



Financial Literacy of Low-income Students: Literature Review and Environmental Scan

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Executive Summary

The main objective of this report is to learn about the state of knowledge regarding the role of financial literacy as a complex barrier to postsecondary attendance.¹ To achieve this goal, the report contains a literature review of existing studies in the area, as well as an environmental scan of existing programs and initiatives.

When possible, the focus of the report is on low-income high school students in the context of making decisions regarding postsecondary education. In this ideal setting, financial literacy will be defined as knowledge of all the costs, benefits, and available aid associated with postsecondary education. In reality, there are few studies and existing programs that fit this ideal profile. However, we have identified several studies that share these characteristics to a large extent. Specifically, we describe and discuss 21 related studies and 34 related programs. Although most studies and programs are Canadian, we also broaden the scope somewhat to include countries with similar postsecondary systems as Canada (e.g. the United States, the United Kingdom, Australia, and New Zealand).

Our literature review focuses on Canadian and American evidence, and has uncovered several important findings. First, the cost of a postsecondary education is vastly overestimated by the public at large and by low-income youth in particular. In contrast, the economic benefits to attending university are generally underestimated (equally for low- and high-income households). Whether knowing about the costs and benefits matters for pursuing a postsecondary education is less clear given the lack of convincing evidence in this area.

While awareness of student financial aid is not necessarily an issue, it appears that knowledge of aid is limited. This may be related to the complexity of student financial aid, which is not only costly, but may also represent a barrier to some students.

A non-negligible portion of students are loan averse, which means that they will avoid grant opportunities when they are coupled with an optional student loan. This is the case even though the loans can be refused or invested at zero repayable interest.

Research also demonstrates that helping students complete their financial aid and postsecondary application forms has a large impact on application and admission rates. In contrast, offering information to students (without application assistance) is generally not sufficient to affect behaviour.

Finally, once in university, the majority of undergraduates follow a budget and regularly pay off their credit card balance each month. This suggests a certain degree of awareness and control regarding their finances, which may help them repay their loans on time and avoid defaulting.

¹ Throughout this report, the term 'postsecondary' is used to refer to university, college, trade school, etc. as a whole.

Some key findings also emerge from the environmental scan, which focused on programs in Canada, the United States, the United Kingdom, Australia, and New Zealand. First and foremost, it is clear that there are currently no identifiable initiatives that aim only to address the financial literacy gaps of low-income youth with the objective of increasing participation in postsecondary education. There are several initiatives that provide financial literacy information or education to youth. Among these, some do use financial decisions related to education as teachable examples relevant to the secondary school age in the life course. But many more offer more general or even generic financial literacy content such as general information on budgeting, using credit and consumer rights. Nearly all of the pure financial literacy initiatives are aimed at a mainstream youth audience, often through public education classrooms, rather than being tailored specifically to low-income or otherwise vulnerable youth, who may face very different realities compared to their middle and upper income peers in their household financial resources, habits, priorities and even attachment to mainstream financial services.

There are also only a small number of initiatives that are aimed specifically at low-income youth. What is notable about these interventions is that they offer an intensive and multi-faceted approach to their programming. These programs each combine some amount of financial literacy information/education/advice with a financial incentive and a heavy investment of individual attention through mentoring or case management delivered by a community-based organization. Previous research has shown that when it comes to getting help with financial literacy, low-income adults express a preference for higher-touch, personalized services from trusted community-based organizations over mainstream providers (such as financial advisors in banking or investment firms) or self-serve options such as websites or on-line learning modules. It may be that young people from low-income households similarly prefer high-touch services to increase their financial literacy and that these organizations are accurately assessing and responding to their clients' needs and preferences. However, research suggests that among adults, the additional impact of a financial education component offers little or no incremental benefit to postsecondary outcomes when a financial incentive is already present.

The report concludes by discussing the next steps for advancing our knowledge of the role of financial literacy as a complex barrier to postsecondary attendance for low-income students. First, we know that providing postsecondary financial information alone is not sufficient to change behaviour. However, the studies that come to this conclusion are based on interventions that were implemented in grade 12. If the provision of information about postsecondary costs, benefits, and student aid affects not only the decision to apply to postsecondary, but also the student's academic effort (to qualify for admission), then grade 12 may be too late. This may explain why existing studies have found that such interventions generally do not work. As a result, there exists an important opportunity to evaluate the provision of similar programs at an earlier stage in life (e.g. earlier in high school). Second, given the importance of loan aversion highlighted in the research, it may be preferable to 'de-couple' non-repayable grants from student loans. One possible way to do this is to allow students to 'opt-out' of student loans by checking a box at the beginning of their student aid form. However, it is not currently known if this approach would work. Although the approach may help certain students receive non-repayable grants, it may also deter some loan-averse students who may actually benefit from loans from applying for them. As a result, it would be informative to test the proposal before moving forward.

Regarding the delivery of existing financial literacy programs, it is clear that program providers do not generally view investments in human capital as their main objective, despite the fact that education is one of the most important investments many people make in their lifetime. Existing programs were developed with more traditional financial investments in mind (e.g. mutual funds, stocks, bonds, etc.). The successful integration of postsecondary education as a key objective in existing programs may depend on stakeholders in postsecondary education to highlight the importance of human capital in the broad investment portfolio. Moreover, it is not known if existing programs make a difference in the lives of their clientele. In their present state, we may or may not know what happened to participants, but we certainly do not know what would have happened in the absence of the program. Prior to implementing newly designed programs that incorporate postsecondary-related financial literacy, it would be important to test them in a pilot study to understand their benefits and costs.

Introduction

The main objective of this report is to learn about the state of knowledge in the area of financial literacy as a complex barrier to postsecondary attendance. The report contains two core components. The first is a literature review of existing studies in the area. The second is an environmental scan of existing programs and initiatives.

Ideally, the focus of the report will be on low-income high school students. Furthermore, our definition of financial literacy will be limited as much as possible to only those dimensions that are relevant to the decision to attend higher education. This includes the knowledge of costs and benefits of postsecondary education, awareness of student financial aid opportunities, risk tolerance, loan aversion, etc. We also focus on Canadian studies and programs whenever possible. In reality, the literature and program environment is far more developed in the United States. When studies or programs from other countries are particularly informative, we will also include them in the report. In doing so, preference will be given to countries that share similar postsecondary systems to Canada (e.g. the United States, as well as the United Kingdom, Australia, and New Zealand).

The remainder of the report is as follows. In Section 2, we present the literature review. Next, the environmental scan is discussed in Section 3. The report concludes in Section 4, where we make recommendations for improving our knowledge of the role of financial literacy as a complex barrier to postsecondary attendance for low-income students.

Literature Review

Introduction

The primary objective of this literature review is to summarize and discuss the existing evidence on financial literacy as a barrier to postsecondary attendance, particularly among low-income high school students. Our search has taught us two things. First, the literature on financial literacy in general is not very well developed. Although researchers in home economics and consumer studies have studied financial literacy for some time, the topic has only recently attracted the attention of the broader social sciences. The recent worldwide financial crisis may certainly have contributed towards expanding the field. Second, among existing financial literacy studies, only a very small portion consider human capital investments. The vast majority of the literature deals with consumer and investor knowledge regarding budgeting, risk diversification, interest rate calculation, etc. Arguably, higher education is one of the most important investments made in one's lifetime. It seems paradoxical then that so few studies have been devoted to this topic.

Fortunately, the tide has begun to turn as the more general topic of postsecondary access has blossomed in the fields of economics, education studies, and sociology. Researchers in these disciplines have adopted various theoretical models to understand how youth make their way towards higher education. Economists lean on human capital theory, whereby individuals decide to invest further in schooling if the net discounted lifetime returns (benefits less costs, including

foregone earnings while in school) are positive. In other words, people will choose to invest further in education if it pays to do so. Education researchers often adopt a stages approach, whereby students must cross certain thresholds before even being able to consider higher education (e.g. aspiring to attend, gathering relevant information, evaluating choices, etc.). Sociologists typically consider higher education as a means to achieve a higher socioeconomic status in life. Studies in all three of these fields have taught us a lot about the factors necessary to pursue further education following high school.

Although we will not be reviewing the broad literature on postsecondary access, it is worth mentioning that early factors such as academic ability and aspirations, as well as parental influences such as education and expectations, tend to matter a lot, and is a hot topic of debate and research. Exactly how these early influences shape decisions about higher education is not fully understood. One possibility is that the child's own abilities, as well as the educational experiences of the parents, may influence the level of knowledge students' acquire about postsecondary costs and benefits. Moreover, that knowledge may shape the student's aspirations and the parents' expectations regarding higher education prospects for the child. This knowledge of costs and benefits regarding postsecondary education represents a form of financial literacy and will, in fact, be the main focus of our review.

Our efforts have uncovered four types of findings in this literature. The first consists simply of measuring the degree of financial literacy among students: their knowledge of costs and benefits of postsecondary education, their awareness of financial aid opportunities, and their degree of loan aversion. Conveniently, the focus of these studies is often placed on differences by parental income. The second type of finding considers the link between financial literacy and the pursuit of (or intention of pursuing) postsecondary. A third set of findings demonstrates how financial literacy can be improved and how it may affect postsecondary attendance. A final set of findings concerns budgeting and credit card behaviours of students who have pursued higher education.

The next sections describe our methodology. This is followed by the results of our search. This includes a detailed description and analysis of the relevant studies. We then summarize and discuss what we have uncovered from the review and identify research gaps in the literature.

Methodology

According to Cooper (1998), research progress can only be achieved by understanding past contributions in the area. Developing a comprehensive and useful literature review (or research synthesis) is the most effective way to prevent researchers, who often work in isolation, from repeating mistakes of their predecessors.

Cooper describes a five-stage model for the synthesis process, which has become generally accepted among social science methodologists. Prior to beginning the research stages, the research question must be asked. In our case, we are interested in obtaining information relevant to the financial literacy of low-income students and postsecondary attendance. The five stages that follow are:

1. Problem formulation (what type of evidence should be included in the review?)
2. Data collection (what methods will be used to gather the relevant information?)
3. Data evaluation (what retrieved information should be included?)
4. Analysis and interpretation (synthesizing valid retrieved studies)
5. Public presentation (presenting the selected findings in the final report)

While these stages capture the main features of an effective literature review, we believe that not enough focus is placed on understanding differences in research findings, which would fit into stage 4. Our literature review thus follows these broad steps, but is more critical and informative in the end.

Results

The review has identified 21 relevant studies, which are listed in Appendix A. The table summarizes the key characteristics of the studies, including the research question, method, data, sample size, country, population, and findings of each study. Throughout our discussion, we will be referring to the studies in that table. Also, most of the studies are from the United States (US). As such, we will generally begin each topic with the US evidence, and then present the Canadian evidence if any exists. In the text below, we organize the studies by theme, which are marked by sub-headings.

Perception of postsecondary costs and benefits

The US literature generally finds that the perception of postsecondary costs is much higher than actual costs. Horn, Chen and Chapman (2003) explore survey data on high school students who were bound for postsecondary education (i.e., they intended to pursue postsecondary and their parents expected them to do so). The Parent and Youth surveys of the 1999 Household Education Surveys Program is a nationally representative survey with a fairly high response rate (65% among parents and 56% among youth), resulting in a total sample of 7,285 households. They find that students in grades 11 and 12 overestimate college costs by 340%, on average. They also overestimate university costs, but by a much smaller amount (65% for public institutions and 12% for private institutions). One possible reason why accuracy is greater for more expensive institutions is the fact that fees at elite private institutions are more likely to be discussed in popular media. The authors also generally find that parents overestimate costs by equally large amounts.

Ikenberry and Hartle (2000) tackled the same question with a broader survey of the population (by KRC Research and Consulting). Although the sample size is smaller (850) and the survey was conducted by a private firm (which is expected to generate a lower response rate), the authors come to the same general conclusion. The public overestimates the annual costs of attending a college by 82%, a public university by 53%, and a private university by 25%. Horn et al. (2003) also suggest that low-income students are less capable of 'accurately' estimating costs (within 25%) than their high-income counterparts. A low-income household is

defined as one with a household income below \$25,000, while income surpasses \$75,000 in a high-income household. After accounting for differences in the type of institution expected to attend, interactions with parents and teachers, parental education, and language spoken at home by parents, students in low-income households have 24% lower odds of accurately estimating costs than high-income households.² Low-income parents have 42% lower odds of estimating costs accurately, compared to high-income parents.

Usher (2005) provides descriptive evidence on the issue for Canada. He uses survey data from Ipsos-Reid (a private research firm) with a sample size of 1,055 and an unreported response rate. The data were weighted to match the regional, age, and sex distribution of the Canadian population. However, this likely does little to correct for possible sample selection bias. The concern is that households who respond to the survey are different than those that do not respond in some way that is correlated with the measure of interest. In this case, we are interested in the perception of postsecondary costs. People who are not interested in higher education (and thus, likely have little knowledge of costs) may not be interested in answering a survey on this issue. As a result, surveys with low response rates may disproportionately miss people with little knowledge of costs, and studies based on these surveys may actually underestimate the extent of the misperception of costs. This is a non-trivial point since Usher actually finds evidence of considerable overestimation of university costs (he did not look at perceptions of college costs), especially among low-income families. The median adult in a low-income family overestimates university tuition fees by 82%, compared to only 33% for the median adult in a high-income family.

Usher also looked at knowledge of the economic benefits to completing a university degree (after being informed of the average earnings of high school graduates in Canada). On this front, Canadians generally underestimate the value of a university degree. However, knowledge is more or less independent of income in this case. The median adult in a low-income family underestimates the annual earnings of the average university graduate by 36%, compared to 33% for the median adult in a high-income family. Usher took the cost and benefit estimates of low-income families a step further and concluded that on average, they estimate negative net returns to completing a university degree over a 35 year career (assuming a 5% discount rate).³ However, it is not clear that low-income families actually rate university as a bad investment since 9 out of 10 respondents to the survey stated that they believe that a university degree is a good investment in the long-term (a figure which did not vary much by income). While it is possible that low-income families value a university education for non-financial reasons (e.g. obtaining a 'desk job', as suggested by Usher), it may also be the case that they have a difficult time in evaluating the lifetime returns based on their annual cost and benefit estimates. This

² This means that the odds ratio (the probability of accurately estimating costs divided by the probability of not accurately estimating costs) is 24% lower among low-income students. Unfortunately, the interpretation of odds ratios is less than ideal. The authors do report that overall, 16.3% of students from grades 6-12 accurately reported costs. A 24% reduction in the odds ratio in this case would mean that only 13% could accurately estimate costs.

³ A discount rate is used to make future dollar values comparable to present values. There are at least two reasons to do so. First, a dollar earned today may be invested and earn interest or capital appreciation. Second, individuals often prefer to have money today because of their time preferences.

would be a form of financial literacy in its own right. However, it is impossible to know which explanation is more plausible.

Impact of perception of postsecondary costs and benefits on postsecondary attendance

Does the knowledge of costs and/or benefits exert any influence over the decision to attend postsecondary? We located three studies on this topic. The first is American, is somewhat dated, and only looks at the impact of knowledge of costs perception on postsecondary enrolment (Ekstrom, 1992). Unfortunately, Ekstrom does not define her measure of 'knowledge of costs' in the study. Using the High School and Beyond Survey in the US, which contains 7,213 high school seniors who are tracked until the typical age of postsecondary attendance, the study finds that knowledge of costs (however defined) is not associated with postsecondary enrolment in general, but is associated with an 8 percentage point increase in the probability of enrolling in university. These estimates were based on a linear probability model of postsecondary enrolment, which included the standard set of control variables (sex, socioeconomic status, ethnicity, standardized test scores, psychological factors, aspirations, pressure from parents, peers, teachers, counsellors, etc.).

