	<ul style="list-style-type: none"> Academic upgrading, lectures and labs, and work placement for automotive service technician training 1 year (including work placement) 	Women-only, but other eligibility criteria unclear	Yes – academic upgrading (English, math, team skills, communication)	Yes – computer literacy	<ul style="list-style-type: none"> Coaching and mentoring Work placement (12 weeks) 	<ul style="list-style-type: none"> 14 of 17 completed the program Workplace self-efficacy score increased from 77.3 to 89.9 post-course
Literacy and Basic Skills Program	Canada	Ontario		<ul style="list-style-type: none"> 1-1 tutoring, structured courses, unstructured classes, or independent learning in six competencies: finding and using information, communicating ideas and information, understanding and using numbers, using digital technology, managing learning, and engaging with others In-person and/or online 4 cultural service streams: Anglophone, Francophone, Aboriginal, Deaf Most learners study for 8 months, range is less than one week to 3.5 years 		Yes	Yes		<ul style="list-style-type: none"> 85% of learners reported that their skills improved 83% of learners reported that the training prepared them to take the next steps towards their goals Employment rate increased from 40% to 58% within one year of exiting program (for learners in apprenticeship goal path, increased from 38% to 70%) Enrolment rate in school increased from 6% to 18% by the end of training
SalesCamp	Canada	Ontario		<ul style="list-style-type: none"> Convenes industry consortiums and identifies core skills needs Training includes industry leaders and industry relevant projects Participants receive apprenticeship-style job placements 	Have at least 5 years of work experience and have recently lost their job, or are under-employed relative to their education/abilities, or in precarious employment; have strong communication skills			<ul style="list-style-type: none"> Coaching and mentoring Work placement (12 weeks) 	

Program	Country	Region	Target Population	Program Description	Eligibility Criteria	LES Component	Digital Literacy Component	Additional Training/Support	Outcomes
Dislocated Worker Program	United States	National	Displaced workers, including self-employed experiencing unemployment due to economic conditions	<ul style="list-style-type: none"> Provides funding to “one-stop” career centres with and for state-wide initiatives Funds career and training services 		Yes, provided concurrently or in combination with other services			<ul style="list-style-type: none"> Limited evidence of positive impacts of training services (including essential skills training) on earnings for displaced workers
I-BEST	US	Washington	Adults who lack high school level skills	<ul style="list-style-type: none"> Offers certificates in healthcare, manufacturing, repairs and maintenance, transportation, and general STEM diploma 6-8 month duration 	<ul style="list-style-type: none"> Low-intermediate reading and math skills based on CASAS assessment 	Yes (reading and math)	No	<ul style="list-style-type: none"> Financial support for tuition and course materials, dedicated advisor, placements and internships for some programs 	<ul style="list-style-type: none"> Random assignment: higher enrolment and completion in academic and training courses, higher perceived career progress compared to control group
Biowork	US	North Carolina	Adults interested in working in biomanufacturing	<ul style="list-style-type: none"> 128 hour course with 9 modules 	<ul style="list-style-type: none"> 18 years of age or older High school completion or GED (not applicable at some colleges) Demonstrate at least Grade 9/10 reading and mathematics proficiency 	Yes (remedial language and math support programs)		<ul style="list-style-type: none"> Job search training 	<ul style="list-style-type: none"> Employers are using this new pathway to fill entry level positions and the biopharmaceutical workforce has become more educationally diverse as Bioworks provided a pathway for inclusion for candidates with fewer educational credentials However, mid-career displaced workers with manufacturing backgrounds faced more barriers to re-employment compared to their peers One college reported that employment outcomes were still better for those with higher educational attainment (30% of graduates were employed within one year who did not hold higher degrees, compared to 90% if they held an associate’s degree)

