



Executive Summary

Future to Discover:
[Interim Impacts Report]



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**Published in 2009 by
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**National Library of Canada
Cataloguing in Publication**

**Social Research and Demonstration Corporation
Future to Discover: Interim Impacts Report
(Executive Summary)**

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Millennium Pilot Projects Series (Print)

Graphic Design: Luz design + communications

The opinions expressed in this research document are those of the authors and do not represent official policies of the Canada Millennium Scholarship Foundation or other agencies or organizations that may have provided support, financial or otherwise, for this project.

Future to Discover:
[Interim Impacts Report]

EXECUTIVE SUMMARY



Future to Discover

Future to Discover is a pilot project testing the effectiveness of two interventions designed to help students overcome certain barriers to post-secondary education, namely lack of career clarity, misinformation about post-secondary education, and lack of financial resources. This report presents interim impacts of the project, which has involved 5,429 students at 51 high schools in Manitoba and New Brunswick since 2004.

The project's two interventions are the following:

- *Explore Your Horizons*, which offers students enhanced career planning and better information about post-secondary programs, and their costs and benefits, early in the high school years. It was implemented between 2004 and 2008 while project participants were still in high school; and
- *Learning Accounts*, which, during the early years of high school, promises non-repayable financial aid to students from lower-income families should they go on to pursue post-secondary education. This intervention will be delivered until 2011, during which time participants may be making the transition to post-secondary studies.

The project set out to test whether these interventions, offered either separately or in combination, would increase high school students' chances of achieving four outcomes:

- graduating from high school,
- enrolling in post-secondary education,
- persisting in their post-secondary learning (by completing the first year of their chosen post-secondary program), and
- graduating from a post-secondary program.

If *Future to Discover* improves access to post-secondary education, it may be influential in reshaping the current policies designed to encourage participation in higher education. While various programs offer information and financial assistance relating to post-secondary education, *Future to Discover* is distinct in its design to help those youth traditionally least likely to attend post-secondary education, and in its early promise of financial assistance.

Explore Your Horizons facilitates participants' development of their own post-secondary plans, based on their passions and interests. It engages parents as allies and existing post-secondary students as role models, providing enhanced career education beginning in Grade 10.

Learning Accounts promises students funding for post-secondary education as they enter Grade 10, long before they can apply for regular student financial assistance programs, and at a time when it may still be possible to influence their decision about whether or not to continue their studies past high school. It makes up to \$8,000 available to lower-income students when they participate in full-time post-secondary education. Unlike other programs that make early commitments of aid, access to *Learning Accounts* is unconditional on students' educational achievement in high school, other than successful completion of each academic year.

Considered as a whole, the *Future to Discover* pilot project will provide much needed evidence about the effectiveness of such early intervention policies.

This report presents work done by the Social Research and Demonstration Corporation (SRDC) on the evaluation of both *Explore Your Horizons* and *Learning Accounts* up to the point when participants completed high school. Evidence on the implementation of these two interventions and their early impacts is derived from the analyses of a variety of quantitative and qualitative sources, including surveys, focus groups, observation of workshops, and tracked data.

The interim results presented in this report suggest that, either separately or in combination, the project's interventions have had some success in the following:

- increasing participants' orientation toward the future,
- increasing the proportion of participants who aspire to pursue a post-secondary credential,
- influencing participants' post-secondary choices, and
- improving participants' knowledge of post-secondary education costs and sources of financing.

It should be noted, however, that the interventions have produced these interim impacts for some groups of participants but not for others; no single group has experienced all the changes originally anticipated. Complete evidence on the effectiveness of the interventions in improving access to post-secondary education will be available only after the end of the period through which participants are currently being tracked (2011).¹

¹ Complete evidence on whether the interventions increase students' rates of graduating from post-secondary education (the fourth project hypothesis) would require continuation of the study beyond 2011.



The Interventions

Participants in *Explore Your Horizons* were invited to take part in 40 hours of after-school project activities over a three-year period (Table ES1).² These activities provided enhanced career education and focused information on post-secondary studies beyond what was otherwise available in Manitoba and New Brunswick high schools. The package of sequentially and developmentally appropriate material was designed by leading experts, both researchers and practitioners, in the field of career development. The information was delivered through workshops facilitated by project staff, including guidance counsellors or educators and post-secondary students serving as role models. A project magazine and a Web site were also available to students to provide different forums for the review of workshop content alongside focused information on post-secondary studies. The *Explore Your Horizons* curriculum as a whole was designed to permit other jurisdictions to integrate the materials within provincial curricula.

Explore Your Horizons activities aim to help students understand the range of occupational and post-secondary choices and to estimate their benefits and costs. The intent is to help overcome any informational or motivational barriers to higher education that under-informed or misinformed students might have so that they might make meaningful decisions about their futures. The intervention involves exploration of all post-secondary paths—apprenticeships and vocational training, as well as college and university. A full description of *Explore Your Horizons* Year 1 activities may be found in the *Future to Discover: Early Implementation Report* (SRDC, 2007, Chapter 5).

² The decision to offer *Explore Your Horizons* only in after-school sessions was made early in the project design phase for multiple reasons, including curriculum overload, inclusivity, and the desire for parental involvement. Some provincial officials initially wished to avoid adding to existing school curricula. Others were reluctant to make interventions available to only a sample of research participants rather than to all students during compulsory school hours. Finally, after-school sessions were thought more conducive to parental attendance.

Table ES1: The six components of *Explore Your Horizons*

Component	Rationale	Frequency in Grade 10	Frequency in Grade 11	Frequency in Grade 12
Career Focusing	To help high school students explore career and education options and develop suitable career education plans. Parents are invited to attend the orientation session and the final session.	6 workshops of 2 hours (12 hours) plus an orientation session		
Lasting Gifts	To help parents understand career development and how to support their children through the process. Parents and children are invited to attend all sessions together.		4 workshops of 2 hours (8 hours)	
Future in Focus	To help students manage transitions and build resilience to overcome challenges, such as through support networks. Parents are invited to attend the orientation session and the final session.			4 workshops of 2 hours (8 hours) plus orientation session
Post-secondary Ambassadors	To promote career exploration and education planning by establishing connections between high school students and students currently enrolled in a range of post-secondary education and training programs.	2 workshops of 2 hours (4 hours)	2 workshops of 2 hours (4 hours)	2 workshops of 2 hours (4 hours)
<i>Future to Discover</i> Web site	To provide information about career and education planning to encourage education and training after high school. Profiles, articles, and quizzes are presented in a colourful format designed to be appealing to youth.	Accessible throughout <i>Explore Your Horizons</i> . Participants gain sequential access to more site information over the three-year period.		
<i>F2D</i> Magazine	Same as for the <i>Future to Discover</i> Web site above.	2 issues	2 issues	2 issues

Learning Accounts promised, at the beginning of Grade 10, a bursary of up to \$8,000 to students in New Brunswick high schools with a family income at or below the provincial median, should they participate in a post-secondary program. They were told that by attending a New Brunswick high school and successfully completing each consecutive school year until graduation, and by successfully enrolling in a post-secondary education program (recognized by the Canada Student Loan Program), they would receive up to \$4,000 in each of two years of post-secondary study. At the end of both Grade 10 and Grade 11, participants in *Learning Accounts* still attending a New Brunswick high school received deposits in their accounts of \$2,000 for each year successfully completed. *Learning Accounts* participants had another instalment of \$4,000 deposited into their accounts upon graduation from a New Brunswick high school. The accumulation of funds over time in *Learning Accounts* was intended to recognize each participant's continued commitment to education and to encourage reflections on life after high school. Eligibility for the *Learning Accounts* intervention was determined using data from income tax returns provided by each of their parents.