The other two studies are Canadian. First, Acumen Research Group (2008) conducted a survey of grade 12 students in London, Ontario, asking them several questions related to their attitudes towards the costs and benefits of postsecondary education. Although some of the questions related to monetary returns, others considered non-monetary benefits, debt aversion, and identity anxiety. As a result, their perception of returns measure is very difficult to interpret. It is also difficult to interpret statistically as it is a scale measure. From the sample of 711 students of whom they were able to follow-up (73% of the original grade 12 sample – the original response rate is not reported), the authors find no association between their measure of the perception of net returns and postsecondary attendance. However, the perception of net returns of postsecondary education is positively associated with university attendance specifically (a one unit increase in the scale raises the odds of attendance by 4%). No results are available by parental income group.

Another Canadian study is only loosely related to the impact of costs on postsecondary attendance. Palameta and Voyer (2010) provide evidence on the topic from a laboratory experiment. The main focus of the study was to evaluate the impact of the price of financial aid on the demand for financial aid. In the experiment, 1,208 participants (final year high school or first-year CÉGEP students from 12 participating schools in four provinces) were asked to make a series of high stakes decisions between grants and loans for postsecondary education or immediate cash. The price of postsecondary education was derived by manipulating the amount of cash participants had to forego when choosing varying amounts of loans or grant. Prices were expressed as a percentage of the dollar value of financial aid.⁴ The decisions had high

⁴ A grant represented an immediate reduction in the cost of postsecondary education, whereas the dollar value of a loan was derived from its subsidized value (i.e., zero interest throughout postsecondary plus six months of interest relief).

stakes since participants were informed ahead of time that one of their choices would be randomly chosen and honoured. This feature provided them with an incentive to reveal their true preferences.

The study is tangentially related since it does not consider postsecondary attendance, only the demand for various student aid offers (loans and/or grants). Also, the cost measure is indirectly related to postsecondary education. In essence, the cash alternative represents the opportunity cost of taking the aid offer. This is analogous to the opportunity cost associated with going to postsecondary – the additional earnings that students could have received had they not chosen postsecondary education.

What the study found was that, in general, low-income students are more price sensitive than high-income students. A 10 percentage point increase in price is associated with a 3.6 percentage point greater decline in the demand for financial aid among low-income students. It is not clear if we can conclude that low-income students would be more sensitive to an increase in the opportunity cost of attending postsecondary (e.g. an increase in their wage). However, the results are at least consistent with this notion.

Knowledge of student aid

An important factor in the perception of costs is one's knowledge of student aid opportunities. Generally speaking, student financial aid serves two purposes: to reduce liquidity constraints by providing students with cash in hand to pay their postsecondary fees and other bills, either in the form of loans, non-refundable grants, or scholarships and on the back end, it can reduce students' debt burden by offering relatively more non-refundable aid instead of loans. Knowledge of student aid can potentially help students pay for higher education by increasing awareness of available liquidity, or it may increase the perceived net lifetime returns to attending if non-refundable aid is available.

In general, our review has uncovered that knowledge of student financial aid is quite poor. Overall, no more than half (47%) of the public reports knowing 'a lot' or 'a good amount' on how to get financial aid for postsecondary education in the US (Ikenberry and Hartle, 2000). Olson and Rosenfeld (1984) use the parent component of the High School and Beyond Survey in the US, focusing on 6,564 parents of high school sophomores and seniors, and show that income plays little or no role in this sort of knowledge, once they controlled for parental education (which plays a positive role). However, this finding needs to be qualified. The lack of association between income and knowledge of aid may be explained by the fact that aid is targeted towards lower-income families, so that they may have a greater need to know about aid. Put differently, the lack of a negative relationship between income and knowledge of aid may suggest that low-income families do not know as much as they should on the topic.

Why is knowledge of financial aid so poor? One possibility relates to the complexity of the system itself, including the application process. This was the conclusion from a US study by Dynarski and Scott-Clayton (2008). They analyzed the application form for the traditional sources of student aid in the US (the Pell Grants and the Stafford Loans), and find that it is as complex (or even more complex) than income tax forms. Using a simulation approach with the

National Postsecondary Aid Survey, they find that student aid could achieve its objective of targeting aid to those who need it most by only asking a small handful of questions (rather than over 100 items). They further estimate that the opportunity cost of filling out the form (i.e., lost wages) is about \$175 per family. Moreover, administrative costs would be reduced with a simpler form. Altogether, these costs are estimated at about four billion dollars per year. Although a critical comparison was not possible in the context of this review, the application forms in Canada are equally daunting.⁵

Perhaps in response to this complexity, about half of students and parents prefer receiving student aid information from real people (e.g. teachers, counsellors, representatives from institutions). This was the finding of a study conducted by the Tomás Rivera Policy Institute at University of Southern California (2004). The study focused on 1,222 Latino parents of 18 to 24 year olds and 1,204 Latino 18 to 24 year olds in seven metropolitan areas with large Latino populations in the US.

When seeking this information from guidance counsellors, low-income students may face another barrier, although the evidence is less than convincing in this case. The National Association for College Admission Counseling and the Project on Student Debt in the US conducted a survey of high school guidance counsellors with the goal of finding out their views on student loans (Clinedinst and De La Rosa, 2007). Unfortunately, the response rate was quite low (only 15%). Compared to high school population estimates, survey respondents were over-representative of private non-parochial schools (particularly in urban areas) and under-representative of public schools (particularly in rural areas). Furthermore, respondents to the survey are in above average-sized schools, in general. As a result, the report authors suggest caution in generalizing the results to the broad population of high school counsellors.

With these limitations in mind, what the report found is quite striking. More than one-third (37%) of guidance counsellors 'somewhat agree' or 'strongly agree' with the statement, "Students from lower-income families should avoid student loans because the consequences of default are so severe." In fact, only 16% strongly disagree with this statement. Given the well-established literature showing large returns to schooling (reviewed by Card, 2001), these results suggest that guidance counsellors may themselves benefit from financial literacy education.

In Canada, EKOS Research Associates released a report for the Canada Student Loans Program (CSLP) as part of the CSLP performance measurement strategy (EKOS, 2009). Their survey targeted 17 to 30 year old Canadian youth, and obtained a final sample of 2,563. Although the survey was quite broad in scope, two of its components are particularly relevant for this review: knowledge of financial aid and search methods. When youth were asked to list the kind of help Canadians can receive from federal and provincial governments to finance their education, 58% listed student loans and 45% listed study grants. When asked if they have heard of these opportunities, 97% said that they had heard of government student loans, while

⁵ According to Kramer, Rogers and Kaznowska (2010), "Student loans are fearsomely complicated." For example, see <https://osap.gov.on.ca/prodconsum/groups/forms/documents/forms/prd003634.pdf> for the basic Ontario Student Assistance Program form.

70% said that they had heard of government study grants that do not require repayment. Thus, most Canadian youth are at least aware of financial aid opportunities.

Awareness may be affected by available search methods. Canadian students are faced with a complicated system of federal and provincial funding. Finding relevant information may thus be quite challenging. What the EKOS study found was that among youth participating in or considering postsecondary education, 43% have looked for information on financing education within the last 12 months. Among this group, the most common search method was the Internet (45%), while only 7% reported seeking information from teachers or counsellors. However, awareness of government financial support websites is poor: only about one-quarter of this group was aware of the CanLearn (26%) or the National Student Loans Service Centre (28%) websites. Even among those who were aware of the sites, use was fairly low (39% had visited the CanLearn site, while 52% had visited the National Student Loans Service Centre site). Nevertheless, 70% of those who visited each site were very satisfied with them.⁶

However, awareness does not necessarily imply knowledge. The Ikenberry and Hartle (2000) study in the US used a self-assessed measure of knowledge of aid. In a more recent study, the Canadian Alliance of Student Associations (Kramer et al., 2010) reported results from the Canada Student Survey. The innovative feature of this survey is that it contained a test of knowledge about student aid. The final sample consisted of 14,587 full-time university undergraduates from 17 Canadian universities who answered at least one financial aid literacy question. The sampling approach consisted of an email sent out to the target population. Although the response rate was not reported in the study, it is quite likely to be very low given the sample size relative to the likely population size of 17 universities. The authors note that the sample was not representative of the population as a whole (based on the distribution of enrolment by institution and the gender distribution at each institution). While the survey was re-weighted to account for this, there may be other (perhaps unobserved) factors that determined survey response and that may have been correlated with knowledge of financial aid. Nevertheless, the study paints a bleak picture of this knowledge: among loan recipients, only three out of the seven questions were answered correctly (43%).⁷ This is very low considering that these are students who are actually enrolled in university and receiving loans. Students in need who did not make it may have had poorer knowledge. Through regression analysis, the study also revealed that using federal or provincial websites is the most effective method of obtaining knowledge of financial aid. Both methods were associated with a four to five percentage point increase in the test score.

⁶ The study also reported that among students who visited a website for information, only 41% visited a provincial website. Students in Québec (who do not participate in the Canada Student Loans Program) were the most likely to do so, followed by Ontario. Furthermore, 63% of those who visited a provincial website for information were very satisfied.

⁷ The questions are described in Appendix B.

Impact of knowledge of student aid on postsecondary attendance

Does knowledge of aid improve one's odds of pursuing higher education? This question is only relevant for students in need, and as a result, the ideal study would be focused on answering this question separately for this group. Unfortunately, this is not often the case in the literature. For example, Ekstrom (1992) finds that among US high school seniors in general, knowledge of aid is associated with a two percentage point increase in postsecondary enrolment and a three percentage point increase in university enrolment. Plank and Jordan (2001) use a sample of 8,115 grade 10 students who were followed-up two years following high school as part of the National Educational Longitudinal Study in the US. The authors find that seeking one additional source of information (a 35.7% increase in the total number of sources of information sought) is associated with a 12.85% increase in probability of enrolling in university (versus not enrolling in any postsecondary education). Since it is not clear how knowledge of financial aid would help youth who are not in need attend postsecondary, these numbers may provide a lower bound for the effect on lower-income youth.

Cabrera and La Nasa (2000) fill this gap in our knowledge by estimating the separate impacts of aid knowledge by socioeconomic status (SES), which combines parental income, education, occupation, and wealth. They also use the National Educational Longitudinal Study in the US, focusing on a sample of 7,417 students in grade 8 who were tracked until postsecondary age. Using regression analysis with controls for ethnicity, parental influences, personal aspirations, and measures of help received in applying for postsecondary and financial aid, they find that one additional source of information on financial aid is associated with a five percentage point increase in the probability of applying to postsecondary education for youth with the lowest SES. For youth with the highest SES there is no relationship.

Loan aversion, risk preference, and numeracy

The broad umbrella of financial literacy includes more than just knowledge components. The decision to take on debt from student loans will also be determined by preferences for debt. In their laboratory experiment, Palameta and Voyer (2010) examined the incidence of 'loan aversion', which was defined as accepting a grant of a given dollar value over a given cash alternative when no optional loan was offered, but rejecting the same grant over the same cash alternative when an optional loan was offered. In other words, even though participants could simply refuse the optional loan (or invest it with zero repayable interest with a long payment deferrable period), they preferred not to take the non-repayable grant when it was offered with the loan. One possible reason for this is that they may have been worried that they would use the loan to finance consumption that they would not otherwise undertake in the absence of the loan.

Palameta and Voyer found that, overall, between 5 and 20% of students were loan averse (depending on the relative amounts of the grant and loan offers). However, parental income was not a direct factor. However, through regression analysis, low numeracy, a high personal discount rate, and a perception of low net returns to postsecondary education were positively associated with the probability of being loan averse. These are all factors that are more common among low-income youth.

Another dimension of financial literacy is the degree of risk preference since this may be a factor in making investment decisions. The same is true for human capital investments. The financial benefits of a postsecondary education include more than just the expected outcome (or reward). Rewards come with risk, and this is the case with labour market outcomes as well. Brown, Ortiz and Taylor (2006) explored this notion by using the Panel Study of Income Dynamics in the US, which contained a risk aversion assessment section in its 1996 questionnaire. Their focus was on estimating the impact of risk preference on educational attainment. The five questions in this section asked household heads to state their preferences regarding various risk/reward scenarios. The authors used responses to these questions to create a six-point risk aversion scale (based on combinations of answers provided by the respondent), as well as a more complex quantitative measure of risk tolerance (which is inversely related to risk aversion). Defining measures of risk aversion and risk tolerance is useful since it allows one to test the robustness of the findings. Specifically, if we see any impacts on educational attainment, we expect them to be of different signs for risk aversion and tolerance.

The authors focus on 5,277 household heads who were employed and between the ages of 18 and 65 in 1996. Using regression analysis, they find that a one standard deviation increase in risk aversion is related to 0.0748 fewer years of schooling, and slightly more than one percentage point decrease in the probability of attending postsecondary education over stopping at a high school diploma. Conversely, they find that a one standard deviation increase in risk tolerance is associated with 0.086 more years of schooling in general, and about a 1.5 percentage point increase in the probability of attending postsecondary education over stopping at a high school diploma. In other words, risk aversion is negatively related to human capital investments. Conversely, risk tolerance, is positively related to human capital investments.

One critique of this approach, noted by the authors, is that educational investments may have been made long before the risk preference measures are derived (in 1996). This is especially the case among older heads of households. To partially address this concern, the authors demonstrate that risk preferences are stable over time, which is consistent with the literature they cite on the risk of financial portfolios over the lifecycle. Interestingly, this is counter to what most financial planners would recommend. Since risk and reward are usually positively related, an optimal investment strategy is to accept risk early on since the long-term expected rewards are quite high (the peaks will more than counterbalance the troughs). As individuals near retirement, more conservative approaches are often recommended since there is little time for price fluctuations to take effect (i.e., there may be too little time to recover from a stock market crash).

The dimension of the timing issue that Brown et al. (2006) do not address is the possibility that risk preferences may be shaped by human capital investments. Perhaps attending college or university helps students better understand optimal investment strategies over the lifecycle. Ideally, risk preferences should be measured while in high school in order to better understand how they relate to the decision to pursue postsecondary education.

Some argue that numeracy serves as a reasonable proxy for financial literacy. If this is the case, then a study by Frenette (2007) offers some Canadian evidence on the topic. The general focus

of the study was to understand why lower-income youth (those in the bottom quartile of parental income) are far less likely to attend university than youth in the top income quartile. Frenette documents that among high school graduates, there exists a university attendance gap of 19 percentage points between these two income groups. This is based on the Youth in Transition Survey (cohort A), which contains 2,389 low-income youth and 1,746 high-income youth who are tracked every two years from age 15 onwards (and up to age 19 at the time of the study). Frenette then employs a regression-based decomposition technique (the Oaxaca-Blinder method) to break down the portion of the gap that is due to differences in various observed characteristics, and a portion that is unexplained. The largest contributing factor is the difference in parental education, which accounts for about a third of the gap. This is followed closely by academic abilities. In this category, Frenette includes overall school marks at age 15 and results from a standardized test in mathematics that students wrote. The test was administered by the Organisation for Economic Co-operation and Development (OECD) as part of the Programme for International Student Assessment (PISA). Differences in overall marks accounted for 13.4% of the income-access gap, while 15.9% could be explained by differences in the mathematics score.⁸ Since the regression model already accounted for scholastic performance (the overall mark) the mathematics abilities captured by the standardized test must have exerted a different (non-scholastic) influence on university attendance. It could very well be that it picked up financial literacy (i.e., students with higher numeracy were better able to evaluate the financial benefits of attending university). Interestingly, whatever is the effect captured by the mathematics exams, the study suggests that it played a slightly larger role in explaining the income-access gap than did self-reported financial constraints. Overall, differences in self-reported financial constraints accounted for 14.4% of the university attendance gap between high- and low-income youth.