Program	Country	Region	Target Population	Program Description	Eligibility Criteria	LES Component	Digital Literacy Component	Additional Training/Support	Outcomes
Wisconsin Regional Training Partnership	US	Wisconsin	Disadvantaged workers	<ul style="list-style-type: none"> ▪ Focused on manufacturing, construction and healthcare ▪ Varied training length from 2 to 8 weeks ▪ Provided certifications for nursing assistants, medical assistants and construction 	<ul style="list-style-type: none"> ▪ Initial interview to identify goals and participation barriers ▪ Required sixth to tenth grade reading level 	Yes, essential skills		<ul style="list-style-type: none"> ▪ Case management ▪ Childcare and transportation for some participants ▪ Job placement ▪ Postemployment retention ▪ Remedial education as needed ▪ Assistance to get a driver's license 	<p>Randomized Control Trial: relative to the control group, program participants</p> <ul style="list-style-type: none"> ▪ had higher earnings with most gains happening in second year ▪ were most likely to work and worked more consistently in the second year ▪ were more likely to work in jobs with higher wages, and; ▪ were more likely to work in jobs that offered benefits <p>Individualized services to support training completion and success on the job were critical</p>
Jewish Vocational Service-Boston (JVS-Boston)	US	Boston	Disadvantaged workers	<ul style="list-style-type: none"> ▪ Training programs in medical billing and accounting ▪ 20 to 22 weeks training, 25 hours per week 	<ul style="list-style-type: none"> ▪ High school diploma or GED ▪ 6-8 grade reading and/or math 	Yes, ESL and basic skills tutoring as needed		<ul style="list-style-type: none"> ▪ Job readiness training ▪ Case management ▪ Childcare and transportation ▪ Job placement 	
Per Scholas	US	New York	Disadvantaged workers	<ul style="list-style-type: none"> ▪ Focused on the information technology sector ▪ Training 15 weeks, 500 hours ▪ Employers involved in advising of curriculum, mock interviews, and participate in job fairs 	<ul style="list-style-type: none"> ▪ High school diploma or GED ▪ Tenth-grade level (both reading and math) ▪ Interview to determine career goal and participation barriers 	Yes		<ul style="list-style-type: none"> ▪ Career mentoring ▪ Counselling ▪ Job Placement ▪ Postemployment retention services ▪ Assistance with work attire ▪ Employability workshops 	

APPENDIX B: MEDIA SCAN OF REGIONS EXPERIENCING WORKER DISPLACEMENT

Regional district	Community	Number of displaced workers	Date of displacement	Sector	Event	Source
Bulkley-Nechako	Fort St. James		August 2019	Forestry	Curtailment (2 weeks)	https://www.terracestandard.com/news/sinclair-group-announces-temporary-curtailment-for-sawmills/
Bulkley-Nechako	Fort St. James	226	Jul-19	Forestry	Sale of sawmill	https://www.cbc.ca/news/canada/british-columbia/fort-st-james-financial-crisis-sawmill-closure-1.5215996
Bulkley-Nechako	Fraser Lake		Jun-19	Forestry	Curtailment (1 week)	https://www.westfraser.com/investors/news/news-releases/west-fraser-announces-temporary-production-curtailments-british-columbia-2
Bulkley-Nechako	Houston		June-July 2019	Forestry	Curtailment (4 weeks)	https://www.canfor.com/docs/default-source/news-2019/nr20190610_canfor-june-2019-bc-curtailments.pdf?sfvrsn=6a89ee91_2
Bulkley-Nechako	Smithers		Jun-19	Forestry	Curtailment (1 week)	https://www.westfraser.com/investors/news/news-releases/west-fraser-announces-temporary-production-curtailments-british-columbia-2
Bulkley-Nechako	Vanderhoof		June-July 2019	Forestry	Curtailment (4 weeks)	https://www.canfor.com/docs/default-source/news-2019/nr20190610_canfor-june-2019-bc-curtailments.pdf?sfvrsn=6a89ee91_2
Bulkley-Nechako	Vanderhoof		August 2019	Forestry	Curtailment (2 weeks)	https://www.terracestandard.com/news/sinclair-group-announces-temporary-curtailment-for-sawmills/
Capital	Port Renfrew		Jun-19	Tourism	Fishing restrictions	https://www.sooke.newsmirror.com/news/fish-closure-in-port-renfrew-has-endangered-more-than-40-per-cent-of-businesses/
Cariboo	100 Mile House	34	Jun-19	Forestry	Shift elimination (mountain pine beetle epidemic, wildfires, price decline in lumber, and high saw log costs)	https://www.woodbusiness.ca/west-fraser-to-close-chasm-mill-reduce-shifts-at-100-mile-house-mill/