Those lower-income students who receive the offer of a Learning Account may realize earlier than they otherwise would have that pursuing post-secondary education is an affordable and realistic option. In turn, this may lead them to undertake better planning for the future. Alternatively, or in addition, the accumulated funds may help students overcome financial barriers by reducing the costs associated with post-secondary education.

The Evaluation

Future to Discover adopted an experimental design to provide the most reliable estimates of the impacts of the different interventions. Recruitment took place in 2004 and 2005 when the participants were in Grade 9. Two cohorts were recruited in New Brunswick (in Spring 2004 and Spring 2005), as well as a single cohort in Manitoba (in Spring 2005). The 5,429 participants who consented to take part in Grade 9 were randomly assigned to one of three experimental groups or to a comparison group receiving no new intervention. The project thus involved four groups, as follows:

- *Explore Your Horizons* participants who were offered access to the after-school guidance workshops only.
- *Learning Accounts* participants who were promised funding for post-secondary studies only.
- Participants who were offered both *Explore Your Horizons* and *Learning Accounts*.
- A comparison group of participants who were offered neither intervention.

The evaluation will report on the effectiveness of the interventions in improving participation in post-secondary studies, measured by participants' entry into and completion of the first year of their chosen post-secondary program. The project's experimental design will allow for a comparison of impacts between those receiving *Explore Your Horizons plus Learning Accounts* and those receiving only *Explore Your Horizons* or *Learning Accounts*. In other words, the project will be able to report on the effectiveness of both interventions, offered either individually or jointly.

Information about the early implementation of *Explore Your Horizons* and *Learning Accounts*, including design, selection of schools, and baseline characteristics of project participants, can be found in the Early Implementation Report (SRDC, 2007). Its analysis found recruitment and random assignment for the project to be successful. The demographic and socio-economic characteristics of the students recruited for the *Future to Discover* pilot project were statistically identical across the four groups to be compared in the analysis.

SRDC has concluded from its implementation research to date that *Explore Your Horizons* and *Learning Accounts* have been successfully delivered. Both received a "fair test." The success of the random assignment and project implementation permits a detailed analysis in which 15 different experimental contrasts can be examined (see Table ES2).

Table ES2: The experimental contrasts in the *Future to Discover* pilot project

Sample	Experimental contrast(s) of randomly assigned groups	What do we learn from impact analysis?
New Brunswick LA-eligible sample (separately for Anglophone and Francophone linguistic sectors)	<i>EYH</i> versus comparison group	Impact of offering <i>EYH</i> to lower-income families
	<i>LA</i> versus comparison group	Impact of offering <i>LA</i> to lower-income families
	<i>EYH</i> plus <i>LA</i> versus comparison group	Impact of offering a combined intervention of <i>EYH</i> with <i>LA</i> to lower-income families
	<i>EYH</i> versus <i>LA</i>	The relative impact of offering one intervention to lower-income families compared to the other
	<i>EYH</i> plus <i>LA</i> versus <i>LA</i>	The incremental impact of offering <i>EYH</i> in addition to a Learning Account to lower-income families
	<i>EYH</i> plus <i>LA</i> versus <i>EYH</i>	The incremental impact of offering a Learning Account in addition <i>EYH</i> to lower-income families
New Brunswick (separately for Anglophone and Francophone linguistic sectors) LA-ineligible sample combined with LA-eligible sample	<i>EYH</i> versus comparison group	Impact of offering <i>EYH</i> to all students
Manitoba	<i>EYH</i> versus comparison group	Impact of offering <i>EYH</i> to all students



Future to Discover's Target Population

The *Future to Discover* project is especially concerned with improving post-secondary outcomes for two subgroups of students who are commonly identified as under-represented in post-secondary education, as discussed in detail in the *Future to Discover: Early Implementation Report* (SRDC, 2007):

- Those whose parents have income at or below the provincial median and no credential from post-secondary study of two or more years in duration. This group—labelled “LILE” (lower income and lower education)—is of particular interest because research has shown that the combination of family income and parental education to be strongly correlated with young people’s academic achievement and participation in post-secondary education (Barr-Telford, Cartwright, Prasil, & Shimmons, 2003; Bowlby and McMullen, 2002; Knighton & Mirza, 2002; Looker, 2001; Statistics Canada, 2007; and Tomkowicz, & Bushnik, 2003).
- Those from “first generation families (FGF), comprising participants whose parents have no post-secondary experience (that is, the highest education level of both parents was “high school or less” at the time of joining the study), who may be particularly disadvantaged in seeking information and advice on post-secondary transitions.

Youth whose parents have lower incomes and lower educational attainment are the main groups of interest to the *Future to Discover* pilot project. According to the literature, these youth are less likely to undertake studies at the post-secondary level. Three separate mechanisms were used to increase the proportion of these students within the research sample:

- Preference was given to high schools with a greater share of lower-income families in their catchment areas.
- Only those students whose parents’ income fell at or below the provincial median were eligible to receive *Learning Accounts*.
- More participants from lower-income families in New Brunswick were randomly assigned into the groups testing the interventions as opposed to the control group.

In Manitoba, the only intervention offered to students was *Explore Your Horizons*. Students from lower-income and lower-education families were included primarily through site selection. At the end of project recruitment, roughly 30 per cent of the Manitoba participants belonged to the targeted groups.

In New Brunswick, both *Explore Your Horizons* and *Learning Accounts* were offered (whether separately or combined). All students recruited for the project, regardless of family income or their parents’ educational attainment, were eligible to be offered *Explore Your Horizons*. On the other hand, only students whose family income was at or below a given threshold were eligible to be offered *Learning Accounts* (either on its own or in tandem with *Explore Your Horizons*). The income threshold used was the provincial median (the exact threshold depended on family size). At the end of project recruitment, roughly 50 per cent of the New Brunswick participants belonged to the targeted lower-income, lower-education group.

The outcomes for the project’s target population will be presented in this report and will focus on the two target groups of participants. The first is students from “first generation families” (FGF), meaning those students who, if they were to pursue post-secondary studies, would be the first in their families to do so (i.e., their parents had no history of higher education at the time of recruitment). The second is students from families with both “lower income and lower education” (LILE). In these families, neither parent held a post-secondary credential and family income was at or below the provincial median.

Despite the focus on these groups, the evaluation was designed also to determine the effectiveness of *Explore Your Horizons* on all participants, regardless of the income or educational attainment of their parents.

Participation in *Explore Your Horizons* and Learning Accounts

Explore Your Horizons — *Future to Discover* staff in both provinces used a variety of methods to encourage participation in *Explore Your Horizons* components. Most participants attended at least one *Explore Your Horizons* workshop, and many attended multiple workshops. Attendance declined over time, typically reaching its lowest level in Grade 11, when the Lasting Gifts component, offered jointly to participants and parents/guardians or a significant adult, was offered during evening sessions (see Figure ES1). Given the design of *Explore Your Horizons* as an after-school intervention, it is unlikely that more could have been done to increase participation.

