Social Finance Pilots on Essential Skills Training

Final Report

MARCH 2019

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SRDC is grateful for the support received from staff members of the Office of Literacy and Essential Skills at Employment and Social development Canada. We would also like to acknowledge the excellent collaboration we experienced with the two organizations leading the projects: Colleges and Institutes Canada (CICan) and the Alberta Workforce Essential Skills Society (AWES).

Executive summary

The federal Office of Literacy and Essential Skills contracted SRDC in 2014 to conduct independent evaluations of two pilot projects in Essential Skills (ES) training for low-skilled Canadians. Both feature pay-for-success funding approaches, whereby private investors pay up front for training and are repaid by the government if the training is successful in achieving pre-established outcomes. The pilots represent the first time in Canada these innovative funding approaches have been applied to ES training. They are part of a wider Government of Canada movement towards experimenting with social innovation and social finance approaches for improving the effectiveness and efficiency of government funding programs.

Both pilots share the attributes of having pay-for-success funding models with literacy skill gains as the payment metric, and private (non-government) investors. A closer examination reveals that beyond that, the two models are distinctly different. The first is a true Social Impact Bond: led by Colleges and Institutes Canada, *Essential Skills Social Finance (ESSF)* offered ES training to low-skilled unemployed Canadians, through three College delivery partners. Private investors paid up front for the training, and were eligible for a return on investment of up to 15% if the training was successful in increasing participants' literacy skills.

The second project is *Skilling UP*, led by Alberta Workforce Essential Skills Society (AWES). In this workplace-based training intervention, employers were eligible to receive up to 50% of their upfront investment in training for their workers, if targeted literacy gains were achieved. Since employers in general are primarily motivated by financial benefits associated with a more highly-skilled workforce, and not by the prospect of achieving social or environmental benefits per se, we consider this model not to be aligned so much with social finance, but more akin to a conditional government subsidy for training.

When the projects started in 2014, Social Impact Bonds were a relatively new phenomenon. Logic models portraying the theory of change of these innovative funding models were not found in the literature. In addition to developing logic models for the training interventions, SRDC devised logic models for both funding approaches, i.e., the Social Impact Bond (*ESSF*), and the pay-for-success variant featured in *Skilling UP*. SRDC's evaluation framework is underpinned by these logic models. The evaluations of both pilots focus on outcomes and implementation analysis, in addition to evaluating the proof of concept of the two funding models themselves.

Proponents of both pilots proposed, and OLES agreed, that the pay-for-success metric would be a 25-point score gain on a standard literacy test. Specific parameters and data collection methods were not specified at the proposal stage. To establish a benchmark upon which a graduated repayment formula could be derived, SRDC analyzed historical program data from similar ES training models. From this, we conducted probability analyses and prepared risk-reward scenarios to support proponents and OLES in finalizing the reimbursement grid. SRDC field tested a number of standard literacy assessments, and consulted with proponents to select the Test of Workplace Essential Skills (TOWES) document use literacy assessment, administered in paper format.

The weighted post-training literacy assessments for the *ESSF* showed median document literacy gains of 19 points, with 41% achieving a 25-point gain. One tier below benchmark, this result nonetheless resulted in a 96% repayment of capital investment to the three investors. Results of twelve-month follow-up assessments were in the same tier, earning investors another 1% of training investment for a total repayment of 97% of their initial investment. Given the investors were not primarily motivated by returns on their investments in this case – but more on the alignment of the program with their philanthropic interests – they were satisfied and even pleased to recover 97% of their invested capital they could then invest in another cause.

For *Skilling UP*, reimbursement of training costs was offered to each employer separately, based on the gains achieved by their own workers. The weighted median document literacy gains ranged at the three participating firms from 8 to 39 points at the end of training, and from 13 to 24 points at the time of twelve-month follow-up. Workers at two sites – THK and Chapman's – demonstrated benchmark or higher gains, for which the employers received 48% and 46.5% repayment respectively of a maximum 50% of training costs. At Cosmetica, although document use skill gains were one tier below benchmark, they were still eligible to receive reimbursement of 30% of training costs. It is interesting to note that despite having a lower level of reimbursement, Cosmetica felt the training was highly positive, noting improvements in their employees' skills and productivity; on this basis, they expanded the training to supervisors in addition to enrolling a second cohort of *Skilling UP* training for line workers.

Baseline surveys indicated that participants in both pilot projects were motivated to take part in the training, and felt it would improve their chances of getting a good job (*ESSF*) or of increasing their productivity (*Skilling UP*). Questions measuring psychosocial variables – behaviours and attitudes usually associated with positive outcomes in the labour market – were asked on the baseline and on post-training surveys, to gauge outcomes of the training. Participants in the *ESSF* reported a number of positive findings including increased confidence in their job search abilities, and use of their literacy skills. Surveys of the *Skilling UP* workers did not yield statistical evidence of increases in these attitudes and behaviours.

Part of SRDC's role in the pilots was to examine investor motivation when making investment decisions. To better understand the positioning of SIBs or other impact investments vis-a-vis traditional investment for financial return, SRDC interviewed 20 impact and financial sector investors including the *ESSF* investors. The findings indicate that even with growing interest among asset holders, the pool of potential investors ready to consider social impact investment projects remains relatively small. There are a number of barriers to growing the sector: lack of awareness about SIBs and other social impact investments, uncertainty about their risk, and institutional restrictions on investment types, among others. To grow the social impact investing market, there will be a need to address barriers at the individual, organizational and systems level.

Through the development and implementation of the two pilots, contextualized by current literature and pay-for-success/SIB projects, much has been learned about these funding models. First and foremost, the pilot projects demonstrated proof of concept for pay-for-success approaches to Essential Skills training in Canada. Second, while pay-for-success approaches in general hold promises for better outcomes and efficiency, the two projects have shown that successful

implementation can be complex. In particular the two pilots have shown what others have experienced in conducting similar pilots elsewhere:

- Best practices for pay-for-success approaches include having more than one success metric, payment triggers that are transparent, relevant and readily measurable;
- Pay-for-success promotes accountability, but adds reporting burden to service providers, and can have negative effects on participants;
- Variability in program implementation can create unpredictable results;
- Whether engaging employers in a pay-for-success model, or reaching out to private investors for a SIB, attracting investment and negotiating payment terms for these models can be challenging. Applying SIBs to the delivery of programs with demonstrated success is important for attracting investor participation;
- SIBs are complex and bear higher transactional costs; because of this they are best suited when certain conditions are met: large sample size, based on programs with demonstrated success, rigorous data collection and implementation monitoring; and
- In the absence of an experimental evaluation design, the effectiveness of SIBs compared to traditional funding models has not yet been established.

Pay-for-success schemes have been in operation in various forms for many years, but over the past decade there has been renewed interest in them, along with a surge of interest in social impact bonds in particular. The two pilots add to the collective knowledge base about these innovative approaches. As long as governments remain interested in innovating with program delivery and funding, more investment in testing is needed. The lessons learned from the *ESSF* and *Skilling UP* pilots should guide and help calibrate the next wave of pilots.

1. Introduction

In January 2014, the federal Office of Literacy and Essential Skills contracted SRDC to conduct independent evaluations of two Essential Skills (ES) training pilot projects. For the first time in Canada, an alternative approach to funding ES training was tested, whereby private investors paid up front for training lower-skilled Canadians, and were repaid by the government if training was successful in achieving pre-established outcomes. The pilot projects were part of a wider Government of Canada movement towards experimenting with social innovation and social finance approaches for improving the effectiveness and efficiency of government funding programs.

The pilot project led by Colleges and Institutes Canada (CICan), *Essential Skills Social Finance (ESSF),* provided ES training to unemployed lower-skilled Canadians through *Foundations*, an established ES training program developed by Douglas College. The *ESSF* pilot program is structured as a Social Impact Bond, or SIB, in which CICan acted as an intermediary organization between private investors and the government, who agreed to reimburse the value of the private investment plus a financial return, for successful training.

The Alberta Workforce Essential Skills Society (AWES) led a second pilot project, *Skilling UP*, in which private sector employers paid up front for ES training for their lower-skilled workers, and were reimbursed 50% of costs for the achievement of target outcomes. With evidence that workplace ES training for lower-skilled workers can produce skill gains and improved job performance,[1] employers were motivated to participate at least in part by expected returns to their corporate bottom line. While it can also be characterized as a type of 'pay-for-success' model,[2] *Skilling UP* does not possess the characteristics of a Social Impact Bond, as described below.

In both cases, ESDC was interested to learn about the effectiveness of the models, and the responses of private investors and employers. As the evaluation partner contributing to this 'proof of concept', SRDC was also tasked with being the independent validator of outcomes triggering repayment, and with evaluating the effectiveness of the training programs themselves. Initial evaluation plans proposed experimental designs in order to conduct analyses of program *impacts*, and calculation of the returns on investment of each approach. However, as a result of early discussions among project partners on the design of the models and recruitment challenges, it was recognized that the sample sizes and delivery models would not support this type of design. SRDC adapted the evaluation framework accordingly, focusing on analysis of outcomes and implementation.

1 See *UPSKILL: A Credible Test of Workplace Literacy and Essential Skills Training*. Accessed at http://www.srdc.org/media/199770/upskill-final-results-es-en.pdf.

2 The terms "pay for success", "pay for performance", "performance-based funding" and "payment by results" are used variably throughout the literature and in describing operating models. In some uses they are clearly defined; in some cases distinct from one another while in others synonymous or with overlap. For the purposes of this report we use the term "pay for success" to broadly describe any model in which there is pre-set outcome(s) upon which repayment of up front investment is made.

This final project report builds on a December 2017 interim report[3] and other earlier reports including:

- Analyses of skill gains from previous implementations of *Foundations*, and other workplace essential skills programs that led to the development of benchmarks for the pilot projects' reimbursement tables and process;
- Risk-reward analyses for developing reimbursement tables for both projects;
- Report on field testing of literacy assessments;
- Review of social finance literature, to contextualize the pilot projects;
- Development of a theory of change and detailed logic models for both training interventions, as well as their funding approaches;
- Report on consultations with finance industry experts to explore investor perceptions of, and interest in, social impact investing; and
- Extended analysis of *ESSF* training outcomes to explore potential reasons for skill gains being lower than benchmark levels.

Parts of the interim report are reproduced here, with updates and/or minor revision. Following the introduction, Section 2 presents an overview of the two pilots. The evaluation framework – including logic models, data sources, methods, and analysis – is found in Section 3, followed by SRDC project development and implementation activities in Section 4. Section 5 presents some of the evaluation findings including training outcomes and impacts as measured by participant literacy assessments, surveys, and qualitative data collection including interviews, focus groups and class observations. An analysis of SRDC's interviews with investors is found in Section 6, followed by Section 7 presenting "Lessons learned".

The data collection instruments and detailed analysis tables for both pilot projects are included in a separate volume of appendices, along with related SRDC research memos or documents.

Background

The two ES training pilot projects are particularly timely and relevant considering the growing interest in social innovation and social finance both domestically and globally. Governments the world over are searching for new approaches to solving multigenerational, complex and intractable social problems. Pressures on public budgets are driving policymakers and practitioners to improve the cost-effectiveness of social programs (MDRC, 2017). The appeal of catalyzing new sources of funding to complement or to amplify existing government funding for social programs is clear: that is the promise of social finance.

The Prime Minister of Canada has mandated the Minister of Employment, Workforce and Labour and the Minister of Families, Children and Social Development to develop a National Social Innovation and Social Finance strategy. On June 8, 2017, the two Ministers announced the creation of a Steering Group, made up of a broad range of non-government experts, to co-create this Strategy. In 2018, the Steering Group released recommendations for inclusive innovation that

[3] Social Finance pilot projects: Interim report (SRDC, 2017).

included anchoring a commitment to social innovation and social finance through enabling legislation, regulatory practices, and funding practices; and the pursuit of experimental evaluation in the field (ESDC, 2018).

As well, two parliamentary committees have undertaken studies to explore the potential of social finance[4] and many provincial and territorial governments are experimenting with social finance.[5] As interest and activities in social finance grow, there will be a clear need for empirically driven research into the performance of social finance projects and the social finance ecosystem. In 2018, the Social Innovation and Social Finance Strategy Co-Creation Steering Group recommended the creation of a Social Finance Fund to "*accelerate the development of social finance ecosystems across Canada*" and "*demonstrate the viability of social finance*".[6] Shortly thereafter, the government proposed the creation of such a Fund, with $755 million available over the next 10 years, and an additional $50 million over two years in an Investment and Readiness stream to prepare organizations to participate in social finance.[7]

Defining "social finance"

Despite the rapid expansion of experimentation with social finance tools and schemes domestically and internationally, there is no one universally accepted definition of the term. Social finance remains an umbrella term that encompasses different types of private sector investments made with the expectation of a financial return combined with the achievement of positive social or environmental outcomes.

ESDC defines social finance as:

> "*an approach to mobilizing private capital that delivers a social dividend and an economic return to achieve social and environmental goals. Mobilizing private capital for social good creates opportunities for investors to finance projects that benefit society and for community organizations to access new sources of funds.*"[8]

Social Impact Bonds

Social Impact Bonds (SIBs) are a relatively recent innovation in the social finance sector. A form of pay-for-success model, SIBs have attracted much attention from policy makers, social service providers, civil society advocates, union representatives and scholars in recent years. SIBs are a

4 The two parliamentary committees are The Standing Committee on Public Safety and National Security as well as the Standing Committee on Human Resources, Skills and Social Development and the Status for Persons with Disabilities.

5 For example, the Government of Saskatchewan commissioned two SIBs, one launched in 2014 and the other in 2016; the Government of British Columbia and the Government of Alberta have had discussions about SIBs; and the Government of Manitoba is launching a SIB in 2019.

6 See Inclusive innovation: New ideas and new partnerships for stronger communities.

7 See Investing in Middle Class Jobs.

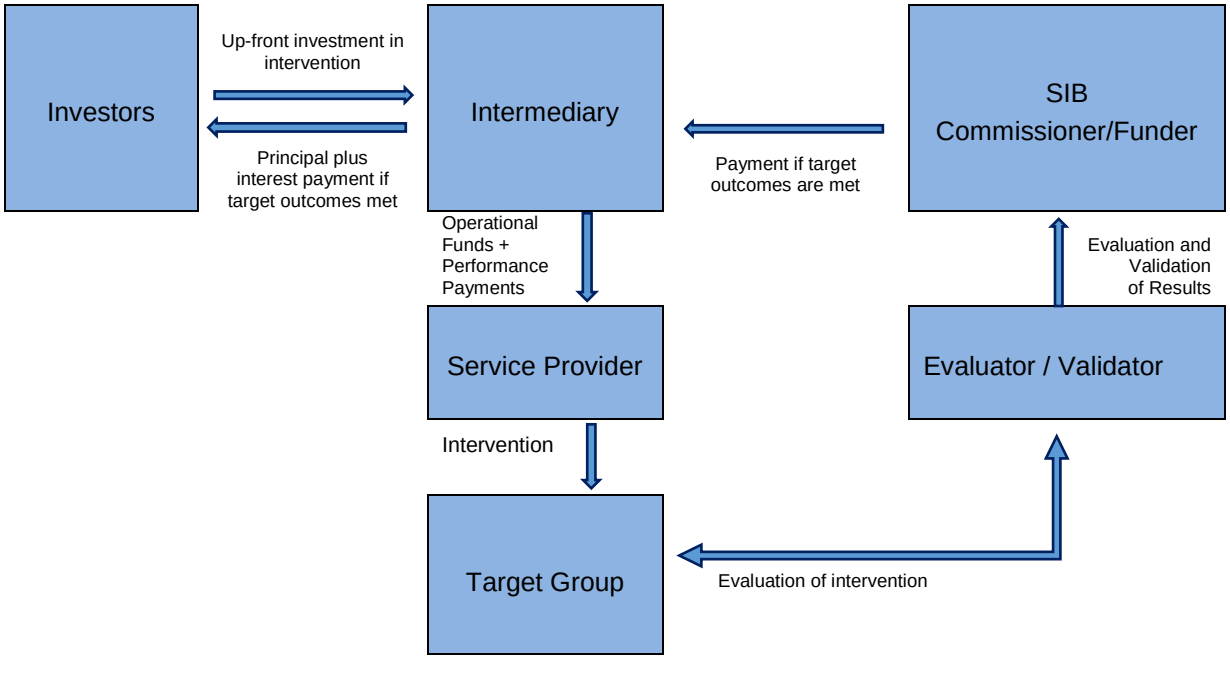
8 Retrieved from the ESDC website: https://www.canada.ca/en/employment-social-development/programs/social-finance.html.

social finance instrument where investors intentionally deploy capital for the purpose of providing a solution in the form of a social intervention to a social problem. The primary focus for the investor is the social issue, but there is an expectation that the investment will produce a financial return as well, if success outcomes are achieved. In Canada, the federal government and several provincial governments are exploring the use of SIBs, and view them as one of a range of social finance tools and approaches.[9]

In the SIB model, a SIB commissioner, most often a government department or agency, offers an "intermediary" a contract for the delivery of a social intervention. The intervention is expected to produce a cost savings for the government department or agency. The intermediary leverages the contract to raise capital from private investors who provide operational funds, and possibly performance payments, to a social service provider for the delivery of the intervention. The government pays back the investors their principal plus a return on investment if predetermined performance targets are met. An independent validator is responsible for helping track data and measure the success outcome(s), and in some models helps structure the SIB. The intermediary coordinates the multiple stakeholders and partners. Some SIB projects include a separate evaluator who measures a broader set of project outcomes, not only those associated with success payments.

The model varies among projects, but there are common characteristics that cut across all SIBs. A conceptual model of the contractual agreements within a SIB is offered in Figure 1.1 below.

Figure 1.1 SIB conceptual model



[9] See the ESDC website at: https://www.canada.ca/en/employment-social-development/programs/social-finance.html.

Some SIBs are structured with a form of guarantee or risk mitigation mechanism to draw interest from mainstream investors: capital provided by the senior lender is "backstopped". For example, the first SIB implemented in the United States, the Rikers Island SIB, included a US $7.2 million guarantee by The Bloomberg Foundation for the Goldman Sachs' investment of US $9.6 million.[10] In some SIB projects, the primary source of investment comes from impact investment funds created with seed capital from a national government. For example, Bridges Ventures, now Bridges Fund Management Ltd., and Big Society Capital are the primary investors in a number of the UK based SIBs. Bridges Ventures was founded in 2002 with the help of £10 million from the UK government.[11] The UK was also responsible for creating Big Society Capital, an independent social investment institution in 2012, using £400 million from unclaimed cash left dormant in bank accounts.[12]

Advocates argue that SIBs offer a new source of mission funds for social service providers and foster collaboration and innovation in the delivery of social services. The model shifts the risk of funding social programs that may not achieve their intended outcomes from the public sector to the private sector. As well, the model is said to offer governments the opportunity and resources to fund preventative social interventions instead of governments doing business as usual and funding remedial programs once a problem has become too large to ignore. For example, the Sweet Dreams SIB in Saskatchewan provides accommodation and support services to at-risk single mothers and their children. The objective is to keep mothers and children together and prevent the children from entering the foster care system, thereby limiting government spending on providing such services.

The innovation in SIBs occurs at the program delivery level. Social service providers are given more freedom in executing program delivery because the reporting requirements are different from the ''check the box'' approach of traditional government funding programs. By focussing on outcomes, the SIB model gives the social service providers room to modify program delivery as long as they meet the predetermined outcomes.

SIBs are not bonds in the traditional sense. SIBs do have a defined time horizon with a return on investment. However, investors are risking all of their capital if the project does not meet pre-determined outcomes – with the exception of SIBs that incorporate some form of guarantee. In general, SIB investors do take on significant financial risk, and for this reason, SIBs may be viewed by mainstream investors as akin to venture capital investments or pure philanthropy. Investor perceptions are discussed in more detail in Section 6.

SIBs are complex undertakings due to the number of project partners involved, their scale and time horizon. Contracts among the multiple stakeholders provide the project structure. It is important that these contracts align the interests of all stakeholders and that consensus is reached prior to the project launch. Much of this responsibility falls on the intermediary.

10 See MDRC's Key Partners in NYC's Social Impact Bond.

11 See Why Bridges? Overview.

12 See Inclusive innovation: New ideas and new partnerships for stronger communities.

Measuring the social impact of SIB projects

Rigorous measurement of social outcomes is the cornerstone of the SIB model since it determines the effectiveness of the intervention and if payments are to be made to investors. Similar to an audit role, an independent validator assesses the level of achieved outcome(s) and reports to the SIB commissioner to determine if investors are to be repaid, as indicated by results.

In addition to measurement and validation of success outcomes, some SIB models require an independent evaluator to measure the impact of the intervention. Evaluators can fulfill other important roles in SIBs. They can provide strategic advice on the design and implementation of the project; they can also have responsibility to perform developmental or implementation evaluation to learn about the effectiveness of the service delivery mechanisms, and provide ongoing feedback to service providers. Cost-benefit analyses can be done for a more comprehensive picture of overall project success. In some SIBs a single organization is responsible for both the validator and evaluator roles.

SIB effectiveness and credibility are enhanced by the use of evaluation methods and tools held in high regard by the evaluation community. Randomized Control Trials (RCTs) offer the most rigorous method for determining what would have happened in the absence of an intervention, and results from these studies can fully attribute the impact of an intervention to the intervention. The Urban Institute (2016) presents the following reasons for integrating a RCT design in a SIB model: RCTs offer stakeholders a high degree of confidence in the results; SIB projects deliver greater transparency – and with the attention SIBs are attracting by media and the public, clarity of results is important. The Harvard Government Performance Lab is also an advocate for the integration of an RCT design in SIB projects, and about half of the first 16 SIBs in the United States included an RCT design (Urban Institute, 2016).

However, there are challenges associated with RCTs. It is not always feasible to assign participants to a control group that is not entitled to the services being provided. As well, minimum sample sizes have to be reached to obtain statistically reliable results. In such circumstances, SIB projects may utilize other evaluation methods such as quasi-experimental designs including regression discontinuity designs, or propensity score matching. Others simply use historical data for comparison with SIB outcomes, relying on pre-post measurement of the SIB participants' outcomes to indicate success.

Regardless of the evaluation method, the design, implementation and evaluation of a SIB should include a theory of change to encourage continuous adaptation of the design and operation of the project (Jackson, 2013). Milner and Eldridge (2016) add that SIB projects require a strong theory of change buoyed by evidence of effectiveness of the social intervention. If SIBs are to generate the innovation they are proposed to achieve, integrating a theory of change in the planning stages of the project is a necessary component of project success.

A discussion of SIB risks (including programmatic, implementation, evaluation, regulatory/policy, partnership), measuring the impact of SIBs, and the distinction between social finance and social impact investing were presented in Section 1 of the interim report.

2. Projects overview

The first section of this report introduced social finance as an umbrella term for private investments made with the expectation of social or environmental benefit in addition to financial returns. The two Essential Skills pilots were conceptualized as social finance projects; however, only the *ESSF* meets this definition. The *Skilling UP* model is a pay-for-success model in which the investors – in this case employers – are motivated by potential returns to their business bottom line in addition to positive outcomes for individual participants.

This section introduces the two project models, the partners involved and their roles, and the evaluation methods.

CICan *Essential Skills Social Finance* (*ESSF*) project

The *ESSF* pilot project tested the use of a Social Impact Bond to fund ES training for unemployed or underemployed lower-skilled adult Canadians. The training program was based on the *Foundations Workplace Skills Program*, developed by Douglas College. *Foundations* has been shown to be effective at increasing participants' essential skills levels and other outcomes associated with positive employment outcomes.[13] For *ESSF*, three private investors supplied the capital to fund program delivery and were to receive back their principal plus a financial return, paid for by the Government of Canada, if pre-determined essential skill gains were achieved.

Partners and roles

Figure 2.1 depicts the relationships among the partners in the *ESSF* project. The role of each partner is described below.

1. Funder:[14] The Office of Literacy and Essential Skills (OLES)

The Office of Literacy and Essential Skills at Employment and Social Development Canada funded *ESSF* operations and research, and reimbursed private investors according to a graduated schedule based on participant skill gains.