Research on interventions or approaches to improve financial literacy

So far, we have discussed research on the degree of financial literacy of students (particularly those from low-income families) and on the relationship between financial literacy and postsecondary attendance. We have also summarized research on students' preferred methods for obtaining information on financial aid and the barriers they may face in obtaining that information. The next portion of this literature review will focus on how financial literacy can be improved and how that may affect postsecondary attendance.

The first of these studies considers the timing of knowledge of financial aid, which is amenable to policy intervention. Specifically, Flint (1993) looks at the impact of early awareness of financial aid on the range of postsecondary institutions considered by parents. The survey is limited to parents of students in grade 8 in Illinois who eventually entered postsecondary education. Furthermore, the survey had a low response rate (only 24%), although the sample was representative of postsecondary students based on US-wide data. The survey omission of students who did not eventually attend postsecondary education precludes the possibility of

⁸ The difference in mathematics performance was substantial. About one-third (33.5%) of high-income youth scored in the top 25% on the mathematics test compared to only one-fifth (20.3%) of low-income youth.

evaluating the impact of early awareness on access. Instead, the author looks at the impact of early awareness on average tuition fees among institutions considered by the parents of students who eventually attended postsecondary education.

Flint finds that early parental awareness (while the child is in grade 8) of loans and student employment is not associated with the average tuition level at institutions considered by parents. Early awareness of grants is related to a higher average tuition level. However, the derivation of the awareness variable is not clearly defined.

Another potential area for intervention is through the education curriculum. Sedaie (1998) argues that the current curriculum in many jurisdictions already allows students the opportunity to become more financially literate by taking an economics class in high school. Although economic theory is often criticized for painting an unrealistic picture of how agents (including households) behave, it does suggest an optimal model to follow for its students. Economics places a heavy emphasis on rationality and optimization in its teachings. Students of economics are exposed to concepts such as opportunity cost and time discounting. As a result, the astute student will understand that pursuing postsecondary education not only entails direct costs, but also foregone earnings. Furthermore, the benefits to obtaining postsecondary qualifications must be discounted since they accrue over several years in the future. Economics students also learn about price and quantity determine in the market through supply and demand factors. These lessons can be easily transferred to the market for labour, which may help students assess future wages and employment conditions.

Sedaie uses the National Assessment of Economic Education Survey, which contains 1,734 high school seniors in the US who took economics. These students were then asked to evaluate the extent to which economics helped them think about furthering their education. She finds that the gap in the intention to enrol in university compared to not pursuing any postsecondary is eight percentage points higher when economics helped seniors think a lot about getting an education, compared to helping little or not at all.

The limitation of economics as a tool for teaching financial literacy is that it is usually an elective class in high school. That being said, three-quarters of the original sample of seniors had taken an economics class in their senior year. Would making economics mandatory for high school graduation improve outcomes for students? In particular, would it help low-income students? Since only economics students were studied, we don't know the answer to this question or whether low-income students were less likely to take economics classes.

A third study directly assesses the impact of a financial literacy intervention, albeit one that was implemented for the purposes of the research only. Bettinger, Long, Oreopoulos and Sanbonmatsu (2009) address the issue of complexity in student financial aid application forms in the US, which was noted earlier by Dynarski and Scott-Clayton (2008). Specifically, they evaluate the impact of providing assistance with the Free Application for Federal Student Aid (FAFSA) and/or information on student aid. The program targeted dependent individuals between 17 and 30 years old with no undergraduate degree from low- to moderate-income

families (less than \$45,000 in adjusted gross income on their tax return) in Ohio and the Charlotte, North Carolina area.⁹ The project was completed in collaboration with H&R Block. Individuals who filed their returns with this company were screened for eligibility. In total, 866 individuals met the eligibility criteria and were randomly assigned into one of three groups: a treatment group that received assistance with the FAFSA application as well as financial aid information, another treatment group that only received information on student aid, and a control group that received no assistance or information.

Assistance with the FAFSA form had three dimensions. First, relevant information collected on the tax return (and already available to H&R Block) fed into the FAFSA form. Second, an H&R Block tax professional interviewed the participant in order to obtain the remaining information. If this was not possible, a call center contacted the family. Finally, the completed FAFSA form was submitted electronically by H&R Block to the Department of Education free of charge (unless the participants preferred to do it themselves).

The provision of aid information also had two components. First, the amount of needs-based aid that they were eligible to receive was presented to participants. Second, tuition fees at four nearby public colleges and universities were also reported.

Their study found that the offer of application assistance and aid information raised postsecondary enrolment by 26% and the aid application rate by 36% compared to the control group. Offering to provide aid information alone had no impact on postsecondary enrolment or aid application compared to the control group.

Oreopoulos and Dunn (2010) conducted a similar experiment that focused exclusively on information provision. They recruited students in eight secondary schools from the Toronto District School Board that were located in low-income neighbourhoods, and invited them to complete two online surveys three weeks apart. In the first survey, demographic characteristics were collected and participants were randomly assigned to two groups. The treatment group was invited to view a video that discussed the costs and benefits of pursuing postsecondary education, as well as the locally available institutions they could attend. They were also invited to use a student aid calculator, to help them become aware of how much aid they could likely receive. The control group did not receive this offer.

Three weeks later, 894 students completed the second survey.¹⁰ Students were asked what level of education they expected to complete and various questions on student aid eligibility. The study found that the offer of information raised the probability of expecting to complete a college diploma by 5.3 percentage points, but had no impact on university expectations. The offer of information to students also raised their probability of believing they are eligible for a grant by 8.8 percentage points.

⁹ The project also looked at independent adults, but this is out of scope for our literature review.

¹⁰ The attrition rate between surveys was about 35%, but this was not correlated with the treatment status.

Financial behaviour of postsecondary students

All of the studies discussed so far have focused on financial literacy and its role in getting students to postsecondary education. Once enrolled, however, that knowledge may further help students manage their debt load, which may impact their probability of completing their education.

The most relevant study we could find on this topic is Canadian. Prairie Research Associates (2008) use data from the Canadian University Survey Consortium to study budgeting and credit card behaviours of university undergraduates. The survey has a low response rate (40%) and a sample size of 11,981 students across 31 participating universities. They find that about 71% of students follow a budget, about 72% have at least one credit card, and about 20% have at least two credit cards.¹¹ Despite the widespread availability of credit cards, most students (78%) who own a credit card regularly pay off their balance each month. However, about 11% of credit card holders carry a balance of over \$1,000.

Although this study does not measure financial literacy per se, it does suggest a certain degree of financial awareness and control among a strong majority of university students. Unfortunately, the study does not report results by parental income.¹²

Summary and Discussion

Although the literature on financial literacy as a barrier to postsecondary attendance for low-income youth is scant, our review has uncovered several important findings. First, the cost of a postsecondary education is vastly overestimated by the public at large and by low-income youth in particular. This is largely based on US evidence. The Canadian evidence, while more limited, does point in the same direction. In contrast, the economic benefits to attending university in Canada are generally underestimated. In this case, income does not play a role. Whether knowing about the costs and benefits of postsecondary matters for obtaining the education is less clear. In fact, the US and Canadian literature is probably not well established enough in this area to draw firm conclusions.

Although awareness of student financial aid opportunities may be fairly widespread in Canada, knowledge of aid is lacking even among university students who hold student loans. Evidence in the US suggests that knowledge of aid is not related to income, but this could simply be related to the fact that higher income youth have little or no need to know about financial aid. The fact that low-income youth possess no more knowledge of student aid than high-income youth (a group who likely does not need to know) may suggest a serious information gap among those who do need aid. On the other hand, it could also reflect lower expectations for attending postsecondary education.

¹¹ The study included non-responses in its calculations. For example, they actually report that 60% follow a budget, but that 15% were 'not sure'. We re-calculated the numbers by dropping these non-responses.

¹² This would not be feasible since it is the students (not the parents) who are surveyed.

It is quite possible that the largest barrier to obtaining information about student aid is the complexity in the system. This is certainly the case in the US based on a detailed study of their application form for traditional sources of aid (the Canadian aid application forms are equally daunting). The US research also suggests that the system is *unnecessarily* complex. Estimates suggest that a massive simplification would reduce costs substantially, while maintaining the ability of the system to target aid to those in need. The cost savings from simplification alone (about four billion dollars in the US) could go a long way towards helping even more students in need.

Perhaps as a result of this complexity, students and parents in the US generally prefer to obtain their student aid information from real people, including guidance counsellors. When seeking this information, low-income students may face an additional barrier. More than one-third of guidance counsellors believe that low-income students should avoid loans since the consequences of default are so severe.

Does the knowledge of student aid help those in need to pursue postsecondary? Only one (US) study investigates this issue and finds that it does indeed help those with the lowest socioeconomic status (a hybrid of parental income, wealth, education and occupation). No Canadian evidence exists on this topic.

Between 5 and 20% of Canadian high school students are so loan averse that they will avoid grant opportunities when they are paired with an optional student loan (which can be refused or invested at zero repayable interest). Loan aversion is more greatly influenced by financial literacy indicators than by parental income. Indeed, low numeracy, a high personal discount rate, and a perception of low net returns to postsecondary are positively associated with the probability of being loan averse. In contrast, parental income does not play a direct role in determining loan aversion.

Another form of financial literacy is risk preference since this will shape investment behaviour. Postsecondary attendance, like many forms of investment, comes with a certain degree of risk. Our review has found that risk aversion (as measured by a series of questions asking respondents to evaluate outcomes with varying risk/reward trade-offs) is negatively associated with holding a postsecondary qualification. Conversely, risk tolerance is positively associated with holding a postsecondary qualification.

In Canada, we have learned that differences in numeracy (a proxy for financial literacy) between high- and low-income youth accounts for about one-sixth of the gap in university attendance between the two groups. This is slightly larger than the role played by differences in self-reported financial constraint.

The review has also uncovered a limited number of studies that looked at the role of financial literacy interventions (or potential financial literacy interventions). For example, we saw that early awareness of financial aid (when the child is in grade 8) is associated with the parents considering more expensive institutions (among students who eventually attended postsecondary education).

According to one US study, the lessons learned in high school economics are positively associated with intentions to pursue postsecondary education. Although the study suffered from methodological issues, the results may not be very surprising given that economics teaches us about rational behaviour in all aspects of life, including investment decisions. Specifically, economics covers topics such as time discounting, opportunity costs, and supply and demand in the labour market. These lessons are all relevant for understanding the financial aspects of human capital investments.

One way to overcome the financial literacy barrier may be to help youth complete their financial aid application form. When combined with an offer to provide information on financial aid, low- to moderate-income youth from the US who are offered guided assistance in completing their form are far more likely to apply for student aid and for postsecondary admission. However, offering financial aid information alone had no impact. A Canadian study looked at offering information about costs (including aid), benefits, and local availability of postsecondary institutions, and found evidence that this raised expectations to complete a college diploma, but not a university degree. The information offer also raised expectations regarding grant eligibility.

Finally, once in university, the majority of Canadian undergraduates follow a budget while in school. Although most own a credit card (and many own two or more), the majority of them regularly pay off their balance each month. These findings suggest a certain degree of awareness and control regarding their finances, which may help them repay their loans on time and avoid defaulting.

Despite what we have learned from this literature, it is clear that there are still some substantial research gaps. The paucity of studies on the impact of cost and benefit perception on postsecondary enrolment marks a clear gap in the literature. We know that low-income youth tend to have poorer knowledge of costs and benefits, but we simply do not have enough evidence to draw firm conclusions about whether this affects their decision to pursue postsecondary education or not. With more studies in this area, policymakers could better understand what is driving the decision to pursue higher education. The standard human capital model assumes that individuals base this decision on the net returns, but of course, other factors may come into play. Individuals may ascribe a 'consumption value' to education (e.g. the intrinsic benefits to living the student life), or they may value the non-pecuniary benefits of jobs typically held by university graduates (e.g. the power to make decisions, the freedom to use independent thought to innovate, etc.). Without a doubt, more studies are needed in this area.

There is also a lack of Canadian evidence on the general topic of financial literacy as a barrier to pursuing postsecondary education for low-income youth. In total, only seven studies were identified in this literature review. Enhancing our knowledge of financial literacy as a barrier to postsecondary for low-income youth in Canada will largely depend on data availability. We are not aware of any Canadian longitudinal data set that allows researchers to link postsecondary attendance to the knowledge and costs of postsecondary or of financial aid opportunities held by students while in high school. The Youth in Transition Survey, cohort A provided the right vehicle in the sense that it followed youth from high school to the typical age of postsecondary enrolment. However, the topic of financial literacy was in its infancy when the survey was being designed.

There are also too few studies that provide rigorous evidence on the effectiveness of financial literacy (or related programs) on helping low-income youth pursue higher education. In general, the studies are very descriptive in nature. We know that youth who are less aware of financial aid are less likely to pursue postsecondary, but we do not know the direction of causality. Although the studies have accounted for differences in observed characteristics with regressions, we cannot rule out the possibility that many youth decided early on to not pursue postsecondary education. As a result of this early decision, they (or their parents) may have chosen not to inform themselves about financial aid opportunities. The most convincing research in our literature review are the H&R Block study by Bettinger et al. (2009) and the study by Oreopoulos and Dunn (2010), both of which benefited from random assignment. This is considered the gold standard in program evaluation. Under random assignment, individuals who receive the offer of the treatment are otherwise identical to those who did not receive the offer. For that reason, differences in their outcomes can be attributed to the offer of the treatment. In most of the other studies we discussed, individuals were assigned to different 'treatments' (e.g. knowledge of financial aid) according to their own characteristics (some of which may not have been observed by the researchers). The one exception is Palameta and Voyer (2010). In their laboratory experiment, the same individuals were exposed to different choices (or treatments), which mimics random assignment. However, the students in that study were never followed up beyond the date of the experiment. A follow-up survey of those students would be highly informative as it could relate final outcomes (postsecondary attendance) to price sensitivity or even loan aversion.

Canada is moving forward in terms of generating rigorous, scientific evidence. The Social Research and Demonstration Corporation (SRDC), along with Phil Oreopoulos (a co-author on the two random assignment studies discussed in this review), are working together to evaluate the impact of providing information about postsecondary education (including its costs and benefits) and student financial aid, and guided assistance in completing application forms for postsecondary and student aid (much in the spirit of Bettinger et al., 2009). The research is part of the Life After High School project, which is a social experiment (with random assignment) being run in British Columbia high schools during the 2010-11 academic year.¹³ In addition to providing Canadian evidence on the topic, the study offers two advances over the original Bettinger et al. study. First, it will follow students in the following year in order to assess postsecondary enrolment. Second, it will focus on high school seniors - the Bettinger et al. study focused on dependents between the ages of 17 and 30.

Despite this promising development on the research front, more can still be learned on the topic. The Bettinger et al. (2009) study suggests that helping low- to moderate-income students with their aid application (along with providing them with information on aid) leads to a substantial difference in their behaviour. But what if students began thinking about the financial aspects of postsecondary earlier on (even before the senior year of high school, as is being tested in

¹³ The Government of Ontario has just recently announced that Life After High School will be piloted in Ontario during the 2011-12 academic year (<http://www.news.ontario.ca/tcu/en/2011/06/helping-students-prepare-for-life-after-high-school.html>).