In Manitoba:

- 76 per cent of all participants attended at least one workshop;
- 48 per cent attended six or more workshops; and
- Attendance reached its peak at 66 per cent of participants.

In New Brunswick:

- 84 per cent of both Anglophone and Francophone participants attended at least one workshop;
- 60 and 61 per cent, respectively, attended six or more workshops; and
- Attendance reached its peak at 73 and 71 per cent of participants, respectively.

Explore Your Horizons was tested as an after-school intervention. Many students have other commitments after the school day is over. When asked in the Grade 12 survey why they had not attended *Explore Your Horizons* sessions more often, the reasons given reflected the fact that sessions were outside of school time:

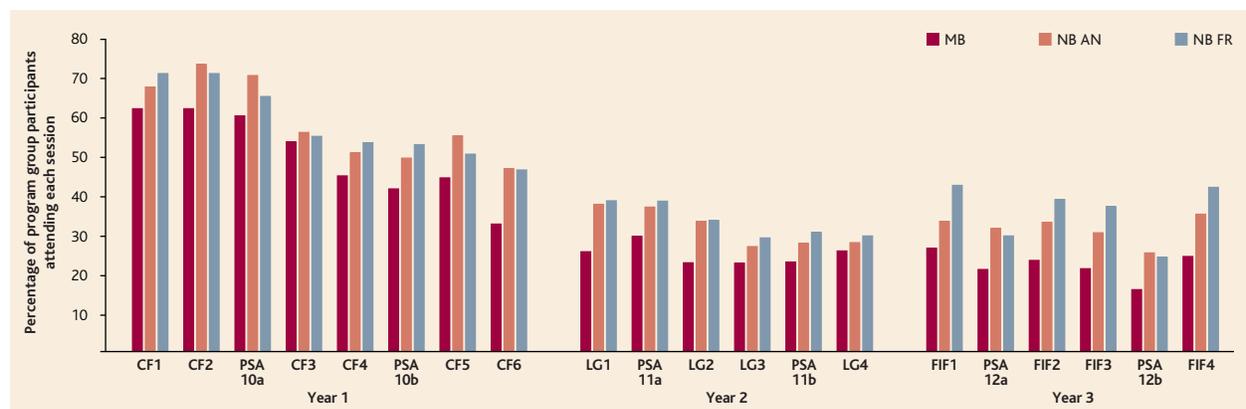
- 27 per cent of respondents cited scheduling conflicts with work;
- 14 per cent cited conflicts with sports; and
- 13 per cent indicated more generally that the timing of the sessions was not good.

The survey also asked the students about the reasons their parents had not attended Lasting Gifts sessions, which were offered as evening sessions in the hope that parents might be more available. Again, among the reasons given, timing was the most frequently cited barrier:

- 37 per cent cited a conflict with work;
- 10 per cent cited other family responsibilities; and
- 10 per cent said the timing of sessions didn't suit their needs.

Given the anticipated difficulty of sustaining participation in all of the intervention activities, the *F2D* magazine and dedicated Web site were used to offer information on career education and post-secondary planning as valuable complements to the workshops. When readership of the *F2D* magazine and usage of the *Future to Discover* Web site are taken into account alongside workshop attendance, virtually every student assigned to the *Explore Your Horizons* intervention received some exposure to *Explore Your Horizons*' components. A majority of participants said they had read at least one article in the *F2D* magazine. The *Future to Discover* Web site was not used by the majority of participants and usage declined considerably over time. Rates of use—while low overall—were highest among New Brunswick Anglophone students, followed by Manitoba participants.

Figure ES1: Attendance at *Explore Your Horizons* by session – All participants



Source: Project Management Information System (PMIS)

Learning Accounts—In total, 1,097 students were randomly assigned to receive *Learning Accounts*, either by itself or in combination with *Explore Your Horizons*. By the end of Grade 10, 93 per cent of participants had signed their participant declaration (which made clear the program requirements) and were meeting the high school attendance requirements necessary to receive their first \$2,000 instalment. More than nine out of ten Cohort 1 participants were meeting these requirements after their Grade 12 year. After completing high school, *Learning Accounts* participants could draw from the accumulated funds in their account if they successfully enrolled in a post-secondary education program. *Learning Accounts* participants can request a \$2,000 payment twice per academic year once their enrolment status has been confirmed, up to a maximum of \$8,000 over a two-year period. The check on active enrolment is performed by New Brunswick Student Financial Services or the New Brunswick Apprenticeship Bureau (for registered apprentices), and all funds must be claimed within six years of the account being offered at the end of Grade 9. Participants will be eligible to request withdrawals from their Learning Account until May 2011.

At this time, the analysis of *Learning Accounts* is limited to outcomes observed until the point participants completed high school. Following their notification of assignment and declaration, each student subsequently received annual statements informing them of the amount accumulated in their Learning Account. Thus the amount of contact between *Learning Accounts* participants and the *Future to Discover* Office was limited. During the fall of their Grade 12 year, when they responded to the Grade 12 survey, *Learning Accounts* participants reported low awareness of actually having a Learning Account. Awareness was lower for the Anglophone sector (38.6 per cent) than for the Francophone sector (58.4 per cent). Among those *Learning Accounts* participants who reported that they had a Learning Account, most were aware of the salient features of the program. In particular, the total amount of \$8,000 was recalled by the majority both of Francophone (83.8 per cent) and Anglophone participants (77.3 per cent) who reported having an account. Participants offered *Explore Your Horizons plus Learning Accounts* were more likely to recall holding a Learning Account and its precise amount than *Learning Accounts*-only participants. Calls from the *Future to Discover* Office reminding *Learning Account* holders of their status, which took place after the survey was completed, may have altered account holders' levels of awareness of their accounts.

The final report, due in 2011, will provide a complete analysis of the uptake of *Learning Accounts*.

Both *Explore Your Horizons* and *Learning Accounts*—Participants randomly assigned to both *Explore Your Horizons* and *Learning Accounts* had a markedly higher participation rate in *Explore Your Horizons* workshops than those assigned to *Explore Your Horizons* alone. (It should be noted that participants in *Explore Your Horizons plus Learning Accounts* were not obliged to participate in *Explore Your Horizons* to access their Learning Account.)

- In the Anglophone sector, the offer of a Learning Account increased the proportion of lower-income *Explore Your Horizons* participants attending more than half the sessions (11 or more) from 30 to 48 per cent.
- In the Francophone sector, the impact on attendance was even more dramatic, from 28 to 58 per cent.

This combined intervention was only available in New Brunswick. As such, this impact helps to explain why attendance at *Explore Your Horizons* workshops in both linguistic sectors in New Brunswick was higher than that in Manitoba, both initially and over time.

Participants from LILE and FGF families were typically less likely to attend *Explore Your Horizons* workshops than other students, in both provinces and in both linguistic sectors. However, attendance among these target groups was highest when participants were offered the combination of *Explore Your Horizons plus Learning Accounts*. These participants attended more sessions and in greater proportions than equivalent students offered *Explore Your Horizons* alone. As such, the offer of *Learning Accounts* appears to be encouraging more students in this group to attend sessions providing career education and more information about post-secondary options.