Regional district	Community	Number of displaced workers	Date of displacement	Sector	Event	Source
Cariboo	100 Mile House	160	Aug-19	Forestry	Indefinite curtailment (mountain pine beetle epidemic, wildfires, wood supply shortage and high wood prices)	https://www.vicnews.com/news/norbords-100-mile-location-announces-indefinite-curtailment/
Cariboo	70 Mile House	176	Jun-19	Forestry	Closure	https://www.woodbusiness.ca/west-fraser-to-close-chasm-mill-reduce-shifts-at-100-mile-house-mill/
Cariboo	Mount Polley	100s	May-19	Mining	Operations suspended (declining copper prices)	https://www.cbc.ca/news/canada/british-columbia/mount-polley-suspended-1.4969241
Cariboo	Quesnel	150	Aug-19	Forestry	Closure	https://www.cbc.ca/news/canada/british-columbia/toko-sawmill-closed-1.5132438
Cariboo	Quesnel		Jun-19	Forestry	Curtailment (1 week)	https://www.westfraser.com/investors/news/news-releases/west-fraser-announces-temporary-production-curtailments-british-columbia-2
Cariboo	Williams Lake		May-June 2019	Forestry	Temporary closure (4 weeks)	https://infotel.ca/newsitem/tolko-extending-temporary-closure-of-armstrong-sawmill/it62802
Cariboo	Williams Lake		Jun-19	Forestry	Curtailment (1 week)	https://www.westfraser.com/investors/news/news-releases/west-fraser-announces-temporary-production-curtailments-british-columbia-2
Central Kootenay	Castlegar		Jun-19	Forestry	Reduced operating days due to falling wood products prices	https://www.saobserver.net/business/b-c-lumber-layoffs-aim-to-stop-falling-wood-products-prices/
Central Okanagan	Kelowna	90	Jul-19	Forestry	Layoffs	https://www.cbc.ca/news/canada/british-columbia/toko-sawmill-closed-1.5132438

Regional district	Community	Number of displaced workers	Date of displacement	Sector	Event	Source
Columbia-Shuswap	Sicamous	51	Jun-19	Tourism	Receivership	https://www.saobserver.net/news/fifty-one-out-of-work-as-sicamous-waterway-houseboats-shuts-down/
Cowichan Valley	Honeymoon Bay		Jun-19	Forestry	Layoffs	https://tealjones.com/teal-jones-curtails-2nd-growth-harvesting-on-vancouver-island/
East Kootenay	Cranbrook		June-July 2019	Forestry	Curtaiment (2 weeks)	https://www.canfor.com/docs/default-source/news-2019/nr20190610_canfor-june-2019-bc-curtailments.pdf?sfvrsn=6a89ee91_2
East Kootenay	Elko		June-July 2019	Forestry	Curtaiment (2 weeks)	https://www.canfor.com/docs/default-source/news-2019/nr20190610_canfor-june-2019-bc-curtailments.pdf?sfvrsn=6a89ee91_2
East Kootenay	Radium Hot Springs		June-July 2019	Forestry	Curtaiment (2 weeks)	https://www.canfor.com/docs/default-source/news-2019/nr20190610_canfor-june-2019-bc-curtailments.pdf?sfvrsn=6a89ee91_2
Fraser-Fort George	Bear Lake		June-July 2019	Forestry	Curtaiment (3 weeks)	https://www.cbc.ca/news/canada/british-columbia/mackenzie-lumber-town-mill-closures-canfor-conifex-parallel-55-400-unemployed-1.5230547
Fraser-Fort George	Mackenzie	200	Jul-19	Forestry	Indefinite closure (high cost of fibre, poor lumber markets, challenging operating conditions)	https://www.mybulkleylakesnow.com/37022/hundreds-out-of-work-canfor-announces-the-immediate-closure-of-its-mackenzie-sawmill/
Fraser-Fort George	Mackenzie		July 2019	Forestry	Curtaiment (2 weeks)	http://www.conifex.com/main/wp-content/uploads/2019/07/NR.Mackenzie-Sawmill-Curtaiment.July-2019.pdf
Fraser-Fort George	Mackenzie	40	July 2019	Forestry	Indefinite curtailment	https://www.cbc.ca/news/canada/british-columbia/mackenzie-lumber-town-mill-closures-canfor-conifex-parallel-55-400-unemployed-1.5230547