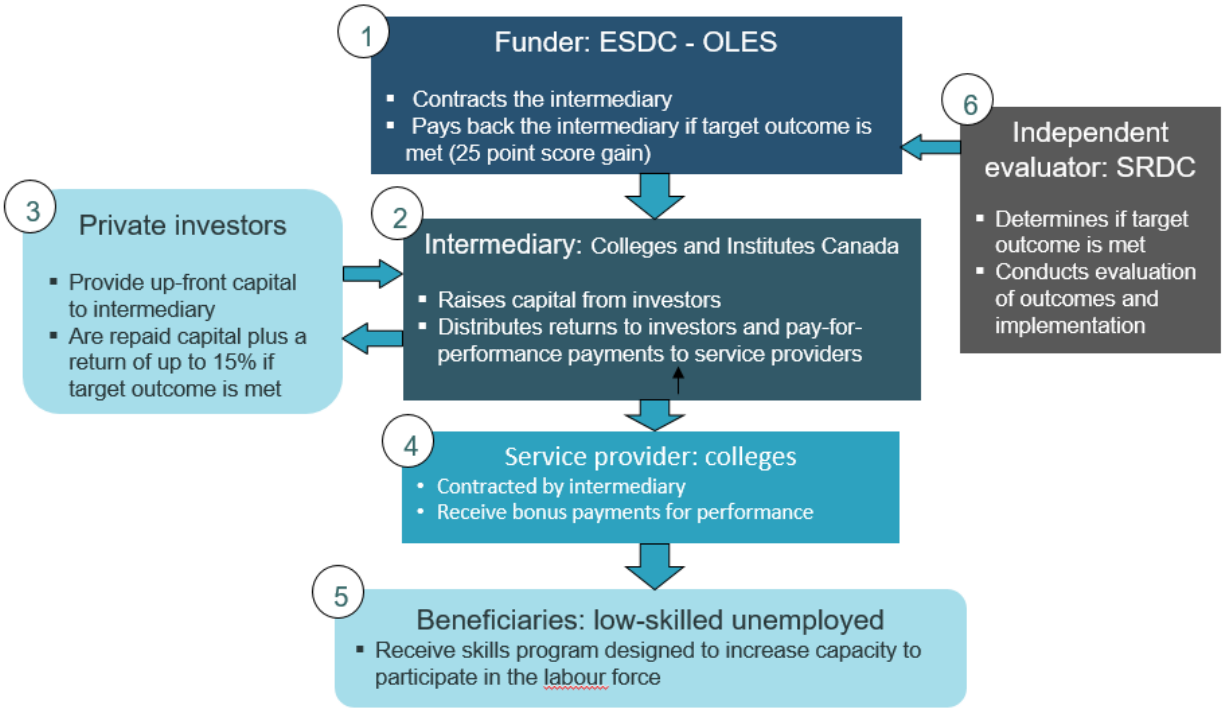
2. Intermediary: Colleges and Institutes Canada (CICan)

Colleges and Institutes Canada (CICan), known at the time of project start-up as the Association of Canadian Community Colleges, was the project lead and the intermediary for the *ESSF* SIB. Funded by ESDC, their responsibility in the pilot project was to test whether the pay for success based model supported by a Social Impact Bond funding mechanism is an effective way to increase the literacy and essential skills of unemployed Canadians, and determine the market viability of the SIB instrument. This role included overseeing the development and project management of the *ESSF*

13 See Palameta, Nguyen, Hui, and Gyarmati (2016).

14 May also be referred to as "SIB Commissioner", as described in Chapter 1.

Figure 2.1 The *ESSF* Social Impact Bond (SIB) Model



pilot, delivery of the intervention, raising and holding capital from investors, distributing returns to investors and pay-for-performance bonuses to service providers, and writing a final report from the intermediary perspective.

As a subcontractor to CICan, *KPMG Corporate Finance Inc.* acted as a financial advisor on the investment and payout structure, provided advice on the legal structure to accommodate the SIB, and supported CICan in preparing investor documentation and securing investors. Borden Ladner Gervais LLP served as legal counsel to CICan and the Limited Partnership created to hold the SIB funds.

3. Private investors

A total of $250,250 in private capital for the *ESSF* pilot project was raised from three investors, covering ES training for 91 participants. The investors were diverse in terms of their organizations and investments:

- Conexus Credit Union: Based in Saskatchewan, Conexus supported *ESSF* delivery for Saskatchewan participants through their Community Investment funding.

- The Catherine Donnelly Foundation: *ESSF* corresponded to two of the four areas of focus of this Canadian private foundation – adult education, and impact investing.[15]
- Dave and Pamela Richardson and Family: individual philanthropic investors funding a Social Impact Bond for the first time.

Regardless of their motivations for investing in *ESSF*, the three investors had to be prepared to accept a return on their investment from zero to 15%. Because the number of *ESSF* participants was relatively small, it was agreed that repayment would be calculated based on score gains for the whole sample, not by individual College cohorts where smaller sample sizes would reduce the reliability of calculating median gains. Investors therefore awaited repayment until training at all sites was completed.

4. Service provider: Colleges

Douglas College (Coquitlam, BC) was the lead college service delivery partner for *ESSF*, contracted by CICan to work collaboratively with two other College partners: Confederation College in Thunder Bay (ON), and Saskatchewan Polytechnic in Regina (SK). Colleges were chosen for their demonstrated expertise in delivering ES training programs like *Foundations*, recruiting the target group, and having the ability to work within project timelines.[16] Douglas College was responsible for setting standard elements of the curriculum, training staff across sites, developing and maintaining a program management information system (PMIS) – a spreadsheet for tracking participant enrollment and participation throughout the intervention.

College partners were contracted by CICan under a combined fee-for-service and pay for performance structure. The flat fee-for-service component was $2,000 for each participant who completes the *ESSF* training and post-training assessment. Performance payments were based on skill gains: $500 for each learner achieving a 25-point skill gain on the post-training assessment, and another $250 for each one who maintains a 25-point score gain at the final assessment 12 months following.

5. Beneficiaries: Low-skilled unemployed

The *ESSF* targeted unemployed or underemployed adult Canadians with lower literacy skills, defined as below Level 3 on the International Adult Literacy Survey (IALS) scale. As Level 3 is often considered to be the minimum level required for full participation in today's labour market, those with lower skill levels will naturally be disadvantaged and are more likely to remain unemployed or become precariously employed. The IALS scale is presented in Box 1 below.

15 http://www.catherinedonnellyfoundation.org/whatwedo.html

16 A fourth College partner – Collège Lionel-Groulx – was selected to deliver *ESSF* but ultimately declined to participate as they were not able to secure continued income support for participants during training from the government of Quebec. Spaces allocated to Quebec *ESSF* participants were allocated to other sites.

Box 1 Essential Skills levels

The International Adult Literacy Survey (IALS) measures literacy and essential skills (LES) capability on a 500-point scale (Ontario Literacy Coalition, 2010). This range has also been split into five categories.

Level 1 – *Very poor literacy skills:* An individual at this level may, for example, be unable to determine from a package label the correct amount of medicine to give a child.

Level 2 – *A capacity to deal only with simple, clear material involving uncomplicated tasks:* People at this level may develop everyday coping skills, but their poor literacy skills make it hard to conquer challenges such as learning new job skills.

Level 3 – *Adequate to cope with the demands of everyday life and work in an advanced society:* This roughly denotes the skill level required for successful high school completion and college entry. Level 3 is generally considered to be the minimum required literacy level to cope in modern society.

Levels 4 and 5 – *Strong skills:* Individuals at these levels can process information of a complex and demanding nature (Canadian Council on Learning, 2015).

Foundations and similar types of ES training have been demonstrated to increase skill levels and employability, thus providing people with the opportunity to receive the *ESSF* training is considered to benefit the participants. Clients targeted for *ESSF* were anticipated to be multi-barriered: lower-skilled, lacking extensive or recent labour market experience, dependent on income assistance, having lower levels of education, caregiving and other family responsibilities, coping with illness, and other barriers.

6. Independent evaluator: Social Research and Demonstration Corporation

SRDC had two main roles in the *ESSF* pilot project:

- To act as a third-party validator of *ESSF* participant literacy skill gains, providing ESDC and CICan with validated results for reimbursement of investors according to the agreed payment schedule; and
- To evaluate the effects of the program on a broad range of employment-related participant outcomes, and the implementation of the pilot.

The *ESSF* training program

ESSF offered a blended-learning model comprised of group and individualized instruction designed to increase essential skills and engage participants. It was comprised of 144 instructional hours, typically delivered 6 hours per day, 4 days per week, for 6 weeks. Curriculum content supported

learning in five main categories: document use, writing, digital technology, reading and numeracy. Each had a set of group activities, plus guidelines and resources for individual practice, at lower and higher levels of skill. As part of the curriculum, learners developed and produced their own portfolio of documents and resources to support them in their trajectory towards stable and satisfactory employment. The portfolio is more than a CV, containing materials for individual career exploration and job search, as well.

With the encouragement of the SIB investors, CICan and Douglas decided to offer *ESSF* more 'wraparound' supports than *Foundations* had in the past. These supports were provided as needed, identified by the participants and facilitators. These included for example health and wellness supports, meals (on site), housing assistance for those precariously housed, and referrals to other community services. Douglas and the other College service providers acknowledged that inclusion of, and referrals to, these types of supports have been made *de facto* in similar programs in the past if clients are in need. The difference with *ESSF* was that because many participants were anticipated to have multiple barriers to employment, more extensive wraparound services were planned from the start.

AWES *Skilling UP*

The AWES *Skilling UP* Pilot Project engaged businesses who employ lower-skilled Canadians among their workforces, to provide essential skills training for these workers. In the *Skilling UP* model, employers paid up front for essential skills training and were reimbursed up to 50 per cent of training costs for workers achieving pre-agreed skill gains. *Skilling UP* is a pay-for-success model; it does not fit the "social finance" descriptor, since employers are motivated not by the prospect of achieving social or environmental benefits *per se*, but by accessing training that increases the productivity of their workers. This model could be viewed more as a conditional subsidy for training.

Partners and roles

The structure of the *Skilling UP* model is shown in Figure 2.2 below, followed by a description of roles.

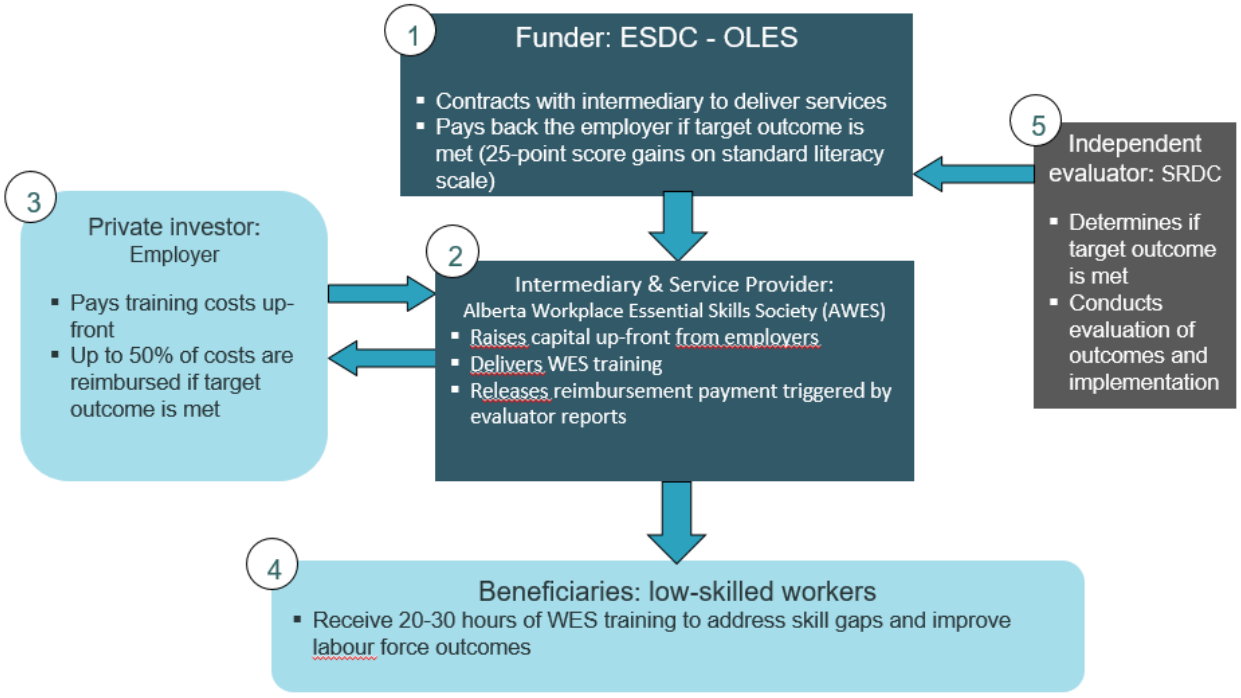
1. Funder: Office of Literacy and Essential Skills

The Office of Literacy and Essential Skills at Employment and Social Development Canada funded the *Skilling UP* project, and co-funded the training alongside participating employers according to a pre-agreed repayment schedule based on employee skill gains.

2. Intermediary and service provider: Alberta Workplace Essential Skills Society (AWES)

AWES was the contract holder with responsibility for the training implementation including conducting organizational needs assessments, developing curriculum and providing training and quality assurance. As well, they managed the cost-sharing model for the government and the participating employers. AWES engaged three partners on the *Skilling UP* project: *SkillPlan* was AWES' training partner, *DataAngel* examined the effects of training on business outcomes, and *EduData* hosted the data used to support training delivery.

Figure 2.2 The *Skilling UP* model



3. Private investor: Employers

AWES was successful in securing three employers in the manufacturing sector in Ontario to participate in *Skilling UP*:

- Chapman's Ice Cream, a frozen dessert manufacturer based in Markdale, Ontario;
- Cosmetica Laboratories, a cosmetics manufacturing plant located in Toronto, Ontario; and
- THK Rhythm Automotive Canada Ltd., an automotive parts manufacturing plant in Tillsonburg, Ontario.

Investors paid $425 per worker to AWES for providing 20-30 hours of workplace-based ES training, customized to their specific organizational needs and employee skill gaps. Repayment was made according to the agreed schedule, once training was completed at individual employer sites, unlike the *ESSF* SIB model where repayment was calculated based on the aggregate sample.

4. Beneficiaries: Low-skilled workers

Skilling UP was targeted at employees with lower literacy skills, defined as those below Level 3 on the standard International Adult Literacy Survey (IALS) scale. Most jobs in today's workplace require skills commensurate with Level 3 or higher – and this was found to be the case when AWES reviewed skill requirements for jobs in the participating employers' workplaces. Workers below

Level 3 are more likely to have difficulty reading or interpreting work documents, or communicating with coworkers, for example, resulting in higher error rates and overall lower productivity. As workplace-based ES training has been demonstrated to increase literacy skills, workers, participating in *Skilling UP* were anticipated to benefit from the training. In turn, the training should increase the work performance of individual workers and lead to overall productivity gains for participating employers.

5. Independent evaluator: SRDC

SRDC was contracted by the Government of Canada to measure literacy skills of workers and validate score gains for purposes of determining levels of reimbursement to employers. Assessments were done three times: at baseline, post-training, and 12 months following the training. SRDC was also responsible for evaluating the effects of the training on workers including workers' attitudes and behaviours towards work, wages, and performance.[17]

In addition to supplying the TOWES[18] literacy assessments, SRDC subcontracted Bow Valley College to facilitate most of the *Skilling UP* assessment sessions at *Skilling UP* sites.

Skilling UP training

As a first step in developing training customized to employer needs, AWES conducted organizational needs assessments (ONA) with the employers, including analysis of occupational needs for each of the groups targeted for training. For this process, AWES and partner staff spent up to a week at each site, talking with senior management including HR services, middle managers and supervisors, and front-line workers. In addition to interviews, AWES conducted job shadowing to experience first-hand the types of skills needed for various positions, and to observe where gaps may exist. AWES prepared a comprehensive report for each employer with the findings of the needs assessment, including specific skills requirements for various occupations/positions in their workplace, and gaps manifest in their workers' skills. The reports present recommendations and a blueprint for training that is customized to each workplace and workforce needs.

Skilling UP training was customized to each specific company's standards or processes as well as to the skill levels and gaps of employees. It achieved this by incorporating occupationally-relevant learning exercises and materials, and utilizing authentic workplace documents to increase buy-in from participants and improve their understanding of the training. Up to 30 hours of training was offered to *Skilling UP* employees, in increments that worked best for individual employers.

Employers and sites

Three Ontario manufacturing companies participated in *Skilling UP*. Table 2.3 below provides a brief description of each of them.

17 The research framework and evaluation methodology is detailed in Section 3.

18 www.TOWES.com

Table 2.3 Employer descriptions

Employer	Description
Chapman's Ice Cream	Chapman's Ice Cream is a frozen dessert manufacturer based in Markdale, Ontario. A family-run business since 1973, Chapman's employs over 300 people working on three shifts: mornings, afternoons and nights. The *Skilling UP* training targeted employees working in the position of Lead Hand; they direct other workers in production tasks, as well as completing their own production tasks, providing some quality control and reporting production data. The ONA conducted by AWES and SkillPlan identified targeted areas for training including document use, job task planning and organization (e.g., time management), and communication skills. At Chapman's, 19 hours of ES training were delivered over a concentrated five-day period. While ES training is characteristically delivered in smaller chunks of time over a longer period, it was Chapman's preference to conduct all of the training at once, during a plant shut-down.
Cosmetica Laboratories	Cosmetica Laboratories is a cosmetics manufacturing plant located in Toronto, Ontario. In recent years, Cosmetica has grown four-fold from a small family-owned business to a company led by a Board of Directors. Cosmetica's approximately 700 line workers are scheduled on three shifts: days, afternoons, and nights. Management supported ES training, noting that operating in the highly-competitive cosmetics manufacturing industry, business success requires high productivity. *Skilling UP* training was provided to Cosmetica employees working in a range of positions: Compounders feeding the production lines with product; Technical Services team ensuring lines start and run smoothly; and Quality Line Leaders who monitor quality of the product and productivity of the line. Clear communication among workers in these three areas is essential for productivity. The ONA conducted by AWES prior to training identified document use, communication skills and thinking skills as targeted areas for training that would decrease error rates, improve speed and ultimately productivity. Thirty hours of *Skilling UP* training was delivered on site at Cosmetica over a six-week period.
THK Rhythm Automotive Canada Ltd.	THK Rhythm Automotive Canada Ltd. is an automotive parts manufacturing plant in Tillsonburg, Ontario. Part of a larger international company, THK ships critical safety parts worldwide, and it is essential that these parts meet quality assurance standards. A loss of experienced staff during economic downturn in 2008-9, and the introduction of unionization for some staff three years ago, are factors contributing to THK's interest in ES training to improve productivity and employee retention. At THK, training was provided to workers in the assembly and machine operations. Targeted areas for essential skills training identified by the ONA included document use (error reduction), effective coaching skills (oral communication, team building, dealing with conflict), and thinking skills (critical thinking, decision making and problem solving). Thirty hours of *Skilling UP* training was delivered on site at THK over a 10-week period.

3. Evaluation framework

Starting with an articulation of the research questions, this section of the report presents logic models for both pilots, and the theories of change that support them. The evaluation framework then describes the data collection methods, sources, and analyses needed to respond to the research objectives.

Key research questions

Following a project kick-off meeting with the funder (OLES) and proponents of the two pilots (AWES, CICan), SRDC fleshed out the research questions contained in the initial government documents (see Appendix 1). Questions and sub-questions were tailored to each of the distinct projects where appropriate, as indicated below.

1. How effective are performance-based models supported by social finance to increase the Literacy and Essential Skills (LES) of low-skilled Canadians?
    - What are participant outcomes following the training, in terms of LES skill gains?
    - Are skill gains maintained in the longer term?
    - What is the impact of the models on LES skills? Would skill gains have been realized in the absence of the training provided in the tested model (counterfactual)?
    - What is the variation of impacts across participant subgroups?
2. What factors contribute to successful models?
    - What are the incentive effects of the reimbursement mechanism?
    - Does performance-based pay for service providers have any influence on participants' outcomes? (*ESSF*)
    - Do outcomes vary according to content and/or dosage of the intervention?
3. What are the minimum rates of return for employers to be willing to invest in this training?
    - What was the return for investors (*ESSF*)/employers (*Skilling UP*) under this model?
    - What is the willingness of participating firms to pay for the training once the project is completed? (*Skilling UP*)
4. How do employers perceive this model and what motivates them to invest in training?
    - What motivates investors (*ESSF*) or employers (*Skilling UP*) to invest in LES training?
    - Why did investors or employers choose not to invest in LES training?

In addition to these initial research questions, SRDC proposed background and contextual questions to build on the body of knowledge about ES training, and to augment lessons learned.

A. Are the proposed pilot projects a pay-for-success/Social Impact Bond model?
    - What are the defining characteristics of pay-for-success and SIB models, and do the proposed models possess these characteristics?[19]

B. How effective are the models in changing workers' overall performance at work/improving labour market outcomes?
    - What is the impact on employment and earnings?
    - What are the effects of the training on intermediary outcomes including attitudes, behaviours, well-being, and other attributes associated with labour force outcomes?
    - Are outcomes sustained over time?

C. Does a pay-for-success/SIB model yield better outcomes than the traditional model of full government support (*ESSF*)?
    - What is the theory behind the notion that a SIB model should yield superior outcomes?
    - What are the "traditional models" against which the SIB models are being compared, and how do they differ?
    - How does the ROI to participants, firms, and government compare in each model?[20]

Theory of change and the research framework

The methodology used for addressing the research questions was based on a theory of change approach. The theory of change is embodied in a program logic model that identifies the implicit assumptions for how an intervention is expected to produce a specific result and the underlying steps that would lead to it. Logic models describe logical linkages among program resources, activities, and outcomes. They clarify how the change process will unfold, and places attention on the intermediate changes that need to occur in order for long-term outcomes to be reached. As innovative projects, both the *ESSF* and *Skilling UP* funding *models* call for a conceptual logic model to demonstrate how they may be hypothesized to yield better results than traditional government funding models.

As stated in the introduction, the two pilot project have features in common. However, each project merits a unique logic model because of the differences in their target population, intervention, and partnership arrangement. The following section presents two logic models for each pilot project: the first includes outcomes of the project as a whole with a depiction of the project conceptual model describing the financial-partnership structure. The second is a more traditional logic model narrowing down to the outcomes for the intervention.

19 For response to this question, see Appendix 3: SRDC PowerPoint presentation to OLES March 2014.

20 Due to inability to utilize an experimental or quasi-experimental design for the evaluation, calculation of ROIs was not included in the analysis.

ESSF SIB project logic models

SIBs represent an alternative funding model for delivering social services. In theory, SIBs attract new sources of funding for the delivery of social programs, stimulate innovation in service delivery and increase collaboration between stakeholders from the public, non-profit and private sectors. The new financing model is argued to result in accelerated social innovation and improved performance on the delivery of social programs. Figure 3.1 presents a logic model depicting outcomes of the financial and partnership structure of the overall *ESSF* SIB project. The logic model was developed using a review of the emerging literature on SIBs. It should be read from top to bottom and includes a conceptual model of the *ESSF* SIB as well as the expected intermediate and longer-term outcomes of the overall project. The different actors appear in their respective rectangle and were assigned a specific colour.

SIB conceptual model

A conceptual model of the *ESSF* SIB is offered in the top third of the logic model presented in Figure 3.1. The SIB Commissioner (tan rectangles), Office of Literacy and Essential Skills (OLES), required a substantial due diligence process before committing to providing an outcome payment to investors which included an agreed upon interest rate. The intermediary (white rectangle), CICan, coordinated the negotiations between the government and service providers, and raised capital from private investors to provide operational funds and success payments to the service providers. The service providers (red rectangles), Douglas College, Confederation College and Saskatchewan Polytechnic provide LES training to the target group (orange rectangles). The evaluator (blue rectangle), SRDC, supported the intermediary on project design and implementation, conceived the reimbursement formula and worked with service providers on the data collection and monitoring processes. In the *ESSF* SIB, the role of evaluator and validator were combined and this role was simply referred to as the evaluator. The investors (purple rectangles), Conexus Credit Union, Catherine Donnelly Foundation and a HNWI, provided up-front capital for the training and bonus payment to service providers. Intermediate and longer term outcomes for each partner are also described in Figure 3.1.

Intermediate outcomes

The following intermediate outcomes are expected for low-skilled and unemployed individuals, service providers, investors and the government.

Low-skilled and unemployed individuals should benefit from gaining access to more innovative, effective and efficient LES training programs. In theory, SIBs foster innovation in service delivery because service providers are given more independence and flexibility in the program delivery since the reporting requirements in a SIB are different from that of traditional government funding models.

Service providers gain access to a new and stable source of funding. In theory, they are given more autonomy and flexibility in the delivery of the training being held accountable for outcomes rather than program outputs. They also receive outcome payments if certain milestones are reached,

which also increases their flexibility in delivering the training program. Service providers will acquire experience and skills in the collection and reporting of data engendering a performance management culture within the organizations. Moreover, service providers will increase their knowledge and capacity in delivering LES training.

SIB Commissioner, in this case the federal government, benefits from sharing risk of funding an intervention with the private sector. The SIB Commissioner also benefits from having entered into an agreement for launching a preventative approach to solving a social problem in place of funding a remedial program. The federal government should generate cost savings plus deliver on positive social outcomes.

Investors benefit from increased awareness of social issues and social programs. They also have the opportunity to share their knowledge and experience with social service providers. Investor involvement may contribute to instill a performance management culture within service provider organizations, from which they may draw satisfaction.