In conclusion, the participation in *Explore Your Horizons* started very strongly at the beginning of the first year, and progressively decreased over the next two years, before increasing slightly in the final year of the implementation. Among the groups that attended the workshops, participants assigned to *Explore Your Horizons plus Learning Accounts* had a higher participation rate. This group is limited to students with family incomes at or below the provincial median, a defining characteristic of the population of interest in the design of *Future to Discover*. While attendance decreased during the implementation phase, there remains an uncertainty about how many workshops and how much information are needed to change participants' attitudes and behaviours, encouraging them to think more broadly and to plan their lives after high school. The following section will focus on a few key findings related to the impacts among groups of participants.

Interim Impacts

The analysis of interim impacts in the *Future to Discover Interim Impacts Report* focuses on changes in participants' attitudes or behaviour that would be anticipated to increase their chances of becoming post-secondary students. The analysis is based on the administration of a survey conducted during the Grade 12 year. Therefore, while it does not capture the final impact of the interventions, it does allow some perspective on the considerations of Grade 12 students at the point when they are finalizing their applications for post-secondary education.

In this summary, measures of change have been grouped into three domains:

- thinking and planning for the future,
- credential preferences, and
- knowledge of post-secondary education costs and financing.

The analyses consider each intervention separately and divide the sample by provincial jurisdiction and by participant group. The impacts are presented for all three intervention groups:

- *Explore Your Horizons* only,
- *Learning Accounts* only, and
- *Explore Your Horizons* plus *Learning Accounts*.

The impacts are also presented for three participant groups:

- all participants offered each intervention,
- participants from LILE (lower-income, lower-education) families, and
- FGF participants—whose parents had a high school diploma or less at the time of recruitment.

The full report includes impacts on a wider range of outcomes at this stage of the project, including those derived from administrative data on high school graduation.³



³ Though impacts are predominantly presented for LILE and FGF groups throughout this executive summary report, it is important to note that some impacts did emerge for non-LILE and non-FGF groups. These are also presented in the full *Future to Discover Interim Impacts Report* (IIR).

A) Thinking and planning for the future

In the survey, several questions were intended to gauge the changes in participants' orientation toward life after high school and their attitudes toward post-secondary education (e.g., "Have you thought, even a little, about what you will be doing in about a year from now?"). While the proportion responding affirmatively was already very high across all groups, some impacts were nevertheless apparent among subgroups (see Table ES3).

All three interventions increased participants' orientation toward the future among some subgroups. For example, Francophone *Explore Your Horizons* participants in New Brunswick and LILE and FGF participants in Manitoba were significantly more likely to answer positively than those in the respective comparison groups. In the final report, these findings will be revisited to see whether they translate into increased post-secondary enrolment.

Among Francophone New Brunswick participants, the combination of *Explore Your Horizons plus Learning Accounts* produced patterns of effects broadly similar to those of *Explore Your Horizons* alone. High proportions reported thinking about what they would be doing in the future across all subgroups, which made it difficult for the intervention to achieve impacts. For example, among Anglophone New Brunswick participants, between 96 and 99 per cent were already thinking about their futures.

Among the *Learning Accounts*-only group, impacts were observed among LILE and FGF Francophone participants, with an increase of four and ten percentage points, respectively, relative to the corresponding comparison groups. Francophone New Brunswick participants in all three intervention groups reported increased consideration of their activities post-high school.

Table ES3: Impacts among the three intervention groups on thinking about their future

Outcome	Target population	<i>Explore Your Horizons</i> (vs. comparison group) (percentage points)	<i>Learning Accounts</i> (vs. comparison group) (percentage points)	<i>Explore Your Horizons plus Learning Accounts</i> (vs. comparison group) (percentage points)
Thinking about their future	NB—all Francophone participants	3.0**	2.1	3.6*
	NB—Francophone LILE	7.5***	4.2*	5.7**
	NB—Francophone FGF	8.9***	9.5***	9.3***
	NB—all Anglophone participants	0.0	0.1	2.2
	NB—Anglophone LILE	1.8	-0.7	2.0
	NB—Anglophone FGF	-1.1	-0.8	2.5
	MB—all participants	0.0	N/A	N/A
	MB—LILE	5.1**	N/A	N/A
	MB—FGF	5.1**	N/A	N/A

Source: *Future to Discover* Grade 12 survey.

Impacts are calculated based on reports from members of each group offered the intervention and from a comparison group with statistically identical characteristics at the time of recruitment. The impact is the difference between the proportion reporting the outcome in the program group and the proportion reporting the outcome in the comparison group, measured in percentage points, for each category of participants. Where impacts are statistically significant, stars appear alongside the impact, increasing in number with the statistical level of confidence:

* indicates an impact likely to occur by chance 10 per cent of the time;

** indicates an impact likely to occur by chance only 5 per cent of the time; and

*** indicates an impact likely to occur by chance only 1 per cent of the time.

No stars indicate that the change on the outcome relative to the comparison group is not significantly different from zero.

B) Aspirations to complete a credential and changes in credential preference

The survey also asked participants about their aspirations to complete a post-secondary credential. The pattern of impacts shows that *Explore Your Horizons* significantly increased the proportion of New Brunswick Anglophone LILE and FGF participants and New Brunswick Francophone FGF participants who aspired to pursue a post-secondary credential (Table ES4). However, for those offered *Learning Accounts* only and *Explore Your Horizons plus Learning Accounts*, impacts were found in only two subgroups: New Brunswick Anglophone LILE and FGF participants.

One reason for relatively few detected impacts of the interventions on overall intentions to pursue a post-secondary education credential is that equivalently high proportions of all experimental groups intended to pursue this aim. It remains to be seen whether the interventions alter the rate at which these uniformly high levels of aspirations are converted into actual enrolment, as other research has found only a fraction of those who aspire for a credential eventually enrol.

Table ES4: Impacts among the three intervention groups on aspirations to complete any form of post-secondary credential

Outcome	Target population	<i>Explore Your Horizons</i> (vs. comparison group) (percentage points)	<i>Learning Accounts</i> (vs. comparison group) (percentage points)	<i>Explore Your Horizons plus Learning Accounts</i> (vs. comparison group) (percentage points)
Aspires to complete any form of post-secondary credential	NB—all Francophone participants	0.7	1.5	0.4
	NB—Francophone LILE	2.0	1.5	0.3
	NB—Francophone FGF	4.4**	3.9	2.6
	NB—all Anglophone participants	1.2	3.1	3.1
	NB—Anglophone LILE	4.0**	4.2*	5.4**
	NB—Anglophone FGF	3.9*	9.0***	9.5***
	MB—all participants	1.2	N/A	N/A
	MB—LILE	-0.5	N/A	N/A
	MB—FGF	1.3	N/A	N/A

Source: *Future to Discover* Grade 12 survey.

Impacts are calculated based on reports from members of each group offered the intervention and from a comparison group with statistically identical characteristics at the time of recruitment. The impact is the difference between the proportion reporting the outcome in the program group and the proportion reporting the outcome in the comparison group, measured in percentage points, for each category of participants. Where impacts are statistically significant, stars appear alongside the impact, increasing in number with the statistical level of confidence:

* indicates an impact likely to occur by chance 10 per cent of the time;

** indicates an impact likely to occur by chance only 5 per cent of the time; and

*** indicates an impact likely to occur by chance only 1 per cent of the time.

No stars indicate that the change on the outcome relative to the comparison group is not significantly different from zero.

By comparing responses about the aspirations and plans of program and comparison group members, the project could calculate how far the interventions altered participants' preferences for different types of post-secondary credential. The interventions were found to have significant effects on post-secondary education choices among those who already had aspirations to pursue post-secondary education (see figures ES2a, ES2b, ES2c, ES3a, ES3b, ES4a, and ES4b).

