

**Access and Affordability in Canadian and Saskatchewan Post-Secondary
Education: A Review of the Literature**

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Executive Summary

1. Introduction

Post-secondary education has become an increasingly prominent part of the public discussion as the 21st century progresses. Much of this discussion has focused on access and affordability in post-secondary education, which scholars, think tanks, post-secondary institutions, students (and their families), and governments have defined in different ways.

Access and affordability in post-secondary education is seen as important because it is a social justice issue – it is only fair to make sure that Canadians can access some kind of post-secondary education. It is also important for the knowledge-based economy and the creation of a strong and flexible labour force comprised of people with a variety of backgrounds, skills, and education. Canada is not the only country that sees the importance of post-secondary education for both reasons: other countries are also working to make sure that their citizens have access to the education they need.

Even though governments and citizens say that post-secondary education is important, education has become more expensive over the last fifteen years. These costs may have an impact on those wanting to participate in post-secondary education. Students' unions, the Canadian Federation of Students, the Canadian Association of University Teachers, the Canadian Centre for Policy Alternatives, and others have expressed concerns about the impact of tuition fees and rising student debt on the ability of citizens to fully participate in post-secondary education and to contribute to the growing economy.

More people are talking about access and affordability now than in many years. The amount of Canadian literature addressing access and affordability in post-secondary education, including that produced by governments, think tanks, research institutes, post-secondary institutions, and student organizations, has grown substantively in the past decade. In addition, many western countries, states, and provinces have also undergone formal governmental reviews, policy research, and have academic and other researchers actively working to better understand these complex issues.

The Saskatchewan Government has determined that it needs to better understand the issues around post-secondary education access and affordability in the Saskatchewan context in order to best serve the needs of potential students and lifelong learners, current students, their families, industry, post-secondary institutions, and society in general. This review of the Canadian and Saskatchewan literature, with selected references to literature from the United States, United Kingdom, Australia, New Zealand, and internationally through the Organisation for Economic Co-operation and Development publication series, will help to identify gaps in what is known about the Saskatchewan experience. It is hoped that this research will support the work of the McCall Review of Accessibility and Affordability in Post-Secondary Education, as well as to provide an in-depth assessment of what is known and what is still to learn about the state of access and affordability in the province, and in general.

There are limits to what we currently know about post-secondary education accessibility and affordability in Canada and in Saskatchewan. Much of the research focuses on youth aged 18 to 24, who are not the only people who want to participate in post-secondary education. Given that much of the access research focuses on young people's decision-making processes, it is certainly necessary to explore the experiences of lifelong learners and those who take a less linear career path. Also, Saskatchewan is a small province and we are usually not able to draw conclusions about people's experiences in the province from national-level research unless it is designed to allow for that analysis.

In addition, much of the literature around access and affordability has tended to focus on university access as opposed to access to college, for a number of reasons. First, university education tends to be more expensive than college education (with the exception of degree programs offered through colleges) because of the length of time required for the credential and the higher level of tuition fees being charged. Second, research shows that students from lower income families with lower levels of parental educational attainment are less likely to go on to university than they are to college. Those in rural areas, men, and single parents with dependents are also less likely to go on to university than to college. Third, university students who borrow to finance their educations tend to complete their programs with greater levels of debt than do college students. Thus, there has been – rightly or wrongly – an increased focus on the situation of university access within the literature.

That being said, there is literature on access and affordability in post-secondary in general – and college in specific – that is a vital part of the discussion about access and affordability in this review. Skills and trades education and training are vitally important contributors to the Saskatchewan economy and to peoples' social wellbeing. Another important role of colleges that is not well explored in the literature, particularly for the Saskatchewan context, is the role that they play in adult education generally and specifically in educating people for socially vital positions in disciplines that do not have high economic rates of return such as child care and home care.

This review begins with the definitions of access, persistence, and affordability as explored in the literature. Following that, the review examines the literature around access to/participation in post-secondary education, factors impacting retention and completion, costs and financing of post-secondary education, the current Canadian student financial assistance system, roles and responsibilities in financing post-secondary education, lifelong learning and the labour market, and finishes with a short conclusion including identified gaps in the research.

2. Defining Access, Persistence, and Affordability

Understanding what is commonly meant by access and affordability is key to understanding the literature around these questions. A series of understandings have developed around these terms and new terms have been introduced to the discussion.

Access

Access is sometimes defined as participation in post-secondary education, which describes individuals' ability to go to a post-secondary institution. It is also defined as the ability to go to the individual's institution of choice, to take the program he/she wants to take, where she/he wants to take it.

A very comprehensive definition in the literature understands access as the following:

...individuals are able to enroll in their programs of choice (provided, of course, that they qualify); they have the opportunity to attend the institutions they prefer, even – more importantly – if that means moving to another town (again assuming they meet the relevant entry standards); they need not work at outside jobs during the school year to the degree that it adversely affects their studies; and paying for the schooling does not put unreasonable demands on family resources or lead to the accumulation of excessive debt burdens in the post-schooling period (Finnie, Usher, and Vossensteyn, 2004: 8).

If different people understand access differently, then it will be challenging to have a collective discussion and to be able to assess whether or not post-secondary education in Canada – and in Saskatchewan – is accessible. The first kind of access means that if post-secondary enrolment increases, then people have access to post-secondary education. However, if it turns out that some groups are more likely to go on to post-secondary education or people cannot get into a post-secondary institution because of their grades or their geographic location, then we may not be able to argue that people have access to post-secondary education. Much of the research focuses on factors that encourage or discourage post-secondary participation, and recognizes that access is ultimately multi-faceted: understanding it involves asking the questions of *whether* individuals go on to post-secondary study, *when* they go, *where* they go, and *how* they go on.

Persistence (Continuing and Completion)

While access refers to an individual's ability to participate in a particular program, it does not include the individual's ability to continue on and complete that program. Much of the literature defines persistence as the pursuit and completion of post-secondary education. Research into persistence, just like that into access/participation, also focuses on potential factors impacting "successful" persistence culminating in graduation and the lack of persistence.

Affordability

While there tends to be general agreement on at least the most basic aspect of accessibility, there is little discussion about what is meant by affordability. Affordability is literally the ability to afford financially to participate and persist in post-secondary

education. However, there is great debate within the literature around what that looks like in practice.

Many researchers say that affordability includes opportunity costs (the costs of giving up employment, etc while attending a post-secondary institution), educational costs (tuition fees, books, supplies), living expenses while attending, and the costs associated with financing one's education (including the management of student debt). It is important to keep in mind that affordability is relative: what might be affordable for one individual may not be affordable for another. This idea underlies much of the discussion in the literature around affordability.

3. Access to/Participation in Post-Secondary Education

Much of the existing research into access and participation in post-secondary education explores the personal, institutional, and societal factors that impact an individual's participation or lack of participation in post-secondary education, and in various types of post-secondary study. Researchers use a variety of techniques and approaches and a series of different data sources to explore these connections.

In Canada, a great deal of the recent research has focused on the impact of family background, measured through family income and parental education. However, there are many factors that have an impact on access and affordability, including family income, parental education, family type, age, race/ethnicity, gender, geographic location, immigration status, language; experiences in high school, academic achievement, extra-curricular involvement, part-time work, attitudes toward school, existence of post-secondary educated role models; parents' attitudes toward post-secondary education, parents' savings for education, parents' intentions for their children; sources of financial aid available for post-secondary study, information about financing, access to student supports, attitudes toward borrowing and debt, knowledge of the benefits of post-secondary education, and others.

These factors are often discussed in different terms: they can be thought of as financial and non-financial or internal and external factors that impact access, although most researchers talk about them in combination.

Family Background and Personal Characteristics

Family Income

Much of the research around access and affordability has focused on the ability to pay for post-secondary education and the impact that family finances have on an individual's ability to participate in the post-secondary education of his/her choice. Most researchers agree that individuals from the highest income families are much more likely to go on to university (in particular) than are those from lower income families. However, researchers suggest that the accessibility gap between lower income and higher income

families is staying the same: neither the lowest income group nor the highest income group is changing their rates of participation dramatically. What is unclear is what is happening with the middle income families. Although not all researchers agree on this finding, other recent research has shown that there may have been a decline in university participation rates of young people from middle income families.

Some research has shown that participation among young people from families with the lowest incomes increased during the 1980s and into the late 1990s. This group's level of participation became almost equal to the level of participation among those from the next highest income group. However, young people from the highest income families are still much more likely to attend post-secondary education overall than people from the lowest income families.

Many researchers have also pointed out differences in participation patterns for college and university. Generally speaking, family income has been shown to have a greater impact on the likelihood of participation in university education than in college education. When it comes to college participation, family income seems to have little impact.

Evidence to support the importance of family income when it comes to post-secondary education participation comes from a study of parents who lose their jobs, which has an impact on whether or not a child finishes high school and goes on to post-secondary education.

Research from the United States also emphasizes the links between socio-economic status and the probability of college program completion. However, Canadian research has shown that there are differences between Canadian and US accessibility: lower income individuals and visible minorities are less likely to participate in US post-secondary education than they are to participate in Canadian post-secondary education.

Parental Education

Conflicting evidence and opinions arise when attempting to prioritize the importance of family income and parental education. Many claim that parental education is the key factor affecting post-secondary participation and that education is linked to family income. Thus, it is the presence of parental post-secondary education rather than income itself that is more likely to have an impact on whether children will go on to post-secondary studies. This may be due to two sets of factors: the relationship between increased education levels and family income (thus, the availability of increased access to funding for post-secondary education) and/or the higher levels of social capital expected in homes with higher levels of post-secondary education.

Many researchers argue that increases in participation seem to be limited to the higher parental education levels. These researchers argue that parental education levels became a more important determinant of post-secondary participation than other factors.

The impact of parental education is seen particularly when it comes to university education. The likelihood of going on to university is much higher for the children of university-educated parents than for the children of parents with any other education levels.