Longer-term outcomes

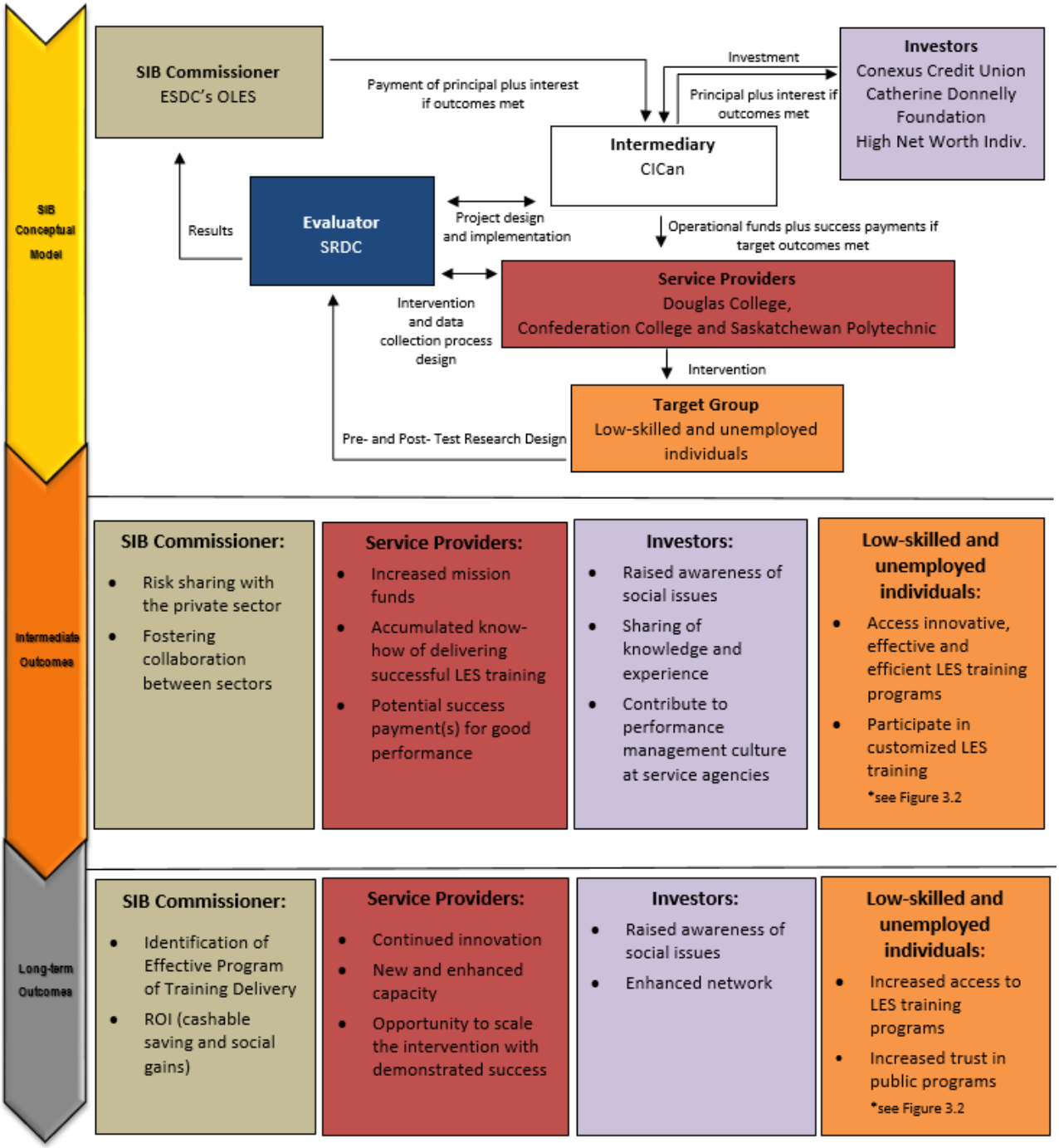
Low-skilled and unemployed individuals will gain access to more LES training programs as service providers gain access to stable and long-term funding from investors. Service providers will also be able to use newly collected evidence of their interventions' effectiveness increasing their changes of securing funding form traditional funding streams. Better outcomes for participants should also result in these individuals having more confidence and trust in public programs. An in-depth presentation of long-term outcomes for unemployed individuals participating in LES training is presented below as part of the description of the *ESSF* intervention logic model.

Service providers continue to innovate in their delivery of LES training. They also continue to acquire new knowledge and competencies in service delivery. Finally, they receive the opportunity to scale the intervention if results are achieved because of the evidence generated by the SIB model.

SIB Commissioner will benefit from collecting evidence to determine if the intervention is or is not effective upon the completion of the project. If the intervention has been demonstrated to be effective, the SIB Commissioner can make an evidence-based decision to either directly fund the successful project or chose to raise another round of investment for the intervention. The SIB Commissioner will benefit from improved training quality given that the training providers will be developing programs informed by data generated by the SIB pilot project. Over time, the SIB Commissioner will benefit from better training outcomes by funding programs that have a proven track record.

Investors continue to be exposed to social issues and programs thus raising their awareness. Investors contribute to evidence-based decision making in social policy and are given the opportunity to gain access to new networks.

Figure 3.1 SIB project logic model

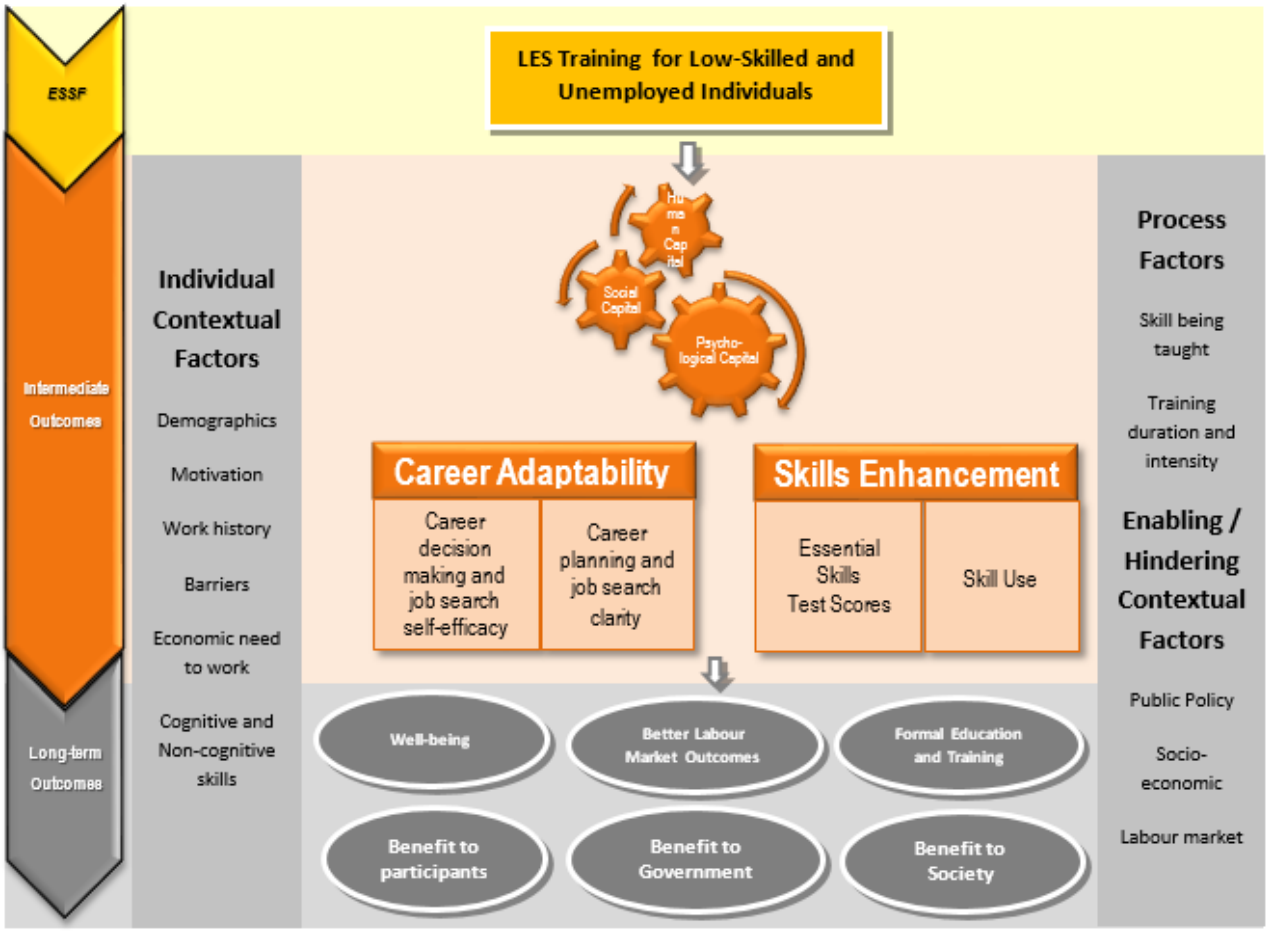


ESSF intervention logic model

A logic model based on a theory of change for the intervention is presented in Figure 3.2. The logic model demonstrates how the intervention produces desirable outcomes for low-skilled unemployed Canadians, the government (SIB Commissioner) and in turn society. The logic model was developed from a review of the adult learning literature including a model developed in New Zealand (see Folinsbee & Hayes, 2010), and models SRDC has used to guide other similar projects where LES training was implemented and assessed.

Starting with the essential skills training and the learning process at the top of the logic model and ending at the bottom with the long-term outcomes. In between are intermediate outcomes, many of which are hypothesized to influence the relationship between the LES training process and the stated outcomes. The long-term outcomes for individuals and return on investment (ROI) for governments are likely to take place beyond the relative timeline of this project, and therefore not

Figure 3.2 A logic model for estimating outcomes and returns to LES training



measured. Surrounding the model are some of the contextual factors that must be considered when capturing outcomes of adult learning. These factors may affect outcomes at each stage in the process. Some outcomes may be pervasive and of a great magnitude, while others may be less common with small magnitude, and, depending on the timing of the post-training data collection, may not be detected.

LES training process: Implementation factors

The theory of change depicted by this logic model begins with the LES training process on the right-hand side of the diagram. Included are a group of implementation factors that have been shown to affect training effectiveness. According to the literature, the following features are important characteristics of LES training activity:

Skills being taught: As some Essential Skills are likely to be more discrete and can be taught more readily than others and can therefore be more readily transferred, the skill being taught may affect the magnitude of the skills gains resulting from the training.

Training duration/intensity: How training is delivered – its duration and intensity – has a role to play. Duration refers to the amount of time spent in the training activity and intensity refers to the amount of training in a particular amount of time, e.g., hours per week or month. The greater the number of hours delivered, the greater the expected effects. Training irregularly spread out over several weeks would have a lower chance of reinforcement of skills being taught and therefore realizing lower gains from training.

Contextual factors

The relationship between literacy training and outcomes may be influenced by a host of contextual factors, at the individual level and externally. The individual contextual factors are measured at **baseline**, indicating conditions of participants at the start of the training. These variables contribute to the effectiveness of the training – i.e., whether it results in positive or negative, weak or strong outcomes. A key point is that the training intervention is only one part of a larger system leading to expected outcomes where other factors play a role in influencing learner behaviour, learner performance, and outcomes. This is an important consideration when measuring the benefits of training.

Individual level contextual variables include **socio-demographic and lifecycle** characteristics such as gender, age, household income, marital status and family status, all of which can influence training take-up and success. The learner's current employment conditions can also affect training effectiveness. In this case, all participants are removed from the labour force, and some are far removed from the labour force, which presents its own issues to the success of the training.

Motivations and engagement: The effectiveness of the training will also be influenced by the learners' motivation and expectations for the training, as well as by their engagement in it and their understanding of its objectives. In this case, the participants are volunteering, therefore, we would expect them to be more engaged and motivated to complete and succeed in gaining the skills being taught than those who would be forced to participate. Affecting training outcomes as well is

learners' participation in the learning activity (e.g., attendance, active participation, completion of learning tasks). Similarly, learners who are convinced of the training's value will be more likely to apply the newly acquired skills.

Work history: The work history of the target population indicate the amount of time individuals were engaged in remunerated work. Work experience accumulated by individuals and the amount of time spent employed is hypothesized to affect completion of the program and long-term labour market outcomes.

Economic need to work: The economic need to work may be one of the primary motivations for low-skilled unemployed individuals to consider LES training.

Barriers: The LES training will be delivered to a target population that is more distant form the labour market than low-skilled individuals who are employed. The target population will not only be experiencing challenges with gaining essential skills, but will also be facing significant barriers to finding employment. They may have limited education and work experience, lack of job hunting skills and/or limited proficiency in using the English language. They may have children or inability to access transportation. Their reality may impact their success in acquiring LES and have an effect on longer-term outcomes.

Human, social and psychological capital are contextual variables that can not only affect training success, but are outcomes in their own right, as will be discussed in the outcomes section below. Contextual variables include human capital related factors such as participants' baseline literacy level, educational attainment level and prior experience in and attitude/receptivity toward learning; psychological capital variables such as their degree of confidence and motivation at work at the start of the training; and social capital variables such as their degree of trust and connection to those around them.

In general terms, it would be expected that those at lower literacy levels and therefore with the greater room for improvement would be expected to derive greater skills gains from the training than those at higher levels of literacy (though this also depends on the literacy level at which the training is pitched). Also, those with positive views on learning and higher levels of confidence and social connections might also be more likely to be positively affected by the training than those who hold negative views of learning and who are less confident and connected.

Training outcomes can also be affected by **external enabling/hindering** factors such as the socioeconomic and labour market context and conditions, as well as the policy, program and institutional environment.

Intermediate outcomes

Intermediate outcomes are the changes in the level of relevant skills, behaviours, and/or characteristics that not only have value in their own right, but also may support the attainment of the long-term outcomes of interest. Chronologically, we might expect these outcomes to occur during, immediately after, or sometime after the program. Ultimately, LES training relate to changes in relevant skills levels, behaviours, and/or characteristics measured after a training activity, such as literacy scores, self-confidence, earnings, and participation in everyday activities. The effect of

the training will be measured by comparison of post-training levels of these variables to the pre-training levels.

The human, psychological capital, social capital outcomes, the counterparts of which measured at baseline, as described above, capture conditions at the start of the training.

Human capital outcomes include improvement in **LES skills** such as reading (documents), writing, oral communication, numeracy, teamwork and problem-solving ability. Beyond skills, training (participation in and successful completion of the training and the skills gains from it) has been hypothesized to lead to outcomes related to other human capital outcomes such as increased desire for and participation in more learning, enhanced social capital (enhanced network size and diversity).

Psychological capital outcomes, a key theme in the psychology and education literatures is that education and learning are often associated with changes in how an individual thinks and feels about him/herself. Three "self" variables that may be influenced by LES training are self-esteem, self-efficacy and self-confidence. While self-esteem can affect the motivation of individuals to complete training, it also can be a result of training, though this depends on the type of self-esteem. Research has shown that training has been found to be positively related to self-efficacy (Orpen, 1999). It is sometimes argued that adult learning contributes to the development of resilience (Hammond, 2003). If increased literacy can improve resilience, such as the ability to effectively communicate and deal with problems, then it would be a benefit to the learner.

Social capital, another major theme in the training literature is the positive effect that adult learning has on the creation and development of social networks, which are of two types: bonding social capital which refers to relatively homogeneous networks connected primarily by close or strong ties and bridging social capital, which refers to networks that include important connections with those unlike the participant, usually characterized by distant or weak ties. Here the diversity of the network is important. While a large social network may be useful in getting leads to job opportunities, it is less useful if all contacts are in the same walk of life as the individual and know each other. Social capital is seen as playing an intervening role in the realization of socioeconomic outcomes with fellow students and teachers as well as a prerequisite or co-requisite of further learning. For example, Balatti, Black, and Falk (2006) found that adult learning positively affected attachments to social networks, which had positive effects on students' education and learning, employment and social environments and the quality of working life.

Career Adaptability is hypothesized to be impacted by the program. Participants will increase their belief in their ability to identify a clear, realistic career path and search for jobs in a targeted way due to career development services offered during the duration of the intervention. They should be able to better understand the alignment of their own skills with skills required by target occupations to help them define more focused career paths and job search strategies. This should in turn lead the individuals to make more strategic choices in further training to acquire occupation-specific skills or qualifications. The measures of career adaptability include career planning, career decision-making self-efficacy, job search clarity and job search self-efficacy.

Skills Enhancement is the key outcome metric for the LES training. The main objective of the project is to close the skills gap of the target population to improve labour market outcomes. Closing the skills gap is likely to improve participants' foundational abilities and improve their chances of successful entry into the labour force. Participants should gain the confidence to apply these skills in a variety of contexts, whether it be everyday activities or readiness for further formal education and training.

Longer-term outcomes

Longer-term outcomes for LES training are those that are likely to take longer to occur than intermediate outcomes, although they could manifest themselves and be detected sooner. Many of these outcomes could well occur outside the project period, but because some may take place within the project period, data should be collected on all of them. These outcomes may be financial and non-financial, and more or less tangible. The outcomes follow, bearing in mind that some of them overlap with outcomes discussed in the previous section.

Improved labour market outcomes refer to long-term outcomes that affect an individual's wealth or income. Individuals may gain access to employment with higher-wage jobs and experience greater job satisfaction.

Well-being may be developed by individuals as a result of higher quality jobs and better job satisfaction and a greater sense of control with less uncertainty and less anxiety associated with their future career path and attachment to the labour market. Individuals may improve their overall health[21] and relations with family and friends. Also, the broader adult learning literature identifies several outcomes of adult learning programs that relate to well-being including increased access to services, increased life satisfaction, and lower overall stress.

Formal education and training opportunities may be pursued by the target population as a result of the LES training. Individuals may develop an interest and the confidence to pursue additional formal education and training.

Comprehensive benefits to participants, government and society were initially proposed to have been calculated for this project using a cost-benefit analysis, however, due to the unanticipated reduced scope and pre-post design of the project, it was not feasible to do so.

A cost-benefit analysis includes a calculation of the net cost or benefit of the training activity relative to the cost of similar programs. It is frequently expressed as a ratio or a percentage. The costs and benefit can be measured at the individual, government and society levels. All benefits of the training are given a monetary value, summed, and compared to the costs, including the actual expenditure on (investment in) the training, to determine whether the program yielded a net

[21] Another potential outcome of interest here is health literacy, the improvement of which through LES training could contribute to better health behaviour and improved health and possibly more accurate attention to health practices leading to enhanced productivity and reduced food spoilage or wastage (food manufacturing).

benefit or cost. In theory, it will not be possible to determine if SIBs can truly deliver on their stated potential until a cost-benefit analysis is calculated for completed SIB projects.

Skilling UP project logic model

The *ESSF* and *Skilling UP* pilot projects are similar in many respects including having private sector organizations or individuals investing in ES training, however, the overall project models are actually quite different. The *Skilling UP* project is more akin to a traditional government training subsidy with a pay-for-success feature added to the model. In this case, the government of Canada provides a subsidy of up to 50% of the ES training costs to participating companies if the ES training manages to produce a predetermined skills enhancement for their low-skilled employees. The *Skilling UP* project logic model is presented in Figure 3.3.

The pay-for-success element of the project is hypothesized to yield better outcomes than the traditional government funding model for workplace ES training. Numerous studies have established that improving ES for low-skilled employees will improve their chances of succeeding in their workplace and in life in general, however, evidence shows that low-skilled workers face multiple barriers in accessing training compared to their higher skill counterparts (Hui & Smith, 2003[22]). This can be due to prohibitive cost and lack of support, information, cognitive and psychological barriers as well as availability of training. They may not recognize the need to improve their Essential Skills. Also, they may not have the ability to identify suitable training opportunities or be willing to take risks and participate in training. Finally, the training may simply not be available.

Most of the barriers associated with preventing low-skilled employed individuals from accessing ES training can be overcome if employers choose to offer and support the training. However, employers also face barriers to providing training for their employees. For instance, employers may feel the return on investment for ES training of employees is too low. Some employers believe that workers will take their enhanced skills and leave for better opportunities elsewhere. In some work contexts, management or incentive structures are barriers to effective ES training. To address these barriers, governments have been subsidizing training and skills development of low-skilled workers through many different initiatives and programs, for example by providing financial support for workers (through bursary, grants, loans, income support, and so on), free courses, or subsidies to employers for training provision. Unfortunately, not much evidence exists to show that public funded training for low-skilled workers has been matched with their needs, raised their skill level or improved their labour market outcomes substantially (see King, 2004; Myers & de Broucker, 2006[23]).

[22] Hui, S.W. and Smith, J.A. (2002): *The Determinants of Participation in Adult Education and Training in Canada*. Unpublished report prepared for Human Resource Development Canada. Available from http://www-personal.umich.edu/~econjeff/Papers/aets_participation.pdf. London, Ontario, Canada.

[23] Myers, K. and de Broucker, P. (2006): "*Too Many Left Behind: Canada's Adult Education and Training System.*" Canadian Policy Research Network.

Publicly funded training models often fail because of a lack of alignment between training content and job performance needs, which may arise either through lack of information on the part of the trainers and/or trainees, or through a mismatched incentive structure that provides funding based on service provision rather than outcomes. For example, under a pay for service model, case managers and trainers are required to follow a standardized set of eligibility criteria and deliver training based on a standardized set of assessment/intervention guidelines, regardless of the actual suitability and efficacy of the training.

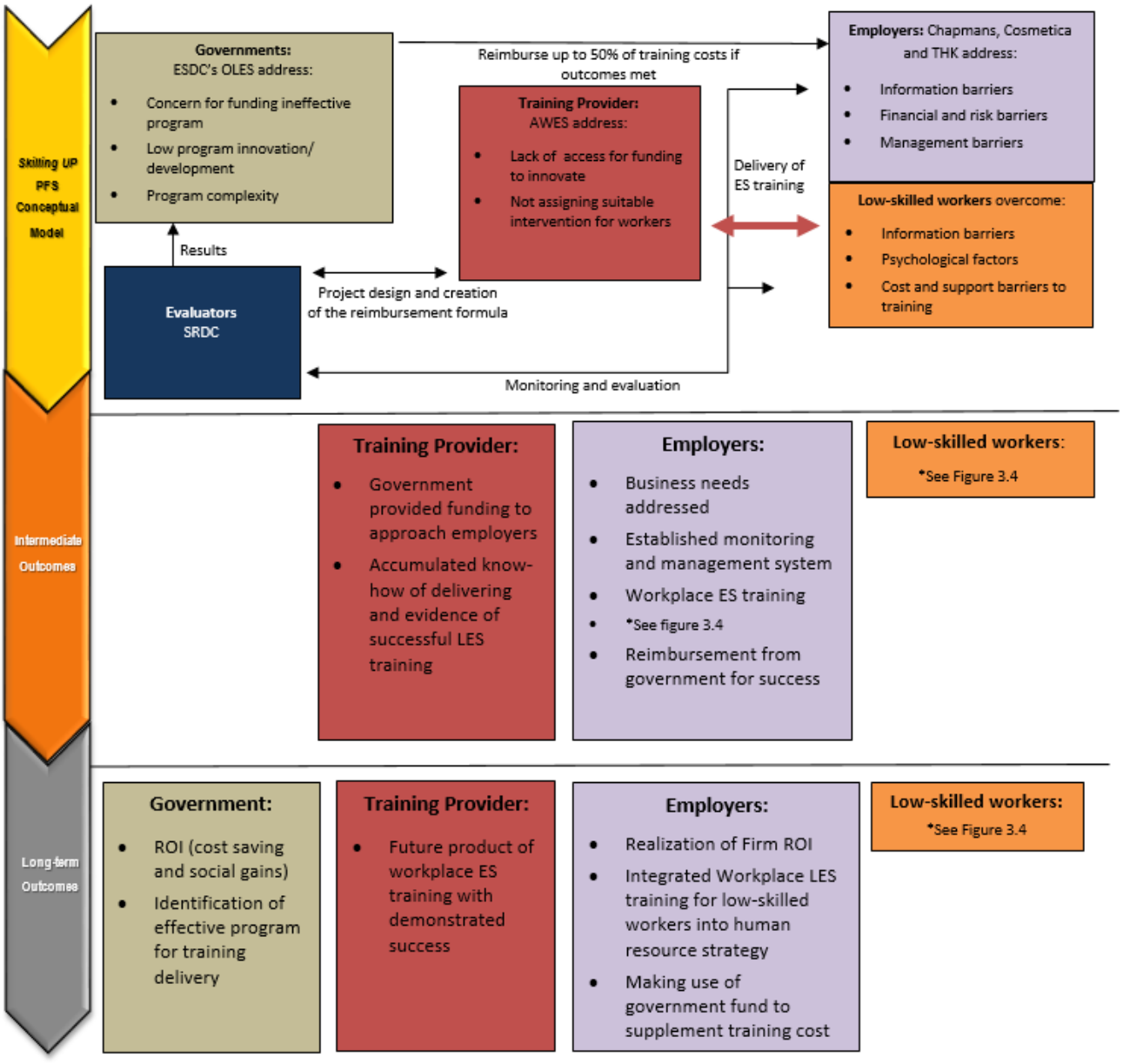
The issue of aligning training with workplace skill needs can be addressed in theory by allowing employers to select the training, under the argument that they are best placed to know their employees' needs. However, employers have an incentive to train workers who can become productive quickly. They may choose employees with high existing skill levels rather than those who are in greatest need and may benefit most from training. Traditional funding formulas seldom provide employers with an incentive to deliver basic skills training to the lowest-skilled workers. In contrast, the pay-for-success model creates an incentive structure for employers to work together with the training provider to target and improve the skill level of low-skilled workers. The main feature of the *Skilling UP* model is that it rewards employers for reaching predetermined and agreed upon outcomes – the government is not obligated to pay if the training does not produce skill gains for low-skilled employees. The model thus provides a potential solution to some of the barriers preventing low-skilled employed individuals from accessing training.