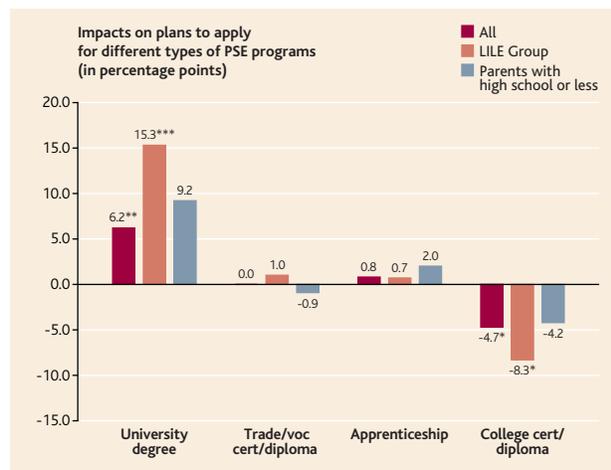
Explore Your Horizons induced somewhat more widespread shifts in aspirations to obtain different post-secondary credentials. New Brunswick Francophone (including LILE and FGF) participants offered *Explore Your Horizons* were more likely to aspire to obtain a university degree than the comparison group but less likely to aspire to obtain a community college diploma (see Figure ES2a). The switch in credential preferences among Francophone participants offered *Explore Your Horizons plus Learning Accounts* was very similar to the effects seen for those offered *Explore Your Horizons* alone (see Figure ES4a).

While *Explore Your Horizons* increased the proportion of New Brunswick Francophone participants intending to apply to university (see Figure ES2a), among New Brunswick Anglophone participants it increased the proportion intending to apply for an apprenticeship (see Figure ES2b).

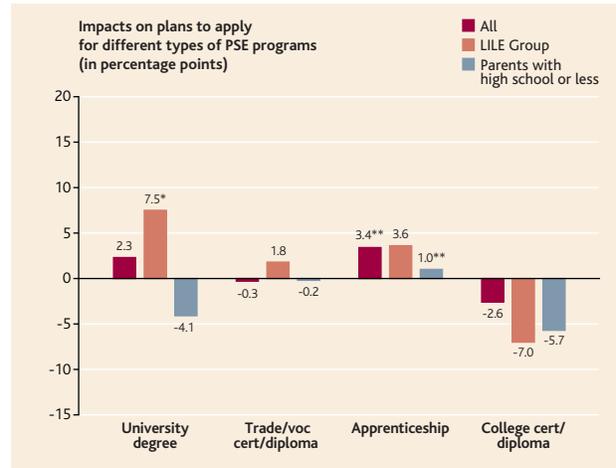
The *Learning Accounts* offer induced some switching of credential preferences by Francophone and Anglophone participants when they were asked what programs they were actually intending to apply for (see Figures ES3a and ES3b).

Figure ES2: Impact of EYH on plans to apply for post-secondary programs

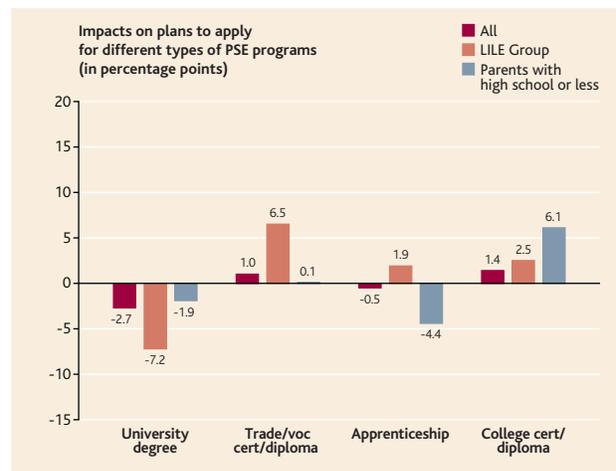
a) NB Francophone participants



b) NB Anglophone participants



c) MB participants



Source: Grade 12 Survey

Impacts are calculated based on reports from members of each group offered the intervention and from a comparison group with statistically identical characteristics at the time of recruitment. The impact is the difference between the proportion reporting the outcome in the program group and the proportion reporting the outcome in the comparison group, measured in percentage points, for each category of participants. Where impacts are statistically significant, stars appear alongside the impact, increasing in number with the statistical level of confidence:

- * indicates an impact likely to occur by chance 10 per cent of the time;
 - ** indicates an impact likely to occur by chance only 5 per cent of the time; and
 - *** indicates an impact likely to occur by chance only 1 per cent of the time.
- No stars indicate that the change on the outcome relative to the comparison group is not significantly different from zero.

Figure ES3: Impact of LA on plans to apply for post-secondary programs
a) NB Francophone participants

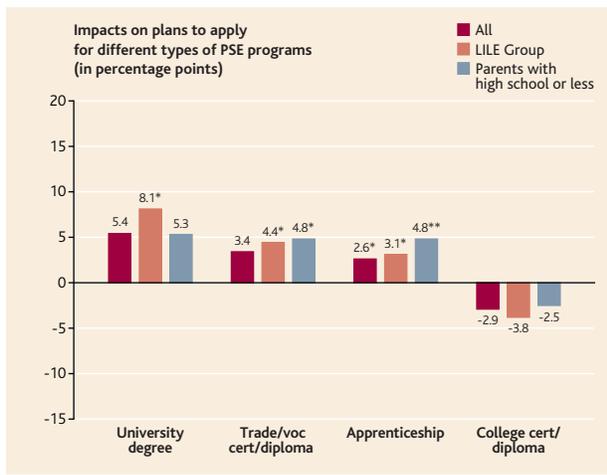
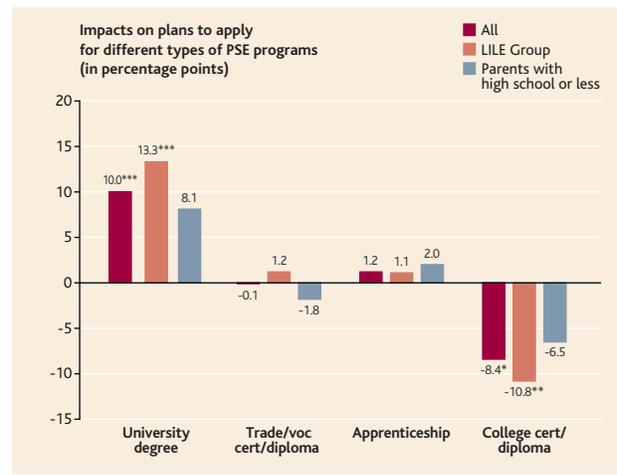
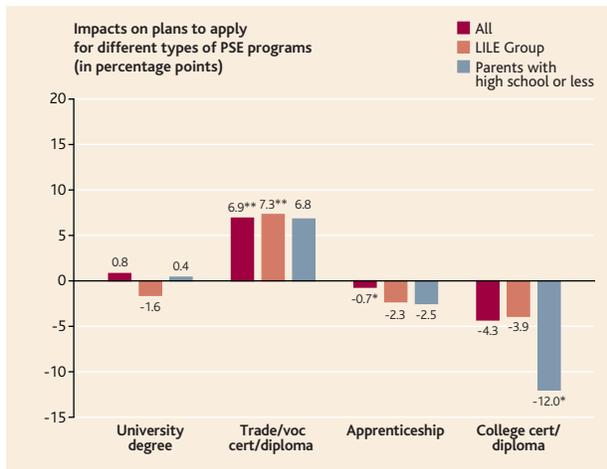