As with family income, parental education is examined in conjunction with other factors. There is also an important gender component to this analysis: both the gender of the potential student and that of his/her parents have an impact on participation. Participation rates for males with parents who have lower levels of education have declined while those for females have increased. In addition, fathers' education has a greater impact on their sons and mothers' education has a greater impact on their daughters than fathers and daughters or mothers and sons.

Family Type

Researchers have observed differences in participation by family types as well. People from two parent families are still more likely to go on to post-secondary education, although there has been an increase in the participation of individuals from single parent (particularly single mother) families.

Gender

Although traditionally the realm of young men, research has shown a change in the concentration of men and women in various forms of post-secondary education. Now, young women are more likely to go on to post-secondary study than young men. What people choose to study still also varies by gender. Women are now less likely to complete a trade (with or without high school), less likely to complete a college credential, but more likely to complete a bachelor's degree.

Pathways to Post-Secondary Education: Age

Understanding the pathways that individuals take through their educational and career lives has become an important area of research for understanding post-secondary access. The majority of young Canadians, aged 18 to 24, who had taken some post-secondary education began when they were 17 or 18 and almost all started before turning 20.

Race, Ethnicity, and Immigrant Status

There is a growing body of research that supports the need to understand the impact of race, ethnicity, and immigrant status in post-secondary access, affordability, and persistence. Recent research into the impact of race and ethnicity and participation concluded visible minorities and youth with an immigrant parent are more likely to attend university rather than a college or technical institute. Transitions from post-secondary education to the labour force are also important, and research into Alberta post-secondary graduates shows that the earnings of visible minority graduates do not differ significantly from those of other graduates.

Aboriginal Peoples

For Canada and Saskatchewan in particular, one of the most important population of students and potential students are those from Aboriginal/Indigenous communities. There is a growing body of literature addressing the Aboriginal/First Nations experience with access and affordability in post-secondary education. Given that Aboriginal students tend to be older, married, and/or have children, researchers have pointed to the need to support students differently, and to think about access and affordability needs in a different way.

On-reserve First Nations people have identified a number of particular barriers that made participation in post-secondary education more difficult, including a lack of self-confidence and motivation, a lack of understanding of Aboriginal culture on campuses, experience of racism on campus, and the history of forced assimilation through non-Aboriginal educational institutions. These (and other) barriers have meant that participation rates among Aboriginal people have been consistently lower than those for non-Aboriginal people, although these rates are increasing.

Disability

Disabilities include those that are physical, sensory, speech-related, health-related, psychological, developmental, or learning-related and that may cause difficulty in accessing education and employment. Much research has concluded that individuals with disabilities are less likely to attend a post-secondary institution, particularly a university. Students with disabilities are also more likely to have family responsibilities and to be older than other students.

Other research has pointed to the seeming overrepresentation of disabled students in post-secondary institutions, but it is also possible that students with less severe disabilities are more likely to go on to post-secondary study, while those with more severe disabilities continue to be underrepresented in post-secondary institutions. International research points to the need for government financial supports for people with disabilities in conjunction with other access supports provided by post-secondary institutions.

Distance to a Post-Secondary Institution

Researchers argue that distance is an important factor when it comes to accessing post-secondary education. It has been examined in terms of its interactions with gender, family background (particularly income), community characteristics, and its impact on institutional and/or program choice.

Recent studies have shown that distance to post-secondary institutions, and particularly to universities, has a great impact on whether or not young people living 80 km or farther away from an institution go on to post-secondary study. Distance matters because it creates additional financial costs, emotional costs (associated with leaving families and home communities), and for university participation, people have incomplete information

about the value of university education due to the fact that there is a limited number of university-educated role models in communities farther away from a university. Distance matters more for students from families with lower income, although parental education does not seem to be as important in this case.

More than 50% of Saskatchewan residents live further than 80 km from the nearest university. However, some researchers argue that distance is not such an issue for Saskatchewan residents when it comes to colleges, as almost half have both a university and a college nearby, almost another half have a college nearby, and only a small proportion of the population has neither a college nor a university within commuting distance.¹

People living in a rural area are less likely to go on to university, but more likely to go to college than those in urban centres. Rural versus urban locations seems to have an impact on potential students' expectations as well, as rural high school students are less likely to expect to study beyond high school and more likely to expect to go to college, technical, or trade education. These differences may be explained in part by labour market differences, community exposure and role models (what kinds of careers people see in their community), relocation fears, and community disconnect, but also by the need to incur increased costs to relocate and attend a university.

There is an important gender differential that has been observed in various research pieces dealing with distance, geographical location, and post-secondary participation. However, it is not always clear whether or not young women in rural areas are deterred from going on to post-secondary education or encouraged to go on. Some have found that young women are more likely to go to a university in spite of the distance, while others have concluded that young women and men may be equally likely to go on. This may be impacted by the differences in the local labour market and other kinds of factors, and reinforces the need to think about these factors as interconnected.

Researchers are interested in whether or not distance influences program/career choices: whether a person chooses to go to the local college instead of university or a more distant college because of students' lack of resources, for example. There is some evidence of this, but it is not always clear.

Lastly, some researchers have argued that it is necessary to think carefully about whether or not low post-secondary participation and completion rates among rural youth is really a problem. Perhaps instead of being a problem to be fixed, we need to understand whether people in rural areas choose to stay because of their quality of life. This contradicts the economic rationality usually associated with post-secondary education decision-making literature.

¹ Frenette (2003) compares this to the overall Canadian situation: 86.7% of Canadians have access to a university and a college nearby, 10.6% have access to a college only, and 2.7% do not have a university or a college nearby (7).

High School Experience

The importance of high school in impacting decision-making and one's ability to participate in post-secondary education overall has been emphasized in the literature. A number of factors are often examined, including the role of academic achievement, attitudes toward and experiences in school, involvement in extra-curricular activities, and part-time employment. These factors are often considered in conjunction with other characteristics, such as gender and family background.

Academic Achievement and Attitudes Toward School

High school experiences are very strongly linked to individuals' participation in post-secondary education. Students' achievement (including grades and completion of high school), their attitudes toward school, and their participation in extracurricular and employment all have an impact on future post-secondary participation. Family background interacts with high school experience as well. The importance of academic ability as a reflection of other factors is also emphasized in the US literature.

Research shows that young females are more likely than males to show attitudes and behaviours that indicated greater academic engagement in school. More young women were likely to report getting along with teachers, finishing their homework on time, and being interested in what they were learning in class. As high school completion is required for many post-secondary paths it is an important predictor of post-secondary participation. While Saskatchewan has a higher high school completion rate by age 22 than the average across the country, drop-outs who returned to high school and then went on to post-secondary education were more likely to find it difficult to return to school over time. They were more likely to go to college/CEGEP, technical or trade schools, or private vocational/training institutions than to university – perhaps because of their family and work responsibilities.

Researchers have also raised concerns about post-secondary admission standards. If there are a large number of people wanting to access post-secondary education, the standards for admission are going to go up. This has a dramatic impact on youth from lower income backgrounds, who have not benefited from the social capital accessible to families with higher incomes. Also, some researchers argue that tuition fee increases, along with higher admission standards, will likely have an impact on which people participate in particular post-secondary programs (generally higher cost, professional programs).

Employment During High School

Employment during high school is also related to access to post-secondary education. Working too much in high school is likely to impact a student's likelihood of going on to post-secondary studies, whether because the student is uninterested in post-secondary study or needs the financial stability associated with working.

However, working a moderate number of hours is linked to higher levels of participation in any post-secondary education for both males and females, and is linked to increased levels of university participation among females.

Parental Expectations

Overall, Canadian parents expect their children to attend a post-secondary institution. Recent research on parental expectations has found that overall the vast majority (95%) of Canadian parents believe an education after high school is important and almost as many expect that their children will go on to some form of post-secondary education after high school. There is some variation in these expectations based on the gender of the child, parental education, the child's age, and geographic location (e.g. urban or rural centres). For example, slightly more urban parents expect their children to go to post-secondary education than rural parents, who are also more likely to expect their children to attend a community college instead of a university. Saskatchewan parents are more likely than those in other provinces to have a wide range of expectations for their children, from trades education to university.

Financial Considerations

Much of the research around access and affordability focuses on an interconnected range of factors that impact access and participation. Discussion of financial barriers is not limited to this particular section: rather, the impact of finances, whether as student financing of education, parental background and financial supports, or issues with the student financial assistance system, run throughout the bulk of this review as it does through the literature.

Financial Barriers and Incentives

Financial barriers to participation in post-secondary education, while related to other factors such as parental educational status, family status, and family income, among others, are important pieces of the access and affordability puzzle. Many researchers argue that educational costs are a major deterrent to people pursuing or wanting to pursue post-secondary education. Surveys show that many young Canadians who reported facing barriers to pursuing their education reported financial barriers, whether or not they actually enrolled in post-secondary education.

Financial barriers also impact various communities more profoundly. Some research has shown that financial barriers are more often reported by First Nations youth, for example. They are more likely to report having to work to support their family or not having enough money to go on to post-secondary study.

Some researchers argue that although much of the research presents financial barriers as being uniform, in fact there are three kinds of barriers: price constraints, cash constraints, and debt aversion. As is noted in the research, the form that financial barriers take has

implications for the kind of policy options and interventions designed to address these barriers.

Parental Savings

Saving for post-secondary study is an increasingly investigated indicator of post-secondary participation. According to various surveys, Saskatchewan parents want to save for their children's educations, and over half have started doing so. However, saving for education is also related to the financial means of a family, and both the presence of saving behaviour and the amount saved increases with family income.

While it seems that many parents are saving for their children's post-secondary education, saving in itself does not guarantee that a child will go on to post-secondary education. There may be other factors at work, including how much is being saved and for what purposes.

Parental expectations seem to be caught up with parental savings: young Canadians are more likely to go on to post-secondary study if they felt their parents wanted them to go. However, there are differences among communities in terms of saving behaviours. First Nations parents are less likely to be saving for post-secondary education and there are conflicting reports on whether rural parents save more or less than their urban counterparts.