British Columbia)? For some students, grade 12 may be too late if perceived financial barriers led them to rule out postsecondary earlier on. They may have avoided courses that are required for college or university entrance, or perhaps let their marks slip if they did not plan on continuing beyond high school.

Psychologists have long described the importance of ‘anchoring bias’ in decision-making (Tversky and Kahneman, 1974). Specifically, individuals tend to overly rely on the initial information that is available to them. Once the information is implanted in people (i.e., the ‘anchor’ is set), they will persistently use it to make decisions, whether the information is correct or not. New information may be used to ‘adjust’ their estimate, but the adjustments are usually too small, resulting in a biased final estimate. Researchers have come to these conclusions countless times in various experiments. As a result, the concept of anchoring and adjusting became an important component in the growing field of behavioural economics (a marriage of traditional neo-classical economics and psychology). The implication is that, with youth who are at risk, their decisions will largely depend on early information (their ‘anchor’). We’ve seen that parents are generally no more financially literate than their children when it comes to postsecondary decisions. Knowledge may be particularly poor in low-income households, especially if the parents have not attended postsecondary. In other words, the anchor they provide may be incorrect. Government can play a role by providing the correct anchor (as long as it is set early enough) or by helping youth adjust their initial information by providing the information later on. Although it is tempting to make the information available as late as possible in high school (so that the information is fresh when students must make decisions), the work of Tversky and Kahneman suggest that it may be too late at this point (unless the intervention is very involved, such as in the Bettinger et al. (2009) study). Simply put, if students suddenly become aware in grade 12 that a postsecondary education is a worthwhile investment, they cannot turn back the clock to try to raise their marks in order to qualify for admission.

At one extreme, students can be guaranteed a certain amount of aid early on in high school, while there is still time for them to modify their academic behaviour (if necessary). An alternative strategy may be to simply inform students early on about how much aid they are likely to receive if their current situation holds true by the time they graduate from high school.

The timing of the notification of financial aid decisions is an issue in both the US and Canada. In the US, students receive definitive information on the amount of aid they will obtain after they apply for postsecondary admission, usually in the spring of the senior year of high school (Dynarski and Scott-Clayton, 2008). Canadian students have to wait even longer. They generally only find out how much aid they will receive after they have confirmed enrolment in the fall term (Oreopoulos and Dunn, 2010). This usually follows several critical decisions regarding the coming academic year, including whether to attend postsecondary education or not, whether to work part-time or full-time (which depends on whether they attend school), and in some cases, whether to move away from the parental home. As discussed above, it also gives students little or no time to improve their marks in order to gain admission to a postsecondary institution.

To address this concern, SRDC is currently testing the impact of an early promise of a grant in the province of New Brunswick as part of its Future to Discover (FTD) project. In this social

experiment, eligible students (those with low parental income) are randomly assigned to receive the offer of a grant or to be part of the control group. The grant consists of a promise to deposit \$2,000 into a 'Learning Account' for each completed year of high school (beginning in grade 9). Students can draw from the account strictly for the purpose of paying for postsecondary studies. This early promise of a grant may help some students overcome the information barrier regarding knowledge of financial aid.¹⁴

Although the Learning Accounts experiment may partially fill the information gap, it does not cover all aspects of knowledge required to make informed decisions. Students may also benefit from knowing early on about additional aid opportunities, about the costs and benefits of postsecondary education, and about its risks. They may also benefit from understanding *how* to calculate net returns. The concept of foregone earnings (while in school) is important here. So too is the comparison of expected earnings from completing a postsecondary qualification compared to the alternative (e.g. high school). Finally, students must assess total net returns over a lifetime, which necessarily involves the concept of discounting.

The loan aversion work of Palameta and Voyer (2010) raises questions about why some students only take grants when they are not coupled with loans. Psychologists refer to this as a 'framing effect', which suggests that an offer of the same face value will be perceived differently in different contexts (Tversky and Kahneman, 1981).

The framing effect may have consequences given the design of grants and loans. It is often the case that grant eligibility depends on students first applying for and qualifying for loans. In other words, the grants and loans are 'coupled', and students may avoid the grant simply because it is linked to the loan. This is the case even though the loans may be refused without compromising grant eligibility. This may explain the findings in a very recent study (Frenette, 2011). Frenette evaluates the impact of the Canada Access Grant for students from low-income families (CAG-LI), which along with the Millennium Access Bursaries (MAB), offered a substantial amount of non-refundable grants to students in need (up to \$6,000 or \$7,000). However, the offer of the grants was not associated with postsecondary enrolment. Frenette points to the possibility that students were not aware of the fact that they could forfeit the loans without compromising grant eligibility. In fact, Kramer et al. (2010) report that only 50.4% of university students were knowledgeable of this feature of student aid. What Palameta and Voyer's (2010) work suggest is that even with this knowledge in hand, many students may still have been too averse to the opportunity of having a loan offered to them. Only by 'de-coupling' the grants and loans can the framing effect be circumvented.

¹⁴ The FTD project also includes a career development intervention (Explore Your Horizons), which includes various elements of financial literacy. For example, participants are informed about costs of attending postsecondary education, its benefits, and are taught budgeting skills.

Environmental Scan

Introduction

The aim of this environmental scan is to find and profile initiatives in Canada and in selected countries that may be using financial literacy as an instrument to promote participation in postsecondary education. Consistent with previously published studies, the scan covers both financial literacy services (such as education programs, advice services or training workshops) as well as financial literacy products (such as websites, curriculum and clearinghouses of resources).

The scan also covers primarily those initiatives aimed at low-income youth in secondary school or of secondary school age (approximately ages 14-19) where the explicit aim is to address financial decisions and behavior related to PSE participation. These decisions and behaviors might include planning for the costs of a postsecondary education, understanding the likely returns of higher education, making choices and decisions about various education financing options and products (such as education savings, scholarships and student loans) and managing personal finances while attending higher education – a period that often marks the first time a young person must make financial decisions independent of their parents or guardians. Among financial literacy practitioners and policy-makers, the transition from school to work, beginning in secondary school, is believed to be a key time to shape financial attitudes and habits that will persist over the life-course.¹⁵ The same stakeholders believe that this transition is subject to risks of over-indebtedness due to student loans or easy access to consumer credit cards and that financial information, education and advice may help students avoid financial strain or crisis. What is unclear is the degree to which financial literacy interventions are also being used to promote participation in postsecondary education, particularly among lower-income students. The current study aims to fill that information gap.

The next section presents our methodology. This is followed by a descriptive overview of the sample of programs (see Appendix C for a complete review of programs). This is followed by brief case studies of selected initiatives. We then summarize and discuss what we have uncovered from the scan and identify gaps in the delivery of programs.

Methodology

The process began by building on previous reviews (Social and Enterprise Development Innovations, 2004; Robson and Kukacka, 2005). Those studies examined public education curricula across Canada and programs in public, private and non-profit Canadian organizations using web-based sources and key informant interviews. Since then changes have been made to provincial school curricula in some jurisdictions such as British Columbia and Ontario. Securities regulators in at least 2 provinces have introduced new financial learning initiatives aimed at youth. The scan was conducted during February and March 2011 using a combination of online

¹⁵ See for example the National Task Force on Financial Literacy, 2011.

information and key informant sources. Approximately 50 websites of organizations were reviewed for this study and five Canadian key informants were interviewed.¹⁶ The initial sources were based on the author's own knowledge of financial literacy providers and stakeholders. Where links or references to other initiatives appeared to be relevant, these were pursued and either included or discarded from the sample depending on their relevance to the study objectives. The study also drew on the clearinghouse maintained by the OECD through their Financial Education Program.¹⁷ Priority was given to contacting Canadians on the basis that any initiatives in Canada will be of greatest relevance to HEQCO or any other Canadian stakeholder.

In the field of financial literacy policy and programming, there is a wide range of conceptual and operational definitions leading to some complexity if not confusion in the nature of the thing itself and in the scope of programs that can reasonably be classified as financial literacy interventions. Some organizations may design and implement programs that offer instruction in personal finances to a target population while others will add financial counseling or education as an ancillary benefit to another intervention such as tax preparation or self-employment training. Building on a previous environmental scan by Robson and Kuckaka (2005) and similar studies (Social and Enterprise Development Innovations, 2008a and 2008b), the variables of interest reflected the following categories to which notes regarding the current study have been added:

- Type of intervention: Is the intervention a product such as a website or curriculum/guide or is the intervention a service such as a workshop, course or individual counseling? In some cases an intervention may include a product paired with a service for example, a curriculum package that is paired with a teacher-training service. Financial literacy products and services may also aim to inform, to educate or train, or to provide more personalized advice. Together, the product-service dimension and the inform-educate-advise dimension create a continuum from more passive approaches to delivery to more active approaches. In general, products without an associated service and interventions that aim only to convey information are more passive in their orientation. Interventions that offer an interpersonal service and that move beyond information into education or advice have a more active character.
- Target audience: In the current study, target audiences include one or more of secondary students, parents or guardians of secondary students, youth not in school, current postsecondary students, parents or guardians of postsecondary students, secondary school educators, postsecondary school staff engaged in student recruitment/retention. Reaching low-income secondary students may be possible through intermediaries such as parents and teachers, but the effectiveness and impacts of these indirect approaches may be harder to establish.

¹⁶ Other international key informants could not be contacted in time for the study but the information on programs is consistent with information gathered for the OECD and for a recent review for the Canadian Task Force on Financial Literacy.

¹⁷ Available on-line at <http://www.financial-education.org>

- **Provider:** Is the intervention offered by an organization or body in the public sector (including all levels of government and government agencies or entities), a private for-profit firm or a private not-for-profit voluntary sector organization?
- **Content:** What specific topics in personal finances does the intervention address? For the purpose of this study, the scan will pay particular attention to two main objectives of interventions: In some cases, the intervention will be aimed specifically at education planning and finances, however, many more will cover a wider range of topics such as day-to-day money management and financial services. In the current dialogue on financial literacy practice, there is no consensus on whether financial learning on one topic (such as credit cards) is generalized by consumers when they approach other topics (such as saving and investing). There is however some consensus that to be effective in engaging the target clientele, interventions must use examples of financial decisions that reflect real world and relevant examples.¹⁸
- **Other descriptive information as available:** Where possible other descriptive information was noted such as: How long has the intervention been operating? How is it funded? How many clients does it serve? What is known about the staffing and administrative requirements of the intervention? What other external supports or resources does the intervention rely on for implementation?
- **Evaluation information:** Is there any information on the outcomes or impacts of the intervention on: a) the financial literacy of its target audience and b) the educational planning or participation of its target audience? It is important to note that the aim here is largely to record whether any evaluation has been done on the initiatives included in the scan, not to report on the results. Where evaluations appear to have information on higher education outcomes or impacts, these have been included in the literature review.

As part of this process, the scan identifies and profiles key providers of financial literacy programs for youth in and out of school, including (but not limited to) those delivering “The City” (developed by the Financial Consumer Agency of Canada), as well as organizations partnering with the Investor Education Foundation and with the Canadian Centre for Financial Literacy. The scan also identifies and profiles relevant PSE participation initiatives where these have a component to address personal financial management or financial planning, as well as key pilot and ongoing projects aimed at PSE students on campus where these address personal financial management as a factor in education persistence. International initiatives are also identified and profiled when they are relevant, including (but not limited to) programs in the United States (such as JumpStart), the United Kingdom (such as Money Doctor), New Zealand (such as Sorted and other initiatives), and in Australia.

¹⁸ See for example remarks from participants at a 2008 national conference on financial literacy (Financial Consumer Agency of Canada, 2008).

Descriptive overview of the sample

This section offers some basic descriptive data to give readers a sense of the nature of the sample before turning to highlight particular programs as examples. While the sample of initiatives in this study is not strictly a representative sample, the data below paint a reasonably accurate picture of the state of the field of financial literacy as it relates to education planning and finances.

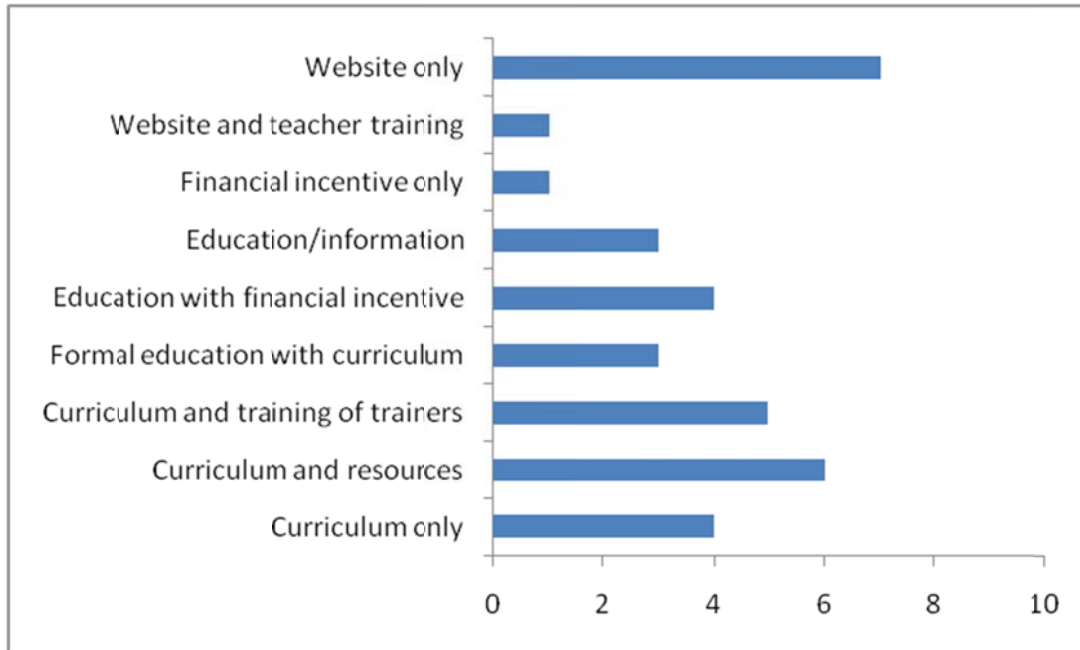
A total of 34 initiatives in Canada, the United States, New Zealand, the United Kingdom and Australia are included in this scan. Of these, 22 are Canadian, four are American, four are British, and two are from each Australia and New Zealand. The choice of these countries reflects those English-speaking countries with the most highly developed fields of financial literacy. These countries are also the most frequently mentioned in the international comparative literature.¹⁹

A mix of passive and more active approaches

The current scan of 34 initiatives includes 13 initiatives offering a product only, 10 initiatives offering a service only and 11 offering a product paired with a service. Consistent with previous environmental scans on the field of practice in financial literacy (Robson and Kuckaka, 2005; Social and Enterprise Development Innovations, 2008a and 2008b), the current study found a large number of initiatives that rely heavily or even solely on a website (see figure 1 below). In all 5 countries included in this study, one or more leading financial literacy organizations maintain on-line single-window sites for access to consumer financial literacy information. In addition to these clearinghouse-style sites, many other providers also rely on on-line formats to disseminate their curriculum materials or even to provide training directly to youth or to intermediaries (such as counselors or teachers) working with youth.