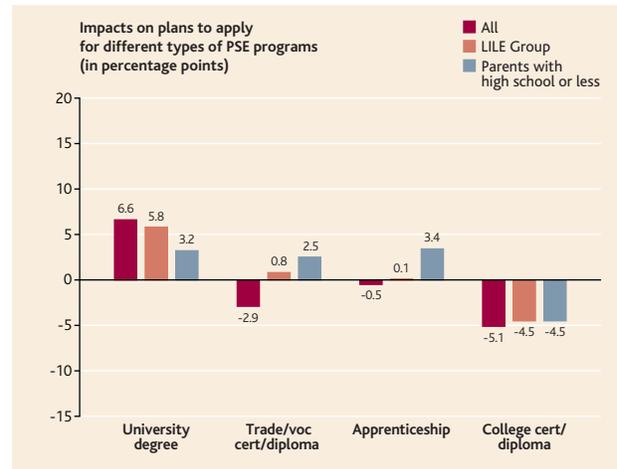
Figure ES4: Impact of EYH plus LA on plans to apply for post-secondary programs
a) NB Francophone participants



b) NB Anglophone participants



b) NB Anglophone participants



Source: Grade 12 Survey

Impacts are calculated based on reports from members of each group offered the intervention and from a comparison group with statistically identical characteristics at the time of recruitment. The impact is the difference between the proportion reporting the outcome in the program group and the proportion reporting the outcome in the comparison group, measured in percentage points, for each category of participants. Where impacts are statistically significant, stars appear alongside the impact, increasing in number with the statistical level of confidence:

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- *** indicates an impact likely to occur by chance only 1 per cent of the time.

No stars indicate that the change on the outcome relative to the comparison group is not significantly different from zero.

It is perhaps surprising that overall aspirations for a post-secondary credential among Francophone participants were largely unchanged by the offer; however, it is possible that the impact from *Learning Accounts* on post-secondary enrolment will come later, from a better ability to realize aspirations among *Learning Accounts* holders relative to comparison group members.

The changes in attitudes and plans to apply to post-secondary education induced by *Learning Accounts* suggest that some impact on patterns of access to post-secondary education may be seen in future analysis.

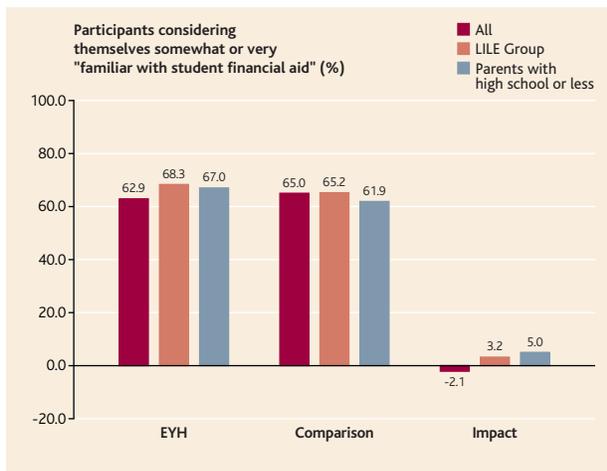
C) Knowledge of post-secondary education costs and financing

Explore Your Horizons workshops focus on exploring post-secondary programs linked to participants' interests and passions. The workshops also encourage participants to learn more about the costs and benefits of a post-secondary education and the steps participants would need to take to enrol in a post-secondary program. The following interim impacts suggest that *Explore Your Horizons* altered participants' knowledge of post-secondary education costs and financing (please refer to figures ES5a through ES7b):

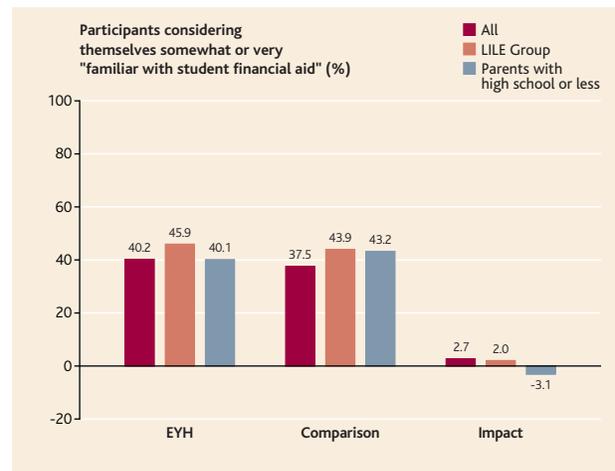
- *Explore Your Horizons* reduced the proportion of Manitoba participants who saw a financial barrier standing in the way of their post-secondary aspirations (see *Future to Discover: Interim Impacts Report*, Table 4.16).
- *Explore Your Horizons* had a similar effect for LILE and FGF participants in Manitoba with post-secondary education aspirations and for New Brunswick Francophone LILE participants (see report, Table 4.16).
- *Explore Your Horizons* increased the proportion of New Brunswick Anglophone participants (including those in LILE and FGF groups) reporting that they were familiar with student financial aid, relative to those who received no intervention (see Figure ES5b).
- The intervention reduced New Brunswick Anglophone participants' estimates of university tuition costs, without affecting the already high proportion who felt that the cost incurred to obtain a post-secondary education represented a good long-term investment (see report, tables 4.14 and 4.15, respectively).
- *Explore Your Horizons* significantly decreased the proportion of New Brunswick Francophone participants reporting that they were aware that their parents or other relatives were saving for their post-secondary education in a Registered Education Savings Plan (RESP). This result was also seen for the LILE group but not for the FGF group (see report, Table 4.17).



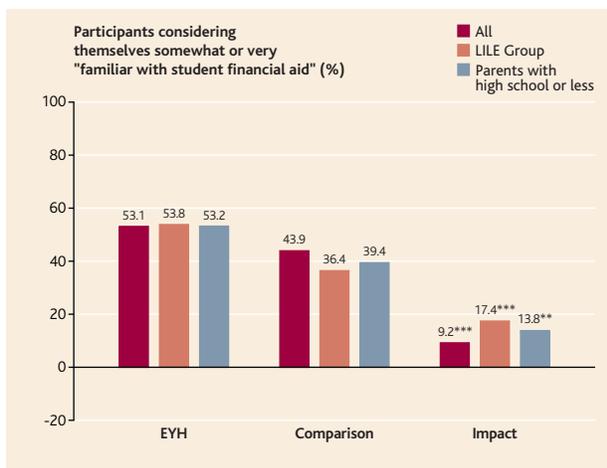
Figure ES5 Impact of EYH on knowledge of post-secondary education financing
a) NB Francophone participants



c) MB participants



b) NB Anglophone participants



Source: Grade 12 Survey

Impacts are calculated based on reports from members of each group offered the intervention and from a comparison group with statistically identical characteristics at the time of recruitment. The impact is the difference between the proportion reporting the outcome in the program group and the proportion reporting the outcome in the comparison group, measured in percentage points, for each category of participants. Where impacts are statistically significant, stars appear alongside the impact, increasing in number with the statistical level of confidence:

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 - ** indicates an impact likely to occur by chance only 5 per cent of the time; and
 - *** indicates an impact likely to occur by chance only 1 per cent of the time.
- No stars indicate that the change on the outcome relative to the comparison group is not significantly different from zero.