Although many parents seem to be saving for their children's post-secondary education, they also indicate that their children will contribute to their own education through other means: by working before and during their studies, by taking out loans, receiving scholarships or academic awards, and by accessing need-based funding.

Labour Market

Financial forces external to the individual may also have an impact on whether or not they participate in, and complete, post-secondary study. Some researchers say demonstrate that when wages (and labour market demand) are high, people are less likely to participate in post-secondary education. The decision to participate in the labour market instead of going on to post-secondary education is also influenced by friends' experiences with the labour market. Finally, recent studies of employment have shown an average increase in earnings for young males without post-secondary education, which may impact the decisions of young men around post-secondary study.

Knowledge and Perceptions

Recent research explores the impact that peoples' knowledge and perceptions of post-secondary education, and the benefits of an education, have on whether or not they participate. Some research shows that Canadians in general, and those from lower income backgrounds in particular, may be viewing post-secondary education as an unwise investment because they overestimate the costs of education and underestimate

the benefits. However, other research shows that the costs and benefits are very different for people from different backgrounds and in different post-secondary programs and careers, so that perhaps people's perceptions are not as problematic as some researchers think.

Others find that people do not have enough of the right kind of information to make good decisions about attending a post-secondary institution. Ultimately, much of the research shows that knowledge and perceptions are important to decision-making around post-secondary participation, both for youth and their families. Still other research reports that if people want to go on to post-secondary education because their knowledge and perceptions suggest that it's the right thing for them to do, there is no guarantee that they will be able to go to their chosen institution and/or be able to access the financial supports needed to participate in and complete post-secondary education.

4. Factors Impacting Retention and Completion

As important as participation in post-secondary education is the ability of participants/learners to complete a post-secondary education program and earn the relevant credential. Research has shown that leaving without finishing impacts the "value" of the credential for the student in the labour market.

Many of the factors that influence access to post-secondary education also influence retention (persistence) and completion. The most common reasons for students to leave a post-secondary program as reported in the research are financial reasons and "lack of fit", or not having enough interest or motivation, not being sure what they wanted to do. In addition, institutional factors – characteristics and supports associated with a particular post-secondary institution – have also been shown to have an impact on persistence.

Program Fit

Understanding lack of program fit is an important part of understanding why youth leave post-secondary institutions before completing the program they were enrolled in. Several researchers have discussed ways of addressing lack of program fit, and what might have led to this improper fit. Career development counseling is seen to be a key component of reducing lack of fit, particularly for youth.

Finances

Financial issues are also important when thinking about completion and retention. The need to meet educational and living costs, whether through working part-time or reducing courses taken, increases the possibility that a student will not complete his/her program of study. Several studies report that a proportion of students who leave their studies do so because of financial issues, including student debt.

However, there is conflicting research about whether finances – and the need for financial support – are more important when a person makes the original decision to access post-secondary education or when the person is already in post-secondary education. Either way, finances are important for many people deciding to participate in and complete post-secondary studies.

Personal and Family Characteristics

Personal characteristics, such as gender, are also related to retention and completion. Post-secondary graduation rates for both women and men have been increasing, but those for men have not been increasing at the same rate as for women.

Research shows that there are certain personal characteristics that increased the likelihood of a student dropping out of post-secondary studies. Men, married students, and those from families with lower levels of education are more likely to leave before completing their programs. Additionally, those who were less engaged in high school, with lower high school grades, and were less engaged in post-secondary studies were also more likely to leave. Finally, parents' attitudes and educational levels also impacted on the likelihood that post-secondary students would continue on in post-secondary study. As with other factors that have an influence on whether a student stays or goes, these factors are interconnected and are part of a larger explanation about why students stay or go.

Institutional Factors

The institutional setting, and the ways that post-secondary institutions support students seems to be of particular importance for students facing more challenging transitions to post-secondary study, including First Nations students and those with dependents. Research shows that students, particularly those facing more difficult transitions to post-secondary study, benefit from institutionally provided and located supports like child care, counseling services, student associations, and financial supports. Others have noted that these institutional efforts are important, but cannot help students be successful without financial supports as well.

Defining Success

Although the literature traditionally defines post-secondary success as the completion of a program and the receipt of the relevant credential, some researchers say that it is important to understand how “success” is defined by particular students. For Aboriginal students, success may include the impact that they have on their communities rather than a focus on the credential. Others have noted that success may be completing a portion of a credential, as long as there is a positive sense of direction for the person's journey. In addition, lifelong learning research shows that success may be completing a course or two which relates to a student's career and workplace.

It is also necessary to understand when and whether students leave post-secondary education for good, or if they are “stopping out” and intend to come back. A large proportion of students who leave come back. Research shows that at least one-third of post-secondary students interrupt their studies at some point, many for lack of money. Ultimately, people take a multitude of pathways in post-secondary education, and the research is exploring what those pathways look like and what obstacles people face in accessing and completing post-secondary education.

5. The Costs and Financing of Post-Secondary Education

Costs of education

When the costs associated with accessing and completing post-secondary education are discussed in the literature, researchers generally divide them into educational costs (including tuition fees, books, supplies) and living costs (accommodation, utilities, etc). Many have noted that the living costs are the more substantial of the categories, which require the greatest expenditures – particularly for those living away from home.

Living costs are identified by many as an important barrier to post-secondary access. For students with families, there are concerns about accessing worry-free childcare, transporting children to and from care, and the ability to access safe, good quality housing on a fixed income that is close to important amenities like grocery shopping.

Impact of increasing tuition fees

Tuition fees have increased substantially over the past fifteen years, and many provincial governments have moved to address public concerns about post-secondary education affordability. However, this is a very contentious area of research, and many researchers disagree on whether or not increasing tuition fees have had an impact on who participates in post-secondary education.

Some researchers argue that because of other kinds of financial supports such as tax credits, tuition fee increases have had minimal impacts for individuals from middle and higher income backgrounds, but more pronounced impacts for those from lower income backgrounds. Others have found that over time, the participation gap between the lowest and highest income families has not changed.

However, there is a great deal of disagreement on this issue. Very recent research concludes that tuition fees do have an impact on post-secondary participation – particularly on university participation – and on particular groups of people. Researchers have concluded that part-time students, the youngest potential students, and people from low income backgrounds are most affected by tuition fee increases, perhaps because they are less attached to the university.

Some researchers have argued that the proportion of people facing issues with the costs associated with post-secondary education is increasing. They argue that increasing tuition fees and targeted assistance to the lowest income students means that those in the middle of the income distribution range (or in the middle classes) are facing increasing financial obstacles to participation in post-secondary education.

There are particular concerns about the impact of tuition fees on students and potential students in professional and graduate programs as well, given that these fees have increased in most provinces at a faster rate than undergraduate arts tuition. Those whose parents had a credential below the graduate or professional level have become less likely to access professional programs. This seems to support concerns about decreasing middle class access to post-secondary education.

Researchers also argue that students develop “coping mechanisms” for dealing with fees. Students take on additional work, take fewer classes, take longer to complete their programs, live at home, choose an institution closer to home, and/or choose a less expensive program when fees are increased.

Financing Education

Post-secondary students finance their studies in a variety of ways, including through employment income, savings, family support, scholarships, and loans from government and private sources. Recent research has shown that the most important sources of funding for young Canadians are employment earnings from summer and part-time work, non-repayable funding from parents, a spouse/partner, or other family members, government student loans and funding borrowed from private sources, as well as scholarships, grants, and bursaries.

Employment

An integral part of financing post-secondary education for many students and potential students is part and/or full-time employment, during studies and/or over the summer. Some research shows that three-quarters of Saskatchewan post-secondary students work during the summers and a majority works during the academic year as well.

Research into student employment concludes that older students (those aged 18 to 24) were more likely to have combined school and work, and that female students were more likely to have jobs than male students.

Some have noted that increases in educational costs, including tuition fees, have an impact on the amount of hours that students work. Students may respond by taking a reduced course load in order to earn additional funds, which compounds the debt they accumulate to complete their credential. For some students an increasing number of working hours has a negative impact on their academic performance and a greater likelihood of discontinuation.

Other research points to the realization that increasing work hours, and the increasingly likelihood that post-secondary students will be working, is not a negative thing for all students. In-school work experience can have a positive impact on future earnings and the ability to build a career. However, reliance on employment earnings could be problematic for many students, particularly if the economy were to take a turn downward.

Parental/Spousal/Family Supports

Understanding the ways in which parents and families financially support their children/spouses is an important part of understanding education financing. Over half of Saskatchewan post-secondary students report receiving some financial support from their parents.

Parents report having to make changes to their spending in order to help their children with post-secondary expenses. They help to pay for post-secondary education through their earned income, by providing free room and board and the use of a family car, by taking out loans on behalf of their child, and selling assets in order to free up financial supports. This investment in education meant that parents reported not being able to save for large purchases, save for retirement, pay for other children's education, pay off major debts, and save for short-term needs. As might be expected, households with higher levels of income are less likely to report these impacts.

Research shows that Canadian parents contribute financially to their children's educations by using RESPs, accessing general savings, and going into debt. Average parents report being willing to provide financial assistance to their children for just under four years. This amount of time increases for parents of university students, for those who have saved for post-secondary education, and among higher income and education households.

Student Borrowing

Much research has shown that the amount of student debt (particularly accumulated through government sources has been increasing over the past twenty years. Overall borrowing, from government and private sources, doubled between 1985 and 1995, and has risen steadily since then. Most research shows that between 35 and 40% of all post-secondary students borrow through government loan programs.

Average debt figures vary, but most researchers agree that most university borrowers end up with \$20,000 to \$25,000 in education-related debt, while college borrowers average between \$12,000 and \$15,000 in debt. Generally speaking, student debt increases with the length of the program the student undertakes, and the cost of the educational fees associated with the chosen program.