Skilling UP project conceptual model

A conceptual model of the *Skilling UP* project is offered in the top third of the logic model presented in Figure 3.3. AWES (red rectangles) was responsible for approaching employers with the opportunity and delivering the training to low-skilled employees. The employers (purple rectangles) provided the upfront funding for the LES training and a suitable environment for the training delivery. OLES (beige rectangles) committed to paying a wage subsidy of up to 50% of training costs if the LES training meets predetermined outcomes. The evaluator (blue rectangle), SRDC, worked with AWES on project design, proposing benchmarks for the reimbursement formula. SRDC was also responsible for collecting data on the performance of the training using a pre- and post-test design to measure outcomes of the intervention. Figure 3.3 also presents the expected intermediate and longer-term outcomes for the *Skilling UP* project.

As with the *ESSF*, the sole success indicator for *Skilling UP* was 25-point gains in document use literacy. Following SRDC's analysis of historical program data and proposed benchmarks, AWES began recruitment of employers to participate in the project.

Figure 3.3 *Skilling UP* project logic model



Intermediate outcomes

The following intermediate outcomes are expected for low-skilled and unemployed individuals, service providers, and employers:

Low-skilled workers: See *Skilling UP* intervention logic model description below (Figure 3.4).

Employers had an active role in establishing an agreement with training providers in service delivery and established a structure to monitor and manage training delivery to ensure the training addresses the needs of the business. They addressed their employees' skill gaps and increased the probability of success of the training they received. In addition to this, they received a financial incentive from the government in the form of a training subsidy.

The training provider received funding from the government to approach employers with an incentive to participate in an ES training program. The training provider received upfront payment for training from employers, providing stable funding. The project provided the training provider the opportunity to increase capacity in delivering successful ES training in a workplace context.

Longer-term outcomes

Low-skilled workers: See *Skilling UP* intervention logic model description below (Figure 3.4).

Employers achieve better returns on training investment and address barriers to providing ES training. Employers also receive a government subsidy.

The training provider benefits from collecting evidence on their ES training program to demonstrate its success in a workplace context.

Governments will achieve a return on investment in the longer term with cost savings on remedial income support programs and other social programs. They will also gain access to data for the identification of effective ES training delivery.

Skilling UP intervention logic model

The logic models for the *ESSF* and *Skilling UP* interventions are identical with the exception of the target group and training delivery context. *Skilling UP* is delivered to employed low-skilled Canadians in a workplace context whereas *ESSF* is delivered to unemployed low-skilled Canadians in the community. The *Skilling UP* intervention logic model for estimating outcomes and returns to workplace ES training is presented in Figure 3.4 below.

ES training process implementation factors

The ES training implementation factors for training effectiveness are the same for both the *ESSF* and *Skilling UP* projects, however, we must consider the following additional factors for the *Skilling UP* project. The ES training delivery will be influenced by employees' and employers' motivations. Expectations for the training, their engagement and their understanding of its objectives are important factors for success of the ES training. Employees who voluntarily participate in the

training are expected to be more engaged and motivated to complete and succeed in the training than those who are told to participate.

Affecting training outcomes as well is learners' level of participation in the learning activity (e.g., attendance, active participation, completion of learning tasks). Similarly, employees and employers who are convinced of the training's value will be more likely to apply or encourage employees to apply the newly acquired skills in the workplace. Finally, the number of employees in firms participating in the training will influence outcomes at the workplace level: the higher the proportion participating, the more likely we are to observe firm-level impact.

Alignment to needs: A strong influence on how effective the training turns out to be is how well the training is aligned to needs. There are two aspects of alignment that should be considered: (1) the extent to which the skills being taught match the skills gaps of the trainees, and (2) the extent to which the learning objectives of the training support business and performance needs of the organization, including increased productivity. Other research has indicated, in behavioural/performance terms, what workers need to do better in order to contribute to stated business needs. Training should be delivered only that meets the skill needs and objectives of learners.

Instructor: Instructor experience within a workplace and essential skills setting should have an influence on training effectiveness. If an instructor engages with staff and gets to know workplace processes, he or she can better ensure a fit among the teaching content, the learners' needs and the company's aims. Moreover, the instructor can provide feedback on the learners' progress in the training course to supervisors on the one hand and gain feedback on job demands/issues on the other.

Contextual factors

Workplace-level contextual factors, which influence how workers apply what they have learned to the job, include clarity of roles and expectations of staff, including the existence of clear performance standards; workforce size and the number of trainees relative to workforce size; the learning culture within the organization proxied by the amount of training (per employee) that has taken place over the recent period; employees' engagement and participation in workplace operations; and performance and training incentives offered by the employer.

Another set of contextual factors affecting training effectiveness comprise recent performance leading up to the training in various business outcome areas (which are also areas that could be affected by the training; see next section). The baseline business outcomes to be considered include relations among staff and between workers and management, workplace morale and stress, sales, turnover, learning culture, etc. Note that, at the outset, the effect of these variables on training effectiveness is ambiguous. On the one hand, lower organization performance at baseline could have a dampening effect on training success; on the other, low baseline business performance levels leave more potential room for improvement from the training compared to better performing businesses.

Beyond the workplace, training outcomes can be affected by external enabling/hindering factors such as the socioeconomic and labour market context and conditions, as well as the policy, program and institutional environment.

Intermediate outcomes

Training Outcomes: The immediate human, psychological and social outcomes are the same as those described for the *ESSF* intervention logic model. Outcomes relating to practices in which individuals engage in using their skills outside of the workplace are also comparable to skill use in the *ESSF* intervention logic model. One difference between the two logic models is the improvements in **workplace performance** as an outcome of interest. Job performance outcomes include improvements in communicating with colleagues and customers, accuracy and speed of work, organization and planning skills, using workplace instruments, equipment and machinery, completing workplace documents, and working safely.

The order in which skills and performance come is not clear. On the one hand, it is suggested that performance outcomes will not come until after the employee has a chance to apply the acquired skills to the workplace, whereas others say that skills gains are not fully realized until the employee has had the opportunity to work with them on the job. More will be said about skills and job performance outcomes further below. In the diagram, workplace and everyday outcomes are depicted as overlapping to illustrate an ambiguous delineation between learners' personal and workplace practices and behaviours. These may include a range of behaviours that provide further opportunities for the practice/use of literacy skills that may support learning.

Longer-term outcomes

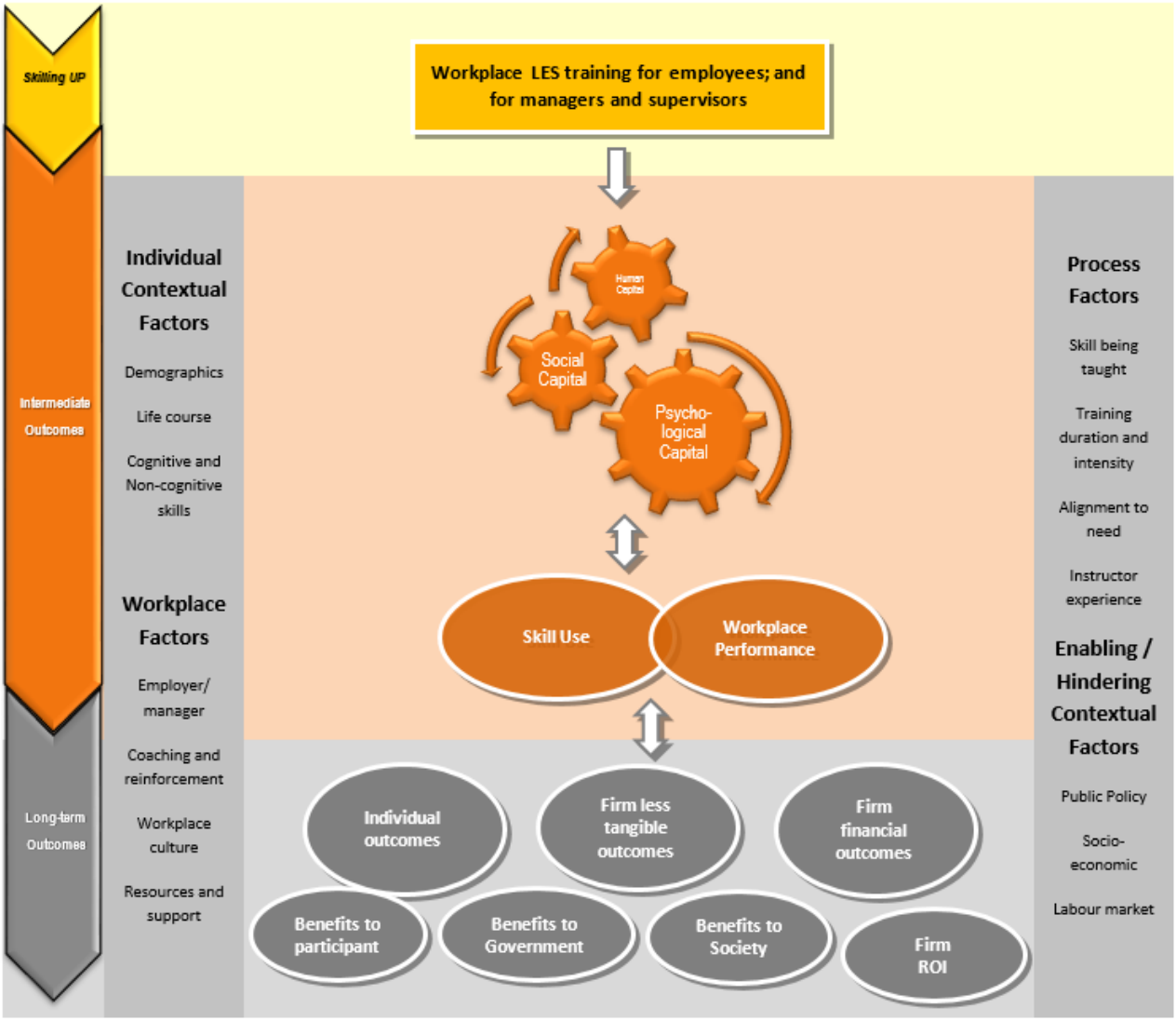
The longer term outcomes for the target population are the same as the *ESSF* intervention logic model. However, these outcomes can accrue to both individual learners and employers. For employers they may be more or less tangible. Business outcomes can be:

Tangible outcomes: These include lower error rate, increased productivity, increased sales, better cost control (less wastage), improved customer service, worker retention, reduced absenteeism/"presenteeism" (working while unwell), and improved health and safety (safer workplace), which arguably are the outcomes of most interest in a project that is designed to engage employers.

Less tangible outcomes include outcomes that cannot be easily quantified or monetized such as improved workplace morale, cohesion among co-workers, improved relations and trust between management and employees, and an enhanced culture of learning.

Benefits to participants, government and society and employer Return on Investment should be calculated using a cost-benefit analysis. Although initially proposed by SRDC, this was not feasible due to small sample size and lack of opportunity to utilize an experimental design.

Figure 3.4 *Skilling UP* logic model for estimating outcomes and returns to workplace ES training



Organizational needs assessments

An important objective of the AWES *Skilling UP* training is to enhance participants' essential skills and thereby improve their job performance as well as key business outcomes for the employer. The literature, and SRDC's *UPSKILL* and *Measures of Success* experience have shown that essential skills training is more likely to meet this objective if it is aligned with identified employee job, business and performance needs of the firm. The question, then, is: What are the key business and job performance areas that need improvement and that would benefit from the training?

For *Skilling UP*, AWES was responsible for conducting organizational needs assessments (ONAs) to i) inform the design of training curricula, by ii) identifying gaps in job performance and underlying essential skills tied to key business needs. A summary of the ONA results is illustrated in Table 3.5. The three organizations involved in *Skilling UP* – Chapmans, Cosmetica, and THK – had broadly similar business priorities, primarily around increasing overall productivity through more accurate completion of work documents, better teamwork, and better ability to troubleshoot emergent issues arising during performance of job tasks. It was thought that improving job performance in these areas would also result in improved workplace safety, reduced absenteeism, and better employee retention. Training activities were thus designed to enhance the essential skills (document use, oral communication, and thinking/problem solving) underlying these job performance areas, using authentic workplace scenarios and materials.

Table 3.5 Summary of the *Skilling UP* organizational needs assessments

Business Needs	Job Performance Areas	Underlying Essential Skills
Increased productivity o Reducing errors o Improving task efficiency and time management o Improving decision-making around emergent issues Improved health and safety Enhanced human resources o Increased retention o Reduced absenteeism	Accurate completion of documents Building and maintaining team cohesion through effective coaching and communication Troubleshooting ongoing issues with equipment and quality assurance	Document use Oral communication Thinking and problem solving

Evaluation methodology and data sources

SRDC's evaluation plan initially proposed three components for both pilot projects: outcomes and impact analysis, implementation research and cost-benefit analysis. A randomized controlled trial (RCT) design – or alternatively, comparison group designs – with large sample sizes (800-1800) were key features of the original evaluation proposal. However, securing private investment (*ESSF*) and employer participation (*Skilling UP*) turned out to be more difficult than project proponents had thought, and there was little appetite given budget limitations for designs that would provide counterfactual data as recommended. As a result, data required for the impact analysis and cost-benefit analysis were not collected as originally planned. Instead, a revised research framework was adopted, focusing on pre-post outcomes analysis and implementation research.

Each component of the revised methodology is briefly described below, along with the data sources.

Outcomes analysis

The outcomes analysis produced quantitative and qualitative estimates of pre-to-post training change in a range of measures, using the following data sources:

- TOWES assessments of document use skill, conducted at baseline (pre-training), immediately post-training, and 12 months post-training;
- Participant surveys, conducted at baseline, immediately post-training, and 12 months post-training;
- For *ESSF*, class observations, key informant interviews or group discussions with participants, facilitators and project partners; and
- For *Skilling UP*, key informant interviews and/or focus groups with participants and their supervisors/employers, and with facilitators, to gather qualitative longer-term post-training data.

These instruments allowed us to track both short and long-term gains in i) document use, ii) self-reported indicators of employment readiness (e.g., career adaptability) and employment rate for *ESSF* participants, and iii) self-reported indicators of improved job performance and working conditions, among *Skilling UP* participants.

There is no control group in this study, making it difficult to definitively attribute any gains observed to the training – for example, some gains may occur naturally over time, as a result of other life and work experience. However, SRDC has conducted several randomized control trials in similar contexts, and used these historical datasets to compare the gains observed in the current projects to those in related projects – notably the *UPSKILL* and *Foundations* demonstration projects.

The *ESSF* program was based on a model developed for the *Foundations Workplace Skills Project* (*FWSP*), which facilitates outcome comparisons between the two projects. SRDC used program data from both projects to identify any differences in service delivery (e.g., hours of training, course content, timing of assessments and surveys) that may be linked to differences in participant outcomes.

Though *Skilling UP* and *UPSKILL* used similar processes to develop their training models (i.e., both were informed by organizational needs assessments to identify job performance and essential skill gaps tied to business needs), the two models were developed for different sectors, making the actual training content that was delivered in the two projects quite different and comparisons of observed gains potentially problematic.

With these caveats in mind, SRDC:

- Compared gains in essential skills and survey measures among *ESSF* and *Skilling UP* participants with those of program group members from the *Foundations* and *UPSKILL* research projects respectively, adjusting for differences in baseline characteristics to make the comparisons fair; and

- Generated quasi-experimental impacts by using control group data from *Foundations* and *UPSKILL* to construct matched comparison groups for *ESSF* and *Skilling UP* respectively.

Results of these analyses are found in Section 5 of this report.

Implementation research

Implementation research documents the conditions of the implementation and the experiences of the project partners in administering a program from recruitment to the administration of the training. It examines the approaches taken across the different sites, problems encountered and corrective measures taken. It addresses:

- **Recruitment and targeting**: To gauge employer/investor interest in the SIB approach; document how well the recruitment process worked to attract the target group;
- **Context**: To enable interpretation of the program effects in the context of the characteristics of participants and their training environment, as well as of the training itself; and
- **Lessons learned**: To gain insights and collect lessons learned about the delivery of the LES training in the workplace (*Skilling UP*) or at participating colleges (*ESSF*). This knowledge helps the interpretation of outcomes and serves as a document of record for future implementations of programs modelled on the pilot projects.

For the two pilot projects, implementation research included the following:

- Interviews with key stakeholders, including managers and executive staff at the employer and/or investor organizations;
- Observations of training delivery, where feasible; and
- The Program Management Information System (PMIS), designed for use by instructors to organize and monitor class composition, and record attendance.

4. SRDC project development and implementation activities

Both the *ESSF* and *Skilling UP* were complex projects requiring the coordination and collaboration of a number of partners and stakeholders. This section describes SRDC activities associated with the development and implementation of the pilots. All activities were achieved in close communication with CICan and AWES respectively, and their subcontractors. As well, OLES was kept informed of the project progress, and issues, and weighed in on many decisions. CICan and AWES have issued independent reports to OLES detailing the activities of their own organizations.

Proposing a reimbursement formula

CICan and AWES submissions to OLES proposed literacy gains of 25 points, measured on a standard scale, as the success outcome to trigger reimbursements for the respective pilots. Subsequent discussions with OLES yielded more detailed parameters for the success outcome:

1. Must be based on average of 25 point skills gains as measured on the IALS scale
2. Gains can be one skill domain among three core literacy skills: reading, document use, numeracy
3. An agreed-upon proportion (x %) of participants achieving 25-point gains to be part of the success outcome
4. Skill gains are to be measured at end of training to trigger a first repayment, and again 12 months later to trigger a bonus repayment for retention of skill gain.

Benchmarking ES gains

SRDC supported the proponents of the two projects by seeking to propose reimbursement formulae that are feasible, accountable, and based on accurate measurement of success outcomes, in keeping with best practices in pay-for-success models. To do so, SRDC analysed literacy gains resulting from previous Essential Skills (ES) training interventions similar to the pilots. The purpose of the analysis was to gather benchmark information on average gains, and probability of >= 25-point gains for each model.

To begin, SRDC identified ES training projects in settings and with populations similar to the ones proposed, where pre- and post-training ES assessments had been undertaken. *Foundations*, *UPSKILL*, the *Workplace Training Program* (*WTP*), and the *ACCC National Framework* project all included a baseline and post-training assessment of literacy and essential skills. *UPSKILL* and *WTP* participants were lower-skilled workers, more closely resembling the AWES pilot project participants, while the *Foundations* data served as the benchmark for *ESSF*. The *ACCC National Framework* project sample included both students, and employed persons; the group of employed individuals was retained as an additional comparator to the employed sample of the AWES project.

SRDC did preliminary analysis on all three literacy domains. Of the core literacy skills, workplace Essential Skills training curricula tend to emphasize document literacy, as it is salient in the majority of work settings. Document literacy was measured in all four reference projects – unlike reading, which was not included in *WTP* or *UPSKILL* assessments. Although all four also measured numeracy, document literacy was the one primarily reported on, and was chosen as the focus for the social finance pilots as well.

The next step was to analyse microdata sets for *Foundations*, *UPSKILL* and *WTP*, as benchmark projects.[24] The analysis first looked at the percentage of participants in each reference project who achieved the targeted 25-point gain. Secondly, SRDC conducted a series of logistic regressions to determine the influence of various participant characteristics on the probability of achieving a 25-point skill gain or more. The logistic regressions included sensitivity analysis to identify dataset variables that were good predictors for skill gains, for example baseline literacy level, gender, education, age and immigrant status/home language, Indigenous status.[25] The regression analysis demonstrated baseline literacy level to be the main predictor of skill gains across all reference projects.

Thus the achievement of performance targets can be influenced by the composition of the sample. For this reason, SRDC proposed that reimbursement calculations for both pilots re-weight scores by baseline literacy level, and gender.[26] This mitigates the potential for score gains to be driven by chance or deliberate enrollment of participants more, or less, likely to achieve 25-point gains than the benchmark sample.

SRDC's methodology included consideration of weighting for all predictive variables, in a stepwise fashion, as appropriate. Low incidence of predictive factors among the populations and overall small sample sizes negated the rationale for including weighting beyond baseline literacy and gender.

A graduated formula

As agreed with OLES, SRDC prepared an analysis of risk-reward scenarios upon which graduated schemes were proposed for both pilots. To attract investors, SIB schemes may be based on graduated formulas, whereupon payout is increased for higher levels of success, and lower amounts paid, often for results slightly below the benchmark; this reduces their risk of losing all their principal in addition to returns on investment. The risk to SIB investors of investing in a social impact bond corresponds to the probability distribution of potential outcomes, yet quantifying the range of potential outcomes makes reimbursement formulation challenging and complex.

24 Microdata was not available for the ACCC National Framework project.

25 Regression coefficients, odds ratios, standard errors, and tests of significance were calculated for each benchmark model. For each model, variables that were shown to have statistical significance on the probability of achieving the 25-point skill gain were considered predictors.

26 Precedent for applying regression adjustment in the calculation of performance measures is found in many pay-for-success projects including some in the employment training field such as Job Corps.

Using data from the *UPSKILL* project – as a large randomized controlled trial yielding evidence of training impacts – we estimated the distribution of individual impacts. In turn this allowed us to quantify the probability distribution of all potential outcomes from the training. Applying this probability distribution, SRDC was able to prepare risk-reward scenarios comparing the SIB investment to market investments (for the *ESSF*), and to propose levels of repayment for each pilot. In the case of *ESSF*, CICan provided this analysis to their subcontractor KPMG prior to their proposal to potential investors to increase the maximum return on investment to 15% from 10% in order to increase the attractiveness of the financial offering.

The graduated tiers of reimbursement eligibility for each project are shown in Tables 4.1 and 4.2 below. Benchmark levels in both schemes are highlighted.

Table 4.1 *ESSF* SIB reimbursement table

Tier	Median gain	Percentage with 25-point gain	Post-training		12-month follow-up	Total potential payout
			Repayment	Return	Payout return	
0	0-15 points	0-35%	0.0%	0.0%	0.0%	0.0%
1	16-17 points	36-39%	90.0%	0.0%	1.0%	91.0%
2	18-20 points	40-44%	96.0%	0.0%	1.0%	97.0%
3	21-24 points	45-49%	100.0%	3.5%	1.0%	104.5%
4	25 points or more	50-54%	100.0%	7.0%	1.0%	108.0%
5	25 points or more	55-59%	100.0%	10.5%	1.0%	111.5%
6	25 points or more	60% or greater	100.0%	14.0%	1.0%	115.0%

Table 4.2 *Skilling UP* reimbursement table

	Target outcomes	Post-training	12-month follow-up
1.	Median gain ≥ 25 points Percentage with 25-point gain ≥ 50%	Reimbursement of 45% of employer's training costs	Additional 5% of employer's cost
2.	Median gain ≥ 20 points Percentage with 25-point gain ≥ 45%	Reimbursement of 42.5% of employer's training costs	Additional 4% of employer's cost
3.	Median gain ≥ 16 points Percentage with 25-point gain ≥ 40%	Reimbursement of 40% of employer's training costs	Additional 3% of employer's cost
4.	Median gain ≥ 4 points Percentage with 25-point gain ≥ 30%	Reimbursement of 30% of employer's training costs	Additional 2% of employer's cost

Securing private investment

At the beginning of the pilots, CICan was seeking $1.1 million to support training for 400 participants. As described in CICan's Phase 1 report to OLES, despite their efforts over an extended period of time, they were able to secure investment for only $250,250. During this time, SRDC played a supporting role to CICan: providing advice on the model and investor offering including consideration of a loan guarantee, or "backstopping" as an option, additional risk calculations for CICan/KPMG as requested, and talking with prospective investors who had questions about the reimbursement formula.

Securing employer engagement in *Skilling UP* proved to be similarly challenging for AWES. Their initial proposal included training for 1800 workers, and after extensive efforts to engage employers over an extended timeframe they were able to offer training to 290 workers. During recruitment, SRDC occasionally met with prospective employers as requested by AWES, describing the assessments and surveys, and sharing SRDC reports on the benefits of workplace ES training.

Program and research design

SRDC's research design initially proposed to use an experimental design to measure program impacts and ROI for each pilot, in addition to outcomes and implementation analysis. SRDC's proposed design was predicated on large sample sizes – 800 for *ESSF* and 1800 for *Skilling UP* – and favourable conditions for piloting experimental design. Soon after the project commenced, SRDC learned from CICan (then ACCC) that their proposal had not contemplated having 400 participants as a comparison group, and that there was no possibility to add this component. Accordingly, SRDC shifted from an impact study to a pre-post measurement of outcomes. When the proposed sample size of 400 was reduced to 91 funded training spots, SRDC further responded to shift the research design to focus more on implementation analysis and lessons learned from the *ESSF* pilot as a proof-of-concept for social impact bonds.