Analysis of interim impacts provides evidence of rather more and stronger effects for participants in the study's LILE and FGF groups than for all participants. It should be recalled that these participants were typically less likely to attend the *Explore Your Horizons* sessions unless they were receiving both interventions. This is a very early sign that targeting the intervention to those students who traditionally are underserved in post-secondary institutions may make sense when resources do not permit a universal implementation.

With the exception of NB Anglophone FGF participants who demonstrated a slightly increased perception of financial barriers (see *Future to Discover Interim Impacts Report*, Table 5.16), *Learning Accounts* produced little impact on the proportion who perceived such barriers standing in the way of their post-secondary aspirations, and—like *Explore Your Horizons*—the intervention reduced the proportion of Francophone participants reporting that they were aware that their parents or other relatives were saving for their post-secondary education in a RESP (including LILE and FGF groups; see report, Table 5.17). *Learning Accounts* produced inconsistent effects on the proportions of participants who considered themselves somewhat or very familiar with financial aid (see figures ES6a and ES6b).

Figure ES6 Impact of LA on knowledge of post-secondary education financing
a) NB Francophone participants

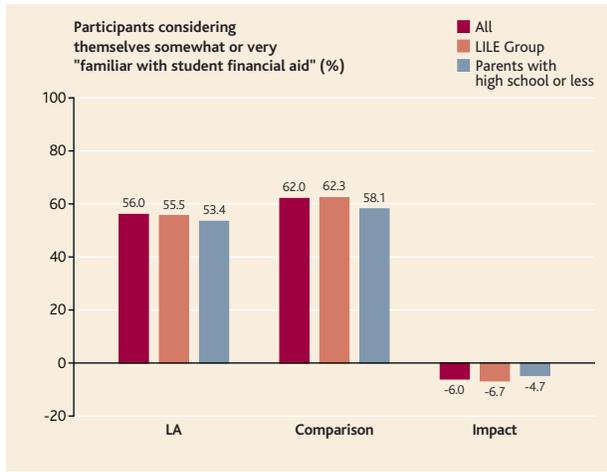
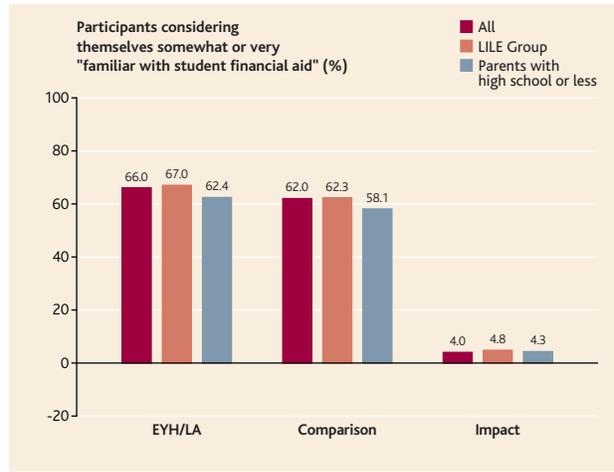
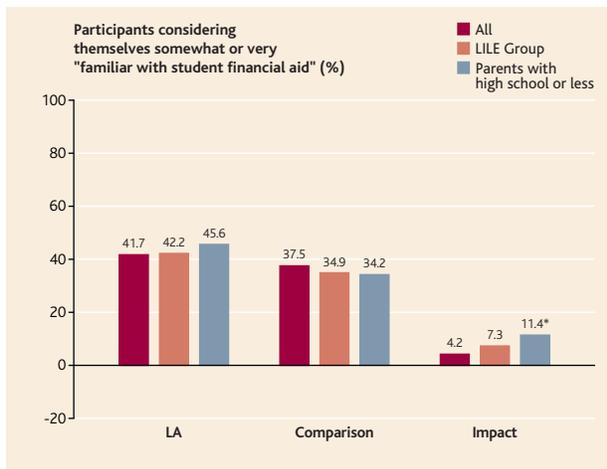


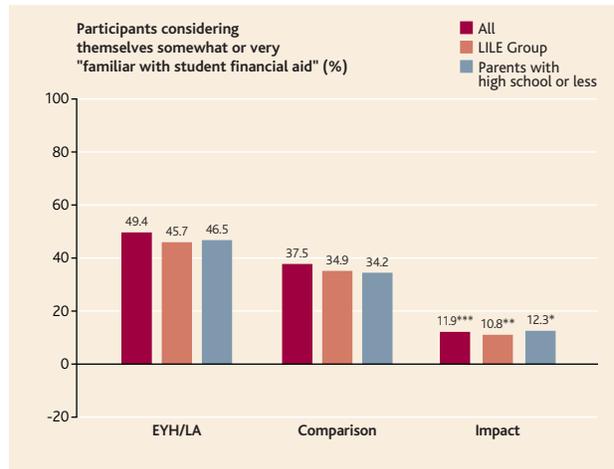
Figure ES7 Impact of EYH plus LA on knowledge of post-secondary education financing
a) NB Francophone participants



b) NB Anglophone participants



b) NB Anglophone participants



Source: Grade 12 Survey

Impacts are calculated based on reports from members of each group offered the intervention and from a comparison group with statistically identical characteristics at the time of recruitment. The impact is the difference between the proportion reporting the outcome in the program group and the proportion reporting the outcome in the comparison group, measured in percentage points, for each category of participants. Where impacts are statistically significant, stars appear alongside the impact, increasing in number with the statistical level of confidence:

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- *** indicates an impact likely to occur by chance only 1 per cent of the time.

No stars indicate that the change on the outcome relative to the comparison group is not significantly different from zero.

The offer of *Explore Your Horizons plus Learning Accounts* had no effect on awareness of parents or other relatives saving for their education in a RESP. This is in contrast to the effects observed when *Explore Your Horizons* and *Learning Accounts* were offered alone, when each significantly decreased the proportions reporting awareness of such saving. This is possibly evidence of how *Learning Accounts* induced greater participation in the enhanced career education by both students and parents, which, in turn, led to better awareness of the costs and benefits of post-secondary education. Other than this result, the main effects observed from combining the interventions represented a consolidation of the effects of both, although impacts on familiarity with student financial aid were not as marked as for *Explore Your Horizons* alone (Figure ES5b) among NB Anglophone LILE participants (Figure ES7b).

D) Understanding the impacts of the combined intervention

The impacts on access to post-secondary education from the combination of *Learning Accounts* and *Explore Your Horizons* should certainly be no worse than for each intervention offered separately. Indeed, one might expect the interventions to reinforce one another, leading to enhanced impacts. Understanding the mechanisms by which the combined intervention achieves impacts for different groups will be easier in the context of the final results on access to post-secondary education.

At this stage of the evaluation, the effects of the reinforcement can be seen in participation levels in *Explore Your Horizons* workshops. As mentioned earlier in this executive summary report, in the Anglophone sector, the offer of a *Learning Account* increased the proportions of lower-income *Explore Your Horizons* participants attending more than half the sessions (11 or more) from 30 to 48 per cent. The equivalent impact on attendance in the Francophone sector was even more dramatic, from 28 to 58 per cent. However, these increases in exposure make it difficult to attribute any additional impacts on attitudes and behaviour solely to the early guarantee of financial aid promised through *Learning Accounts*. The impacts might equally arise from the combination of the interventions (i.e., the effect of the financial offer in raising levels of participation in the enhanced career education workshops and other components).