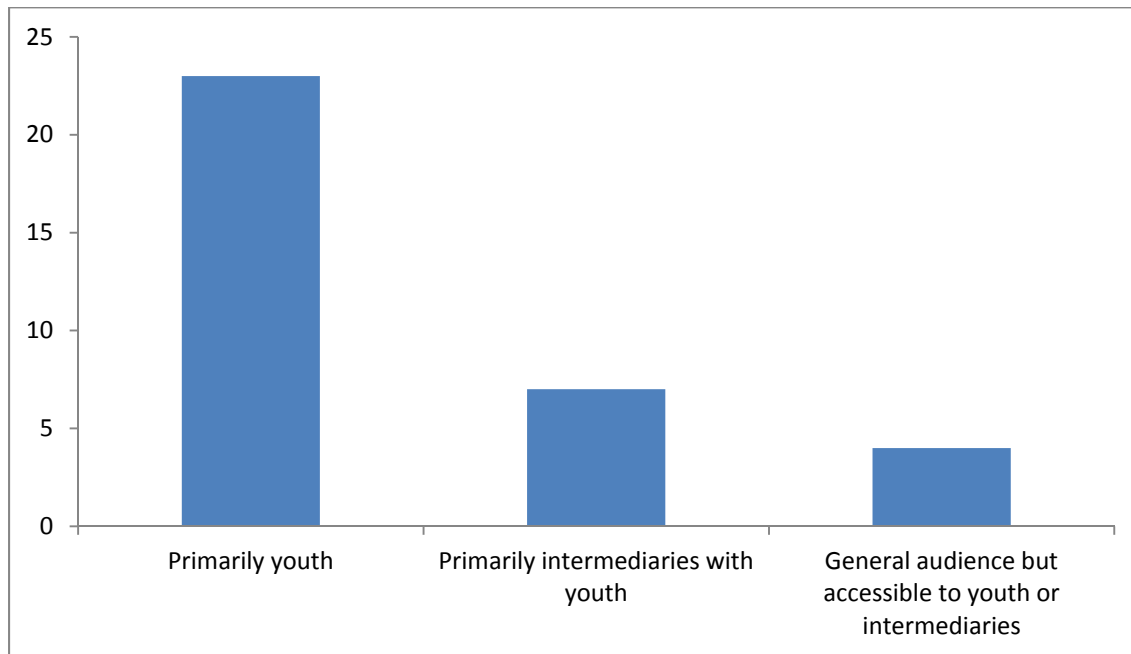
¹⁹ See for example the International Gateway on Financial Literacy of the OECD available at www.financial-education.org, as well as the Social and Enterprise Development Innovations (SEDI) (2004).

Figure 1: Sampled initiatives by type



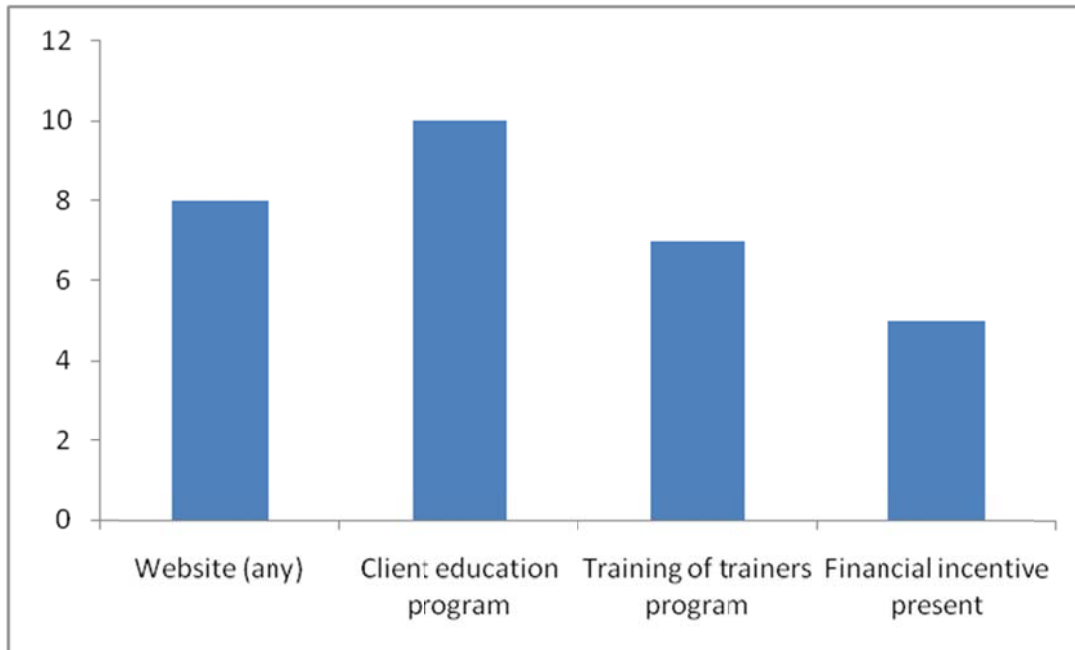
While most (23 out of 34, see figure 2 below) of the initiatives identified by this scan are aiming their product or service directly at young consumers (defined here as youth at or below the life stage of attending postsecondary education), a portion (seven out of 34) are taking a more indirect route and are instead aiming their information or education to teachers, parents and youth workers instead. Finally a smaller number of initiatives, generally the clearinghouse websites maintained by the larger national or regional organizations involved in financial literacy, are in fact crafted for population-wide consumption but may have a component thought to be more relevant to youth (for example a section of pages designed for a younger audience as part of a website aimed at general consumers).

Figure 2: Sampled initiatives by target audience



Aside from the delivery format (products and services) and targeting, another element to consider on the spectrum of more passive to more active approaches to delivering financial literacy is the use or not of financial incentives. In the financial services sector, financial information, education and advice is provided as part of the ongoing business of the financial institution or firm. In the field of financial literacy practice outside of those for-profit providers, there may be fees attached (such as registration fees to attend a workshop) or indeed financial benefits awarded. For example, some financial literacy programs are in fact tied to a savings grant or scholarship – to receive the financial benefit, the client has to take part in some amount of financial literacy education or training. Paying clients rather than charging them to take part in a financial literacy program is certainly a more active approach in terms of boosting uptake and participation. It may also be an approach that enhances learning by creating an opportunity for applied experience with real money, something that has been shown repeatedly in the literature to predict improvements in financial literacy (Atkinson, McKay, Kempson and Collard, 2006; Hogarth, Hilgert and Beverly, 2003; Braunstein and Welch, 2002).

Figure 3: Sampled initiatives by type, re-coded



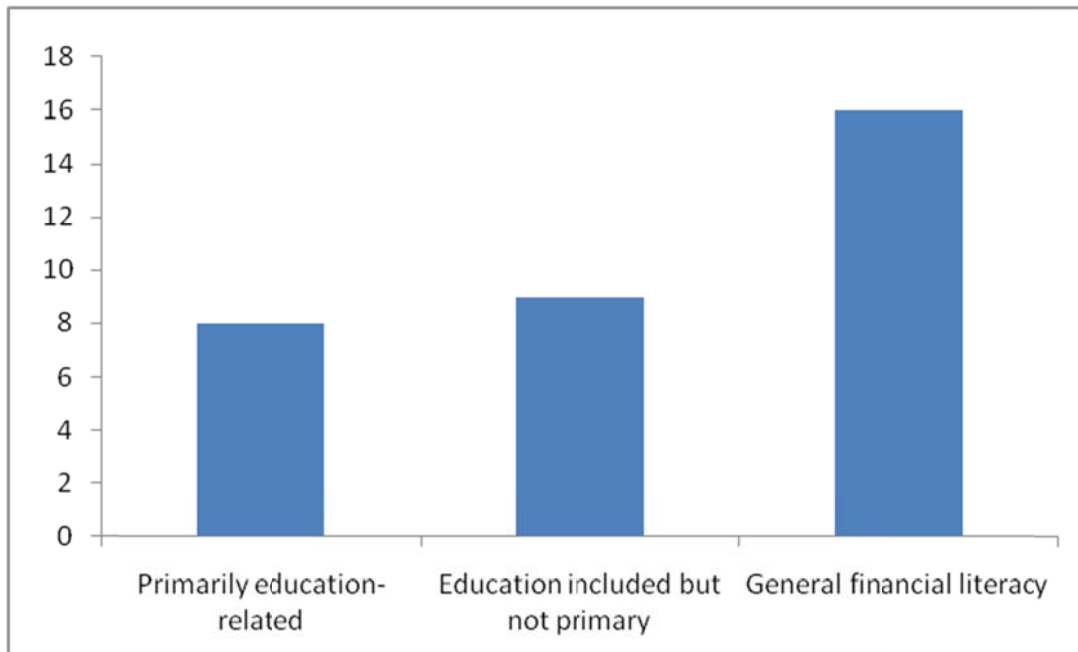
In figure 3 above, we can see some clearer patterns in the degree to which the financial literacy interventions are taking a more active or passive role in trying to change the financial literacy of youth: a quarter of the 34 initiatives are using on-line delivery and nearly a quarter, while using education and training, are only directly offering this service to teachers or youth workers who are presumed to in turn assist young people. A third are moving from passive information to offer education or training directly to youth and one in six offers some financial incentive to get youth to participate in some financial learning.

Few interventions specific to education decisions and even fewer for low-income youth

As illustrated in figure 4 below, the majority of the initiatives sampled for this study were not specific to the financial decisions related to higher education but instead offered more general financial literacy information or skills to audiences of youth or intermediaries serving youth in the transition from secondary to postsecondary education.

A minority, but still sizeable group (eight of 34 initiatives) were specifically aimed at supporting financial decisions related to postsecondary education among participating or indirectly served youth. A slightly larger number of initiatives addressed a broader range of financial topics but did include education-related topics within these.

Figure 4: Interventions by primary objective



The diversity of these programs suggests that there is no clear consensus from the field of practice on whether financial literacy is or is not a transferable set of knowledge, skills and attitudes. As mentioned earlier, this finding reflects a divergence of views in the field and suggests that further research is required to understand whether or not general areas of competency in financial literacy (managing money, planning ahead, choosing products and staying informed) can be and are used by youth when they make decisions related to higher education. Alternately, it may be that to have an impact on education decisions, a financial literacy intervention must be highly focused on an education context. At this time, the field of financial literacy does not reflect a position on this either way.

In addition to the summary information presented above, this report also offers brief case studies to profile selected initiatives uncovered in the scan.

The initiatives profiled in the text of this report were first selected to outline those programs specific to supporting financial decisions related to education:

- TuitionEdu and Financial Literacy 101, both subscription-based online services offered by the US-based firm Decision Partners. While TuitionEdu provides online information and support for education planning among secondary students, Financial Literacy 101 offers more general money management and financial information for postsecondary students.

- Exit counselling for all US federal student aid recipients, again an on-line self-guided resource to meet a statutory requirement to provide all loan recipients with information to support their financial decisions on loan repayment.
- Entry and exit counselling being piloted for selected recipients of provincial and student loans in British Columbia, inspired by the US exit counselling.
- CanLearn, the online clearinghouse created by the Government of Canada and provincial governments to disseminate information on education in Canada, including but not limited to financial decisions related to postsecondary education.
- Education Savings Outreach Program, a grants and contributions program run by Human Resources and Skills Development Canada (HRSDC) to extend support to non-profit and local organizations and to offer information and training services to improve awareness and uptake among parents of government benefits supporting education savings.
- Career Trek, a program to promote better education outcomes among disadvantaged youth through experiences in local workplaces and postsecondary campuses.
- Pathways to Education, Canada, a program to promote better secondary school outcomes and participation in postsecondary education for youth living in lower-income neighbourhoods.

More detail on some of the above initiatives is included later in the scan. Detailed notes on all of the initiatives are available in Appendix C. The next phase of selection for the initiatives profiled below aimed to offer some examples of the different categories presented in figures 3 and 4 above.

The remaining 26 initiatives in the sample had some relationship to financial decisions related to higher education but their aim was to promote financial literacy more broadly. In these initiatives, the content on higher education was limited and presented alongside a much wider range of topics such as banking, credit rating and investing. Selected examples of these types of initiatives (the Investor Education Fund in Ontario, Planning 10 in BC, The City from the Financial Consumer Agency of Canada and Sorted in New Zealand) are also discussed later in the scan to give readers some flavour of how more general financial literacy initiatives for youth can also influence access to information on higher education. Detailed notes are also included in Appendix C.

Finally, the profiled initiatives were re-examined to give priority to those that had an explicit aim to reach lower-income youth. These include two already listed above, Career Trek and Pathways to Education, as well as:

- Youth Fair Gains, a program run by a Calgary non-profit to match the savings of participating low-income youth who must take part in financial literacy workshops and

may only use the money for certain approved purposes including but not limited to education.

- Youth\$ave, a program run by a Kitchener-area non-profit that works in much the same way as Fair Gains but does restrict the use of the funds to higher education.

Both programs however are conceived and delivered as an asset-building program aimed at improving access to savings for low-income youth. The inclusion or restriction of the use of the funds to higher education has more to do with selecting a relevant life-cycle asset goal for the target group than increasing access to postsecondary education per se. These two initiatives are also discussed in greater detail in the next section of the report and notes can be found in Appendix C.

In summary, among the 34 initiatives identified in the scan, eight focus on financial literacy as it relates to education decisions and four focus on lower-income youth. Only two initiatives, Career Trek and Pathways to Education, could be identified that simultaneously promote participation in higher education, offer some amount of financial literacy support and are targeted to lower-income youth. Eight initiatives are discussed below. These include the four initiatives aimed at low-income youth and a selection of initiatives that, in the author's view, give some illustration to the summary data in figures 3 and 4 above.

Brief case studies of selected initiatives

Pathways to Education, sites across Canada

Launched in 2001 in the low-income Toronto neighbourhood of Regent Park, the Pathways to Education, Canada program has since been expanded to 10 other sites in Ontario, Quebec, Manitoba and Nova Scotia. Each site is hosted in a community-based non-profit social service agency and aims to improve secondary school outcomes and postsecondary participation in their catchment area. The participating agencies follow a fairly standardized program model that begins with recruiting secondary students (in grade 9 in most sites except grade 7 in Quebec) from feeder schools with a high proportion of low-income families. Students are enrolled by parents or guardians into the program in response to outreach by the program to feeder schools²⁰. In many cases, youth do not have parents with a postsecondary degree or diploma and may not have adequate access to support with homework and education planning from their families.

The program offers an early commitment of up to \$4,000 (\$1,000 for each year of participation in Pathways programming) towards postsecondary education as well as immediate help through academic tutoring and mentoring by community volunteers. To address financial barriers to participating in the program, the sponsoring agency also makes tickets for public transportation and vouchers for lunch available to participants.

²⁰ In the Regent Park site, students have been enrolled automatically with an option for parents to withdraw them.

In their final two years of secondary school, participants receive approximately 4-8 group workshops on planning for postsecondary. These may include presentations from or visits to local postsecondary institutions, presentations from financial institutions on money management and education finances (usually with an invitation to parents or guardians) and information on the costs and benefits of postsecondary education. Participants also receive, as a condition of accessing their early commitment scholarship, a series of 2-4 individual sessions with a program coordinator who helps them (with their parents or guardians) develop a personalized education plan that includes secondary course planning, identifying and applying to postsecondary programs of interest and help with completing applications for Canada and provincial student loans or bursaries.

By estimates, the program may be offering approximately 15- 20 hours of financial literacy services tailored to education planning where these are divided between group and individual sessions and between student-centred and parent-involved sessions. There is no standard curriculum and workshop topics, formats and resources are determined in a fluid way by project staff. As such it is difficult to know how intensive the financial literacy component of the intervention really is.