In early discussions with CICan about the SIB models' bonus payments to College partners, SRDC suggested consideration of outcome metrics other than skill gains, or in addition to skill gains. The rationale for this was two-fold: to avoid instructional focus on only one outcome of interest, and to align the success metric with milestones relevant to the low-skilled unemployed, such as overcoming barriers to employment, or completion of training modules, and so on. This idea was not pursued at the time.

AWES had initially proposed to deliver training to 1800 workers at one large firm, and SRDC prepared design options for comparison groups across worksites, or using staggered cohorts at the same site(s) to benefit from temporary counterfactual data. When AWES' efforts shifted to recruit multiple smaller firms rather than focusing on one large firm, SRDC proposed a design for multiple smaller employers with a reduced but still substantial overall sample size.

Administering literacy assessments

Field testing and selection of literacy assessment tool

Accurate measurement of the success outcome is an integral feature of pay-for-success models. In the case of *ESSF* and *Skilling UP*, we aimed to find an assessment that was optimal in terms of both research and operational considerations, since both will impact accuracy of measurement. The assessment of literacy skills requires an assessment that does not unduly fatigue or frustrate participants, and that can be independently monitored or "invigilated". SRDC examined the use of both paper- and web-based assessments for the pilots.

The *Test of Workplace Essential Skills* or TOWES,[27] introduced over twenty years ago, is a paper-based assessment of literacy skills, including document use, which scores learners on a standard 500-point scale developed for the International Adult Literacy Survey (IALS). SRDC is familiar with TOWES, having used it in numerous past projects. We had also used an earlier version of the Essential Skills Group (ESG) online test,[28] but at time of implementing the pilots, there was a newer extended version available we had not yet used. Neither had we used the online version of TOWES known as TOWES PRIME.[29] SRDC therefore decided to conduct a field test to assess the precision and operational suitability of these two newer online assessments as candidates for use in the pilots.

Douglas College collaborated in the field testing, providing invigilator support, as well as recruiting participants and providing facilities for the sessions. Attendees were a combination of College students and clients in Douglas College employment and training programs – the latter anticipated to have similar characteristics to people enrolled to the pilots. For the field testing, the assessments were administered over five sessions and data was collected from 72 participants.

Differences between the two scores for the same participants indicated the two assessments are not measuring the same skills on a standard scale. This does not propose that one assessment is more precise than the other, but rather that they measure different things. An analysis of results by demographic factors suggested the TOWES Prime may underestimate document use proficiency, notably for immigrants. On an operational level, some participants reported having difficulties with the online assessments, and invigilators noted a few technical difficulties.

Although online assessment tools have proven useful in the evaluation of literacy and essential skills in many circumstances, a number of factors discouraged their use in the pilots: potentially low computer skills of some participants, limited access to computers and/or wifi in the field, and the fact that the historical evidence of point gains used to derive the reimbursement benchmark was based largely on paper-based TOWES. As a result of these considerations, and the lower margin of error of paper-based TOWES, it was selected for use in the pilots. To reduce field time, SRDC requested that Bow Valley College prepare a single-dimension version of TOWES, for document use only.

27 http://www.towes.com/en/

28 http://www.essentialskillsgroup.com/

29 http://www.towes.com/en/products-and-services/assessments/web-based-assessments

Contracting TOWES invigilators

Delivery of the assessments for the Social Finance Pilot Project was accomplished through a combination of SRDC invigilators, trained invigilators from the TOWES staff at Bow Valley College, and local contractors. Contractors were provided with an overview of the project details, including all relevant privacy and security requirements, and training on the TOWES invigilation process. Training for TOWES invigilators is mandatory, and is delivered through a self-directed online certification program over the course of several hours. The use of local contractors allowed for flexibility in assessment schedules – often accommodating smaller testing sessions over the course of a longer period of time.

Operational issues

A number of operational issues emerged in the administration of the literacy assessments. The most common was the length of time required to complete them, and coordinating assessment schedules. This was particularly challenging in the manufacturing environment of *Skilling UP* employers, with 24-hour operations and the need to accommodate the work shifts of participants. Ensuring all potential participants could be assessed prior to training required commitment on the part of the employer and the participant, and flexibility and stamina on behalf of the invigilator, with sessions occurring at beginning and/or end of all three shifts in a 24-hour period. In the case of the CICan training sites, pre-training assessments often needed to be provided to small groups of clients at a time, or even individually, according to their availability. This required repeated on-site visits by the invigilator.

In both pilot models, operational issues with assessments were exacerbated by the need for them to be done by an independent assessor (SRDC). Initially contemplated to take place in larger group sessions, the reality of work schedules and urgencies, employee absences on test dates, and general availability of participants all resulted in increased hours of invigilator time and travel expenses. After examining a number of delivery models, SRDC subcontracted most of the invigilation to qualified parties, while also making use of SRDC staff where more practical (e.g., close by, single sessions). SRDC selected Bow Valley College – TOWES developers and professional invigilators – to travel and stay at two of the three *Skilling UP* sites for a period of up to 3-4 days to assess the full roster of eligible workers. Even with extended stays on site, due to worker absences, on occasion SRDC staff made a subsequent visit to complete assessments. SRDC staff covered the third *Skilling UP* site, due to smaller numbers of participants and proximity to SRDC's Ottawa office.

Finding qualified individuals to invigilate at *ESSF* sites was more difficult than anticipated, for a number of reasons:

- College delivery partners typically have a number of staff certified as TOWES invigilators, but for purposes of the SIB the invigilators must be independent of the Service Provider; thus this candidate pool was not available.
- Although the role of invigilators is not overly onerous, it is extremely important. Invigilators require a thorough understanding of and commitment to all procedures associated with conducting the assessment – participant identification, consent, tutorial and completion of the

assessment. They must have excellent communication skills, be at ease with a diverse range of learners, be trustworthy with confidential information, and pay attention to detailed procedures for securely submitting this data.

- For both pilots, invigilators were also tasked with administering the baseline and post-training survey to participants on behalf of SRDC; this required precise matching of names to the participant IDs on the anonymized surveys, introducing the survey, and secure mailing.
- The days and hours of invigilation are not compatible with the availability of an individual who is working full-time, Monday-Friday; thus, this candidate pool is not available.
- Individuals with the required skills/experience, and with flexible work hours, can be difficult to find without a formal recruitment process.

Fortunately, service provider staff at two of the sites were able to identify suitable candidates in their networks who were not (or no longer) affiliated with their Colleges. At the third *ESSF* site, Bow Valley College was able to suggest candidates from their network.[30] In all cases, SRDC interviewed candidates, familiarized them with the *ESSF* project, and ensured they completed invigilator certification through Bow Valley College prior to their *ESSF* assignment. It is worth noting that the erratic scheduling of *ESSF* assessments led to the need to have two different invigilators operate at one site, and four at another.

Despite the challenges, having third-party validation of scores for purposes of repayment of the SIB (*ESSF*) and employer training investment (*Skilling UP*) was an essential feature of both models. The pilot tests provide insight into the operational and cost implications of this feature of the models.

Reporting of scores

Following the assessment of participants, completed booklets were submitted to TOWES for review and scoring. Results were then provided to SRDC, who distributed the results to delivery partners to inform training needs (baseline), and to inform individual participants of their scores.

For *Skilling UP*, once both pre-training and post-training results were reported for a given employer training site, score gains were calculated, including both the median score gain and the percentage of participants with a 25-point gain or greater. Because SRDC's analysis of historical data indicated that skill gains are influenced by baseline literacy level and gender, the cohort scores were weighted first by baseline literacy level, then by gender so the proportions reflected the benchmark data. As a result, when calculating the median gain and the percentage of participants with ≥ 25 points, some individual scores may have had more of an effect on the group median than others.

After calculating group score gains, SRDC prepared reimbursement reports for OLES. In *Skilling UP*, reimbursements were made by individual employer, as employers were not attracted to a model where results would be pooled with other employers, and it was initially anticipated that sample

[30] SRDC staff also worked as invigilators at this site, as needed.

sizes would be adequate (200+, later reduced to 100+) at each employer for calculating group outcomes. In the *ESSF*, calculation of the skill gains for purposes of SIB reimbursement was done by combining data from all sites, again in order to have group sizes of 100+ for calculation of the score gains. For *ESSF*, following the completion of each cohort, SRDC prepared reports indicating the number of participants who completed the post-training assessments, and the number of participants who achieved a 25-point or greater gain in document use. This was provided to CICan for purpose of distributing bonus payments to individual College service providers.

Score gain results are presented in Section 5.

5. Evaluation findings

Methods

The evaluation of the projects was structured to meet multiple objectives: to provide a ''proof-of-concept'' for alternative funding models for the delivery of training programs, to learn about the general effectiveness of the piloted training models and to validate the results of pay-for-success mechanisms embodied in both pilots. To achieve these objectives, SRDC used various methods: pre-post analysis of participant outcomes, quasi-experimental analysis of impacts and implementation research.

The outcome analysis includes pre-post TOWES assessments of document use skill that was identified as the success outcome to trigger reimbursement to investors and employers in the respective pilots. Participant surveys at baseline, immediately post-training, and 12 months post-training, and key informant interviews with participants, investors (*ESSF*) and employers (*Skilling UP*) are also used to provide other important information on other training outcomes. The surveys, found in Appendices 9-14, include questions on training outlook and feedback, education, training programs or courses taken in the past year, attitudes towards learning, job-related stress, wages, future orientation, trust, and demographic characteristics (e.g., health, language, marital status, family composition and household income). In addition, the *ESSF* survey included items on receipt of Employment Insurance and/or Income Assistance, barriers to finding or keeping a job, employment status, career planning, career decision-making self-efficacy, job search clarity, job search self-efficacy, literacy practices, life satisfaction, and social networks. The *Skilling UP* survey, meanwhile, included additional items on employment tenure and schedule, motivation and engagement at work, and job satisfaction.

Pre-post measurement of outcomes only provides general impressions on whether or not the programs tested in the pilots can be seen as successful. Indeed, in the absence of control or comparison groups, it is difficult to definitively attribute participants' skill gains or other positive outcomes to the training – for example, some gains may occur naturally over time, as a result of other life and work experience. Because SRDC had conducted randomized controlled trials of the *Foundations* and *UPSKILL* Essential Skills training programs in similar contexts, we utilized historical data from these projects to construct counterfactual information for *ESSF* and *Skilling UP* respectively. This approach allowed us to include quasi-experimental analyses of impacts using the matched comparison groups from these previous projects. We had earlier used the results of these earlier projects for participants receiving similar skills training as a way to benchmark the skills outcomes for *ESSF* and *Skilling UP* participants.

Implementation research documents the conditions of the implementation and the experiences of the project partners in administering a program from recruitment to the administration of the training. It examines the approaches taken across the different sites, problems encountered and corrective measures taken. For the two pilot projects, implementation research included interviews with facilitators and key stakeholders including managers and executive staff at the employer and/or investor organizations, field observations of training delivery where feasible, and data from

the Program Management Information System (PMIS), designed for use by facilitators to organize and monitor class composition, and record attendance.

Findings: *Essential Skills Social Finance* project

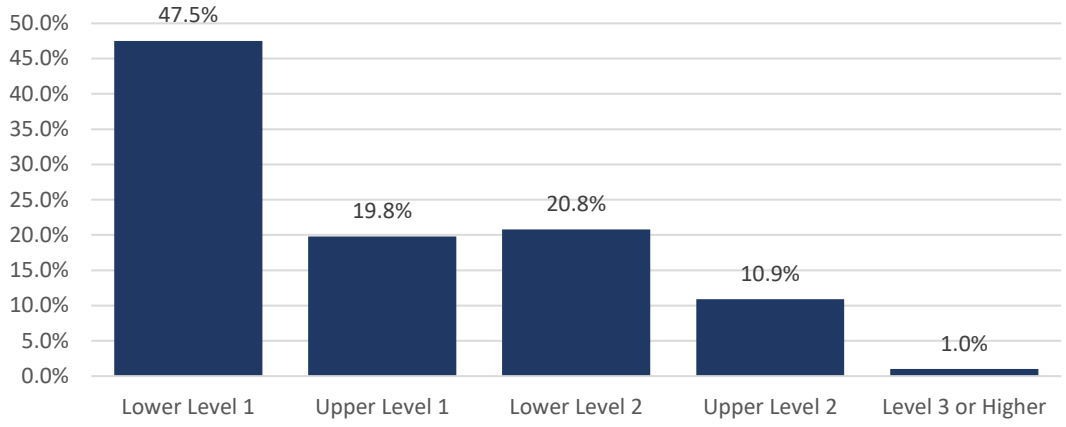
ESSF participant characteristics

Before presenting pre-post outcome analysis, we summarize below the profile of participants as found in the interim report.[31]

ESSF participants completed surveys on the same schedule as document use literacy assessments: prior to participating in training (n=91), at the end of training (n=83), and 12 months following (n=47). The survey questions and response options are found in Appendices 9-11. For a complete list of all variables and scale scores, see Appendices 16-19.

The *ESSF* average score at baseline was 206, at the upper end of level one. Scores ranged from 116, in lower level 1, to 293, in level 3. Almost half (48 per cent) had a score in the lower end of level 1 (Figure 5.1 below). It is worth noting already that the *ESSF* group had overall lower starting scores than the *Foundations* groups upon which the reimbursement benchmark was set.[32]

Figure 5.1 *ESSF* participants – Baseline TOWES document use level



Participants ranged in age, with six in ten (59 per cent) falling between the ages of 35 and 54. Close to two thirds are women (63 per cent), and a similar proportion were born in Canada (64 per cent). Almost three quarters of participants (73 per cent) identified English as the language they first learned at home in childhood and still understand. One in three (30 per cent) identified as an Indigenous person – First Nations, Métis, or Inuit.

31 Social Finance pilot projects: Interim report (SRDC, 2017).

32 SRDC conducted a comparative analysis of *ESSF* participants and those who took part in past *Foundations* programs, to determine potential effects on score gain. A report was submitted to ESDC in March 2018.

Half (51 per cent) of *ESSF* participants had not completed any type of post-secondary education, with 12 per cent not completing high school. At the other end of the education spectrum, however, almost a quarter (23 per cent) had completed a university degree. Targeted as a pre-employment program, only one-fifth of participants (21 per cent) were working at baseline, either part-time or full-time. Of those not currently working, 78 per cent had paid employment experience in the past. Half of *ESSF* participants (51 per cent) reported receiving either Income Assistance (IA) or assistance for persons with disabilities at baseline. Another 8 per cent were currently receiving Employment Insurance (EI), and 15.5 per cent had received EI at some point in the past three years.

When presented with a list of 15 potential barriers to finding or keeping a job, participants reported almost three barriers each, on average. Half (52 per cent) cited *"limited work experience"* and a third (34 per cent) reported *"[need for] education"* as potential barriers to employment. Other frequently reported barriers included *"transportation issues"* (33 per cent), *"lack of job hunting skills"* (29 per cent), and *"difficulty with English"* (27 per cent). It was in anticipation of recruiting candidates with multiple – and potentially severe – barriers to employment that service providers, investors and the intermediary CICan felt it important to incorporate a wide range of 'wraparound' services than had been part of the *Foundations* model in the past.

Training outcomes: Skill gains

In total, 86 participants completed *ESSF* training with both baseline and post-training document use assessments; 46 of these participants were assessed a third time, 12 months following the end of training. Participants achieved significant gains over their baseline document use scores, both at post training (+23.5 points from baseline), and 12-month follow-up (+16.7 points from baseline). While these scores would appear to indicate a decline between post-training and 12-month follow-up, this is attributable to bias caused by a difference in the characteristics of the group who completed the 12-month follow-up and those who did not. Raw skill gains were weighted according to starting skill level and gender, as explained below, in order to better reflect the composition of the sample used to calculate reimbursement. However, these characteristics have also been identified by previous research as influencing skill gains. After this weighting, the difference between gains from post-training to 12-month follow-up moves in the opposite direction, with scores actually increasing by three points (not significant) between post-training and 12-month follow-up.

For calculating the reimbursement to investors, the raw skill gains were weighted according to participants' starting skill level and their gender. This was done so the composition of the *ESSF* sample would reflect that of *Foundations*, which had provided benchmark data for the reimbursement formula.

After weighting the raw score data, median gains were 19 points at post-training, with 41% of participants achieving a gain of 25 points or greater; this corresponded with tier 2 on the reimbursement grid, for which investors received 96% of their capital investment (see Table 5.2 below).

At 12-month follow-up, median gains were 22 points, with 43% of participants achieving a gain of 25 points or greater. Although the median gain (22 points) fell in tier 3, both criteria had to be met

and so the follow-up wave also fell in tier 2, for which investors received an additional 1% of their capital investment.

The upshot is that all three investors participating in the SIB ended up recovering 97% of their initial invested capital with no additional return on investment. Whether this is seen as a positive or negative outcome depends very much on the investors' original motivations. Section 6 discusses investor perspectives in more detail.

Table 5.2 *ESSF* SIB reimbursement table

Tier	Median gain	Percentage with 25-point gain	Post-training		12-month follow-up	Total potential payout
			Repayment	Return	Payout return	
0	0-15 points	0-35%	0.0%	0.0%	0.0%	0.0%
1	16-17 points	36-39%	90.0%	0.0%	1.0%	91.0%
2	18-20 points	40-44%	96.0%	0.0%	1.0%	97.0%
3	21-24 points	45-49%	100.0%	3.5%	1.0%	104.5%
*4	25 points or more	50-54%	100.0%	7.0%	1.0%	108.0%
5	25 points or more	55-59%	100.0%	10.5%	1.0%	111.5%
6	25 points or more	60% or greater	100.0%	14.0%	1.0%	115.0%

*Benchmark level.

Training outcomes: Behaviours and attitudes

Results following *ESSF* training were mainly positive. In particular, at the end of training, participants reported significant improvements in their job search clarity, job search self-efficacy, and use of literacy skills; these outcomes were maintained in the longer term (12 months) as well. Another set of highly positive outcomes from the 12-month follow-up survey include that fewer participants were currently receiving Income Assistance (-18 per cent), more participants were currently working (+27 per cent)[33], and participants reported working a greater number of hours per week (+5.3 hours).

Other positive outcomes were found in the pre-post comparison done at the end of training: participants reported significant improvement in their career planning, career decision-making self-efficacy and life satisfaction; however, at the time of the 12-month follow-up these gains were not statistically significant. This may be explained in part by attrition bias, i.e., participants who

[33] Sample attrition at 12-month follow-up might contribute to under-reporting positive employment outcomes, as staff noted a substantial number of participants were not able to attend the follow-up assessment/survey sessions because they were at work.

completed the 12-month surveys had significantly smaller gains post-training on certain survey items. Thus, a "loss" of statistical significance after one year may be a result of those with higher gains not completing the 12-month survey rather than a true erosion of positive outcomes.

In addition, 12 months after training, participants reported significantly fewer barriers on average to finding and keeping a job (-0.4). Of particular relevance to the *ESSF* training, there was a significant reduction in the proportion of participants who reported that their education (-22%) and their lack of job hunting skills (-19%) were causing barriers to their employment. However, there was an increase in participants reporting difficulty with English (+11.1%) as a barrier to employment, despite no statistical difference in the proportion of respondents who identified speaking a language other than English at home.

While the majority of outcomes were positive, there were negative results as well. In particular, between baseline and twelve months following training, participants saw a decrease in their attitudes to learning. This decrease appears to be a slow accumulation, as there were negative trends in the outcomes between baseline and post-training, and post-training and 12-months post-training, but the results were not statistically significant unless analyzed from baseline to 12-month follow-up. There were statistically-significant changes in individual items of some of the other scales, but without significance on the whole scale we avoid over-interpreting these individual item changes, as they are best understood as small factors that contribute to an over-arching concept.

A list of all results, including baseline to post-training, baseline to 12-month follow-up, and post-training to follow-up is found in Appendices 16-19.

Training outcomes: Participant survey feedback on *ESSF*

Overall, participants responded positively to *ESSF*. Between two-thirds and three-quarters of post-training survey respondents agreed or strongly agreed that:

- Training objectives were both well explained and met;
- They met their personal goals; and
- Their instructors were knowledgeable, well organized and flexible, presented the material clearly, and promoted participation.

Almost three quarters of participants also agreed or strongly agreed they found the training useful (73.8%) and would recommend the program to others (74.8%). Additionally, when rating the training on a 5-point scale, where 1 indicated a poor program and 5 indicated an excellent program, participants' average rating approached excellent, at 4.3.

Finally, three-quarters of participants noted some improvement (either *a slight improvement*, *some improvement*, or *a big improvement*) in skills that help them find the job they want, and in their ability to understand and use study materials. A third felt it was unlikely or very unlikely they would have achieved this improvement on their own, without benefit of *ESSF*. However, when asked this series of questions in the 12-month follow-up survey, there were fewer improvements noted than on the post-training survey.

Training impacts: *ESSF* vs. *Foundations* trainees

How do the skills gains achieved by *ESSF* participants compare to previous results from similar programs? The gains measured for *ESSF* were not high enough to trigger a return on investment, and in fact did not achieve the benchmark for investors to receive full reimbursement of their initial capital outlay. To look more deeply into why *ESSF* skill gains were lower than expected, the results were compared with previous implementations of the *Foundations* training model from two sources:

1. A dataset provided to SRDC by Douglas College containing results for a series of *Foundations* programs delivered over a number of years (referred to in this report as "*Historical Foundations*"); and
2. An SRDC dataset for the *Foundations Workplace Skills Project (FWSP)*, an RCT demonstration project in which SRDC was the evaluation partner for Douglas College as the lead.

An important caveat of this analysis is that the assessments used to measure document use gains differed among the projects and that this can affect comparability among them, despite the pre-post instrument being the same within sites. *ESSF* and *Historical Foundations* both used paper versions of TOWES but the more recent version used in *ESSF* was a single-domain document use version. *FWSP* used a shorter online instrument developed by the Essential Skills Group (ESG).

This analysis found that *ESSF* participants generally entered the program with lower skills than *Historical Foundations* and *FWSP*. Lower baseline scores were generally linked with higher gains in all three, consistent with previous research across other skill domains such as reading and numeracy as well.[34] Having a larger proportion of lower-level learners would place *ESSF* in a favourable position in terms of expected skill gains. For a more even comparison, we conducted a multivariate analysis in which starting skill levels were held constant thus eliminating pre-existing differences among the samples. As shown in Table 5.3 below, the results indicate that even when controlling for baseline skill level, the *ESSF* participants demonstrated lower gains than those in both *Historical Foundations* and *FWSP*.

Table 5.3 Percentage of participants having 25-point gains or higher in document use, by program

	Sample Size	Estimated %	Difference vs. *ESSF*		Standard Errors
ESSF (Reference Group)	85	41.82			
FWSP Skills Enhancement	63	71.03	-29.21	***	(8.30)
Historical Foundations	400	53.42	-11.60	**	(5.77)

Notes: Statistically significant differences are denoted by asterisks: * = 10%, ** = 5%, *** = 1%.

[34] This is in part attributable to an upward bias in measurement error among those near the bottom of the scale. In other words, while measurement error may result in either gains or apparent losses among those in the middle of the distribution, it is far more likely to lead to gains for those near the bottom.

Though the results illustrated in Table 5.3 show sizable gaps in 25-point or higher gains between *ESSF* and the other two samples, there is a range of baseline differences among the samples that could in theory account for these gaps. For example, the *ESSF* sample has a significantly higher proportion of men and a significantly lower proportion of immigrants than either the *FWSP* or *Historical Foundations*. In terms of age, *ESSF* participants are younger than those in *FWSP* and slightly older than those in *Historical Foundations*. Compared to *FWSP*, *ESSF* participants are less likely to hold post-secondary credentials and engage in literacy practices, and more likely to report physical or mental health conditions.

After controlling for baseline characteristics, the 11 percentage point difference in the proportion of participants achieving 25 points or higher document use gains between the *ESSF* and *Historical Foundations* samples closes to 8 percentage points, which is no longer statistically significant. Nevertheless, this doesn't mean that the difference between the samples can be fully accounted for by differences in baseline characteristics. The small sample size associated with the *ESSF* program may have instead led to an imprecise estimate of the difference between the samples, and thus failure to statistically detect an underlying difference.

With respect to the comparison between *ESSF* and *FWSP,* holding the full range of observable baseline characteristics constant does not reduce the gap between the two samples, as the difference in the proportion of participants achieving 25 points or higher document use gains remains stable at 29 percentage points. It is important to note, however, that this difference could be at least in part attributable to the use of different assessments for the two projects, with the one used for *FWSP* having higher margins of error. Small sample sizes for both projects are another reason for caution in interpreting the findings.

Training impacts: *ESSF* vs. *FWSP* comparison group

To explore what proportion of the *ESSF* participants' outcomes is attributable to the training program per se and not to individuals characteristics or other external factors requires an impact analysis comparing *ESSF* participants' outcomes to a credible counterfactual, i.e., what would have happened if participants had not receive the training. Ideally, such counterfactual data would have been created using a randomized control trial where participants are allocated randomly to a program group receiving training and a control group not receiving the training. However, for reasons explained earlier, it was not possible to use a random assignment design for ESSF. Instead, SRDC proposed a quasi-experimental design using a comparison group composed of participants from the *FWSP* control group that matched *ESSF* participants in key individual characteristics.