There are differences both in who borrows and who faces the most debt. In particular, single low-income students who must move to study are faced with the highest level of debt among single students. Some research shows that Aboriginal university students

are more likely to borrow in general and are more likely to borrow more funds than both non-Aboriginal students and Aboriginal college students.

Much of the focus around student debt has been on government student loan programs. However, many more students are borrowing from private sources: through banks (and student lines of credit) and credit cards. Much of the Canadian research concludes that 10 to 20% of students are borrowing from private sources in order to fund their post-secondary education.

Managing Debt

As debt levels increase, the management of study-related debt has been gaining more attention in the Canadian literature. Researchers argue that various factors impact a graduate/leaver's ability to repay his/her student loans: size of debt, employment (including type and hours worked), earnings, interest rates, and personal circumstances.

Defining manageable debt has been a challenge for researchers. Government programs define manageable differently than borrowers, who may perceive debt to be unmanageable at a different point than others might do so.

About one in five graduates are able to repay their student debt within two years of graduation. These people were likely to have smaller loans, higher income, a job at all (for college graduates), and were less likely to be married and/or to have dependent children. Those who had not completely paid off their loans within two years of graduation had overall higher debt loads when leaving education. In addition, research shows that many graduates have reported facing difficulty in repayment. Those with higher levels of debt, lower incomes, and family responsibilities were more likely to report having trouble repaying their loans.

Researchers point to the difficulty associated with measuring "manageable" or "appropriate" levels of debt. Much of the literature around difficulties repaying student debt speaks to the debt-servicing ratio and the debt-earnings ratio as measures of debt burden. However, there is a great deal of debate about whether these are the most appropriate tools to use to measure debt manageability. Several researchers propose other options, including the use of a scale for repayment: those who earn higher salaries would begin repayment at a higher proportion of their income, versus those who start out earning lower salaries, who would begin repayment at a much lower proportion of their income.

Government has programs to help assist those who struggle with their debt repayment, and the most utilized of these is Interest Relief. However, research shows that there are gaps between those who are eligible for the program and those who are approved: people may not be aware of the program, not have good information on how the program works, or they might be unwilling to go through the application process. Another issue highlighted in the literature is that debt repayment and management strategies are not designed to take any other accumulated debt into account when establishing the terms of

repayment. If a graduate has credit card or other kinds of private debt that is not taken into account when repayment or debt management terms are established.

As important as the financial ability to repay is the impact of student debt repayment on life course choices. As debt has increased, more researchers have begun to question the impact of debt on personal choices. Research has found that loan repayers with higher levels of debt are less likely to start saving (through RRSPs) right away than are those with less debt. In addition, many Saskatchewan post-secondary students have reported that debt impacted their educational decisions “a lot”, including any plans to carry on with further post-secondary education.

6. Current Student Financial Assistance System

Canadian student financial assistance is jointly managed by the federal government and individual provinces and territories. The student financial assistance system is incredibly complex, and includes a number of policies and programs such as federal and provincial student aid programs comprised of needs-based loans and/or grants, interest subsidies, support for senior undergraduate and graduate students, grants for particular demographic groups, grants and tax credits to support saving for post-secondary education (e.g. CESP, RESP), education and tuition tax credits, tax credits for interest paid on student loans, and the tax exemption of all scholarship and bursary income.

In addition to the publicly-provided funds, some students also have access to institution-based aid and privately supported funding.

Issues with Student Financial Assistance

Many researchers have argued that the student financial assistance system, including government student loans and grants, should be revisited and revised. While the system is structured as a supplement to other funding obtained by a student (and his/her family), there are concerns about the system’s inability to meet the needs of all students in the 21st century. Researchers have raised concerns about required parental supports, loan limits, supports for graduate and professional students, required spousal supports, the adequacy of supports for part-time students and lifelong learning, and the complexity of the programs.

Dependent Students and Parental Support

Researchers have begun a discussion around the way that students applying for government financial aid are classified as requiring the support of parents (dependent students) versus becoming independent. Because of the criteria used to classify students as dependent or independent (based on a combination of age, length of time out of high school, time in the labour market, presence of dependent children, etc.), some researchers argue that some students qualify for financial assistance when they should be relying, at least in part, on parental contributions.

Researchers note that there are two approaches that can be used to assess a dependent student's (and his/her family's) ability to pay for post-secondary education: through an income test and through a means-test. Choosing one of these ways has implications for how student assistance is provided to students and their families.

Some of the concern expressed through the research is about whether or not parental contributions are being met for students in the student financial assistance system. Researchers argue that it is likely that parents are not contributing the amount they're expected to under student financial assistance rules, and there is no way to hold them to account. Others argue that there should be an additional portion of the student financial assistance program targeted at parents, so that they can meet their assessed obligations. However, the research also shows that there are links between parental contributions and parental education: both parental contributions and the proportion of parents contributing to their children's post-secondary education increase with the father's level of completed education. Those who have gone through the post-secondary system themselves are more likely to (be able to) contribute to their children's education.

Spousal Assistance and Loan Assessment Criteria

Some researchers have shown that a major issue for married students trying to access the Canada Student Loan Program is that the calculations for parental support are different from those for spousal support. The structure of this policy has implications for lifelong learners, graduate students, and for those in professional colleges, and should be revisited.

Unmet Need

One of the concerns expressed by a number of researchers is that the need to ensure access to sufficient funding for post-secondary education for individual students. Given that government student financial assistance programs are designed to supplement other funds for post-secondary education, it is not always the case that the funds allotted to applicants will provide sufficient funding by themselves. If students are unable to meet their needs through the student financial assistance system, this is referred to in the literature as "unmet need", although there are differences in opinion on whether unmet need really exists given that the system is meant to supplement students' other contributions. The cap on government funding means that married students, single-parents, and students in professional and graduate programs (because of their higher costs) are more likely to need more funding than they are provided through the student loan programs – they are more likely to have unmet need.

However, other research shows that students receiving government loans overall have the largest monthly surpluses (after accounting for necessities), even though before borrowing they have the largest deficits. As with much of the research on student financing, there are differences within and among the students accessing the student loan programs.

Another researcher suggests that the existing cap on student borrowing through the student loan program(s) means that students borrow as much as they can through the student loan program and then supplement that with borrowing from a bank or credit union. This ends up being a more expensive form of borrowing for the individual student.

Policy Instruments: Value of Grants versus Loans

Recent Canadian research around the benefits of grants versus loans has shown that there are particular reasons to use both and that there are situations in which one is better than the other. Loans are required to be repaid, while grants are payments made to individual students that do not have to be repaid. Grants can also be targeted toward particular kinds of students (or potential students) and for particular purposes.

Researchers show that loans are best for supporting individuals who want to attend post-secondary education but cannot access the necessary cash. Loans tend to go farther because as they are repaid they subsidize the funding available for current students. Others argue that students should repay some of their educational costs, so they should access loans rather than grants. However, grants can increase incentives for individuals from underrepresented groups to participate in post-secondary education because they help reduce financing constraints and they can reduce the cost of education while also reducing the risks of undertaking education (and alleviate debt aversion). Unfortunately, they can also encourage demand for post-secondary education even in cases when the education may not be financially worth the individual's while.

The impact of grants over repayable loans for particular at-risk groups is well explored in other countries. Students who are provided with bursaries or grants to support post-secondary education are shown to be more likely to stay in high school and move on to post-secondary education, and to perform well academically and otherwise.

Loan Subsidies: Interest and Repayment

Canadian, provincial, and territorial governments provide some subsidies to student loan borrowers, during the course of the individuals' schooling and after completion of the program. Up-front, interest payments are made by governments in order to minimize the initial costs of borrowing. Debt management programs, which may involve the suspension of repayment (including interest), are also considered loan subsidies.

Currently, student loans in Canada are repaid in a mortgage style repayment plan: loans are consolidated, and payments including interest are calculated and set over a fixed period. Many researchers argue that this is not the best system for those in repayment, and that the payments should be more clearly tied to a person's income. However, some researchers argue that Canada's repayment programs contain elements of income contingent repayment. Because Canada allows qualified graduates who earn low incomes to access "interest relief", suspending their payments for a time, repayment

becomes contingent – or dependent – on income. There are many concerns about this type of repayment, including its traditional use to provide students with financial supports to deal with the introduction and/or increase in tuition fees.

Tax Credits

Recent work points to the importance of re-assessing the impact and benefits associated with education and tuition tax credits. Some researchers have argued that tax credits do not accomplish their intended goals of supporting access to affordable post-secondary education. Instead, they benefit the highest income earners the most.

One of the most common criticisms is that there is no guaranteed link between the ability to transfer educational and tuition fee tax credits to parents, grandparents, or spouse and the requirement that those people provide equivalent financial support to the student in return. However, OECD research argues that tax credits have a valuable role to play in supporting access to lifelong learning, so it seems that the purposes and outcomes of tax credits need to be more fully explored.

Sustainability of Student Financing

Recent research and writing around student financial assistance has focused on the sustainability of the existing program(s) for the future. Some argue that rising costs in the student loan system due to expanded student eligibility criteria and rising loan interest costs mean that governments will need to investigate whether or not these approaches to student financing are sustainable for the next thirty years.

Merit-Based Funding

Merit-based funding is usually defined as funding allocated based on an individual student's academic merits, while need-based funding is premised on the understanding that a student facing particular challenges must have access to financial supports that are non-repayable, and reflect his/her level of need.

Although there is relatively little written in Canada about the merit versus need-based funding debate, and particularly about the undergraduate merit scholarship system in Canada, one researcher has argued that merit-based funding can be distinguished by their funding source, their selection criteria, their eligibility criteria, and their tenure. Educational institutions, federal and provincial/territorial governments, and non-governmental/private organizations provide approximately \$200 million per year to over 200,000 scholarship recipients. While educational institutions provide over half of this funding, governments have been increasingly present in the merit funding sector: this is a change, as traditionally governments focused on need-based funding and left institutions to focus on merit.