Career Trek, Winnipeg

Similar to the Pathways to Education model, Career Trek is a community-based and non-profit organization that uses mentoring, information and a financial incentive to encourage low-income secondary students to complete high school and continue on in postsecondary studies. Similar to Pathways, students are recruited into the program through referrals by teachers in participating schools. The program offers students an experiential learning about postsecondary costs and returns by spending time on the campuses of local postsecondary institutions and in workplaces of participating local employers to learn about a wide range of careers and the education or training requirements for each. In the Phase 1 program, students in grade 6 are exposed to a large number of careers over the course of a year. In the Phase 2 program, students in grade 9 explore a smaller number of careers and education options in greater depth. The program has also been adapted for Aboriginal students living on reserve, for low-income students in Brandon, Manitoba and for low-income mothers attending secondary school in Winnipeg.

A financial incentive is available for young mothers through a provincial education benefit. In partnership with a major private sector provider of Registered Education Savings Plans, Career Trek also awards annual scholarships to selected program graduates who enter postsecondary studies. In contrast to nearly all other initiatives identified in this scan, Career Trek relies almost exclusively on a “learning by doing” model rather than group or individual workshops or counselling. Like Pathways to Education, it is unclear how to characterise the impact of the program on the financial literacy of participants.

A longitudinal study has been launched in partnership with local academics at the University of Winnipeg and University of Manitoba. In time, the study may be able to demonstrate

measurable impacts on secondary and postsecondary outcomes. It is unclear if financial literacy outcomes are part of the goals of the study.

Youth Fair Gains, Momentum Calgary

Since approximately 1999, Momentum Calgary (formerly Mennonite Central Committee Employment Development of Calgary), a non-profit community agency, has been running a savings and financial literacy program for low-income Calgarians. Informed by the agency's experience in a national demonstration of a similar program model, Fair Gains offers participants a combination of a financial incentive that matches each dollar saved in an Individual Development Account (IDA) and a series of mandatory financial literacy workshops. The organization launched the youth programming nearly 10 years ago, modeled on the adult program. Youth Fair Gains now accepts approximately 80 low-income youth aged 16 to 21 annually into the one- or two-year program. All participants are subject to income and asset-testing as part of the screening. Most participants have some form of employment income but several are also social assistance recipients.

Over the course of the first year, participants are expected to make deposits of at least \$10 per month to their IDA and attend approximately 20 hours of group financial literacy workshops. These workshops are modular and address general topics in personal financial management such as budgeting and money management, setting financial goals and plans, using credit and managing debt and attitudes towards spending and consumption. While none of these modules is specific to education plans, the program model presumes that the learning is transferable to the full range of financial decisions and commitments towards which the final IDA savings can be used. In the case of Youth Fair Gains, these include the purchase of employment tools, starting a microenterprise and pursuing education or skills training (including postsecondary courses and certification programs). Program participants can also roll-over their savings into a second year to save towards homeownership.

In addition to the workshops on general financial literacy, Momentum has been offering a series of free workshops on education saving and Registered Education Savings Plans. These workshops are part of a Canada-wide series of activities funded by HRSDC through the Education Savings Outreach Program. While youth are not precluded from attending these sessions, they are aimed (as are all of the activities under the HRSDC outreach program) at parents with children who are eligible for various federal and provincial education savings incentives and benefits.

Momentum reports on the outputs of its Fair Gains programs annually in its organizational report and does collect a large amount of data on participants while they are in the program. However, little analysis has been done to evaluate outcomes and impacts for participants on their saving, their financial literacy, or their investments in education or other eligible savings goals.

Youth\$ave, Lutherwood CODA, Kitchener-Waterloo

Inspired by its involvement in the learn\$ave demonstration of Individual Development Accounts, Lutherwood CODA launched Youth\$ave in 2005. Initially offered as a pilot, the program

accepted just 15 grade 10 students per year, offering them a personal savings (or Individual Development Account, similar to Youth Fair Gains and learn\$ave) that matched deposits with a credit of \$3 for each \$1 saved. Similar to other IDA programs, the matching credits cannot be accessed directly by the account-holder and can only be released by the sponsoring agency (Lutherwood CODA) directly to a vendor for an eligible asset purchase. In the case of Youth\$ave, the project limits the use of funds to postsecondary education only (including college and university) but the financial skills training that is mandatory for all participants covers a more general range of financial topics such as saving, use of credit and debt, consumerism and setting financial goals.

Youth\$ave also restricts eligibility to those students with secondary school marks that would likely lead to university eligibility and had already stated their desire to attend postsecondary education. Given that these students have the marks, the academic aspiration and self-select into the Youth\$ave project, it is unclear whether the program can have any real impact on postsecondary participation or if it is just replacing other needs-based funding with individual savings where a decision on participation has already been made. For these among other reasons, Youth\$ave is better understood as a youth-focussed asset-building initiative than a postsecondary participation initiative.

The first cohort of program participants graduated from the program in the spring of 2008 with an attrition rate of 3 out of 15. At that time, 11 students remained in the project from the second cohort and were expected to graduate the following year. The project had received additional funding in 2008 but it is unclear whether it continues beyond the pilot phase; no output or evaluation results have been published.

Investor Education Fund, Ontario Securities Commission

The Investor Education Fund is among the most active of the Canadian organizations profiled in this environmental scan in terms of the number of initiatives they offer that are aimed at youth. Similar to other public regulators, the Investor Education Fund operates a large website with consumer information on financial management topics such as money management, investing, use of credit and debt and financial planning. The website is not strictly aimed at secondary school students but does offer at once a section of information resources more geared in content and presentation to youth, as well as a section of self-directed learning modules and multimedia (videos, calculators and games) geared to youth. Finally the site also hosts a searchable collection of in-house and external resources to support parents and teachers in delivering financial literacy education to young people.

In partnership with the Toronto Star, the Fund also offers a free financial literacy curriculum and associated classroom teaching resources on personal financial education. Aimed at students in grades 9-12, the curriculum includes explicit education and information about postsecondary education costs, planning and financing as part of the Smart Money Kit. For example, students receiving the curriculum are invited to research the education requirements of careers through the employment classifieds of the Toronto Star. Similarly, students are expected to develop a budget and financial plan for attending postsecondary education, including options to finance their education through borrowing or working and compare the costs to living at home or moving

away to study. In a separate initiative with the Ontario School Counsellors' Association, the Fund offers an annual award worth between \$300 and \$750 for the best postsecondary financial plan submitted by an Ontario secondary school student.

In addition to classroom curriculum, online information and learning and the financial award, the Investor Education Fund also covers the cost for interested secondary schools to receive Funny Money™ presentations in large group or student assembly settings. These presentations are delivered as interactive and humour-based presentations to raise awareness among secondary school students about their personal financial attitudes and habits.

In contrast to the first three case studies above, the initiatives of the Investor Education Fund are aimed at a very broad audience of Ontario youth, their parents and educators. They are not designed for or particularly promoted for use with low-income or vulnerable students.

Planning 10, BC Securities Commission and The City, Financial Consumer Agency of Canada

Across the five countries included in this study, it is clear that the most popular method for trying to deliver financial literacy, even more than the plentiful websites, is through classroom education. In some jurisdictions including the United Kingdom and British Columbia, personal finances are now explicitly part of the mandatory public curriculum for secondary school students. In the UK, the Consumer Financial Education Body (and formerly the national financial service regulator, the Financial Services Authority) has funded several initiatives to develop and disseminate curriculum and professional development programs to secondary school teachers. However after nearly five years, there are sufficient questions about the actual practice of financial education in UK schools that an all-party Committee of the House of Commons has formed to hold an inquiry into the matter. The perception among leading experts in that country is that, in spite of access to free classroom materials and in contravention of national guidelines, most UK students will receive only a very limited exposure to personal financial education, if any.

A previous environmental scan (Robson, 2004) found that nearly every jurisdiction includes curriculum expectations that create placeholders for financial literacy to be integrated into classroom instruction. For example, curriculum standards for math include abilities related to manipulating money. Similarly life and social skills guidelines might be met through exploring household budgeting and financial decision-making. However, only British Columbia, so far, has an explicit course related to personal financial management. Developed by the British Columbia Securities Commission (BCSC), *Planning 10* is now delivered to grade 10 students in 59 out of 60 school districts in order to meet the new provincial standard. The course includes but is not limited to career and education planning, including student aid and funding, budgeting for and during life after high school and, as of 2007-08, developing a personal financial plan for the transition after secondary school. In addition to printed materials for teachers, the BCSC also

supports professional development and maintains an on-line learning portal for educators as well as students and their families to complement classroom instruction.²¹

The *Planning 10* course and curriculum materials have been adapted for use outside of BC as part of a partnership between the BCSC and the Financial Consumer Agency of Canada (FCAC). The FCAC has reviewed the course materials with curriculum experts, translated them into French to support use in Quebec and other French-speaking communities or schools across Canada, and has re-branded the materials as “The City.” Currently the FCAC provides “The City” as a downloadable or printed set of classroom lesson plans, activities and handouts free of charge to teachers who register. There is also an on-line self-directed learning program with the look and feel of a video game to be used by students, parents and youth educators. To complement its efforts to reach school educators, the FCAC has also piloted a program with the Canadian Centre for Financial Literacy (CCFL) to make “The City” available to youth-serving organizations that may be better placed to reach low-income and vulnerable youth outside of a classroom setting. The project with the CCFL included free training to 100 interested youth-serving agencies in exchange for a commitment to deliver the program to a modest target number (10 per agency) of youth clients in their community. While the project is winding down and the evaluation has not yet been completed, anecdotal reports have suggested that there are concerns that the classroom-focused tool requires adjustments to make the content, format and examples more accessible and relevant to a target audience of youth with barriers.

In Fall 2011, Ontario is expected to add a personal financial education component to its public education curriculum. While the details of the curriculum commitment are yet to be announced by the Ministry of Education, an expert Working Group suggests that it should be embedded in existing courses rather than added as a standalone course or curriculum component.

Canlearn and Sorted Websites

Among the multiple websites included in this scan, two are worth highlighting for their contrasting approaches to delivering financial literacy content relevant to postsecondary education planning. Funded by Human Resources and Skills Development Canada, www.canlearn.ca has been developed in cooperation with provinces, territories and participating education providers. It now offers a single point of entry for online information on postsecondary education in Canada. It includes searchable information on education programs, education funding sources (including loans and both private and public scholarship programs) as well as interactive tools to estimate education costs and loan eligibility. It is a comprehensive source of information on both the academic and financial aspects of education planning, and is often used as a link for content on education finances by other websites such as the site of the Investor Education Fund and the Financial Consumer Agency of Canada. However Canlearn is not

²¹ The first cohort to have taken the course graduated in 2007. A pre-/post-evaluation of the course concluded that postsecondary attendance declined from 85% among the 2006 cohort to 59% among the 2008 cohort (Nexus, undated document). However, this decline may be explained by the fact that, at the time of the survey used for evaluation (October, 2008), the 2006 cohort had three academic years to attend postsecondary, compared to only one year for the 2008 cohort. Moreover, the evaluation does not account for changing economic or higher education policy conditions or differences in the cohorts themselves.

primarily a financial literacy intervention but is instead a broader resource on higher education information in Canada. Neither is it a site particularly well-suited to low-income students. For example, there is little information specific to students who may be the first in their family to attend university. Similarly, the reference to savings may not be as relevant or helpful to secondary school students in low-income households with limited time and very limited or no financial resources to dedicate towards their higher education using mainstream mechanisms such as the Registered Education Savings Plan and Canada Education Savings Grant.

A contrast to the Canlearn site is the flagship initiative of the New Zealand Retirement Commission, the body charged with implementing a national financial literacy strategy for New Zealand. That website, www.sorted.org.nz is widely cited internationally among stakeholders and experts in financial literacy as an exemplary financial literacy portal. The Sorted website is organized by life event or life stage and offers a subset of pages and tools for youth in three distinct circumstances: education-related information for students planning for higher education (such as how much higher education may cost and how much it may increase earned income over working life); education-related information for students already enrolled in postsecondary education (such as managing student debts and repaying loans); and other information on the transition to greater financial independence that may be relevant to students moving away from home for the first time when they begin postsecondary studies. The returns to education calculator on the site may be highly imprecise since it does not differentiate by field of study or in some respects by the type of qualification received. Furthermore the case studies used on the site may actually feed negative opinions of higher education costs and benefits as at least one warns “university can cost more than you expect.” Again, it is important to note that the aim of the Sorted website is to promote online access to a broad and basic level of financial information as part of a strategy to enhance the financial literacy of all New Zealand residents. It is not intended as an instrument to promote interest in, awareness of or decisions regarding higher education, nor is it designed as a tool tailored to the needs, preferences and concerns of lower-income youth.

As a final note regarding these and the other websites included in the scan, low-income students may have more difficulty in using online information compared to students in middle- and upper-income families. This is, in part, because low-income households may be somewhat less likely to have a computer and internet connection than other families (Statistics Canada, 2010). However it is also because websites, like other passive media, require a consumer to be interested enough to willingly search for and pursue information out of their own initiative. To the degree that low-income students and their parents/guardians may have gaps in their financial understanding of the costs and benefits of postsecondary education, may hold negative attitudes towards higher education and may not be doing as much to prepare for learning after high school, creating a website may be a poor mechanism to change these patterns. While more complex and intensive, the high-touch, and holistic approaches of programs such as Pathways to Education and Career Trek may be more successful in addressing the needs for information, education and advice on education finances among lower-income families.

Summary and Discussion

The sample of initiatives in this environmental scan reflects a series of trends or patterns in the field of practice. It is clear that there are currently no identifiable initiatives that aim only to address the financial literacy gaps of low-income youth with the objective of increasing participation in postsecondary education. There are several initiatives that provide financial literacy information or education to youth. Among these some do use financial decisions related to education as teachable examples relevant to the secondary school age in the life course. But many more offer more general or even generic financial literacy content such as general information on budgeting, using credit and consumer rights. Nearly all of the pure financial literacy initiatives are aimed at a mainstream youth audience, often through public education classrooms, rather than being tailored specifically to low-income or otherwise vulnerable youth who may face very different realities compared to their middle- and upper-income peers in their household financial resources, habits, priorities and even attachment to mainstream financial services. In short, financial literacy providers do not see themselves as promoters of participation in higher education. When they offer information, education or advice on postsecondary education, it is as an applied example of the financial principles or skills they are otherwise trying to convey. In turn, promoters of postsecondary education who use financial literacy products or services do not rely on these alone but instead pair them with or embed them in other intervention elements such as tutoring, financial incentives and experiential learning.

Between financial literacy providers and postsecondary promoters, the area of overlap that also aims to meet the needs of low income youth is largely unexplored. The scan did find a subset of initiatives (Youth\$ave, Pathways to Education, Career Trek and Youth Fair Gains) that are aimed at lower-income youth. What is notable about these interventions is that they offer an intensive and multi-faceted approach to their programming. These programs each combine some amount of financial literacy information/education/advice with a financial incentive and a heavy investment of individual attention through mentoring or case management delivered by a community-based organization. Research by SEDI finds that, when it comes to getting help with financial literacy, low-income adults express a preference for higher-touch, personalized services from trusted community-based organizations over mainstream providers (such as financial advisors in banking or investment firms) or self-serve options such as websites or on-line learning modules (Robson, Gosse and Kuckaka, 2007). It may be that young people from low-income households similarly prefer high-touch services to increase their financial literacy and that these organizations are accurately assessing and responding to their clients' needs and preferences. However, research suggests that among adults, the additional impact of a financial education component offers little or no incremental benefit to postsecondary outcomes when a financial incentive is already present (Leckie, Hui, Tattrie, Robson and Voyer2010). The same study also finds that the marginal cost of adding a financial literacy training component is small, relative to the overall costs of the program. If the financial incentive were to be removed from the four programs included in this scan, it is unclear what the impact would be on education outcomes. Financial literacy may be a relatively low-cost and sometimes helpful component of a program targeting low-income youth, but it may not, on its own, be sufficient to address the various barriers to participating in higher education. Based on their program designs, it seems that the community organizations providing each of these programs may have

determined that a wrap-around approach that draws on, but does not rely solely on, financial literacy information, education and advice is the best practice model for increasing participation in higher education among low-income youth.