Estimates of quasi-experimental impacts based on the participant surveys show that *ESSF* did have a significant positive impact on job search self-efficacy, and positive trends, although not statistically significant, in career planning and career decision-making self-efficacy. *ESSF* participants also saw a positive trend in their everyday application of literacy practices compared to the *FWSP* control group, with a significant impact in the frequency in which they reported doing math.

By 12 months following the end of training, the *ESSF* gains in job search self-efficacy, career planning, and career decision-making self-efficacy were not distinguishable from the *FWSP* control

group. *ESSF* participants however still demonstrated a positive trend, although no longer a statistical impact, in their everyday use of literacy practices compared to the *FWSP* control group, and a statistically significant impact in the frequency they read or use information from books. At the 12-month mark, there was also a significant difference in employment rates between the *FWSP* control group and *ESSF* participants: only 12% of the control group was working then compared to over half (52 per cent) of *ESSF* participants.

It is worth noting that such a matching procedure based on dissimilar samples in theory produces larger standard errors: both this, and a small sample size, may make it harder to detect *ESSF* impacts.

Qualitative analysis

SRDC conducted site visits for class observations and discussions with participants and *ESSF* facilitators/managers, and gathered additional qualitative information from regular meetings with the intermediary and periodic teleconferences/in-person meetings that included the College delivery staff. The qualitative data collected strongly corroborates the positive feedback provided by participants in their survey responses. As well, it provides illustration of many positive outcomes of the training: increased confidence in job search and career planning abilities, better use of literacy skills, and ways in which the training has helped participants overcome barriers to employment.

Observations and discussions with participants provided many first-hand illustrations of these benefits. A number of learners spoke of how the training helped them to recognize their past experience, and build up not only their literacy skills but their communication and interpersonal skills as well. For example, one participant credited her increased skills and confidence with helping her communicate in her successful negotiation to regain custody of her child; another participant was better able to overcome the significant anxiety that had interfered with his job search. Others spoke of the positive and stabilizing influence of the daily class activities, and how they had come to develop trust in their classmates and facilitators, and appreciation for the progress they demonstrated. Many participants spoke with pride about their portfolios, and how developing them with the aid of the facilitators had been instrumental to a new-found confidence in a future as an active member of the labour force.

Qualitative data analysis also offers some insight about potential reasons why skill gains were lower for the *ESSF* than the benchmark level based on previous implementations of the *Foundations* program. Primary among these is that *ESSF* participants faced a higher number of unobservable or unreported barriers, and more severe barriers, than their counterparts in *Foundations.* According to delivery staff, this impacted not only individuals' abilities to acquire new skills, but also group cohesion in the learning environment.

Another factor potentially contributing to lower score gains is the effect of the SIB model itself: staff and participants reported feeling stress to demonstrate gains in order to achieve the targets for payout. Having a third-party (unfamiliar) test administrator may have added to the stress felt by some participants. Test anxiety manifest by a number of learners in the first cohort was observed to have been a potential contributor to the results being below benchmark. Although service

providers made a conscious effort thereafter to downplay achievement of the 'success outcome' in their messaging to participants, pressure to achieve higher payout targets was felt by both participants and facilitators for the duration of the project.

In addition to the Essential Skills curriculum, *ESSF* was designed to incorporate a wide range of wraparound services to meet the needs of a clientele anticipated to be facing significant barriers to labour market participation. Wraparound services ranged from basic housing supports and food security, to participation in external workshops such as Toastmasters for those closer to the labour market. While wraparound supports may have been necessary in helping participants to overcome barriers, they may also have reduced instructional time otherwise dedicated to document use skills. If the desired outcome of training is to help move participants further along the pathway to employment, then *ESSF* may have achieved this objective (see Training impact results above), even at the expense of achieving the SIB 'success outcome'.

Finally, the qualitative data analysis suggests the active interest of private investors in the SIB was both influential in shaping the curriculum and adding to the pressure felt by delivery staff to meet performance targets. This was not necessarily viewed as a negative factor, as the service providers and intermediary welcomed the participation of investors as true partners in the funding model. There was, however, some caution that investor interests need to be tempered with service provider expertise, and that at all times they cannot interfere with program delivery or confidentiality of client information. Participation in the pilot afforded the service providers and intermediary with opportunity to experience SIB stakeholder collaboration as well as build their capacity in data collection.

Summary

ESSF participants saw significant gains in document use literacy skills following training. Although gains fell below the benchmark set for either 100% repayment or a return on investment, investors did qualify for a repayment of 97% of their initial investments, a result with which they were satisfied, even pleased. Staff reported that gains likely fell below the benchmark due to a higher degree of unobservable or unreported barriers among *ESSF* participants, and as a result of stress related to the SIB model and pressure to demonstrate gains. Participants reported a number of positive findings, including increased confidence in their job search abilities and use of their literacy skills, and higher rates of employment.

Findings: *Skilling UP*

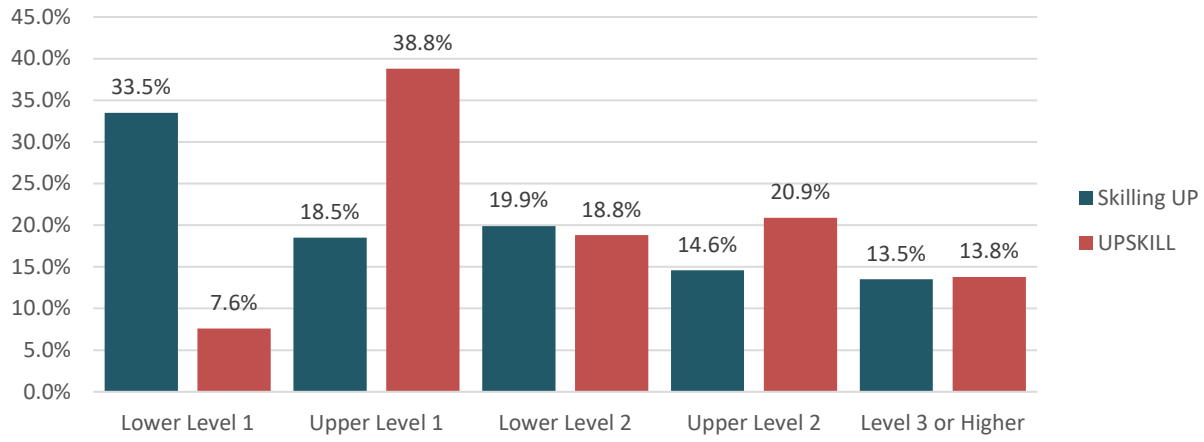
Skilling UP worker characteristics

A recap below of the baseline profile of participants found in the interim report is useful to provide context for the outcome findings.[35]

[35] Social Finance pilot projects: Interim report (SRDC, 2017).

Skilling UP participants completed surveys at the same time as the document use literacy assessments: prior to participating in training (n=234), post-training (n=239), and 12 months following (n=102). The workers who took part in *Skilling UP* had an average document use literacy score at baseline of 222, equivalent to the upper end of level one. Scores ranged widely from 111, in lower level one, to 334, in level four. As shown in Figure 5.4 below, one third of participants (33.5%) received a score at baseline in the lower end of level 1 (i.e., below 200). The overall literacy level of *Skilling UP* workers is lower than those who took part in *UPSKILL*. While *UPSKILL* participants had a similar baseline average document use literacy score (228), there was a far greater proportion of *Skilling UP* participants who fell within the lower level one category.

Figure 5.4 *Skilling UP* and *UPSKILL* baseline skill levels

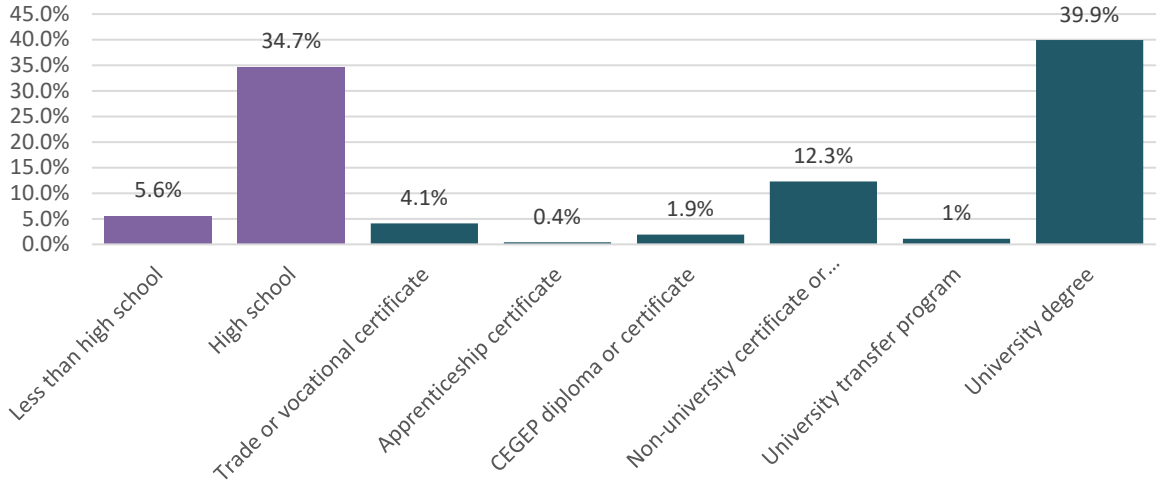


Participants ranged in age, with most (55%) falling between the ages of 35 and 54. Nearly two-thirds (65%) are male, and one-third (35%) female. Less than half (44%) of the workers taking part in *Skilling UP* were born in Canada; the Cosmetica site accounted for the vast majority of the non-Canadian born participants.

Almost two thirds of participants (62.8 per cent) identified English as the language they first learned at home in childhood and still understood. A small proportion (4.9 per cent) identified as an Indigenous person (First Nation, Métis, or Inuit).

Figure 5.5 below shows that over half (59.7 per cent) of participants had completed some form of post-secondary education, with over a third (39.9 per cent) having completed a university degree. Workers born outside Canada accounted for the majority of persons with post-secondary education (80.5 per cent).

Figure 5.5 *Skilling UP*: Highest level of schooling



Virtually all reported working full-time, and with average annual income just over $47,000 and average household incomes in the $40,000-60,000 range, it appears most are the major breadwinners in their households.

At baseline, *Skilling UP* participants had positive outlooks about the training, indicating high degrees of motivation for taking it, and anticipated improvements to their abilities to perform their jobs. Interestingly, they reported a significant amount of stress at work, with close to half (46%) reporting they experienced high levels of stress a couple of days a week or nearly every day on the job.

Training outcomes: Skill gains

In total, 208 workers who took part in *Skilling UP* across the three sites completed both baseline and post-training document use assessments, and 137 of them repeated the assessments 12 months following. At both time intervals, the workers achieved significant gains in their document use scores: post training was up 16.5 points from baseline, and 12 months after that their scores were still up 15.7 points over the baseline. There was no significant difference in post-training results for those who participated in the 12-month follow-up assessment compared to those who did not, indicating that the 12-month results were not skewed by skill gains post-training.

These figures represent the pooled score gains for workers from all three workplaces. However, because each of the three participating employers was reimbursed based on the performance of their own workers only, score gains needed to be calculated for each site independently, as shown in Table 5.6.

Reimbursement levels were benchmarked on the performance of *UPSKILL* training participants, as a similar training program with low-skilled employees, but in the hospitality industry. SRDC weighted the individual *Skilling UP* score gains according to gender and baseline skill level in order to mirror the composition of the *UPSKILL* group for purposes of calculating the levels of

reimbursement to employers. Table 5.7 shows the repayment tiers, which include two criteria: group median scores, and percentage achieving 25-point gains or more. Both criteria must be met in order to receive payment at a specific tier. Gains for each of the three sites are shown in Table 5.6 below.

Table 5.6 Skill attainment and reimbursement, by site

Workplace	Post-training				12-month follow-up				Total reimburse-ment
	Sample size	Median gain	% with **≥ 25-point gain**	Reimburse-ment	Sample size	Median gain	% with **≥ 25-point gain**	Reimburse-ment	
Chapman's	30	22	50%	42.5% (T2)	23	21	47%	4% (T2)	46.5%
THK	34	39	71%	45% (T1)	21	24	43%	3% (T3)	48%
Cosmetica	144	8	33%	30% (T4)	93	13	39%	2% (T4)	32%

Table 5.7 Reimbursement of eligible training costs for *Skilling UP*

	Target outcomes	Post-training skill attainment	12-month follow-up skill maintenance
1.	Median gain ≥ 25 points Percentage with 25-point gain ≥ 50%	Reimbursement of 45% of employer's training costs	Additional 5% of employer's cost
2.	Median gain ≥ 20 points Percentage with 25-point gain ≥ 45%	Reimbursement of 42.5% of employer's training costs	Additional 4% of employer's cost
*3.	Median gain ≥ 16 points Percentage with 25-point gain ≥ 40%	Reimbursement of 40% of employer's training costs	Additional 3% of employer's cost
4.	Median gain ≥ 4 points Percentage with 25-point gain ≥ 30%	Reimbursement of 30% of employer's training costs	Additional 2% of employer's cost

*Benchmark level.

In summary, workers at all three *Skilling UP* sites achieved statistically significant gains in their document use skills. Employers were reimbursed between one-third and one-half of their training costs, accordingly. Gains were highest at THK (achieving Tier 1), and lowest at Cosmetica (achieving T4). Given that Cosmetica comprises the majority of the total *Skilling UP* sample, their lower skill gains have a downwards effect on the overall results. It is important to note that despite lower score gains at Cosmetica, the company felt the training to be of such substantial benefit they signed

on for supervisor training, as well as a second cohort of production line employees. An examination of the unique features of the Cosmetica trainees and workplace, and potential reasons for the lower skill gains, is discussed below under *Training outcomes: Qualitative analysis.*

Training outcomes: Behaviours and attitudes

The baseline survey also measured workers' attitudes about work and life, their abilities, and their satisfaction with their jobs. These questions were asked again at the end of training, and on the 12-month follow-up survey, and responses compared pre- and post-training. For the most part, although there were both positive and negative trends, there were no statistically significant differences in workers' attitudes and opinions following the training.[36] The findings below present only the areas in which there were statistically significant results.

On a positive note, participants reported an increase in their hourly wages after one year (+$0.71). However, there were several dimensions in which the responses of *Skilling UP* participants showed significant negative trends:

- A decrease in positive attitudes towards learning between baseline and post-training surveys, which became more severe twelve months following training;
- An increase in job-related stress between baseline and post-training, some of which were reported to have returned to baseline levels at follow-up;
- A decrease in participant motivation and engagement at work between baseline and post-training, which became more severe one year following training; and
- A decrease in participants' future orientation from baseline to twelve months.

Recalling that Cosmetica's skill gain had been lower than the other sites, and that they comprised the largest portion of the *Skilling UP* sample, the next step was to analyze the survey findings for Cosmetica separately from the other two sites. This analysis found that Cosmetica workers indeed had significantly lower outcomes than those in the other two workplaces with regards to work stress, and motivation and engagement at work twelve months following the end of training. At the same time, the significant increase in hourly wage in the overall sample – a positive outcomes – was driven by workers from Cosmetica. Overall, this analysis indicates that the outcomes are driven by the particular circumstances at one workplace.

In order to explore whether the above findings are related to differences in characteristics of the smaller sample numbers of workers who completed 12 month follow up surveys, we compared them on observable characteristics with the post-training sample. While there was no evidence that differences in the sample members influenced the results, the small sample sizes do challenge the analysis, as individual cases and outliers can have greater and undue influence on the group results. Therefore, interpretation of these results should proceed with caution.

[36] Survey questions and response options are found in Appendices 12-14; tables of all statistical variables and scale scores are in Appendices 25-31.

The lack of statistical evidence of positive outcomes other than the assessed performance on document use led us to explore the notion that document use may have been emphasized in the training, intentionally or not, and that this could leave less instructional time for other skills. This is discussed in the section on Qualitative analysis.

Training outcomes: Worker feedback from survey responses

Overall, participants responded positively to *Skilling UP* as evidenced by their agreement with statements on the survey at the end of training as shown on Table 5.8 below:

Table 5.8 Training feedback

Training feedback item	% who agreed/strongly agreed
The goals of the training program were clearly explained to me	72%
The instructor(s) were encouraging and supportive	72%
The training program helped me understand how my skills are related to my work	65%
The training program helped me understand which of my skills needed to improve in order to do my job effectively	60%
The training program was sometimes challenging or difficult	38%
The topics we covered in the training are highly relevant to my job tasks	51%
During the training program, I sometimes found it hard to keep up with what was expected of me	22%
I will be able to use what I learned in the training program to do better in my job	63%
I feel motivated to apply my new skills and knowledge to my job	58%
I believe that the training program achieved its goals	57%
Overall, I found the training program to be useful	62%
I would recommend the training program to my co-workers	62%

Participants from Cosmetica were significantly more likely to find the training challenging and to find it difficult to keep up with what was expected of them. However they also were more likely to agree that they:

- Would be able to use what they learned to better perform their job;
- Were motivated to their apply new skills and knowledge to their job; and
- Believed the training program achieved its goals.

Over half of all participants also felt that the training would help them improve their speaking and listening, problem solving, reading, writing and math skills, at least a little bit.

Training outcomes: *Skilling UP* vs. *UPSKILL* learners

A comparison of *Skilling UP* results to *UPSKILL* results indicates that on average the two training programs are comparably effective in terms of raising the document use skills of workers: the proportion of workers that improved their document use skills were roughly the same between the two projects. In terms of the samples, *Skilling UP* had lower baseline scores to begin with overall, and classes contained workers with a wider range of skill levels than *UPSKILL*. These factors may have contributed to Skilling UP having more workers with moderate improvements (<25 points) and fewer with large gains (25+ points) than *UPSKILL*.

Training impacts: *Skilling UP* vs. *UPSKILL* comparison group

Members of the *UPSKILL* control group were matched on observable characteristics to estimate a comparison group for *Skilling UP*. Analysing the difference in outcomes between the comparison group and *Skilling UP* participants clearly demonstrated a positive impact, i.e., that *Skilling UP* was successful in improving participants' document use skills above what they were estimated to be without the training. Specifically, *Skilling UP* improved document use scores among 71.5 per cent of participants immediately post-training, compared to only 49.0 per cent of the comparison group.

Estimation of the quasi-experimental impacts on document use assessments 12 months after the end of training was also attempted. However, due to sample attrition for both the *Skilling UP* sample and *UPSKILL* control sample, it was not possible to align the key characteristics to produce a reliable matched comparison group. However, based on the pattern of changes in assessed document use skills at the three points in time, as was the experience with *UPSKILL*, there is no indication that *Skilling UP's* impacts on document use skills significantly increased or decreased in the 12 months following the training.

The survey questions and response categories for *UPSKILL* and *Skilling UP* were not comparable enough to allow for a quasi-experimental analysis of the survey data.

Qualitative analysis

In addition to the quantitative data collection through surveys and literacy assessments, SRDC collected qualitative information during site visits for interviews and focus groups, both immediately post-training, and one year following, with a selection of over 70 participants and supervisors/managers. Regular meetings with intermediary/service provider staff throughout the project provided additional opportunity to gather qualitative information about the program implementation, and to interpret findings. These qualitative data supported the positive feedback from the surveys, and indicated many beneficial outcomes of the training.

Interviewees at all three sites overall felt the training was valuable, even highly valuable. With little exception, this was expressed across the board: by workers who took part in the training, supervisors/managers who did not (yet) have access to it, and plant managers/senior HR staff.

There was appetite for additional training, for staff who had not yet received it, for supervisors, and/or refresher training for those who had already participated. At Cosmetica, despite having lower score gains than the benchmark or the other two sites, management and workers felt the training was so beneficial that they added a second cohort of worker training, and agreed that AWES would develop curriculum and provide training to a group of their supervisors.

Even the few interviewees who were reluctant at first ended up appreciating the value of the training, and enjoying it. For example, a long-term employee wondered why he should do the training since he had been at his job for many years and 'knew' how to do it, but "*After one day, I said I **like** this*!" Some older workers were resistant as they had not had training for many years, but once they gave it a try and/or overcame their nervousness or 'fear of the unknown' they were generally positive about their training experience.

Although not statistically significant in the survey responses, workers offered qualitative information expressing greater confidence and job satisfaction following the training. Both employees and supervisors reported a wide range of performance improvements following the training, including improved literacy and essential skills, communications, problem solving skills, and organization. As an example, one participant reported applying root cause analysis in order to resolve a workplace situation. Other interviewees mentioned that since training, there had been improved communication across different levels, with increased willingness among employees to engage with managers/supervisors and clearer communication when they do engage.

Improved literacy and essential skills

Faster and more accurate reading and writing resulted from the training, according to a number of interviewees. They described how the training taught them to use highlighting and underlining techniques and that they employed these for more accurate reporting at all stages: orders and inventories, manufacturer specifications, deviation and error reporting, safety incidents. They also noted improved calculation skills, specifically faster and more accurate completion of calculations.

Improved communications

Interviewees were virtually unanimous in describing improvements in their communications skills as a result of the training. In terms of oral communication this ranged from increased confidence in voicing questions and comments, to being better able to articulate problems, to coming forward with more ideas and solutions, being more engaged in their work, and learning how to talk in a way that people will listen and respond. Some spoke of a ''new" approach to communications that was more effective, and helped facilitate teamwork through better listening as well as oral expression. Improved written communication was also noted, not just in completing reports but in email and other computer skills. Raising the level of communication brought with it the notion that managers would now be expected to respond to issues raised.

It is relevant to note that several reported the training had improved their ESL skills, and were feeling more comfortable communicating (speaking and writing) in English.

Troubleshooting and problem solving skills

The usefulness of the 5Y's[37] approach – understanding the root cause – was mentioned by many of those interviewed. A couple of workers who had previous training or exposure to 5Y appreciated the refresher, or the "*reminder of what you already know*" and felt that with coworkers receiving the training as well it meant they could better put these skills to use. Examples of improved problem-solving included discovering root causes of production problems and developing remediative actions for reduced errors, learning to source materials or human resources where missing in order to avoid delays or downtime, and correcting repeated mistakes through examining all contributing factors.

Better planning and organization of tasks

Workers specifically cited being better able to complete and organize their reports. One said he was using the training to schedule his team's tasks. Another said he used skills learned to help transition a new manager; the skills were particularly helpful for scheduling and managing resources and he would not have been able to do this without the training. Several specifically mentioned being better able to plan tasks for themselves, and for their teams.

Effects of the training outside of work

Some interviewees provided explicit examples of positive outcomes of *Skilling UP* training in their lives outside of work. These included reading utility bills (and catching an error), having an increased appetite for reading at home in the evenings, being more confident in talking with their kids or with strangers, and being happier and more optimistic in general.

Suggestions for improvement

Interviewees were asked for suggestions or advice on how to improve the training. One of the most common responses was that the training should be made available to as many as possible – or even all – employees. This would promote better skill levels and use throughout the workplace and not just among those who received the training. Interviewees also noted that managers and supervisors need to encourage application of the skills gained through the training and that in order to do so, they benefit from their own training or at least full awareness of training content in order to incorporate learning into the workplace.

Interviewees felt training should be offered only during work time – except for some homework, potentially; workers should not be expected to attend before or after work on their own time.[38] Further, setting clear expectations about training content and objectives is important for having

[37] The 5Y approach, or "Five Whys Technique", is a problem solving tool that involves identifying an end result and working back to understand the root cause by asking "why?" multiple times, with each answer leading closer to a root cause, until asking "why" yields no additional information (Serrat, 2017).

[38] At one site, training time was split 50/50 between work hours and personal time.

workers approach it with a positive attitude. Some interviewees thought there was clarity lacking in their employers' message about the training purpose. Related, some felt that efforts needed to be made to ease the fear of very low-skilled workers who may be intimidated to participate in training, and/or the literacy assessments that precede it. In terms of content, the only suggestion for improvement was to only include documents that are directly relevant to the particular workplace. Although AWES and instructors specifically chose authentic workplace documents where available, there were examples that some interviewees felt were not relevant to their work and they had a harder time relating to them.

Understanding negative outcomes

As noted above in the survey findings, participants who responded to the post-training and 12-month follow up surveys surprisingly showed decreases in some of the attitudes and behaviours that are associated with positive employment outcomes. These findings are contrary to the program theory of change and are puzzling. One potential contributor is that in all three workplaces, the training and evaluation period coincided with organizational change, but particularly so at Cosmetica, which represented the bulk of the overall project sample. In the months leading up to training, their workforce was being restructured, including the creation of a new occupational category. One indication of the large amount of staff movement during this time was that the list of workers selected for training was in flux until the training began. Following the training, workers' qualitative assessments included a narrative of changes in teams or processes; while these changes were felt to be positive overall, they nonetheless naturally generated a degree of stress. Despite Cosmetica's solid HR practices and history of workplace training, the changing environment (including plant management) during the pilot period may have played a role in workers reporting higher levels of stress in the post-training period.

There were other changes at the *Skilling UP* sites that relate directly to document use and reporting including (ongoing) initiatives aimed at reducing document burden in the workplace. As well, two of the workplaces reported having to hire substantial numbers of new employees in the year after training. Workers in key informant interviews mentioned that in order for the training to demonstrate results, it needs to be transferred to the workplace through culture, systems and ongoing training for new workers as well.