Regional district	Community	Number of displaced workers	Date of displacement	Sector	Event	Source
Fraser-Fort George	Prince George	50-55	June-July 2019	Forestry	Shift elimination (insufficient timber supply due to mountain pine beetle epidemic)	https://www.mybulkleylakesnow.com/37016/isle-pierre-sawmill-to-shutdown-50-jobs-to-be-lost/
Fraser-Fort George	Prince George		June-July 2019	Forestry	Curtailment (2 weeks)	https://www.cbc.ca/news/canada/british-columbia/mackenzie-lumber-town-mill-closures-canfor-conifex-parallel-55-400-unemployed-1.5230547
Fraser-Fort George	Prince George		July-August 2019	Forestry	Curtailment 4 weeks)	https://www.cbc.ca/news/canada/british-columbia/mackenzie-lumber-town-mill-closures-canfor-conifex-parallel-55-400-unemployed-1.5230547
Fraser-Fort George	Prince George		August 2019	Forestry	Curtailment (2 weeks)	https://www.terracestandard.com/news/sinclair-group-announces-temporary-curtailment-for-sawmills/
Kootenay Boundary	Grand Forks		Jun-19	Forestry	Reduced operating days due to falling wood products prices	https://www.saobserver.net/business/b-c-lumber-layoffs-aim-to-stop-falling-wood-products-prices/
Metro Vancouver	Surrey		Jun-19	Forestry	Layoffs	https://tealjones.com/teal-jones-curtails-2nd-growth-harvesting-on-vancouver-island/
Metro Vancouver	Vancouver		Jul-19	Tourism	Fishing restrictions	https://www.vancourier.com/news/recreational-fisheries-closure-having-devastating-effect-on-vancouver-businesses-1.23883706
North Okanagan	Armstrong		May-June 2019	Forestry	Temporary closure (4 weeks)	https://infotel.ca/newsitem/tolko-extending-temporary-closure-of-armstrong-sawmill/it62802
North Okanagan	Vernon		May-June 2019	Forestry	Curtailment (2 weeks)	https://globalnews.ca/news/5312575/tolko-industries-announces-downtime-for-two-of-its-b-c-lumber-mills/
Peace River	Fort St. John	190	Aug-19	Forestry	Indefinite shutdown (declining housing starts, high wood costs)	https://www.princegeorgecitizen.com/news/local-news/closure-looms-for-fort-st-john-osb-plant-1.23855210

Regional district	Community	Number of displaced workers	Date of displacement	Sector	Event	Source
Peace River	Fort St. John		June-August 2019	Forestry	Curtailment (9 days)	https://www.cbc.ca/news/canada/british-columbia/mackenzie-lumber-town-mill-closures-canfor-conifex-parallel-55-400-unemployed-1.5230547
Peace River	Chetwynd		June-July 2019	Forestry	Curtailment (2 weeks)	https://www.canfor.com/docs/default-source/news-2019/nr20190610_canfor-june-2019-bc-curtailments.pdf?sfvrsn=6a89ee91_2
Peace River	Chetwynd		Jun-19	Forestry	Curtailment (1 week)	https://www.westfraser.com/investors/news/news-releases/west-fraser-announces-temporary-production-curtailments-british-columbia-2
Peace River	Fort St. John		June-July 2019	Forestry	Curtailment (2 weeks)	https://www.canfor.com/docs/default-source/news-2019/nr20190610_canfor-june-2019-bc-curtailments.pdf?sfvrsn=6a89ee91_2
Peace River	Taylor		June-September 2019	Forestry	Curtailment (10 weeks)	https://www.princegeorgematters.com/local-news/production-cuts-at-canfors-taylor-pulp-mill-extended-1610864?utm_source=kamloopsmatters.com&utm_campaign=kamloopsmatters.com&utm_medium=referral
Thompson-Nicola	Vavenby	172	Jul-19	Forestry	Closure	https://www.bclocalnews.com/news/update-172-job-layoffs-as-canfor-announces-closure-of-vavenby-mill/
Thompson-Nicola	Meritt	50	Jun-19	Forestry	Layoffs	https://www.merrittherald.com/mill-workers-facing-layoffs-as-shifts-reduced-at-aspen-planers/
Thompson-Nicola	Adams Lake		Jun-19	Forestry	Reduced operating days due to falling wood products prices	https://www.saobserver.net/business/b-c-lumber-layoffs-aim-to-stop-falling-wood-products-prices/