Recommendations for improving our knowledge of the role of financial literacy as a complex barrier to postsecondary attendance for low-income students

We conclude by highlighting the next steps for advancing our knowledge of the role of financial literacy as a complex barrier to postsecondary attendance for low-income students. This section is brief in description, as the recommendations follow directly from the ‘summary and discussion’ sections of the literature review and environmental scan. We also focus here on what we consider to be the most important opportunities for advancing knowledge.

Recommendation 1: Test the impact of financial literacy information provided earlier in high school

We know that providing postsecondary financial information alone is not sufficient to change behaviour. However, the studies that come to this conclusion are based on interventions that were implemented in grade 12. If the provision of information about postsecondary costs, benefits, and student aid affects not only the decision to apply to postsecondary, but also the student’s academic effort (to qualify for admission), then grade 12 may be too late. This may explain why existing studies have found that such interventions generally do not work. As a result, there exists an important opportunity to test the provision of similar programs at an earlier stage in life (e.g. earlier in high school).

Recommendation 2: Test the impact of ‘de-coupling’ loans and non-repayable grants

Given the importance of loan aversion highlighted in the research, it may be preferable to ‘de-couple’ non-repayable grants from student loans. One possible way to do this is to allow students to ‘opt-out’ of student loans by checking a box at the beginning of their student aid form. However, it is not currently known if this approach would work. Although the approach may help certain students receive non-repayable grants, it may also deter some loan-averse students who may actually benefit from loans from applying for them. As a result, it would be informative to test the proposal before moving forward.

Recommendation 3: Modify existing financial literacy programs to include postsecondary education as part of their objectives and test the programs before full implementation

Regarding the delivery of existing financial literacy programs, it is clear that program providers do not generally view investments in human capital as their main objective, despite the fact that

education is one of the most important investments many people make in their lifetime. Existing programs were developed with more traditional financial investments in mind. The successful integration of postsecondary education as a key objective in these programs may depend on stakeholders in postsecondary education to highlight the importance of human capital in the investment portfolio of youth. Moreover, it is not known if such programs make a difference in the lives of their clientele. In their present state, we may or may not know what happened to participants, but we certainly do not know what would have happened in the absence of the program. Prior to implementing newly designed programs that incorporate postsecondary-related financial literacy, it would be important to test them in a pilot study to understand their benefits and costs.

Appendix A: Description of relevant studies in the literature review

Authors	Research Question	Method	Data	Sample Size	Country	Population	Findings
Acumen Research Group (2009)	Impact of perceptions of net returns of postsecondary on probability of attending	Regression	Survey by authors	711	Canada	Grade 12 students in London, Ontario, followed-up the next year	Perceptions of net returns not associated with postsecondary attendance, but positively associated with university attendance. The perception measure is a 16 item scale that is very difficult to interpret conceptually and statistically.
Bettinger et al. (2009)	Impact of providing assistance with FAFSA aid applications and/or information on PS enrolment and aid application	Random assignment to treatment and control groups; Regressions used to compare groups	Administrative	866	US	Dependents between 17 and 30 years old from low- to middle-income families with no undergraduate degree	Being offered application assistance and aid information raises postsecondary enrolment by 26% and aid applications by 36% for dependent students. Aid information alone had no impact on PS enrolment or aid application.
Brown et al. (2006)	Impact of risk aversion/tolerance on educational attainment	Descriptive analysis, including regressions	Panel Study of Income Dynamics	5,277	US	Household heads	A 1 standard deviation increase in risk aversion is related to 0.0748 fewer years of schooling, and slightly more than 1 percentage point decrease in the probability of attending postsecondary over stopping at a high school diploma. A 1 standard deviation increase in risk tolerance is associated with 0.086 more school years in general, and about a 1.5 percentage point increase in the probability of attending postsecondary over stopping at a high school diploma.
Cabrera and La Nasa (2000)	Impact of knowledge of financial aid on postsecondary enrolment	Descriptive analysis, including regressions	National Educational Longitudinal Study	7,417	US	Students in grade 8 who were tracked until postsecondary age	One additional source of information on financial aid is associated with a 5 percentage point increase in the probability of applying to postsecondary education for youth with the lowest SES. For youth with the highest SES there is no relationship. SES combines parental income, education, occupation, and wealth.
Clinedinst and De La Rosa (2007)	Views of high school guidance counsellors on student loans	Descriptive analysis	NACAC Secondary School Counseling Trends Survey	1,508	US	High school guidance counsellors	37% of guidance counsellors believe low-income youth should avoid loans because of default risk
Dynarski and Scott-Clayton (2008)	Assessing the costs and benefits of complexity in financial aid application (FAFSA)	Simulations	National Postsecondary Student Aid Survey (NPSAS) used for benefits (targeting of aid); costs (time) are estimated by benchmarking to tax forms	24,253	US	Full-time undergraduate postsecondary students	Of the more than 127 questions required for traditional aid (Pell Grants and Stafford Loans), only a handful (income, marital status, family size, number of family members in college) are required to replicate with little error the current distribution of aid. The added costs of complexity are four billion dollars per year in terms of opportunity costs in the form of lost wages (\$175 per family) and administrative costs.
EKOS (2009)	Awareness of financial aid and search methods	Descriptive statistics	Survey of Canadian Youth	2,563	Canada	17 to 30 year old youth	Unprompted, 58% (45%) listed student loans (study grants) as sources of government help for Canadians to finance their education. When prompted, 97% (70%) had heard of government student loans (study grants). Among youth participating in or considering postsecondary, 43% have looked for information on financing education within the last 12 months (mainly over the Internet). Only about one-quarter of this group was aware of the two federal financial aid websites. Use of these sites was low, although users generally reported being satisfied with the sites.

Authors	Research Question	Method	Data	Sample Size	Country	Population	Findings
Ekstrom (1992)	Impact of knowledge of financial aid and costs on postsecondary enrolment	Descriptive analysis, including regressions	High School and Beyond Survey	7,213	US	High school seniors who were tracked until postsecondary age	Knowledge of aid is associated with a 2 percentage point increase in postsecondary enrolment and a 3 percentage point increase in university enrolment. Knowledge of costs is not associated with postsecondary enrolment, but is associated with an 8 percentage increase in university enrolment. Unfortunately, the knowledge variables are not well defined as they were not the main focus of the
Flint (1993)	Impact of early parental awareness of financial aid on range of PS institutions considered by parents	Descriptive analysis, including regressions	Survey by Illinois Student Scholarship Commission	823	US	Parents of students in grade 8 who eventually entered postsecondary education	Early parental awareness (while the child is in grade 8) of loans and student employment is not associated with the average tuition level considered by parents. Early awareness of grants is related to higher tuition fees; however, the derivation of the awareness variable is not clearly defined.
Frenette (2007)	Impact of numeracy on university attendance	Descriptive analysis, including regressions/decompositions	Youth in Transition Survey, cohort A	2,389 low-income youth and 1,746 high-income youth	Canada	15 year old youth followed up until age 19 who graduated from high school	Differences in standardized test scores in mathematics account for 15.9% of the gap in university attendance between low- and high-income youth. Differences in reported financial constraints account for 14.4% of the gap.
Horn et al. (2003)	Perceptions of costs of postsecondary education	Descriptive analysis, including regressions	Parent and Youth Surveys of the 1999 Household Education Surveys Program	7,285	US	Postsecondary education-bound students (from grades 6-12) and their parents (student and parent indicated plans to pursue postsecondary education)	Students in grades 11 and 12 overestimate tuition and fees of colleges by 340% (\$5,276 vs \$1,554), or public universities by 65%, and of private universities by 12%. Among students in grades 9-12, cost estimates are no better when information was obtained (although estimates improve slightly for parents who obtained cost information). Low-income students (< \$25,000) have 24% lower odds of accurately estimating costs (within 25% of true costs), after accounting for other factors.
Ikenberry and Hartle (2000)	Perceptions of costs of college and university, and of aid	Descriptive analysis	Survey by KRC Research and Consulting	850	US	General population	The public overestimates the total annual costs of a college by 82%, of a public university by 53%, and of a private university by 25%. Almost half (47%) report knowing "a lot" or "a good amount" about how to get financial aid for postsecondary education.
Kramer et al. (2010)	Measuring financial aid literacy (knowledge of aid) among university students	Descriptive analysis, including regressions	Canada Student Survey	14,587	Canada	Full-time university undergraduates from 17 Canadian universities who attended high school in Canada	Knowledge of aid is very low among university students who were loan recipients (on average, 3.01 questions out of 7 were answered correctly, or 43%). Among the sources for obtaining information on student aid, use of federal or provincial government websites are the most effective (each raising test scores by 4 to 5 percentage points).

Authors	Research Question	Method	Data	Sample Size	Country	Population	Findings
Olson and Rosenfeld (1984)	Impact of parental income and education on knowledge of financial aid	Descriptive analysis, including regressions	Parent component of High School and Beyond Survey	6,564	US	Parents of high school sophomores and seniors	Parental education is positively associated with a composite index of knowledge of three major aid programs for seniors and sophomores. Income, when controlling for education, is either negatively associated with knowledge (for seniors) or not associated (for sophomores). The negative (or lack of a) relationship between income and knowledge may be due to the need to know for lower-income families.
Oreopoulos and Dunn (2010)	Impact of information on costs, benefits, and local availability of postsecondary institutions on postsecondary expectations	Random assignment to treatment and control groups; Regressions used to compare groups	Surveys by the authors	894	Canada	High school students in low-income neighbourhoods in the Toronto District School Board	Being offered information on costs, benefits, and local availability of postsecondary institutions raises expectations of completing a college diploma by 5.3 percentage points, but is unrelated to expectations of completed a university degree. The offer of information to students also raises their probability of believing they are eligible for a grant by 8.8 percentage points.
Palameta and Voyer (2010)	Impact of price of financial aid on the demand for financial aid, and the incidence and determinants of loan aversion	Laboratory experiment	Survey by the authors and data generated from the implementation of the experiment	1,208	Canada	Students in their final year of high school or first year of CÉGEP from 12 participating schools in Québec, Ontario, Manitoba, and Saskatchewan. Excluded were 40 students who neither expected to go beyond high school nor chose financial aid over cash in any of their decisions	In general, low-income students are more price sensitive than high-income students. A 10 percentage point increase in price is associated with a 3.6 percentage point greater decline in the demand for financial aid among low-income students. Between 5 and 20% of students are loan averse, but this does not vary by income. However, low numeracy, a high personal discount rate, and a perception of low net returns to postsecondary were positively associated with the probability of being loan averse.
Plank and Jordan (2001)	Impact of seeking financial aid information on postsecondary enrolment	Descriptive analysis, including regressions	National Educational Longitudinal Study	8,115	US	Students in grade 10 tracked until two years following high school	A 1% increase in the number of sources of aid information sought is associated with a 0.36% increase in the odds of attending a university (versus not enrolling in any form of postsecondary education). On average, youth sought 2.8 sources of information. One additional source of information (a 35.7% increase) is estimated to increase the enrolment rate by 12.85%.
Prairie Research Associates (2008)	Budgeting and credit card behaviour of university students	Descriptive analysis	Canadian University Survey Consortium	11,981	Canada	University undergraduate students at 31 participating universities	About 71% follow a budget. About 72% have at least one credit card and about 20% have at least two credit cards. Of those with at least one credit card, 78% regularly pay off their balance each month, but 11% carry a balance of over \$1,000.
Sedaie (1998)	Impact of economics classes on the intention to attend postsecondary education	Descriptive analysis, including regressions	National Assessment of Economic Education Survey	1,734	US	High school seniors who took economics	The gap in the intention to enrol in university compared to not pursuing any postsecondary is eight percentage points higher when economics help seniors think a lot about getting an education, compared to helping little or not at all.
Tomás Rivera Policy Institute at University of Southern California (2004)	Impact of knowledge of aid on postsecondary enrolment	Descriptive analysis	Survey by TRPI	1,222 parents of 18 to 24 year olds and 1,204 18 to 24 year olds	US	Latinos in seven metropolitan areas with large Latino populations	59% of postsecondary achievers received aid information in K-12 years, compared to 41% of postsecondary potentials. Similarly, 39% of parents of achievers received aid information, compared to 25% among potentials. About half of parents and young adults prefer to receive aid information from real people (teachers/counselors, postsecondary education representatives).
Usher (2005)	Perceptions of costs and benefits of university	Descriptive analysis	Survey by Ipsos-Reid	1,055	Canada	Adults	Adults in low-income families overestimate the cost of university tuition by 82% (compared to 33% for high income), underestimate the earnings of university graduates by 36% (compared to 33% for high income), and estimate negative returns to university over a lifetime.

Appendix B: Questions posed in the student financial aid knowledge test in Kramer et al. (2010)

The seven questions, along with the correct answer and the proportion of all university respondents (not just loan recipients) who answered correctly in brackets, are:

- Students from low-income families are eligible for grants that do not need to be repaid from the Government of Canada, even if they don't take out a loan (true; 50.4%)
- If you're an undergraduate, governments always take your parents' income into consideration when figuring out if you need a loan (false; 23%)
- All students who apply for a government student loan have to undergo a credit check to obtain one (varies by jurisdiction, but usually false; 31%)
- You must be a full-time student in order to receive government loans and bursaries for postsecondary education (false; 52%)
- At what point are individuals required to begin paying back their Canada Student Loans? (six months after graduation; 49.7%)
- At what point does interest begin to accrue on Canada Student Loans? (immediately upon graduation; 23%)
- If you run into trouble repaying your debt after graduation, which of the following types of assistance might the Government give you?
 - Cap your monthly payments at 20% of total income
 - Spread your payments out over up to 15 years Suspend the requirement for any payments at all if your income is very low
 - None of the aboveAll of the above(all of the above, 20.7%).