Finally, because the *Skilling UP* surveys demonstrated document use skill gains – the metric of success – but not other outcomes, it is logical to examine whether the pay for success structure *de facto* contributed to overemphasis on document use training at the expense of time spent on learning other skills. Facilitators given a main objective on which to focus – particularly with learners who may be challenged to achieve it – may naturally spend more instructional time on that one outcome.

There are two characteristics of the *Skilling UP* learners that are pertinent to an examination of whether or not the pay for success model led to overemphasis on document use skills. The first is that some learners had very low baseline literacy levels, i.e., more Level 1's than in *UPSKILL*, for example; in the same cohort, however, there were those with upper level 2 literacy. Thus facilitators were faced with teaching across a wide range of skill levels in the class, impacting the

overall instructional time. The second characteristic of relevance for this discussion is the high degree of ESL learners among the Cosmetica staff. *Skilling UP* facilitators were experienced in teaching ESL and in delivering training programs and services, were confident in their delivery and rated highly by the learners. In all likelihood, their expertise was a contributor in achieving the gains that were seen, but it could not overcome the need to move more slowly when teaching literacy to learners with low language proficiency. As a further challenge, while instructors would normally simplify documents in order to teach ESL learners, this would have been contrary to the *Skilling UP* commitment to using 'authentic' workplace documents for the training.

Summary

Skilling UP participants at two sites – THK and Chapman's – demonstrated benchmark or higher gains, for which the employers received 48% and 46.5% repayment of a maximum 50% of training costs. Although document use skill gains for the third site – Cosmetica – were one tier below benchmark, they were still eligible to receive reimbursement of 30% of training costs. *Skilling UP* was successful in improving participants' document use skills above what they were estimated to be without the training, and was comparably effective to the *UPSKILL* program in terms of raising document use skills. All sites felt the training was valuable overall, and both employees and supervisors offered qualitative reports of a wide range of performance improvements following the training. Participant surveys also demonstrated an increase in hourly wages, although there was a lack of statistical evidence of other positive outcomes, and some evidence of decreases in attitudes and behaviours usually associated with positive employment outcomes. Potential explanations for the decreases include an emphasis on document use skills (as the metric of success used to trigger repayment) unintentionally reducing instruction time for other skills; and extensive organizational change underway in participating workplaces causing stress unrelated to the training.

6. Investor motivation

Introduction

Over the period November – December 2016, SRDC conducted in-depth interviews with financial sector professionals. The purpose of the interviews was to examine how investors perceive social finance, what motivates them to consider investing in social finance projects and the minimum rate of return versus risk needed to draw their interest.

To address these questions, SRDC initially proposed to conduct interviews with *ESSF* SIB investors, *ESSF* SIB prospective investors who had turned down the opportunity to invest, and mainstream investors unaware of the *ESSF* SIB. In light of work commissioned by CICan to KPMG at the same time, all parties wished to reduce interview burden on current and prospective *ESSF* investors. Accordingly, SRDC proceeded to interview mainstream investors, and agreed to postpone interviews with *ESSF* investors until the end of the project. Some of the data collected by KPMG from their interviews with the three current *ESSF* investors and surveys with four who declined the offer has been incorporated into this Section. In Fall 2018, following the final SIB repayment, SRDC interviewed the three *ESSF* investors; findings are incorporated in this analysis.

The discussion below also aims to add clarity around the design, implementation and operation of social impact investment projects by gaining a better understanding of the financial sector as a whole and the segment of the sector that would act as potential investors for these types of projects. Social impact investment models are complex and they operate in a finance sector that is even more complex and opaque to the majority of Canadians.

The investment spectrum

Research participants included financial sector professionals operating in both the mainstream financial sector and the social impact investment market. The mainstream financial sector is conceptualized as the sum of financial sector professionals who make investments that are strictly meant to produce economic returns without consideration for social or environmental impact.

Figure 6.1 presents a spectrum of investment categories that define investment type ranging from investments that focus exclusively on economic returns, to those that are meant to achieve solely social goals. At one end of the spectrum, we find traditional or mainstream investments made by mainstream financial sector professionals. These include, for example, investments made by wealth managers into mutual funds or publicly traded companies on behalf of their clients. At the other end of the spectrum, we find pure philanthropy where charities and foundations provide grants for social or environmental ideas, initiatives or programs; for example, the United Way awarding grants for a community organizations helping at-risk youth. Figure 6.1 depicts the new and growing paradigm of social impact investing between these two poles. Investor intention and motivation determine where investors fall on the spectrum between traditional investments and charitable donations. Considering the nature of the *ESSF* pilot projects, our particular research interest is in social impact investing, and this drove the design of the interview protocol. We interviewed individuals who could be categorized in Box 1, Box 2, Box 4, and Box 5 in Figure 6.1.

Figure 6.1 The investment spectrum

			Social impact investing		
Box 1 Traditional or mainstream Investments	Box 2 Responsible or ethical Investments	Box 3 Sustainable Investment	Box 4 Thematic Investment	Box 5 Impact First Investment	Box 6 Philanthropy
Finance only	← *A New Paradigm* →				*Impact Only*
Pure financial returns + no or little social or environmental impact	Financial return + Focus on ESG[39] risks ranging from consideration of ESG factors to negative screening of harmful products	Financial return + Focus on ESG opportunities through investment selection, portfolio management and shareholder advocacy	Focus on one or a cluster of social or environmental issues + Financial return from commercial growth opportunity	Focus on one or a cluster of social or environmental issues + Some financial return	Focus on one or a cluster of social or environmental issues + No financial return
Example: Investing in real estate without consideration for energy efficiency or alternative sources of energy; Investment in an oil and gas energy company	Example: Excluding companies with high ESG Risk; Screening and excluding companies that sell tobacco, alcohol, weapons, and pornography products from a portfolio	Example: Investing in companies included in the Jantzi Social Index, FTSE4Good, NYSE Sustainability Index	Example: Investing in a Solar energy community bonds; Investments made by Health Care Funds; Microfinance investments	Example: Investing in a Social Impact Bond; Community loans; Issuing a patient capital loan	Example: Foundation awarding a grant to a charitable organization; Corporation awarding a grant to a charitable organization

Source: Adapted from Bridges Ventures Research (2012): The Power of Advice in the UK Sustainable and Impact Investment Market.

SRDC's interview participants included 13 executives and senior figures working in the Canadian and American financial sectors, and the three private investors in the *ESSF* SIB. General findings from KPMG's interviews with the *ESSF* investors and surveys with four investors who had considered but rejected the SIB offer are also incorporated into SRDC's analysis. Participants represented the following organizations: BDO International, Catherine Donnelly Foundation, Conexus Credit Union, Deloitte, Goldman Sachs, Grassroots Business Fund, PricewaterhouseCoopers, Raymond James Ltd., Royal Bank of Canada, Toronto-Dominion Bank Group, TMX Group Montreal, TMX Group Toronto and four other organizations. SRDC developed a

[39] ESG stands for Environment, Social, and Governance.

semi-structured interview protocol tailored to the different categories of investor. Interviews were recorded, and we analyzed and synthesized data according to a thematic matrix using NVivo, a specialized software program for qualitative analysis. Key themes identified during the analysis are presented below.

Contextual information

To situate the ESDC social finance pilot projects along the investment spectrum requires defining social impact investing. The key informant interviews revealed that to understand the meaning of social impact investing, the term must be differentiated from mainstream finance. To fully appreciate the richness of the data collected during the interviews, the act of investing as understood by mainstream financial sector professionals is defined. We also present the difference between individual investors, foundations and institutional investors and describe the decision making process for investors when choosing an investment product.

An **investment** within the mainstream financial sector (Box 1 in Figure 6.1) is defined as the act of purchasing a financial asset with the expectation that the asset will generate income or appreciate in the future.[40] In financial terms, this means someone is investing money into an asset for the purpose of making additional income or generating wealth in the future. For example, someone can place money into a bond with the expectation of receiving their money plus a return in the future, or they can put their money into a stock, which is a part ownership of a publicly traded company, and hope the price increases allowing for the sale of the stock at a higher price in the future. This perspective guides most decisions made by investors in the mainstream financial sector, however, other factors enter into the decision making process including a calculation of risk versus return, the tax environment, and regulatory requirements. These factors vary according to whether one is an individual investor, a foundation or an institutional investor.

Individual investors: Often referred to as retail investors, individual investors choose to make investments to grow their personal accounts. They do not act on behalf of an organization or a company. Individual investors can be of limited – or have substantial – financial resources. The latter is referred to as a High Net Worth Individual (HNWI). Individual investors have much flexibility in deciding where to place their money, however, they most often work with a wealth manager to navigate the complexity of the financial system.

Foundations: Public and private foundations are charitable organizations. Canadian foundations must have a charitable purpose and are subject to a disbursement quota of 3.5%. The rules and regulations governing this 3.5% are complex, but essentially foundations are required to disburse 3.5% of the total value of their assets in the form of charitable grants with the aim of generating social impact.[41] The majority (96.5%) of their assets are invested through an endowment fund with

40 Retrieved from Investopedia: http://www.investopedia.com/terms/i/investment.asp.

41 For more information, see the Government of Canada webpage: https://www.canada.ca/en/revenue-agency/services/charities-giving/charities/operating-a-registered-charity/annual-spending-requirement-disbursement-quota/disbursement-quota-calculation.html.

the objective of producing a financial return. Foundations must comply with both federal and provincial or territorial legislations.

Institutional investors: Institutional investors are organizations mandated to generate profits for their shareholders and stakeholders. They have many stakeholders and many have a significant amount of money to invest; they therefore answer to different rules and regulations than do individual investors and foundations. Banks, credit unions, finance companies, insurance companies and pension funds are considered institutional investors. Governments set the rules and regulations that govern financial institutions, which differ according to the products and services offered by and the size of the institution. For the purpose of this research, it is worth elaborating on three types of institutional investors. Understanding the differences among the institutional investors can help with the tailoring of an investor engagement and communication strategies when designing social impact investment projects.

Banks provide financial services to individuals, small and medium sized businesses (SMEs) and large corporations. Their key characteristic is having the ability to take deposits from savers and issue loans to borrowers, but they also offer financial services such as wealth management to individual or corporate clients. In Canada, banks must follow regulations set out by the federal government.

Credit Unions are financial co-operatives, locally owned by their members. Like banks, they take deposits and issue loans, but unlike banks, they invest their profits in the communities where they operate. Credit unions are regulated by provincial or territorial governments.

Pension Funds manage pooled money of employee contributions for the purpose of paying out benefits upon these employees' retirement. Pension funds are usually set up by employers, unions or other organizations. They are the largest financial institutions in most countries and have a large number of different stakeholders including contributors, pensioners, employees, and external fund managers. Pension funds have a fiduciary duty prescribed by law, i.e., a legal obligation to act in the best interests of the individuals or organizations with whom they are entrusted with caring for money or property. Most often this is interpreted as maximizing economic returns and contributing to wealth generation. Institutional investors also have restrictive mandates, investment policy guidelines, investment committees and trustees. These characteristics make pension funds conservative and risk-averse financial institutions.

The **investment decision making** process varies according to the type of investor. Still, there are some general principles that apply across all investors:

- The process will involve some form of risk-return calculation. As stated above, the basis for all investment decisions is to earn future returns, and investors understand that there is a tradeoff between expected risk versus expected return. For example, a risk free investment will earn a low rate of return; to earn a higher return, investors need to take on additional risk. Different methods are used to analyze the potential future earning of an investment opportunity and the risk attached;
- Regardless of the method used by investors to value an investment product, investors like certainty and plan for the short, medium and long term;

- An investment opportunity's track record, or historical performance of the investment opportunity, is an important consideration in the investment decision making process; only a small fraction of investors – venture capitalists or "angel investors" – will choose to make high risk investments that have little to no history of performance into a handful of companies; and
- Most investors will choose different types of investment products to ensure they hold a diversified investment portfolio.

Key findings

Research participants were asked about their perception of social impact investing generally and of SIBs specifically. They were also asked about potential motivation for considering these types of projects as well as how risk and return would factor into their decision making process. Investors who were aware of the *ESSF* were asked specific questions about the SIB. The interviews revealed that investor motivation, perception and method for calculating risk and return differs based on the perspective of the investor. Not surprisingly, interviewees with a history of being involved in philanthropy and/or engaging in social impact investments viewed social impact investing differently from those who have operated exclusively in the mainstream financial sector. General themes that emerged are presented below.

SIBs are seen as experimental: All interview participants viewed SIBs as experimental and most felt that their experimental nature made them a high risk investment. They compared SIBs to venture capital investments.[42] Most participants felt SIBs would be a challenge for a majority of investors, especially the larger institutional investors. A number of respondents explained that some of the larger credit unions would be an exception to this because of their adherence to co-operative principles and values: concern for their community, a strong history of managing community outreach programs, and being bound by a less restrictive regulatory framework than the larger institutional investors. It was emphasized that out of the hundreds of credit unions in Canada, likely only the larger ones would consider SIBs; most credit unions are small and would not be willing or able to put their capital at risk.

Most interview participants, especially the mainstream finance professionals, did not see SIBs or social impact investments as investments at all. They believe these types of investments to be either philanthropy or in the case of institutional investors as part of an organization's corporate social responsibility mandate. As one individual who was involved in the investor engagement stage of the *ESSF* SIB explained, "*There was strong interest among the banks* [meaning the big five Canadian banks], *as a pilot study. There was very little interest in this as a financial investment … it was more of a social initiative than a financial initiative."* Those who supported SIBs were attracted by a desire to be *"innovative and experimental"*, or to *"try something different"*. Others shared that if the investment opportunity cannot compete on a risk adjusted return basis according to fundamental

[42] Venture capital is money that investors provide to startup companies and small businesses that have difficulty accessing capital through traditional financial channels. These types of investments are high risk for the investor, and the proportion of individual and institutional investors who consider then is very small.

analysis, it should not be considered an investment; rather, in essence it "*becomes a subsidy because it lacks liquidity, it's a relatively short time horizon, and one's capital is at risk*".

One example of a financial institution's Corporate Social Responsibility initiative is the Royal Bank of Canada's Generator Fund, which is a social impact investment fund capitalized with $10 million. The fund was operationalized through the organization's Corporate Social Responsibility group and this team is responsible for sourcing social impact investment deals, but the pool of capital is held, and deals are structured, by the organization's private equity group.

The experimental nature of SIBs prevents them from fitting into current mainstream financial models used to make investment decisions. Even the three investors in the *ESSF* SIB, who have a history of making social impact investments, viewed SIBs as experimental and chose to invest as part of their commitment to building socially responsible portfolios. One institution had decided to dedicate 10% of its portfolio to social impact investing after the organization's senior management reflected on the organization's mission in the wake of the 2008 financial crisis. Another explained that the financial return was not the primary motivator for investing in the SIB: the organization was more focused on the impact of the project.

Language is important: Given that social impact investing is a relatively new phenomenon, it is not surprising that there is a lack of clarity around the meaning of the terms 'social impact investing' and 'SIBs'. All of the research participants from the mainstream financial sector had little or no knowledge of social impact investing. Some equated social impact investing with responsible investing and ethical investing. Many found the description of a SIB particularly confusing. Investors perceive bonds as, *"very low risk investments. The portion of the portfolio where clients want to keep money safe."* SIBs were not seen as bonds at all because of their short time horizon, high risk and lack of secondary market. One individual stated that if SIBs were viewed as an investment product, they would need to compete with other financial products in terms of risk and return because *"competition drives behaviour"*. Participants shared that if these types of social projects are to succeed, they need to be marketed appropriately and the term Social Impact Bond would need to be explained to potential investors. Many of the participants believed SIBs should marketed as a "social play" or a "philanthropic" initiative because *"that's what they are".*

When participants were asked if information about SIB interventions needed to be converted to mainstream financial sector jargon, responses were split. Some felt that investors would require the details of the intervention to be translated into financial jargon. Caution was given as to which terms to use especially when trying to translate the risk involved in SIBs because different types of investors use different terms. Other participants shared that the most important factor is having a competent person engaging investors; this person needs to have the network and the skills to sell the financial product. Substantial and accurate data supporting the efficacy of the intervention was also seen as essential. *ESSF* investors required clear expectations of their role within the project. As one research participant explained, "*They [investors] like clear expectations. The private sector does not have a public policy imperative, but if they do business with government, they do want to be met half-way."* It was also emphasized that the individual or organization explaining the intervention would have to have a solid reputation and track record within the financial sector.

Growing interest in social impact investing: Reputable organizations have published reports demonstrating the growing interest in social impact investing. Reports by The World Economic Forum, McKinsey & Company and the Global Impact Investment Network in collaboration with JP Morgan Chase are but a few examples.[43] Some of the largest financial institutions such as Bain Capital, BlackRock, Credit Suisse, Goldman Sachs and JP Morgan Chase have launched impact funds or started offering impact products to their clients. Financial institutions have offered similar products in the past such as ethical mutual funds originally offered in the 1960s and 1970s, however, today's products have been branded to fit into the new narrative surrounding socially responsible investing and social impact investing, and the offerings are growing in size and in value. The interviews produced additional evidence supporting the idea that interest in social impact investing is growing. Wealth managers explained that clients are increasingly wanting to live cleaner and healthier lives and this is reflected in their investment decisions; individual investors are having discussions with their wealth managers about responsible investing and/or social impact investing.

Interest in social impact investing within institutional investors is also increasing. We learned that the Royal Bank of Canada's Generator Fund was initiated by the interest of senior executives wanting to establish a means for experimentation with social impact investing. Some institutional investors are choosing to enter the sector to mitigate reputational risk while others have been driven by shareholders and stakeholders to become more socially conscious with their investments. One research participant shared that *"Nine out of the ten of the biggest Canadian pension funds have become signatories to the Principles for Responsible Investment (PRI) initiative, a responsible investing principle-based framework."* She also explained *"There is very much a push. When you have asset owners who have embraced this, then this is going to be pushed down to their asset manager."* At the same time it was acknowledged that asset or wealth managers do need to be educated on the intricacies of responsible and social impact investing in order for interest to grow into action. Finally, prominent educational institutions are beginning to integrate responsible and social impact investing within their curricula. One research participant shared that when she participated in a Harvard executive leadership program for female executives, she was exposed to a full unit on responsible and social impact investing. Other examples can readily be found in business schools at Canadian universities adding specialization in social finance or social impact investing to their programs.

Barriers to growth: Even with growing interest among asset holders, the interviews indicated that the pool of potential investors ready to invest in social impact investment projects remains relatively small. Many financial sector professionals are driven by traditional financial models and

[43] See McKinsey & Company (2016) *How impact investing can reach the mainstream*, retrieved from: http://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/how-impact-investing-can-reach-the-mainstream; World Economic Forum (2013) From the Margins to the Mainstream: Assessment of the Impact Investment Sector and Opportunities to Engage Mainstream Investors, retrieved from: http://www3.weforum.org/docs/WEF_II_FromMarginsMainstream_Report_2013.pdf; GIIN's (2016) sixth edition of the Annual Impact Investor Survey, retrieved from: https://thegiin.org/assets/2016%20GIIN%20Annual%20Impact%20Investor%20Survey_Web.pdf.

systems where wealth generation and financial returns are the main drivers of investment decisions.

Only a small proportion of individual investors will be interested in social impact investment projects unless specialized social impact investment vehicles are built or certain policy instruments are used to mitigate risk or incentivize investment. Research participants felt that only High Net Worth Individuals (HNWIs) would consider investing in SIBs because they have reached financial independence and have the ability to devote financial resources to initiatives or investment opportunities that go beyond the purpose of wealth generation. On the other hand, HNWIs are understandably averse to losing capital investments, particularly without the ability to claim losses. Without a change in tax treatment of SIB losses, or backstopping, this market is likely very limited as well.

Individual investors who are not HNWIs are more likely dedicating their money towards reaching financial independence. Some of the research participants explained that individual investors are dependent on wealth managers for making investment decisions because they themselves have little knowledge of the financial systems: they trust their wealth managers to manage their money. This in turn creates two issues for attracting individual investors in considering social impact investment projects.

One issue concerns the method used by wealth managers to analyze investment opportunities based on a risk-return calculation. Wealth managers have traditionally aimed at maximizing return while mitigating risk in accordance with their clients' risk appetite, and most will offer pre-packaged investment products offered by the commercial financial institutions for whom they work. These wealth managers take on more of a sales role. Wealth managers who have more flexibility to offer customized investment products use an appropriate risk analysis for valuing investment products. One of the fundamental factors included in a risk analysis is observing the historical performance of the investment whether it's a private company, a stock of a public company, a mutual fund or an exchange traded fund. Social impact investment suffers from a lack of historical data.

A second issue is that the size of the return is also an important factor. As one research participant explained, some wealth managers must choose the investment product with the highest returns because their responsibility is to have their clients reach financial independence as rapidly as possible. The same participant also shared that some wealth managers make decisions based on the commission they receive, that is based on the investments' performance. Some are simply risk-averse and will not consider alternative investments for their clients, which presents a barrier to social impact investment projects. Most believed that both responsible and socially responsible investments performed poorly compared to traditional investment products like Exchange Traded Funds or Mutual Funds.

Wealth managers choose to look at their clients' lifespan and if they are not High Net Worth Individuals they take a long investment horizon perspective, because they choose to plan for their clients' retirement and beyond. This means they prefer clarity and stability for investment products because it helps them plan for their clients' financial future. They do not typically see a role for measuring social impacts. However, some wealth managers are philosophically aligned with

responsible and social impact investing and build their practice around these themes. They incorporate Environment, Social and Governance (ESG) analysis in investment decision making believing this provides them a competitive advantage, or simply that it is the right thing to do. These wealth managers will perform an analysis that goes beyond the traditional risk analysis.

Credit unions and their members are guided by a different philosophy and are governed by a different regulatory framework than mainstream financial institutions. The credit union investing in the *ESSF* SIB shared that there was interest among their members for projects like these and suggested that some structure or model should be created to allow for retail investors to participate.

The barriers to engaging foundations and institutional investors beyond credit unions are different from those for individual investors. Foundations are technically able to dedicate a small portion of their endowment or their grant envelope to social impact investing. The former has been termed Mission Related Investments (MRIs) and the latter Program Related Investments (PRIs). However, foundations are bound by internal documents like Memoranda of Associations, Constitutions, Statements of Investment Policies and Procedures (SIPP), etc. that might not mention nor address social impact investing. This, combined with requirement of abiding by "prudence" standards including in-trust legislation (e.g., the Trustee Act), produces a conservative culture within both public and private foundations (Miller Thomson LLP, n.d.). Members of a foundation's board of directors can be reluctant to lead their foundation into a social impact investment project without clarity around the result the investment might have on their charitable status: investing in for-profit enterprises can put a foundation's charitable status at risk.[44]

Foundations are not able to, or comfortable with, putting the endowment's capital 100% at risk if the project fails. Regulatory barriers preventing investment in SIBs was noted as a large stumbling block for investment in the *ESSF*. This particular barrier has been recognized and is being addressed by government regulators: In the United States, the Internal Revenue Service has changed the regulations to allow foundations to make investments with their grant dollars without losing their charitable status as long as the investment produces below market rates of return. In Canada, in 2015 an amendment to the *Income Tax Act* was made to allow public and private foundations to invest up to 20% of their fund in units of a limited partnership.[45]

Barriers to investing in social impact investment projects are even higher for institutional investors, who are heavily regulated and risk-averse. Institutional investors have a fiduciary duty, mandates, investment committees and multiple stakeholders. Many of the interview participants stressed that even though institutional investors are increasingly getting involved in responsible investing, social impact investing would only appeal to their CSR departments. One research participant felt that to engage institutional investors, "*studies need to be done that show if customers would be willing to*

[44] A special purpose vehicle which include for-profit general and limited partnerships must be created for SIBs. Investing in these special purpose vehicles can put a charitable organization charitable status at risk.

[45] Prior to the passage of this amendment, private and public foundations investing in limited partnerships could lead to the loss of their charitable status, which would have led to the loss of their income tax exemption and their ability to issue donation receipts.

support organizations that demonstrate better social balance than their peers … there is also a need to integrate these types of investment in executive training curriculums because until the philosophy changes at the board level, these types of investments will not become mainstream."

Summary

The current research found that mainstream investors view social impacting investing differently from impact investors. The experimental nature of social impact investment projects, especially SIBs, while being of interest, do not lend themselves well to being valued through current mainstream investment valuation methods. Institutional investors and wealth managers, with the exception of co-operative financial institutions, view philanthropy or corporate social responsibility as a means for meeting their social obligations. While consensus is starting to form among scholars and practitioners within the social impact investing community, mainstream professional investors either lack knowledge about impact investing or confuse it with other types of social investments. To grow the social impact investing market, there will be a need to address barriers at the individual, organizational and systems level. For instance, the substantial risk involved in investing in some social impact investment schemes preclude most individual investors from participating. Also, institutional investors are restricted from being a partner in social impact investment projects because of their internal and external policy frameworks.