7. Roles and Responsibilities in Financing Post-Secondary Education

When thinking about the respective roles and responsibilities of partners in the financing discussion, many researchers point to the need to be clear about what people expect from the post-secondary education system and to determine who benefits (and in what ways) from post-secondary education.

Generally speaking, researchers agree that there are a number of “partners” with responsibilities in financing post-secondary education in Canada. Students and their families (including spouses), governments (federal, provincial, and band), institutions (through the provisions of supports to students), and employers are all considered within the research as having roles to play in the shared financing of post-secondary education.

Recent public opinion research about shared financing in post-secondary education has found that 90% of Canadians think that the cost to the student for additional education is a good investment and that parents should provide financial support for their children’s education. However, it is also clear that Canadians see an important role for governments in this financing partnership.

Students

Canada has a student-centred model of post-secondary education financing, in which students are seen as having primary responsibility for educational costs. This means that funding to institutions is not meant to cover the full costs of providing education.

Some researchers argue that students are seen as a heavily subsidized group, because of the fact that they do not usually pay for the full “ticket price” of their post-secondary education up-front. In response, others point to the social benefits of post-secondary education, and to the fact that post-secondary graduates make greater contributions to society through the tax system because of their increased earnings and employability.

The role of students in financing post-secondary education and the ways in which governments provide supports to students are often debated at the same time. Universal supports (such as tuition interventions) are seen as having higher public costs, because they benefit students from all backgrounds – including the wealthier ones. Targeted programs which may deliver greater benefits to those with the greatest need often go against the idea that society benefits from post-secondary education and that the society (through the government) should support students equally.

Finally, in order to participate in post-secondary education, students have must take risks. Some researchers point out that even though post-secondary education pays off financially and non-financially for many people, there are also many factors can impact the expected individual benefits of post-secondary education. So undertaking post-secondary education, particularly if a student is borrowing to do so, is risky.

Governments

Government investment in post-secondary education is often justified on two major grounds: efficiency (“prosperity”) or equity grounds. Efficiency grounds refer to the fact that the whole of society benefits from education as well as the individual accessing education. Equity grounds rely on the importance of society’s values: the promotion of equal opportunity, social mobility, and better distribution of economic rewards. Investments made on behalf of the public to educate the public result in higher incomes and higher contributions through the income tax system over the longer term.

Federal Government

Given that post-secondary education falls within the provincial jurisdiction in the federal division of powers, spending on post-secondary education in Canada tends to involve some negotiation by the government actors. In Canada, the federal government’s support for the post-secondary sector has taken the form of direct support for research and development, capital and infrastructure projects, and supports provided directly to individual students and their families through tax credits, student loans/grants, student loan interest subsidies, and scholarships. Indirect funding to the provinces, family allowances, tax benefits, and subsidized savings plans such as Registered Education Savings Plans (RESPs) and the Canada Education Savings Grant (GESG) are also provided by the federal government.

The federal government also has a very important role in providing educational support for Status Indians (First Nations peoples). Through the Post-Secondary Student Support Program, First Nations bands receive funding to support access to post-secondary education for their members. The program is considered moderately successful, although some researchers point out that the funding cap on this program means that potential students are deterred from attending a post-secondary institution if they cannot access funding through this program.

Provincial and Territorial Governments

As primary guardians of post-secondary education, the provincial and territorial governments provide funding to students directly, indirectly through tax credits (including the Graduate Tax Credit in Saskatchewan), and to institutions through support for operating grants, scholarships/bursaries, research, and infrastructure. Although the federal government is heavily involved in providing supports to post-secondary studies in order to meet its priorities, the provinces and territories have a vital role to play in managing the post-secondary environment within their boundaries. I

There are concerns about how governments provide funding to post-secondary education. Some researchers argue that governments are increasingly focusing on universal instruments to help fund students’ post-secondary education, particularly through tuition freezes and tax credits. They have argued that this focus does not benefit poorer students, and that targeted measures to address their needs must be undertaken. Others suggest

that a combination of provincially-led universal and targeted programs would meet the needs of Saskatchewan people.

Post-Secondary Institutions

Most direct funding for public post-secondary institutions comes from governments. Funding for operations comes directly from the provinces/territories whereas a larger proportion of funding for research comes from the federal government. In addition, in many provinces students accessing post-secondary education provide upwards of one-third (or more) of an institution's operating funds through tuition and ancillary fees.

It is generally concluded that institutions have a duty to ensure that they provide quality education and that they provide the necessary supports to help students succeed in their programs. Institutions are further expected to maximize their services and benefits to the public while balancing their books, although some have argued that the incentives for them to do so are not as good as they should be.

Employers

Employers are increasingly being seen as an important partner in – and one that should be contributing to – the post-secondary sector. When Canadian youth were considering the future of post-secondary education in Canada in the CPRN-led dialogue on post-secondary education, they emphasized the importance of contributions made by the business sector. Some have argued that the business sector could offer greater support to students through financial supports such as scholarships and bursaries and/or through a business tax.

Researchers also note that employers have a particularly important role to play in supporting lifelong learning and job-related training.

Financial Institutions

More recent research into adult learning/lifelong learning has argued that there may be a role for financial institutions in financing post-secondary education. International research suggests that these institutions may be able to administer various savings and loans schemes targeted at adult learners in particular, even though financial institutions have had a limited impact on lifelong learning to date. This research also raises the question of the role of financial institutions in financing post-secondary education more generally: what their current financing looks like and what kind of potential it may have.

Private Sector/Non-Governmental Organizations

Research from the United States supports the argument that there is a role for the private and the non-governmental sector in providing supports for students through grants and bursaries.² These researchers argue that this kind of scholarship/grant assistance can help

² See also the discussion of the literature around merit funding on pages 84-85 of this review.

students who slip through the cracks of other programs, facilitates choice and affordability, and allows for new ideas in student financing to be tested out; such as supports for students who provide service to their communities. They suggest that further research needs to be done to fully understand the scope of private financial aid and that government should provide funding to help develop local capacity for fundraising and providing student supports.

Benefits of Post-Secondary Education

There has been much discussion in the literature around the beneficiaries of post-secondary education. Benefits tend to be classified into financial and non-financial, and are considered to accrue to individuals and to society.

Social Returns to Education

Social returns to education include increased productivity, earnings, and output of goods and services as well as better health, increased civic participation, lower financial demands on government (e.g. less use of foster care and social welfare), and decreased criminal activity. Much has been written about the importance of knowledge creation and innovation for economic growth, which reinforces the connection between post-secondary education and economic growth. When people participate in lifelong learning, employers also receive access to experienced workers with updated skills, which helps contribute to economic growth and increased productivity.

Most researchers argue that the “social returns” to government for its investment in post-secondary education are well worth the money spent. For example, research undertaken in California has found that for every \$1 spent on bringing underrepresented people up to college educational levels, the state will save approximately \$4 in other forms of social spending.

Private Benefits

In terms of individual benefits, research shows that individuals with post-secondary education tend to have higher wages, increased employment income over their lifetimes, and a decreased likelihood of being unemployed for any length of time. Non-financial benefits include better health, better working conditions, enhanced education and health of children, and personal development and satisfaction.

However, as shown in the discussion around calculating rates of return for education, there are many factors impacting exactly how much an individual will benefit financially from his/her education. One of these factors is the type and quantity of education undertaken. For example, a graduate of a private vocational school may be more likely to be employed than a high school graduate, but the post-secondary graduate’s income may not reflect his/her additional years of education.

Calculating Rate of Return

One of the key themes in the research literature around dividing up the responsibility for the costs of education is the calculation of the “rate of return” for educational investment. This requires the assumption, based on human capital theory, that paying for post-secondary education is an investment in an individual’s future and that the return on investment can be rationally calculated.

Generally speaking, the research shows that post-secondary education pays off in terms of employment prospects and increased lifetime earnings. Researchers conclude that university graduates will see a rate of return of between 12 and 15%, meaning that they can expect to earn 12 to 15% more over their lifetimes than they would as a high school graduate. These rates tend to be higher for women and lower for men.

Some researchers suggest that college graduates can expect to receive a rate of return between 15 and 20%. However, others argue that trades certification does not generate the gains claimed in some of the literature: in fact, they are less than half of the gains associated with a bachelor’s degree. There is a gender differential here as well: men benefit more than women from this type of education.

As noted earlier, there are limits to rates of return research. Much research shows that there are differential rates of return to investment in post-secondary studies which vary based on program of study, level of credential, age at completion of education (younger women are better off than older women, followed by younger men), family background (those with wealthy families are likely to do better financially), and gender. Earlier research also found that there were variations in the earnings of Canadian graduates by various assessments of university quality. Others hypothesize that Canadians may perceive that returns to post-secondary education (particularly university) as more non-financial than financial, which has an impact on participation and completion.

In Saskatchewan, older research has shown that there are varying rates of return, depending in part on gender and area of study. Overall, returns have become better for women than for men in all programs of study. Recent research argues that the rates of return for post-secondary graduates are most noticeable for those who are traditionally underrepresented in the post-secondary system: Aboriginal peoples. One researcher has argued that this rate of return is particularly noticeable for women, who are likely to earn an additional million dollars over their lifetimes with a university degree.

Some researchers have pointed out that rates of return are not fixed. As participation rates continue to increase, it is likely that the financial benefits associated with post-secondary education will decrease. It must also be noted that learners who begin a program but do not complete it do not tend to benefit from an increased rate of return.

8. Lifelong Learning and the Labour Market

Much of the current research into post-secondary education access and affordability is focused on youth: those between the ages of 18 and 24. However, the importance of lifelong access to learning opportunities cannot be underestimated, and a growing body of literature explores the issues related to lifelong learning and transitions between the labour market and the post-secondary education sector.

Recent research shows that over one in three Canadian workers have participated in formal, job-related training and one in three developed their job skills through self-directed training. The amount spent by employers in Canada on workplace training is small in comparison to other OECD countries.