APPENDIX C: LOC-IDENTIFIED EVENTS

Regional district	Community	Number of displaced workers	Date of displacement	Sector	Event
Bulkley-Nechako	Fraser Lake			Multiple: Forestry and mining	Closures and forest fires
Bulkley-Nechako	Houston		2015 and 2017	Multiple: Forestry and Mining	Two mill closures and one mine closure
Bulkley-Nechako	Vanderhoof			Multiple: Forestry and mining	Mill shutdowns and mine closure
Capital	Sooke		April 2019	Tourism	Chinook fishery shutdown
Cariboo	Quesnel		2019	Forestry	Mill closures and curtailments, forest fires impacting tourism
Cariboo	Williams Lake			Forestry and mining	Reduced production at mine and one week curtailment at mill
Central Coast	Bella Coola			Multiple: Construction and tourism	Temporary projects completed, cancellation of ferry service and wildfires resulted in decline of tourism
Central Kootenay	Castlegar			Forestry	Curtailments
Central Kootenay	Kaslo			Tourism	Decline due to forest fires
Central Kootenay	Nelson	27+	2018 and 2019	Manufacturing	Layoffs
East Kootenay	Canal Flats	170	November 2015	Forestry	Mill closure
East Kootenay	Cranbrook		2018 and 2019	Forestry and tourism	Galloway mill closure, wildfires have led to tourism decline
East Kootenay	Galloway	36	May 2019	Forestry	Layoffs

Regional district	Community	Number of displaced workers	Date of displacement	Sector	Event
East Kootenay	Sparwood	450	2016	Manufacturing	Closure of facility
Fraser-Fort George	Valemount			Multiple: forestry and tourism	Mill closure, forest fires impacting tourism
Kootenay Boundary	(shown as Trail on the map)		2018 and 2019	Forestry and general	Flood caused closures of businesses and forestry mill shutdowns
Mount Waddington	Port Alice	400	2015	Forestry	Mill closure
Northern Rockies	Fort Nelson		2008 and 2014	Multiple: Forestry and oil and gas	Two mill closures and decline or oil and gas
qathet	Powell River			Forestry	Layoffs
Strathcona	Campbell River		2019	Multiple: forestry, tourism, construction	Major construction projects ending, forestry industry slowing down, fishing regulations impacting tourism
Thompson-Nicola	Vavenby	172		Forestry	Mill closure
Peace River	Dawson Creek			Oil and gas	Oil and gas downturn
West Kootenay	Slocan		2015-2019	Multiple: Manufacturing, tourism, oil and gas, marijuana	Legalization of marijuana displaces workers cultivating marijuana illegally, plant closure, tourism decline due to wildfires, decline of oil and gas industry in Alberta

APPENDIX D: DECODA PROJECT TEAMS

Regional district	Community	Organization
Kootenay	Kimberley	Columbia Basin Alliance for Literacy
Metro Vancouver	DTES, North Vancouver, Sea-to-Sky	Capilano University
Capital	Sooke	Edward Milne Community School Society
Strathcona	Campbell River	Campbell River Literacy Association
Thompson-Nicola	Clearwater	Yellowhead Community Services
Mount Waddington	Denman Island/Port McNeill	Mount Waddington Family Literacy Society
Cariboo	Quesnel	Literacy Quesnel Society
Bulkey-Nechako	Vanderhoof	School District 91 – Nechako Lakes
Peace River	Fort St. John	Fort St. John Literacy Society
Northern Rockies	Fort Nelson	Fort Nelson Community Literacy Society

OTTAWA

55 Murray Street, Suite 400
Ottawa, Ontario
K1N 5M3

VANCOUVER

789 West Pender Street, Suite 440
Vancouver, British Columbia
V6C 1H2

CALGARY

MONTREAL

4126 Saint-Denis Street, Suite 302
Montreal, Quebec
H2W 2M5