There are limitations on these findings due to a small sample size of 20 respondents, and their concentrated geographic distribution (mainly Toronto, Montreal, and Ottawa). The themes that emerged bear exploration with other sources of information about investor perceptions, motivations and behaviour. Expanding this type of inquiry to other jurisdictions is necessary to inform the types of public policies that are most effective in all provinces and territories. For instance, understanding more about social finance policy frameworks used in the United Kingdom, United States and elsewhere would be beneficial, as a number of countries have a more mature social impact investment sector than Canada.

7. Lessons learned

Over their five-year duration, the two pilot projects have produced a number of lessons and insights for policymakers, service providers, private funders and evaluators. This section reports on the lessons learned, starting with those that apply to both pilots, or potentially to all pay-for-success approaches, followed by lessons applicable primarily to social impact bonds. In all cases, the lessons learned specifically from the two pilot projects are presented in the context of recent or current literature and projects conducted elsewhere.

Pay-for-success approaches

The pilot projects demonstrate proof of concept for pay-for-success approaches to Essential Skills training in Canada

A number of social impact bonds for employment training/workforce development have been launched in recent years in the US, including *Pathways to Economic Advancement* (Massachusetts), and *Increasing Employment and Improving Public Safety* (New York). In the UK, the *Youth Engagement Fund* and the *Mental Health and Employment Partnership* have developed SIBs to support their programming. At time of writing (March 2019), these SIBs are in progress and their final results not yet known.

For the first time in Canada, the *ESSF* pilot project demonstrated that a SIB approach to funding Essential Skills training can be used to improve employment-related outcomes for lower-skilled unemployed Canadians. The intermediary, CICan, was successful in securing private investment in a risk-shared funding scheme, and investors were repaid according to the level of success outcome achieved, as agreed at the start of the project.

Likewise, *Skilling UP*, while not a social impact bond, was successful in engaging employers in a pay-for-success approach to funding Essential Skills training. The training improved the literacy skills of the workers who participated, and although it did not provide statistical evidence of improvements in other employment-related outcomes, qualitative reports from participants and employers spoke of multiple benefits of the training.

Findings of both pilots are contributing to the body of knowledge about applying pay-for-success approaches to workforce development, in particular, Essential Skills training.

Performance measurement adds burden for participants as well as service providers

A necessary component of pay-for-success approaches, the focus on performance measurement added burden for participants as well as service providers in the pilot. This burden was in the form of time – up to three hours for assessment, at three points in time during the project – and for some, psychological or emotional stress. Additionally, for *Skilling UP*, the time spent on assessments was a sacrifice for the employers in the form of lost production time and for the workers who were giving up some of their own time for the testing. As for service providers, although SRDC was responsible for conducting the literacy assessments for triggering repayment, they needed to help coordinate

the testing, encourage participants to attend and complete them, distribute individual results and support participants in understanding their scores.

On the other hand, a 2018 review of outcome-based payment systems in the UK and US found that evaluations of these projects identified positive effects of a focus on performance measurement to outweigh the negative (Albertson et al., 2018). While the amount of data required and intensity of performance monitoring associated with outcome-funded projects had created a 'culture shock' for some service providers, it also resulted in new and enhanced performance monitoring systems, and service improvements.

Service providers in the Canadian pilots also recognized some benefit of increased attention to data collection in light of the focus on performance measurement. However, given the extent of the burden of the literacy assessments, and the limitations to capacity-building afforded by focus on only one success metric, it cannot be said the positives outweighed the negatives for the delivery partners. While testimonies from participating employers and service providers suggested the pilots influenced their internal management and measurement practices, these were not systematically measured during the evaluation. Such benefits are more likely to emerge from a critical mass of such pilots and metrics which can slowly transform the service delivery sector and make it more agile to respond to governments placing more emphasis on outcome measurement.

Relying on only one success outcome has pitfalls

The selection of a single success metric for pay-for-success models has three major pitfalls. Firstly, performance measurement naturally creates some tension and pressure for service providers and participants; having only one metric generates that much more pressure on them to 'measure up' on that one outcome. Facilitators in both projects spoke of the pressure they felt to produce score gains that would trigger (higher) payments. Some learners visibly demonstrated or vocally expressed their stress at feeling the need to show the required gains – so much so that in some cases, test anxiety may have contributed to poor performance in the post-training assessments.

Secondly, while undue pressure is undesirable in itself, it can encourage service providers to make changes to program delivery in order to achieve success in that one outcome. Program adaptations or overemphasis on one success metric – intentional or not – can be at the expense of other program goals. In *Skilling UP*, the achievement of document use gains but not others (statistically speaking) may be illustrative of this.

Thirdly, selection of a single binary measure – 25-point skill gain – does not reflect the full range of potential outcomes, or milestones along the way to the desired longer-term outcomes. As found in the literature, both pilots showed how recognizing only one outcome is a source of frustration for service providers and participants alike.[46] This is particularly true in programs serving multi-barriered clients or in the case of pre-employment training programs serving those who are further away from the labour market. For example, for the *ESSF* participants, a series of 'success' metrics

[46] Pearce et al., 2015, p. 33.

may have been more appropriately defined as milestones along a pathway to better long-term employment outcomes.

The risk of real or perceived creaming can be mitigated

Focus on performance outcomes vs. volume of services being offered is intended to change the way service providers work. Basing contractual obligations on outcomes gives providers more flexibility to utilize their expertise to deliver services in the ways they believe will be most effective for their clients (Albertson et al., 2018). But paying for outcomes can also incentivize service providers to intentionally or subconsciously 'cream', or select participants more likely to succeed in meeting success targets. For the pilots, this risk was mitigated both through the weighting of participant characteristics in the repayment formula, and through clearly-defined and transparent participant selection processes for both projects. In *Skilling UP*, participant selection was one step removed from the service provider: workers were selected by employers, based on workplace needs and workforce skill gaps identified both prior to and during organizational needs assessment with AWES. The pilots demonstrated how the risk of real or perceived 'gaming' behaviour can be mitigated through the application of these types of strategies, and the importance of doing so for future pay-for-success designs.

Demonstrated success is important for attracting investors

Many sources suggest that pay-for-success approaches be considered only for programs or services with demonstrated success. Interventions with known success levels can produce baseline metrics for pay-for-success repayment formulas, such that funders and investors can assess their levels of respective risk. Both the *ESSF* and *Skilling UP* were supported in this regard by data on the success of similar programs in the past. The information was used to pitch the programs to investors/employers, and to provide benchmarks for the reimbursement formulae. Recruitment of employers and private investors for both pilots was challenging, but may not have been successful had the design of the pilots not been based on evidence from previous successful projects. Our discussions with investors reflected what is suggested in the literature, i.e., that 'market' investors – those seeking a return on their capital investment – are more likely to invest when there is a solid track record of evidence to mitigate their risk (Goldberg, 2017).

An opposing perspective proposes that pay-for-success can incentivize innovation and should be used to tackle complex and/or persistent problems that are not being resolved through traditional funding approaches. In this case, the definition of success metrics and repayment schedules is more difficult because there is less data for benchmarking and estimating risk. These types of pay-for-success model may be more attractive to investors on the philanthropic end of the spectrum, for whom return on investment is neither expected nor necessary; in order to attract market investors, the risk posed by the uncertainty of 'known' results might need to be mitigated by the presence of a backstopper or guarantor accepting liability for part or all of the investment should the success outcomes not be met.

Sample size matters

In the US, the Nurse-Family Partnership in 2016 launched a pay-for-success project in South Carolina for funding their established program to improve maternal and child health outcomes of over 3,200 low-income families. The NFP experience dictated that 'size matters' when considering pay-for-success approaches, for two reasons: firstly, high transactional costs lead to unacceptably high costs per client served, and secondly, small sample sizes may not provide enough statistical power to measure program impacts (Palandjian, 2018). Before the Nurse-Family Partnership findings were known, MDRC's experience as the intermediary of the first SIB in North America, the Riker's Island SIB, concluded that pay-for-success approaches should only be applied where there is adequate sample size, for the same reasons. They go so far as to suggest that pay-for-success approaches be applied only where there is oversubscription for a program; this will avoid small sample size, keep recruitment on pace to meet the repayment schedule, and promote the use of experimental evaluation of impacts (Berlin, 2016).

Another problem of small sample sizes is that success metrics based on average aggregate outcomes require adequate sample size. For the two pilots, it was anticipated that the metrics would be calculated on group sizes no smaller than 200; however, the smaller samples that resulted did not support measurement to as high a standard of accuracy as incorporated into the initial design. This resulted in the need for additional statistical analysis and adjustment for the repayment calculations that would not otherwise have been required.

The pitfalls of both small sample size and slow recruitment were borne out in both the Canadian social finance pilot projects. The delays in implementation while private investors/employers were being engaged in turn affected participant recruitment especially for the *ESSF* where referral partners described a loss of momentum during the wait; other issues included statistical problems with outliers in the calculation of group average (median) measures for outcome payments; sample sizes too small for rigorous pre-post measurement of outcomes; and reduced ability/inability to demonstrate that the programs led to improvements in participants' skills, attitudes and behaviours associated with long-term positive employment outcomes as specified in the project logic model.

Success outcomes must be transparent, relevant, and readily measurable

Across the various perspectives on pay-for-success models, there is widespread support for success outcomes that can be readily measured, transparent and relevant. Indeed, one of the main reasons why literacy was proposed and accepted as the success metric for the two pilot projects was because there exist standard assessments to measure various literacy domains. Third-party (SRDC) responsibility for conducting the literacy assessments promoted transparency, as did providing participants with their individual scores. However, this metric itself is not particularly salient to stakeholders in either of the projects.

Pay-for-success models hold more saliency when metrics for success payments are directly aligned with investors' outcomes of interest. To fit within project timelines, it may be necessary to use intermediate outcomes as indicators of long-term positive outcomes. This was the case for both

ESSF and *Skilling UP*. The success outcome was considered as a proxy – literacy skills are associated with positive employment outcomes and increased productivity, but in and of themselves not particularly salient. It may be more difficult to attract investors with proxy outcomes, and for participants and Service Providers to accept them as the main success outcome. For *Skilling UP*, document use skills were not as resonant with employers as other metrics more directly related to productivity, despite there being acceptance among the three employers that literacy skills in general are associated with improved workplace performance.

Program implementation can create unpredictable and variable results

Despite the fact that the design of *ESSF* and *Skilling UP* were based on programs with demonstrated success, implementations of the pilots produced different results from those expected. In the case of both projects, document use skill gains were overall lower than the benchmarks estimated from the findings of similar programs in the past. There are many reasons why this might be, primarily differences in:

- Population in terms of observable characteristics (education, language, skill levels), unobservable (resilience, motivation), workplace/employment status;
- Program and service delivery including curriculum content and alignment with learner needs, core/optional content, facilitators, instructional hours, attendance;
- Mechanisms for transfer of skills from classroom training to a workplace environment;
- Environmental factors such as economy, geography, governments, workplace culture of training;
- Reliability of historical data, and the analyses of benchmarks and risk/reward ratios; and
- Availability of evaluation data.

It is evident that careful design, planning, monitoring and evaluating pay-for-success projects is key to success, but there will be always be an element of risk that previous and known conditions can not be reproduced during implementation.

Engaging employers in pay-for-success models can be challenging

Paying up-front costs for training large numbers of employees can be a stumbling block for some employers, particularly if the repayment period is lengthy (for example, awaiting completion of multiple cohorts, or longer-term outcomes). Some who expressed interest in *Skilling UP* hesitated to make these investments, given "the unknown" of pay-for-success, or risk-shared ventures. Data collection for *Skilling UP* was considered to be onerous by some employers, and the requirement to administer skills assessments at multiple points in time not considered desirable, although they do these types of assessments themselves on occasion. Giving up work time for training is already a sacrifice for employers, but with the *Skilling UP* model, the additional time needed for employee assessments (up to 3 hours, three times over the course of the project) was prohibitive, or viewed negatively, by prospective firms. To compensate, employees at one of the sites were asked to complete assessments half on their own time.

The availability of other grants or subsidies creates alternatives for employers, who may choose them because they are more "known quantities", or perceived to be simpler in terms of administration. For example, the availability of the Canada Job Grant during the field period of the pilots may have contributed to a slower response than anticipated from potential investors for the *Skilling UP* model.

About Social Impact Bonds

The regulatory environment must be supportive of SIBs

At the time the pilot projects were announced, there was clearly political interest and support for SIBs, but the legal and regulatory environment in Canada had not contemplated SIBs and was not adequately prepared. As a first step, CICan (a non-profit) had to undertake extensive work examining alternative corporate structures in order to be able to receive and administer the SIB funds without jeopardizing their charitable status. After seeking and awaiting approval from Canada Revenue Agency, they were able to do so through creation of a Limited Partnership as a special purpose entity. At the start of the project, there were restrictions to the ability of charitable organizations to invest in limited partnerships, but an amendment to the Income Tax Act in 2015 allowed charities "*to hold up to 20 per cent of the interests of a limited partnership, as long as the charity deals at arm's length with each general partner of the limited partnership*" (College and Institutes Canada, 2018, p. 5).

CICan has submitted to ESDC a report documenting the SIB development process in detail, including development of the investor Memorandum of Offer, and the investor engagement strategy. While the groundwork laid in this project will undoubtedly facilitate future SIBs in Canada, there remain unresolved and potentially complicated SIB-related issues, such as the tax treatment of earnings and losses from SIBs. Indeed, investors in the pilots and elsewhere have expressed the importance of clarity on this matter as a pre-condition of investment.

SIBS are complex and bear higher transactional costs

Performance-based funding in general adds complexity through the need to identify and monitor success metrics, and in negotiating contractual obligations. In social impact bonds, the participation of external funders covering up-front costs and being remunerated according to outcomes brings a higher degree of complexity to the partnership model, as does the involvement of intermediary organizations operating between private funders and service providers.

SIBs have complex administrative structures and require coordinated effort among partners. This involves substantive transactional costs: administrative, legal and operational costs to support the SIB structure; developing success metrics and repayment terms; attracting investment; and independent data collection for validation. While transactional costs may be amortized over future SIBs, it is argued that SIB knowledge is rarely transferrable (Albertson et al., 2018) because each project has unique features in terms of performance measurement, outcome payments, and thresholds and values. With respect to *ESSF* cost amortization, experience of the SIB legal and partnership structure and investor engagement pieces could certainly be transferrable, but without

a simplification of the assessment process/change in success outcomes and a much larger sample size, transactional costs are likely to remain high.

Attracting SIB investment can be challenging

Potential SIB investors range on a continuum, from philanthropic investors with no expectation of profits nor even necessarily reimbursement of their initial investment to more commercially oriented private investors seeking market returns on their investment. While growing, SIB awareness has been and likely remains low among market investors; and recent reports on SIBs including the impact report on the documentary *The Invisible Heart*[47] indicate they may not grow in their appeal even as they become better known. However, a growing interest in impact investing[48] clearly points to investor openness to consider lower returns if their investment is supporting social and/or environmental good. The need for the Canadian government to define a ruling on the tax treatment of SIBs – specifically losses – has been identified by investors we interviewed as a key consideration. Without some form of loss mitigation (e.g., through the tax system) or loss protection (e.g., backstopping), attracting significant sums of market investment seems unlikely; instead, these investors are likely to support SIBs only with the philanthropic portion of their portfolios.

In other jurisdictions, the availability of funds for SIB investment has led to more rapid development and implementation of SIBs than in Canada. For example, in the UK, the creation of the *Big Society Capital* independent financial institution, holds a fund of over $1 billion for this purpose.[49] The Canadian government continues to demonstrate interest in social finance in general, and as part of a Fall 2018 budget announcement introduced a Social Finance Fund, with $755 million available over the next 10 years, and $50 million over the next two years as part of an Investment and Readiness stream to develop the ability of social purpose organizations to successfully participate in social finance initiatives (Department of Finance Canada, 2018). The 2019 federal budget builds on that announcement including that "*The Fund will help charitable, non-profit and other social purpose organizations access financing for projects that will have positive social impact*".[50] It goes on to describe that the fund will be managed by professional investment managers selected through a competitive selection process, that the managers will invest in existing/emerging social finance intermediary organizations, and that they will be required to leverage non-government capital along with the federal funding.

The presence of third-party investors can influence program delivery

That social investors may provide 'hands-on' support or expertise to interventions they fund has been credited as a factor in their success (Roberts & Cameron, 2014). On the other hand, a criticism

47 The Invisible Heart Impact Report (2019) retrieved from https://www.theinvisibleheart.ca/get-involved.

48 See SRDC's Social Finance pilot projects interim report for a description of social impact investing.

49 https://www.bigsocietycapital.com/about-us/our-investment-numbers

50 Investing in the Middle Class, Government of Canada March 19, 2019. Accessed at https://www.budget.gc.ca/2019/docs/plan/budget-2019-en.pdf.

of SIBs is that investor influence may interfere with service delivery by exerting undue pressure on service providers to meet success target(s) at the expense of other program goals (Hajer, 2019). In the case of the *ESSF*, investors expressed keen interest in the program they were funding, and were invited to provide feedback on the proposed model as it was being finalized, pre-delivery. Their suggestions encouraged a richer set of wraparound services in *ESSF* compared to previous implementations of *Foundations* – a program adaptation that service providers agreed would be suitable for their anticipated clientele. This adaptation, while anecdotally beneficial to the participants, may have contributed to outcomes varying from previous implementations of the *Foundations* program, by shifting the learning focus and/or attracting different clientele. Another way in which the presence of third-party investors was felt in *ESSF* program delivery was the practice of regular reporting to the investors, and preparation of case studies or testimonials from participants. Although not particularly time-intensive, these activities nonetheless required service provider and intermediary resources not directed to program delivery *per se*.

The effectiveness of SIBs over traditional funding models has not been established

As of January 2019, Brookings counts 134 impact bonds world-wide,[51] of which over one-quarter are complete (Brookings, 2019). They have been tracking the success of impact bonds across a range of measures, with the finding that *"It is important to note the continued difficulty in isolating the "impact bond effect" – that is whether using the impact bond financing mechanism actually adds value."* (p. 3). Similar comments include a recent OpEd in the Winnipeg Free Press: *"In general, the jury is still out on SIBs. SIBs are more expensive, and after eight years of piloting the model internationally, there is still no evidence to show they are more effective than traditional government funding models"* (Hajer, J., January 16, 2019).

Among those who believe in the potential effectiveness of the SIB funding model, there remains caution: program directors of the South Carolina's Nurse-Family Partnership SIB describe SIBs as being so labour- and resource-intensive to be recommended as the *"last and also the latest tool in the toolbox."* (Bauer & White, 2018, p. 196). Nonetheless, they have found the application of the SIB funding model to expand their program to be fruitful, and they assert that SIBs that are run at scale hold great promise for unleashing major, new sources of funding for highly effective public-private partnerships.

So far, despite the contributions of some rigorous evaluations of interventions funded by impact bonds, there has been no experimental evaluation of whether these same outcomes could have been achieved through a traditional funding approach. Thus, even if impact bonds are shown to drive better outcomes – theoretically through incentivizing service providers and permitting them flexibility in delivery – there remains a question of whether a comparison of their costs relative to other pay-for-success models, or traditional contracts, would support their use and expansion.

The evaluation of the *ESSF* was no exception in that respect. It was not run at sufficient scale, nor with the necessary counterfactual design, to address this question. In initial discussions about the

[51] Both government-funded Social Impact Bonds (127) and privately-funded Development Impact Bonds (7) are included in this count.

models for the two social finance pilot projects, SRDC broached the idea of conducting a three-way experimental design in which the SIB approach would be tested against a traditional funding model, as well as a control group. Such a design would have addressed the question of whether or not the *ESSF* SIB model led to better outcomes for participants, and at what relative cost; however this more comprehensive evaluation framework was deemed out of scope due to resources and operational constraints.

The SIB model still holds promise

There remains promise for SIBs, among pay-for-success models, under favourable conditions as suggested by the literature (World Bank, 2017; Berlin, 2016; Bauer & White, 2018, among others). These conditions include having large numbers of participants, scaling evidence-based programs, having high-quality consistent delivery across sites, rigorous data collection, and the availability of investors whose interests are aligned with the intervention. It is also argued that the potential to amortize the high transactional costs of SIBs is enhanced by continuing program funding once the SIB is finished, if it demonstrates positive return on investment for governments.

Today, there are a number of SIBs that include these features, and that also include multiple success outcomes, or milestones, for repayment. The latter feature is necessary to avoid the pitfalls of relying on a unique payment trigger, as described earlier. One example is the Nurse-Family Partnership expanding to 3,200 families across South Carolina, attracting investors with decades of RCT-based evidence of program impacts, and with well-defined processes in place for monitoring and evaluating program outcomes.[52] Program directors of the Partnership believe *"If a provider delivers on the promise of Pay for Success and meets outcome metrics, government should make success payments and also commit to sustaining services going forward. That would be truly transformative."* (Bauer & White, p. 200)

Another current SIB to watch is hailed as the first workforce development SIB in the US: the Massachusetts' *Pathways to Economic Advancement Pay for Success Project*.[53] This pilot is delivering services to over 2000 participants through a channel of experienced service providers, is funded by a wide range of investors including financial institutions, foundations, and individuals, and additionally incentivizes service providers and intermediary with bonus payments. A third SIB – or variation on a SIB – the *Youth Engagement Fund* in greater Merseyside in the UK is providing an engagement and employment program to 4000 disadvantaged youth. Funded by Bridges Fund Management – an organization with roots in Big Society Capital – service providers bid for services they propose to offer based on rates set by the government. Interestingly, among the payment triggers, this model includes behavioural and attitudinal outcomes not unlike some of the outcomes measured in both the *ESSF* and *Skilling UP*.

52 Nurse-Family Partnership South Carolina. https://www.nursefamilypartnership.org/locations/south-carolina/.

53 Massachusetts Pathways to Economic Advancement Pay for Success Project. FACT SHEET. Accessed at https://www.mass.gov/files/documents/2017/06/zt/MAPathways_FactSheet.pdf.

It will be interesting to observe the implementation and outcomes of these and other SIBs currently in operation, and to add their lessons learned to the ones already articulated here.

Conclusion

Pay-for-success schemes have been in operation in various forms for decades, but over the past 10 years there has been renewed interest in them, along with a surge of interest in social finance approaches to pay-for-success in the form of social impact bonds.

As innovative pilot projects, both the *ESSF* and *Skilling UP* provided proof of concept that risk-shared funding models are feasible for the delivery of essential skills training. The proposed benefits of pay-for-success approaches were realized in the pilots: accountability, flexibility in delivery according to the service provider expertise, and the government paying only for training that achieved a certain level of success. These benefits were however tempered by some important drawbacks, mainly the time and resources required for securing investment and the over-emphasis on one success outcome leading to an incomplete assessment of the benefits.

The lessons learned from the pilots complement those gathered from other SRDC projects and work being done elsewhere. In another SRDC project, which did not involve third party financing, we showed how the use of a pay-for-success approach holds potential as a funding mechanism for essential skills training, when using a milestones approach combined with stakeholder engagement, customized training aligned with learner needs, transfer of training to employment, and adequate data collection.[54]

In Canada, several provincial/territorial governments have indicated interest both in pay-for-success, and in SIBs. Manitoba recently announced it's first SIB with the Southern First Nations Network of Care providing pregnancy and infant care supports for at-risk mothers.[55] Two small-scale SIBs have been introduced by the Saskatchewan government, starting with Canada's first SIB supporting at-risk single mothers in 2014, and a second SIB in secondary education.[56] On the other hand, the current Ontario government earlier this year cancelled two SIBs initiated by the previous government.

In the meantime, the federal government clearly demonstrated a continued interest in social finance – presumably including SIBs – with their Fall 2018 announcement of a $755-million Social Finance Fund[57] and $50 million Investment and Readiness stream to support capacity-building. Clearly it appears government interest is present and significant funding available to explore promising pay for success approaches, and social impact bonds among other social finance tools.

54 Pay for Success Final Report. (SRDC, 2017). Accessed at http://www.srdc.org/media/200037/p4s-final-report.pdf.

55 https://www.cbc.ca/news/canada/manitoba/opinion-manitoba-social-insurance-bonds-1.4991537.

56 https://leaderpost.com/news/local-news/private-investment-in-social-services-an-opportunity-meikle.

57 https://www.budget.gc.ca/fes-eea/2018/docs/statement-enonce/chap02-en.html.

Some critics maintain that SIBs may still remain too complex to scale efficiently, unless the contracting process is dramatically simplified and costs to government lowered. To that end, variations on SIB models are cropping up. Proposed social impact guarantees would reverse the SIB structure such that governments pay up front and private investors pay out at the end – if needed – providing a form of insurance; this variant is proposed to *"simplify the contracting process, lower project costs for governments, and tap into the immense world of mainstream insurance"* (Overholser, 2018). Another variation on SIBs are UK-based outcomes rate cards whereby governments analyze historical data to calculate costs of specific outcomes, and service providers – with the support of private investors – apply for contract funding to achieve targets based on these rates (Levitt & Metcalf, 2018).

It seems likely these and other models will continue to be tested as long as governments remain interested in innovating with funding models. A key question will remain however, whether or not these approaches are more effective or cost-effective compared to traditional government contracts.

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