Various factors impact Canadian workers' ability to access lifelong learning. Those who already have some post-secondary education are more likely to participate in non-formal job-related education and training. Industry type and size also matter. Workers in public administration, utilities, and educational services are more likely to access further education and training than those in other industries. In addition, the lowest rates of participation in employer-supported training are found in the smallest firms. As firm size increases, so then does participation in training. Given that Saskatchewan has a large proportion of small and medium-sized businesses, it is not surprising that more Saskatchewan people are participating in non-employer supported training than in employer-supported training.

The research shows that there are also financial barriers to participation in lifelong learning. Both workers accessing training and not accessing training reported that they were unable to pay for the training they wanted. Work-related responsibilities, scheduling, and family responsibilities also act as barriers to participation in lifelong learning and training.

Financing for Lifelong Learning

Much of the research out of the OECD argues that financing of lifelong learning should be treated differently than financing of post-secondary education targeted at younger people or those without existing credentials. Since lifelong learning generates financial returns for employers and employees, research suggests that there is a need to finance lifelong learning in a shared way.

9. Conclusions and Gaps in the Research

It is clear from the literature that Canada – and Saskatchewan – is not alone in the desire to understand exactly what is happening in post-secondary education and how governments, industry, students, families, and institutions can work together to ensure that citizens have access to post-secondary education both for themselves and for the health of their societies.

There are many issues around access and affordability in post-secondary education identified in the literature, as well as extensive discussion around lifelong learning and the roles and responsibilities of partners in the financing of post-secondary education. However, there are gaps in what we know – both about the situation in Canada generally and the situation in Saskatchewan in particular.

First, we need comparable information about Saskatchewan’s current post-secondary student population across all of the types of post-secondary institutions in order to gain a better understanding of the barriers and facilitators impacting participation in the province. Second, there is little information about the impact of tuition fees on the composition of the student population in the province across programs and institutions.

Third, we do not fully understand who borrows through government student assistance programs and through private sources, and how Saskatchewan people make use of debt management tools and what their experiences are like. We do not fully comprehend the impact of student financial assistance on life cycles, and whether women are affected by borrowing differently than men.

Aboriginal peoples are an integral part of Saskatchewan’s present and its future. Understanding what kinds of funding supports they can access for post-secondary education and what kinds of financial and non-financial supports are needed is an important direction of study.

Further research must be done into labour market participation and lifelong learning, including an assessment of part-time students, the sources of funding they access, and how employers support post-secondary education in Saskatchewan.

As noted previously, much of the literature deals with identifying problems in post-secondary education as well as identifying possible solutions. For example, Canadian youth participating in a National Dialogue and Summit on Engaging Young Canadians suggested that governments establish a legal “right to learn” in order to ensure that people have adequate access to post-secondary education, including to the necessary supports required to be successful in their studies (deBroucker, 2006: ii). Others note that any changes that are to be made in the student aid system “...should be based on clear decisions about the purposes and target groups” (Vossensteyn, 2004: 6).

Overall, it is hoped that this in-depth review of the Canadian and the Saskatchewan literature will help to provide evidence and context for public discussions around post-secondary education and lifelong learning, while identifying some of the gaps that should be addressed in order for partners in the post-secondary sector to move forward and work together for access and affordability.

1. Introduction

Post-secondary education has become an increasingly prominent part of the public discussion as the 21st century progresses. Much of this discussion has focused on access and affordability in post-secondary education, which scholars, think tanks, post-secondary institutions, students (and their families), and governments have defined in different ways.

This debate around the need for access and affordability in post-secondary education has been premised on two assumptions: first, that access to post-secondary education is a social justice issue, and that ensuring all Canadians can access some form of post-secondary education if they so wish is only a matter of fairness (Finnie, Usher, and Vossensteyn, 2004; Corak, Lipps, and Zhao (2003), many others). Métis students in Saskatchewan have reported seeing education as "...our buffalo that provides an opportunity to gain independence and improve future circumstances for the current generation and generations to come" (Broxbourne International, 2004: 13). Second, ensuring access to post-secondary education is a vital component of a strong labour force in a knowledge-based economy (Finnie, Usher, and Vossensteyn, 2004; Corak, Lipps, and Zhao, 2003; Allen and Vaillencourt, 2004; OECD 2004, 2005, 2006c).

Much discussion has focused on the kind of education(s) required by the transition to the knowledge-based economy. Some emphasize the importance of increasing skill requirements "...as a direct result of changes in technology, especially the increasingly intensive use of computer and communications technologies" (Frenette, 2003: 1). Others emphasize that:

...a broad education that enhances the abilities to read, to write, and to do mathematics will successfully lay the base for acquiring the sequence of specific skills needed to stay ahead in the changing economy.... A broad education will also create better citizens and help people realize the full potential of their talents and abilities (Allen, 1999: 1).

Frenette (2003) points out that changes are occurring in the labour market:

...rising skill requirements are a direct result of changes in technology, especially the increasingly intensive use of computer and communications technologies. They are the result, as well, of changes that have taken place in the organization of work, in job design, and in the industrial and occupational composition of employment (1).

The Government of Canada has also taken these global labour market changes seriously, and in 2002 emphasized the importance of post-secondary education, noting the likelihood that by 2004, more than 70% of all new jobs created in Canada will require some form of postsecondary education and 25% will require a university degree (Human Resources Development Canada, 2002).

Other countries are also taking these changes seriously, and emphasizing the connection between social justice and economic reasons for improving access and affordability. A recent paper by Learning Point Associates (2004) in the United States argues that “demographic shifts in our nation’s population mandate that we attend specifically to these [underrepresented] students’ achievement if we expect as a nation to maintain our standard of living, our level of prosperity, and our place in the global economy” (8).

Yet while it is likely that these labour market changes will continue to impact citizens and their post-secondary education choices, many have raised concerns about the problematic impact that the costs of education may have on those wanting to participate in post-secondary education. Students’ unions, the Canadian Federation of Students, the Canadian Association of University Teachers, the Canadian Centre for Policy Alternatives (particularly through their work on alternative institutional assessment and budget planning), and others have expressed concerns about the impact of tuition fees and rising student debt on the ability of citizens to fully participate in post-secondary education and to contribute to the growing economy (see Conway, 2004; Canadian Federation of Students, 2004).

It is clear from the literature and the public discussion that access to post-secondary education is vital to a changing labour market and economy. As well as the importance of the needs of the market and of individuals’ ability to fully participate in the labour force and in society, part of the access discussion focuses on the importance of ensuring equity and fairness in post-secondary participation, retention, and completion. Understanding who does and does not go on to post-secondary education can help explain continuing differences (and inequities) in labour market access and participation and social and political capital (see for example Frenette, 2005; Finnie, Junor and Usher, 2004). Access to post-secondary education for all qualified people who wish to attend has traditionally been a societal equalizer, and is part of the “social contract” that citizens have with their governments (Riddell, 2003; Mackenzie, 2005).

The amount of Canadian literature addressing access and affordability in post-secondary education; including that produced by governments, think tanks, research institutes, post-secondary institutions, and student organizations; has grown substantively in the past decade. Most recently, extensive surveys of the literature have been conducted by Looker and Lowe (2001) for the Canadian Policy Research Network, by Junor and Usher (2002, 2004) in *The Price of Knowledge* and by Rounce (2004) for the Canadian Centre for Policy Alternatives – Saskatchewan. Canada is not alone in its concern for access and affordability: most western countries have also undergone formal governmental reviews, policy research, and have academic and other researchers actively pursuing knowledge necessary to better understand these complex issues.

The Saskatchewan Government has determined that it needs to better understand the issues around post-secondary education access and affordability in the Saskatchewan context in order to best serve the needs of potential students and lifelong learners, students, their families, industry, post-secondary institutions, and society in general. This review of the Canadian and Saskatchewan literature, with selected references to literature

from the United States, United Kingdom, Australia, New Zealand, and internationally through the OECD publication series, will help to identify gaps in what is known about the Saskatchewan experience. It is hoped that this research will support the work of the McCall Review of Accessibility and Affordability in Post-Secondary Education, as well as to provide an in-depth assessment of what is known and what is still to learn about the state of access and affordability in the province, and in general.

When putting together a review of the literature, it is necessary to make trade offs between the breadth and the depth of the research explored. Attempting to provide a complete picture of access, affordability, student financial assistance, labour market connections, and lifelong learning is challenging. As there are many research questions still to be explored, this literature review explores what we do know, what we might know, and what we need to continue to investigate.

When examining what is known about Saskatchewan in particular, there are challenges associated with assessing the situation in a small province. Due to small sample sizes in Saskatchewan, national-level survey work usually aggregates Saskatchewan data with that of Manitoba (and sometimes Alberta) to create a joint provincial category rather than reporting the results for the individual provinces. In order to report results at the provincial level, researchers using national-level work have to ensure that sample sizes are large enough to do so, or the research undertaken has to focus on the province particularly.

It must be noted that a great deal of the research around these questions focuses on youth (18 to 24). However, the “average” 19 year old, single, straight from high school post-secondary student may no longer be the norm. Thus, different assumptions, knowledge, and understanding will be needed to better inform further research into access and affordability. A recent survey conducted by EKOS Research, Saskatchewan post-secondary students were found to be older on average than the students in many other provinces (EKOS, 2006). Given that much of the access research focuses on young people’s decision-making processes, it is certainly necessary to explore the experiences of lifelong learners and those who take a less linear career path.

In addition, much of the literature around access and affordability has tended to focus on university access as opposed to access to college, for a number of reasons. First, university education tends to be more expensive than college education (with the exception of degree programs offered through colleges) because of the length of time required for the credential and the higher level of tuition fees being charged. Second, research shows that students from lower income families with lower levels of parental educational attainment are less likely to go on to university than they are to college. Those in rural areas, men, and single parents with dependents are also less likely to go on to university than to college. Third, university students who borrow to finance their educations tend to complete their programs with greater levels of debt than do college students. Thus, there has been – rightly or wrongly – an increased focus on the situation of university access within the literature.