Appendix C: Description of relevant programs in the environmental scan

Initiative Name	Initiative Type	Location	Target Population	Topics	Format	Evaluation	Other Notes	URL
TuitionEdu, Decision Partners	Curriculum	US	US secondary school students n college entrance stream	PSE costs and benefits, student aid options and processes, money management	Subscription-based on-line multimedia learning and assessment	Unknown	Licensed on-line software for use in secondary education and related settings; used in Massachusetts and North Carolina secondary schools	http://www.decisionpartners.org/index.cfm
Learning Money Matters, Personal Finance Education Group (PFEG)	Curriculum	4,000 secondary schools across England	1.8 million secondary students across England and their educators	Money management, planning ahead; integrated into curriculum through math, business, civics and other courses	In-class education; teacher training and curriculum resources		launched in 2006 as 5 year initiative by then FSA; produced Best Practice Guide for Schools in 2010. http://www.cfefuk.org.uk/pdfs/CFEB_Effective_Practice_Guide_July_2010.pdf , finds that most effective when delivered as a standalone course rather than spread across curriculum topics, link to relevant applied examples and current events; ; March 2011 all-party Commons committee to conduct inquiry into implementation of mandatory financial education in UK schools	http://www.pfeg.org/
Financial Literacy 101, Decision Partners	Curriculum	US and Canada	PSE students in and out of classroom	Money management, banking, credit and debt, fraud, setting goals, personalized advice	Subscription-based on-line multimedia learning and assessment; modular content but 90 minutes in total; on-line information, quizzes, videos, calculators and personal home page	Unknown	Licensed on-line software for use in PSE and related settings	http://www.decisionpartners.org/financial_literacy.cfm
JumpStart national coalition	Curriculum; resources	US	Children and youth, K-12	Varied by state requirements and resources used, PSE planning is included	on-line clearinghouse, national awards and conference		29 resources in clearinghouse on "college costs"	http://www.jumpstart.org/
Toronto Star Program of InvestorEd Fund: "How Do I Get There From Here?" and "Choices, Options and Goals" in the Smart Money Management Kit	Curriculum; resources	Ontario	Grade 9-12 students in classroom	Career planning, self-employment vs employment, goal setting, PSE direct and indirect costs, PSE saving and compound interest, income sources to support budgeting in secondary school, budgeting for PSE school year, student loans and repayment, labour market information, entering the labour market, payroll, return on PSE	Classroom activities and tools; links to on-line resources or tools; use of Toronto Star for illustrative information/examples (education requirements of careers, cost of accommodation, part-time work suitable for secondary and PSE students, current events and policy impacting individual income)		Little or no information on CSLP or CESP terms; treats education saving and debt like other assets/obligations	

Initiative Name	Initiative Type	Location	Target Population	Topics	Format	Evaluation	Other Notes	URL
Investor Education Fund	Curriculum; resources; education	Ontario	Grade 9-12 students in and out of classroom	Career and related PSE goals, PSE cost calculator tool, PSE funding choices; General financial literacy: budgeting, money management, credit and debt, consumer rights, smart shopping, investing and saving, small business management	On-line curriculum materials for teachers, on-line video, calculators and interactive lessons on-line games and interactive tools, student awards, free Funny Money Inc. school presentations and toolkit on general financial literacy		ED is head of advisory panel on new Ontario curriculum	http://www.getsmarteraboutmoney.ca/Pages/default.aspx
Fonds pour l'éducation et la saine gouvernance, Autorité des marchés financiers (AMF)	Education	Communities across Quebec	Youth aged 15-35 in and out of school	Personal finances, fraud prevention, entrepreneurship, money management, banking	Group workshops	Unknown	Series of projects funded 2004 to present under "education on personal finances", also research funding and program funding in other sub-topics of financial literacy	http://www.lautorite.qc.ca/en/index.html
Building Futures, Manitoba Department of Education	Education and curriculum	Manitoba	Manitoba school students, TBD	TBD	In-class education		In planning with Canadian Foundation for Economic Education; implementation to include professional development for teachers	
Public education curriculum	Education and curriculum	Quebec	Quebec school students	consumerism, budgeting, setting goals	In-class education		Highlighted by Ontario working group	
Ontario Ministry of Community and Social Services, Learning Earning and Parenting Program	Education and financial incentive	Ontario	Young single parents on social assistance	TBD, general life skills training, goal setting	Group sessions and individual counselling	Unknown	Paired with case work services and early-commitment bursary for education/training upon secondary graduation	
YouthSave, Lutherwood CODA	Education with financial incentive	Kitchener-Waterloo	Grade 10 youth from low income family with university eligible school grades	Budgeting, money management, credit and debt, saving, setting goals, consumerism	15 hours of training/coaching, individual	Unknown	Launched 2005; approximately 12 students enrolled per year; Informed by organization experience in learn\$ave, includes matched savings IDA of \$3:\$1 on \$1,500 saved before secondary graduation (total of \$6,000), use for PSE only	
Financial Reality Check Award of InvestorEd Fund in partnership with Ontario School Counsellors Association	Financial incentive	Ontario	Grade 11 and 12 students	PSE education costs and funding options, comparing costs of living at home or moving out, budgeting while in PSE	Annual contest with cash award of \$300-\$750 for best entries			
Exit counselling, Federal Student Aid, US	Information and education	US	Federal student loan borrowers	Terms of loan and repayment agreements, forgiveness and repayment options, avoiding default, budgeting	Mandatory on-line self-directed learning as part of loan process when exiting school and beginning repayment; interactive quizzes; personalized loan information; links to external information	Unknown	Mandatory for all borrowers as of 2008 under US Higher Education Opportunity Act; link: https://www.nslds.ed.gov/nslds_SA/SaEcTour.do?page=SaEcIntro2	https://www.nslds.ed.gov/nslds_SA/SaEcTour.do?page=SaEcIntro2

Initiative Name	Initiative Type	Location	Target Population	Topics	Format	Evaluation	Other Notes	URL
TheMoreyBelt.ca, FCAC	Website	Canada	General but focus on youth aged 15-29	Money management, banking, credit and debt,	On-line information, interactive quizzes and calculators, multimedia videos, link to external sites	Unknown	Link to The City	http://www.themoneybelt.ca/home-accueil-eng.asp
Tes Affaires.com, AMF	Website	Quebec	Quebec youth, educators and parents	Setting goals, financial planning, budgeting, saving, choosing financial products and services	On-line information and resources including personal planners, calculators and journaling, links to other sites/resources	Unknown		http://www.tesaffaires.com/en/index.asp
Education resources, Retirement Commission	Curriculum	New Zealand	Secondary school students	Budgeting, money management, planning, retirement, mortgages, credit cards	Resources to support classroom instruction; teacher workbook, handouts and multimedia	2008 evaluation of pilot stage; http://www.reirement.org.nz/files/retirement-Files/What%20we%20do/Final_report_PFE.pdf ; teacher confidence, limited access to resources and low priority relative to other curriculum expectations identified as key barriers to teaching of personal finances in classroom	Financial literacy part of national education curriculum for years 1-13	http://www.financialliteracy.org.nz/education-resources/schools
Planning 10 resources on personal finance, BC Securities Commission	Curriculum; resources	BC	Grade 10 students in classroom, mandatory curriculum course	Financial topics as per The City; course also addresses career planning, health and school completion. Written personal financial plan added as of 2007-08;	On-line and classroom instruction; self-guided on-line learning and support for classroom activities (Teacher Binder and members-only downloads); professional development for BC teachers	Periodic surveys of teacher and student satisfaction; comparison of 2006 and 2008 BC Graduate Outcomes Survey in Kelowna District; enrolment in PSE actually declines significantly in Kelowna 2006-2008 but reporting of saving for education	Formed the basis for The City with FCAC; developed in 2003 with BC teachers and BCSC; launched November 2004; uptake of 1,000 teachers requesting resource, 430 teachers trained, 59 of 60 school districts using it; increases from 60% to 91%;	

Initiative Name	Initiative Type	Location	Target Population	Topics	Format	Evaluation	Other Notes	URL
The City, FCAC	Curriculum; training of trainers	Across Canada	Grade 10 students	Banking, credit, borrowing, investing, budgeting, staying informed, planning for PSE and other goals, preparing detailed financial plan for leaving high school, self-assessment	Classroom and virtual classroom instruction; registration access to 11 module curriculum site with printable handouts, on-line multimedia, lesson plans; available for free in English and French	May not be public	Teacher training webconferences	http://www.themoneybelt.gc.ca/theCity-laZone/eng/login-eng.aspx
Pathways to Education	Education and advice with financial incentive	Greater Toronto Area (4 sites), Ottawa, Halifax, Hamilton, Winnipeg, Montreal, Kitchener, Kingston	low-income youth in high school (grade 9, 7 in Quebec) and their parents/guardians	Career and related PSE goals, PSE costs and funding options, help with CSLP/OSAP applications, campus tours, employment skills, career mentoring; follow-up for 2 years after secondary graduation	Group workshops and individual counselling	ROI on Regent Park pilot site 2001 to 2009 (8 cohorts); secondary drop-out rates fell from 56% to 12%, PSE participation increased from 20% to 80% and PSE persistence 95%	Includes presentations from financial institutions and PSE institutions; paired with other Pathways mentoring/tutoring and benefits as well as early commitment scholarship/bursary of \$1,000 per year of program participation to a maximum of \$4,000; help with financial costs of participation such as bus tickets and lunch vouchers	
Ontario Ministry of Education	Education and curriculum	Ontario	Elementary and secondary students beginning in fall 2011	TBD in response to the recommendations of the Working Group on Financial Literacy; likely to include "life after high school" however discussion of need to connect classroom teaching to a broader context emphasizes current social/economic/political events and ethical development; will build on existing curriculum touch points in mathematics, business and other courses	Classroom instruction for Ontario secondary students	Eventually as part of provincial curriculum review process	Recommendations also called for teacher resources and training, use of technology,	http://www.edu.gov.on.ca/eng/surveyLiteracy.html
Career Trek, career mentoring and scholarship programs	Education and financial incentive	Winnipeg, Brandon and selected First Nations communities	Low-income youth in grade 6 (Phase 1 and Westman programs), grade 9 (Phase 2 pilot) and their families; teen mothers aged 14-19 in secondary school	Career planning and mentoring, PSE goals and benefits	Mentoring and applied learning through structured visits to partnering workplaces and PSE campuses	Longitudinal study of participants led by researchers at University of Manitoba and University of Winnipeg; PSE participation estimated at 90% for program graduates	Annual scholarships from RESP provider and Manitoba government for selected program participants entering PSE	http://www.careertrek.ca/Home.aspx

Initiative Name	Initiative Type	Location	Target Population	Topics	Format	Evaluation	Other Notes	URL
Youth Fair Gains/Money Management, Momentum	Education with financial incentive	Calgary	Youth aged 13-21 with low household income; approximately 80 clients per year	Managing money, banking, credit, debt, fraud, consumer rights, choosing products, setting goals, budgeting, StartSmart RESP information sessions	Group workshops scheduled regularly throughout month; modular approach; 2 hours at a time, afternoons and evenings	Social Return on Investment and case study but for matched savings portion not Money Management component alone	Informed by organization experience in learn\$ave, includes matched savings IDA; savings can be used for PSE, skills training, employment tools, microenterprise, education savings for dependent children and home ownership	http://www.momentum.org/programs/money/youth-fair-gains
Entry and Exit Counselling pilot, Canada Student Loans Program, HRSDC and BC Government	Information and education	BC	Cohort of BC student loan borrowers during pilot phase 2010-7	Entry module: education planning and costs, loan information, budgeting, avoiding default; Exit module: income and earnings, repayment options and agreement, avoiding default	Pilot of mandatory on-line self-directed learning as part of loan process	Random assignment 2 way, in progress	May be expanded to all CSLP applicants depending on pilot results; key objective is reducing repayment default	
Young People and Money, Consumer Financial Education Body with national delivery partners such as Citizens Advice	Curriculum; training of trainers	UK	Youth "Not in Employment, Education or Training" via 20,000 staff in youth-serving organizations	Debt, banking, money management	One-day training course		Aims to get youth-serving organizations to add financial literacy training to current activities (embedding) in formal or informal learning opportunities. Option to pursue further staff training with one-day "Money Mastery" course	http://www.vpam.org/
Money for Life, Consumer Financial Education Body and Lloyd's Banking Group	Curriculum; training of trainers	UK	College students via student services staff	Accredited training on money management	TBD	TBD	Curriculum not yet posted; To be developed with information from a series of focus groups across the country; Training of Lloyd's Banking staff to promote relevant participation in community-based programs.	http://www.moneyforlifeprogramme.org.uk/
Financial Basics partnership of the FCAC, InvestorED Fund and Association of Canadian Community Colleges with Ellen Roseman	Curriculum; training of trainers; education	10 community colleges across Canada; 5 in Ontario	Community college students on campus	Managing money, fraud, saving, credit and debt,	Group workshops	Unknown	Launched February 2011; available in English or French; At Agonquin offered as 3 hour evening course for \$20; offered at Conestoga as 6 hour course for \$20 as part of Continuing Education	
Teaching Financial Literacy, Australian Securities and Investments Commission	Website and training of teachers	Australia	School teachers	Self-directed learning on how to add financial literacy to classroom instruction; searchable clearinghouse of resources to support classroom instruction	3-hour on-line course, multimedia, links to external resources		30 resources aimed at upper secondary; none appear to be geared to education planning	http://teaching.financialliteracy.gov.au/default.asp?id=3037

Initiative Name	Initiative Type	Location	Target Population	Topics	Format	Evaluation	Other Notes	URL
The City, adapted for outside classroom, Canadian Centre for Financial Literacy	Curriculum; resources; training of trainers	100 communities across Canada	100 youth-serving organizations	Ibid	Group workshops	In progress	Training of trainers done by the CCFL; some modifications made to the curriculum to make examples and content more relevant to youth-at-risk	http://www.theccfl.ca/About-CCFL.aspx
Money Doctors, Consumer Financial Education Body	Curriculum; training of trainers	UK	University students via peer-to-peer counselling in student services and student union offices	Personalized information and advice on money management, particularly budgeting and managing debt; curriculum materials covers budgeting, taxes, planning for travel, housing	One-on-one counselling by students to peers or on campus group workshops	Estimates that half of all UK universities now using program and 58,000 student have been served. Positive perceptions among users and increased feeling of control over personal finances. http://www.cfebuk.org.uk/pdfs/money_doctors_evaluation.pdf	Primarily aimed at preventing financial distress; model proposes impact on PSE persistence and longer term financial skills	http://www.cfebuk.org.uk/our-work/higher-education/index.shtml
Various under HRSDC Education Savings Community Outreach program	Information and education	Across Canada	Parents with children	Community-designed initiatives to promote use of education savings programs and incentives	Various	In progress	Wide range of programs funded in 2-3 funding rounds; all targeted to parents rather than children/youth	
www.getsmarteraboutmoney.ca website of the Investor Education Fund	Website	Ontario	Broad	Budgeting on student income, credit and debt, saving for education, costs of PSE, education tax credits, RESPs, fraud	On-line information, tools and links to outside websites by life events including "Life After Highschool" and "Getting an Education"; "Money essentials" on-line kit, case studies and on-line or printed brochures			
MoneySmart, Australian Securities and Investments Commission	Website	Australia	"Under 25's", secondary students and their families; General	Education costs, budgeting, education funding options, money management, budgeting, saving; student debt and repayment	On-line information, subsection by age (under 25) not life event, links to external sources of information on education planning, labour market information and career planning		Part of larger single-window website for financial literacy in Australia; very minimal information.	http://www.moneysmart.gov.au/tools-and-resources/information-for/under-25s

Initiative Name	Initiative Type	Location	Target Population	Topics	Format	Evaluation	Other Notes	URL
Sorted.org.nz, Retirement Commission	Website	New Zealand	Broad	Education costs and benefits, budgeting, student loans, education funding options, money management, loan repayment	On-line information; can be personalized through secure log-in	Only of overall website	Part of larger single-window website for financial literacy in New Zealand	http://www.sorted.org.nz/life-stages/students
CanLearn	Website	Canada	General	PSE education costs and funding options; labour market information and education planning	On-line information, interactive quizzes and calculators, multimedia videos; includes education program and provider search tool, scholarship search tool, loan repayment estimator, CSLP assistance estimator	Unknown	Developed by HRSDC with cooperation of P/T governments and participating national and regional learning and education organizations; single service window for education planning in Canada	www.canlearn.ca

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