While combining *Explore Your Horizons* and *Learning Accounts* interventions led to increases in participation in both, it is somewhat surprising that the magnitude of impacts was not significantly increased. There was a modest broadening across groups in the range of impacts observed relative to those observed separately for *Explore Your Horizons* and *Learning Accounts*. There was less evidence that combining the interventions increased the magnitude of impacts.



The final report will continue to analyze the benefits of offering the interventions individually and jointly. It is possible that relatively larger impacts for the combined intervention groups will be found when comparing final outcomes.

Summary of the interim impact analysis

Future to Discover is testing different interventions across three different educational jurisdictions with a focus on two population subgroups within them. The interventions have had early and intermediate impacts that differ between groups. No single group has experienced all the changes originally anticipated. Overall, *Explore Your Horizons* generated only a small number of interim impacts on the anticipated outcomes in Manitoba. In New Brunswick, interim impacts often applied to only one of the two linguistic sectors or were significant for only one or both target groups. This suggests that *Explore Your Horizons* and *Learning Accounts* on their own or in combination are capable of changing student behaviour and attitudes regarding post-secondary studies, but with different effects across jurisdictions and subgroups.

The interventions changed some participants' orientation toward the future. These impacts were seen in Manitoba and in the New Brunswick Francophone sector, especially among the target groups. In the New Brunswick Francophone sector, again especially for key subgroups, both interventions had impacts (not shown earlier in this executive summary) on participants' recognition of their need for post-secondary study to achieve what they want in life and on equivalent parental aspirations. These patterns were not evident in the Anglophone sector, where the most consistent effects were in participants' reported familiarity with financial aid. Yet it was in the Anglophone New Brunswick sector that all three interventions (*Explore Your Horizons*, *Learning Accounts*, and *Explore Your Horizons plus Learning Accounts*) led to significant increases in the proportions among LILE and FGF groups aspiring to pursue a post-secondary education credential. The combination of *Explore Your Horizons* with *Learning Accounts* also increased proportions of New Brunswick Francophone FGF participants reporting that they had reached a point in their lives where it was important to decide about their future career or work, and of New Brunswick Anglophone FGF participants reporting that none of their friends had dropped out of high school. The additional effect of combining the interventions will be more readily apparent when the final impacts are known.

Explore Your Horizons appeared to enhance some participants' awareness and confidence with respect to financing post-secondary education. New Brunswick Francophone LILE participants were less likely to say that financial barriers would stand in the way of achieving their post-secondary aspirations. *Explore Your Horizons* increased the self-reported awareness of student financial aid among New Brunswick Anglophone sector participants quite markedly by 9 percentage points overall and by 17 and 14 percentage points respectively for LILE and FGF participants.



A few significant impacts were observed at this stage of the evaluation for Manitoba participants. Those offered *Explore your Horizons* were more likely to be thinking about the future and exhibited greater certainty about their ability to cover the costs of post-secondary education. Manitoba LILE participants altered their expectations about the role post-secondary education would play in achieving their aspirations. FGF participants increased the time they spent on homework.

Impacts observed to date suggest that the interventions are having different effects for different population groups. For some students, enhanced career education may be reducing financial barriers, while for others it may be changing their aspirations. The early promise of financial aid may work among New Brunswick Francophone participants by altering their aspirations and those of their parents. The prospect of observing impacts on access to post-secondary education in future analysis clearly remains open, but should such impacts occur, it is likely that there will be several explanations about how the interventions brought about these changes.

Future Analysis

Learning Accounts and *Explore Your Horizons* were implemented as “early interventions” intended to help high school students overcome barriers to access to post-secondary education. If successful, these interventions hold the prospect of changing the course of participants’ lives as they transition into adulthood, especially among target groups historically less likely to access post-secondary education. Complete evidence on the effectiveness of such interventions requires study of a longer period than the three years covered by this report. At this interim stage of the investigation, using data collected up until the point when student participants completed high school, it has been possible to assess with confidence the quality of the implementation of *Future to Discover’s* interventions, but only to consider a partial picture of the effectiveness of the interventions.

The implementation of *Explore Your Horizons* for the pilot project is complete, and it achieved its objective of providing a fair test of the offer of enhanced career education. Payments from *Learning Accounts* continue until May 2011 and so a full account of the intervention’s delivery and participants’ responses will appear in the final report.

Data from the many different strands of *Future to Discover’s* implementation research are likely to shed considerable light on the final impact by answering important “how” and “why” questions about the effects of the interventions. These analyses will also appear in the final report. In situations where findings vary by location, timing, participant characteristics, or linguistic sector, evidence from the implementation research can help to make sense of the evaluation findings.

A full account of these longer-term impacts—in particular, about participants’ access to post-secondary education—will be possible when administrative and survey data from 2009 and 2010 are analyzed. In addition, analysis will cover important secondary findings of interest, including impacts on the types of post-secondary program applied for and enrolled in, the locations of the programs, and types of post-secondary financing income obtained.

The final report, due in 2011, will also include a full benefit-cost analysis to determine whether the interventions represent a net benefit to three key groups: participants, governments, and society as a whole. Providing estimates of the net benefit answers a critical question for policy-makers who wish to know which interventions or combinations represent the most effective use of future program dollars.



References

Barr-Telford, L., Cartwright, F., Prasil, S., and Shimmons, K. (2003). *Access, Persistence and Financing: First Results from the Postsecondary Education Participation Survey (PEPS)*. Ottawa: Statistics Canada, Catalogue No. 81-595 MIE2003007.

Bowlby, J., and McMullen, K. (2002). *At a Crossroads: First Results of the 18- to 20-year-old Cohort of the Youth in Transition Survey*. Ottawa: Human Resources Development Canada & Statistics Canada, Catalogue No. 81-591-XIE.

Knighton, T., and Mirza, S. (2002) Postsecondary participation: the effects of parents' education and household income, *Education Quarterly Review*, 8 (3) 25–32. Ottawa: Statistics Canada, Catalogue No. 81-003.

Looker, E. D. (2001). *Why Don't They Go On? Factors Affecting the Decisions of Canadian Youth Not to Pursue Post-Secondary Education*. Montreal: Canada Millennium Scholarship Foundation.

Social Research and Demonstration Corporation (2007). *Future to Discover Pilot Project: Early Implementation Report*. Montreal: Canada Millennium Scholarship Foundation.

Smith Fowler, H., Currie, S., Hébert, S., Kwakye, I., Ford, R., Hutchison, J., and Dobrer, S. (2009). *Future to Discover Pilot Project: Interim Impacts Report*. Ottawa: Social Research and Demonstration Corporation.

Statistics Canada (2007). Why are youth from lower-income families less likely to attend university? *The Daily*. Catalogue No. 11-001-XIE (Français 11-001-XIF) ISSN 0827-0465. <http://statcan.ca/Daily/English/070208/d070208.pdf> (accessed on February 14, 2007).

Tomkowicz, J., and Bushnik, T. (2003). *Who Goes to Post-secondary Education and When: Pathways Chosen by 20 year-olds*. Ottawa: Statistics Canada, Catalogue No. 81-595-MIE2003006.