That being said, there is literature on access and affordability in post-secondary in general – and college in specific – that is a vital part of the discussion about access and affordability in this review. Skills and trades education and training are vitally important contributors to the Saskatchewan economy and to peoples’ social wellbeing. Another important role of colleges that is not well explored in the literature, particularly for the Saskatchewan context, is the role that they play in adult education generally and specifically in educating people for socially vital positions in disciplines that do not have high economic rates of return such as child care and home care.

This review begins with the definitions of access, persistence, and affordability as explored in the literature. Following that, the review examines the literature around access to/participation in post-secondary education, factors impacting retention and completion, costs and financing of post-secondary education, the current Canadian student financial assistance system, roles and responsibilities in financing post-secondary education, lifelong learning and the labour market, and finishes with a short conclusion including identified gaps in the research.

2. Defining Access, Persistence, and Affordability

Understanding what is commonly meant by access and affordability is key to assessing the literature around these questions. Over the past two decades, a series of understandings have developed around these terms, and new terms have been introduced to the discussion.

Access

Most commonly, access is simply defined as ability to participate in a post-secondary program. According to Barr-Telford et al (2003), “...access looks at characteristics of and barriers faced by those who enroll in post-secondary studies and those who do not” (5). This is the most often used definition, particularly when researchers are addressing factors that influence participation and non-participation in post-secondary education.

Others, such as Corak, Lipps, and Zhao (2003), include references to “..specific choices made in deciding upon an institution and field of study”, thus further narrowing the definition of access (14). Usher (2004) uses Paul Anisef’s definition of access which includes both Type I and Type II access. Type I access describes how many people are attending post-secondary education and Type II refers to who goes on to post-secondary study (Usher, 2004a). Although the two may be linked, the presence of one type of access does not necessarily mean that the second type of access is also present. If capacity (Type I) is limited, then it is likely that Type II access – the ability of people to make choices about where and how to go on – will likely be hindered (Anisef et al, 1985; Krahn and Andres, 1999). In a later paper, Usher (2005a) argues that where Type I access (capacity) is constrained, changes in tuition fees are not likely to affect overall demand. However, it may impact the “...social composition of the demand”: which backgrounds potential students are coming from (Usher, 2005a: 5).

The most comprehensive of definitions (which includes both Type I and Type II access) to appear in the literature around access was provided by (Finnie, Usher, and Vossensteyn, 2004) who have defined access as including the following factors:

...individuals are able to enroll in their programs of choice (provided, of course, that they qualify); they have the opportunity to attend the institutions they prefer, even – more importantly – if that means moving to another town (again assuming they meet the relevant entry standards); they need not work at outside jobs during the school year to the degree that it adversely affects their studies; and paying for the schooling does not put unreasonable demands on family resources or lead to the accumulation of excessive debt burdens in the post-schooling period (8).

These definitions have implications for how access itself is measured. Type I, or “participation” access, is often measured simply by assessing enrolments in post-secondary institutions. If enrolments increase, it is assumed that access is secure. However, factors like increases in admissions averages can have an impact on Type II access, limiting the number of people who can enter the institution and possibly limiting the proportion of people from underrepresented groups who are able to attend.

In an attempt to measure educational equity (Type II access), Usher (2004a) uses a number of factors to create an index of equity. While there are limitations to his methodology, he argues that Canada overall provides fairly equitable access to post-secondary education. However, Saskatchewan falls near the bottom of the index because it has a greater proportion of university students with post-secondary educated parents – indicating that students whose parents have lower levels of education are less likely to go on to study (Usher, 2004a).

Ultimately, access is multi-faceted: understanding it involves asking the questions of *whether* individuals go on to post-secondary study, *when* they go, *where* they go, and *how* do they go on?

Persistence (Continuing and Completion)

While access tends to refer to an individual’s ability to participate in a particular program, the literature around access also addresses persistence and completion as part of the discussion. Barr-Telford et al (2003) defines persistence as the pursuit and completion of post-secondary education. Research into persistence, just like that into access/participation, also focuses on potential factors impacting “successful” persistence culminating in graduation and the lack of persistence (Finnie, Usher, and Vossensteyn, 2004).

Affordability

While there tends to be general agreement on at least the most basic aspect of “access” there is little agreement on what is meant operationally by affordability. Affordability is literally the ability to afford financially to participate and persist in post-secondary

education. However, there is great debate within the literature around what that looks like in practice.

Elements of affordability include opportunity costs (the costs of giving up employment, etc while attending a post-secondary institution), educational costs (tuition fees, books, supplies), living expenses while attending, and the costs associated with financing one's education (including the management of student debt) (Junor and Usher, 2004; EKOS Research Associates, 2006).

Cervenán and Usher (2005) attempt to measure the affordability of university education in Canada and in the United States by constructing an “affordability index” comprising a number of cost-related factors including education costs, total costs, net costs (before and after tax expenditures), and out of pocket costs (before and after tax expenditures) – all as a proportion of available student supports. While there are issues with some of the measures used in the index and its construction, the researchers conclude that wealthier Canadian provinces tend to come out better in the rankings than do poorer provinces. Based on this assessment, Saskatchewan is the ninth (out of ten) most affordable jurisdiction in which to study in Canada.

However, it is important to remember that affordability is relative: what might be affordable for one individual may not be affordable for another. This idea underlies much of the discussion in the literature around affordability.

3. Access to/Participation in Post-Secondary Education

Much of the existing research into access and participation in post-secondary education explores the personal, institutional, and societal factors that impact an individual's participation or lack of participation in post-secondary education, and in various types of post-secondary study. Researchers use a variety of techniques and approaches and a series of different data sources to explore these connections.

In Canada, a great deal of the recent research has focused on the impact of family background, measured through family income and parental education. However, much of the literature also explores a myriad of influential factors such as family income, parental education, family type, age, race/ethnicity, gender, geographic location, immigration status, language; experiences in high school, academic achievement, extra-curricular involvement, part-time work, attitudes toward school, existence of post-secondary educated role models; parents' attitudes toward post-secondary education, parents' savings for education, parents' intentions for their children; sources of financial aid available for post-secondary study, information about financing, access to student supports, attitudes toward borrowing and debt, knowledge of the benefits of post-secondary education, and others.

These influential factors are often classified as either financial or non-financial factors, although it is clear that many of these factors are interrelated and may be both financial

and non-financial. In addition, others including Looker (2002) have classified these factors as being either external (consisting of outside impediments) or internal (inhibiting factors specific to an individual). In the 1999 Saskatchewan High School Leaver Survey, researchers found that the most important factors identified by Grade 11 and 12 students that impact their decisions to participate in post-secondary education included program quality, program availability, and the cost of living (High School Leaver Consortium, 2000). While these factors were not further assessed using demographic and background variables in this survey, it is likely that there would be a complex intermixture of factors shaping their participation decision-making.

It is also important to note that there are several types of decisions to be made within the larger decision to participate in post-secondary education: potential students decide whether or not to go to a post-secondary institution at all, what type of institution to attend and where, and what program to register in. Although the majority of the research focuses on why people (particularly youth) choose to go on to post-secondary education at all, there are researchers who focus on how various factors impact the different stages of decision-making impact differently (Junor and Usher, 2005; Barr et al, 2003).

Family Background and Personal Characteristics

Family Income

Much of the research around access and affordability has focused on the ability to pay for post-secondary education, and the impact that family finances have on an individual's ability to participate in the post-secondary education of his/her choice. Most researchers agree that individuals from the highest income families are much more likely to go on to university (in particular) than are those from lower income families (Butlin, 1999; Corak, Lipps, and Zhao, 2003; Knighton and Mizra, 2002; others). However, there are divisions within the research about how much this participation or accessibility gap is growing or shrinking, and what is happening with the middle income families. Additional discussion within the literature deals with the relative importance of family income versus parental education – acknowledging the links between the two variables, but also recognizing that education signifies a series of other factors (such as social connections, experience with post-secondary education) that may have relatively strong impacts on participation.

Additionally, researchers tend to agree that family income is a challenging variable to measure correctly: definitions of families vary and children are notoriously unable to accurately report their family's income. Thus, studies involving family income are often built on Statistics Canada databases that allow for an accurate portrayal of income, or convert occupation to a proxy for income and approximate the family income that way.

Using the Survey of Consumer Finances and the General Social Survey, Corak, Lipps, and Zhao (2003) confirmed that overall, individuals from higher-income families are much more likely to attend university. This study focused on the period between 1980 and 2000, and observed that the correlation between parental income and university

participation became stronger during the first fifteen years of that period – coinciding with the rapid increase in tuition fees in most provinces. However, with the mid-1990s increase in maximum loan limits to accommodate the tuition fee increases, this study concludes that parental income became slightly less important as a determinant of post-secondary participation.

Corak, Lipps, and Zhao (2003) found that university participation among young people (18 to 24) from families with the lowest incomes increased during the 1980s and into the late 1990s. This group's level of participation became almost equal to the level of participation among those from the next highest income group. However, these groups were still much less likely to participate in university education than those from the highest income families. In addition, this research was one of the first Canadian pieces to show that there had been a decline in university participation rates of young people from middle income families.

Barr-Telford et al (2003) used the 2002 Post-Secondary Education Participation Survey information on parental occupation as a proxy for income when assessing the impact of family income on post-secondary participation. They found that "...as the estimated family earnings decreased, so too did the percentage of youth that had taken post-secondary education" (7).

The participation gap between the highest and lowest income families is also a key theme in the access and affordability research, particularly with the increase in educational costs and borrowing over the past decade. However, by looking at Survey of Consumer Finance data for 1975 to 1993, Christofides, Cirello, and Hoy (2001) found no evidence of a growing gap in post-secondary participation based on parental income. They confirmed that there was an existing gap in participation, but that it hadn't grown wider over that time period. Corak, Lipps, and Zhao (2003) extend the time frame for this study, and examine the changing impact of parental income from 1993 to 1997. These researchers found that the gap in university access increased in the early 1990s but was reduced in the later 1990s. The researchers propose that the gap began to close when government increased the amount of student aid available to better match increasing tuition levels.

Further, Drolet (2005) extends the Corak, Lipps, and Zhao (2003) study to the year 2001, and finds that the gap discussed by the researchers has remained relatively stable. None of these researchers would argue that the participation gap between the lowest and the highest income families had closed: rather, it did not seem to be impacted by changes in educational costs over that time.

Many researchers have pointed out differences in participation patterns for college and university. Generally speaking, family income has been shown to have a greater impact on the likelihood of participation in university education than in college education. When it comes to college participation, family income seems to have little impact. Zhao and deBroucker (2002) report fairly small differences in overall post-secondary participation when looking solely at family income levels. However, when looking

strictly at university participation, the researchers note that parental income has a much greater impact. Corak, Lipps, and Zhao (2003) found that when looking at college participation alone, participation rates were more similar across family income groups than they were in university participation.

As noted earlier, many researchers are interested in explaining the connections between family income and parental education, and their impact on post-secondary participation. In order to better explore this relationship, Knighton and Mizra (2002) made use of the Survey of Labour and Income Dynamics (SLID) to examine the impact of these variables as potential influencers of post-secondary participation.³ Their results were consistent with those identified by other researchers. First, they found that post-secondary participation increased with family income. More particularly, young Canadians whose parents were in the highest income quartile were more than twice as likely as those with parents in the lowest quartile (39% versus 17%) to choose university over college.

Further assessment showed that “college is the more prevalent route for those in the two lowest income quartiles, whereas university is more prevalent for those in the highest quartile” (Knighton and Mizra, 2002: 28). In addition, parental education was found to influence both post-secondary participation in general and the type of education pursued in specific. University educated parents were three times as likely to have children going on to university than those with a high school diploma or less. Additionally, individuals with university-educated parents were more likely to go on to university than to college. However, when income and education were examined together, the researchers concluded that educational attainment was the more important variable.

Further evidence of the importance of family income comes from Coelli (2005a), who looks at the connections between shocks to parental income (i.e. job loss) and children’s high school completion and post-secondary participation. Using the Labour Force Survey, Coelli concludes that parental job loss leads to both high school leaving behaviour and lower rates of university participation – but not lower levels of community college and trade school participation. A reduction in parental income of \$10,000 reduces the probability of a youth participating in university education by approximately 6%. This effect is most noted among those whose parents have a high school education or less, perhaps due to greater income loss and increased difficulty in finding another well-paying job. The effects were also greater for young women, which Coelli argues means that young women are more likely near the “margin of the attendance decision than males” (19).

Research from the United States also emphasizes the links between socio-economic status and the probability of college program completion. Researchers such as Bailey et al (2005) note that it is difficult to separate the influence of tangibles such as family income from the more intangible influences like family expectations when assessing why students from lower socio-economic status backgrounds are less likely to complete. However, they argue that since lower income students are less likely to have higher

³ While they did not distinguish between the parents’ educational levels (ie. between mother’s and father’s), they used the presence of the highest credential in their analysis of the impact of parental education.

aspirations, post-secondary institutions, and particularly community colleges, "...should strive to raise those students' expectations" (Bailey, Jenkins and Leinbach, 2005: 25).

Frenette (2005) compared post-secondary access in Canada with that of the United States. He concludes that the participation gap between lower and higher income individuals is still wider in the US than in Canada, even when controlling for ability. Lower income individuals and visible minorities are less likely to participate in US post-secondary education than they are to participate in Canadian post-secondary education. In part this is because the composition of the visible minority population differs in Canada and the US, but still results in this observable pattern.

In the United Kingdom, researchers also emphasize the importance of family income, arguing that the "...choice-making of the middle-class and working-class students are very different and the higher educations they confront and anticipate are different and separate" (Reay et al, 2004: 871).

Parental Education

Conflicting evidence and opinions arise when attempting to prioritize the importance of family income and parental education. Many claim that parental education is the key determinant of post-secondary participation and that education is linked to family income (see Finnie, 2004; Butlin, 1999). Thus, it is the presence of parental post-secondary education rather than income itself that is more likely to have an impact on whether children will go on to post-secondary studies. This may be due to two sets of factors: the relationship between increased education levels and family income (thus, the availability of increased access to funding for post-secondary education) and/or the higher levels of social capital expected in homes with higher levels of post-secondary education (see also Junor and Usher, 2004).

deBroucker and Underwood (1998) argue that:

A supportive learning environment at home, expected in families where parents have high level of education, is likely to be reflected in a higher educational attainment of children. Parents contribute to this environment when they impart a positive attitude towards education, when they are able to give financial support to their children's continued education, and when they share in their children's intellectual pursuits (1).

According to Barr-Telford et al's (2003) analysis of the Post-Secondary Education Participation Survey, youth with at least one post-secondary educated parent were more likely to go on to post-secondary study themselves than those whose parents had no further education (70% compared to 57%).

Finnie, Usher, and Vossensteyn (2004) argue that increases in participation seem to be limited to the higher parental education levels, and increases were smaller (even negative) for some of the lower education categories, particularly for males. These researchers argue that parental education levels became a more important determinant of

post-secondary participation throughout the 1990s. Although this conclusion contradicts the findings of Corak, Lipps, and Zhao (2003), Finnie, Usher, and Vossensteyn (2004) argue that the differences can be distinguished by the use of different data sets and approaches.

The impact of parental education is seen particularly when it comes to university education. Finnie, Usher, and Vossensteyn (2004) argue that the likelihood of going on to university is much higher for the children of university-educated parents than for the children of parents with any other education levels.

There is also an important gender component to this analysis: both the gender of the potential student and that of his/her parents have an impact on participation. First, Finnie, Usher, and Vossensteyn (2004) conclude that participation rates for males at the two lower parental education levels declined during the 1990s, while those for females increased. However, for the two higher parental education levels, participation rates for males increased more than those for females. More parental education increases the likelihood of university attendance: in particular, father's education has more impact on sons and mother's education impacts daughters (Finnie, Lascelles, and Sweetman, 2005).

Finnie, Lascelles, and Sweetman (2005) approach the question of socio-economic status and access to post-secondary education by investigating the relationship between family background and other factors that impact participation in post-secondary studies. They, along with others, conclude that overall, family background has a substantial impact on who goes on to post-secondary education – and what type of education they choose to pursue.

Family Type

Researchers have observed differences in participation by family types as well. Based on data from the Youth in Transition Survey, Finnie, Usher, and Vossensteyn (2004) note that there has been some convergence over time in participation rates across family types. Particularly, individuals in mother-only families have become more likely to participate in some form of post-secondary education than previously noted.

However, in spite of this change, Finnie, Lascelles, and Sweetman (2005) argue that family type does matter: students from two parent families are still more likely to go on, although there has been an increase in the participation of individuals from single parent (particularly single mother) families.

Gender

Although traditionally the realm of young men, research has shown a change in the concentration of men and women in various forms of post-secondary education. According to recent work done by Statistics Canada (2006), women accounted for 51% of undergraduate enrolment in 1988-89 but 58% in 2001-2002. There was a slight gain in women's share of enrolment at the graduate level as well, with that share rising from

slightly under half in 1988-89 to reach just over half (51%) in 2001-2002 (McMullen, 2004).

Using the 2002 Post-secondary Education Participation Survey (PEPS), Barr-Telford et al (2003) demonstrate that young women were more likely to go on to post-secondary study than young men. In addition, Finnie, Lascelles, and Sweetman (2005) argue that boys are worse off than girls in terms of the intermediate variables impacting post-secondary attendance: “they fail more often, have lower high school grades, enjoy school less and find it less interesting, and get along with teachers less” (23).

According to Boothby and Drewes’ (2006) research using census data, between 1980 and 2000 men became less likely to complete a trade without high school and slightly more likely to have completed a trade with high school. Between 1980 and 2000, men have become slightly more likely to enroll in college or bachelor’s programs. Enrolment trends among women differ from those among men, with women becoming less likely to complete a trade (with or without high school), less likely to complete a college credential, but more likely to complete a bachelor’s degree.

The Maritime Provinces Higher Education Commission (2005) argues that there may be a more subtle relationship between gender and parental education influencing post-secondary participation. This research found that:

...the ratio of women to men is the closest to parity among first degree holders from households where the highest level of educational attainment was a bachelor’s degree or above, and that nearly half (48%) of men come from households with this level of family educational attainment (21).

Thus, gender on its own may not be the best explanator: rather, gender (as with other factors) interacts with other factors to influence participation.

Pathways to Post-Secondary Education: Age

Understanding the pathways that individuals take through their educational and career lives has become an important area of research for understanding post-secondary access. Barr-Telford et al (2004) found that over half of young Canadians (18-24) who had taken some post-secondary education began when they were 17 or 18, and that almost nine in ten (86%) had started before turning 20.

According to the 2002 PEPS, the vast majority (69%) of Saskatchewan youth aged 18-24 with some post-secondary education started their studies at 17 or 18 years of age, while 15% delayed until 19 and a further 16% delayed until they were 20 years or older (Barr-Telford, 2004). This is reinforced by the results of the 2004 Canadian Undergraduate Survey Consortium (CUSC) survey results for the University of Regina, which showed that approximately three-quarters (74%) of first year students were 18 years or younger, 16% were 19 years old, and the rest were 20 years or older (Office of Resource Planning, University of Regina, 2005).

Age also seems to have an impact on the type of educational institution chosen. For example, Junor and Usher (2004) argue that in the 2003 College Applicant Survey, nearly seven in ten college applicants over the age of 25 already had a degree from a university.

Race, Ethnicity, and Immigrant Status

There is a growing body of research that supports the need to understand the impact of race, ethnicity, and immigrant status in post-secondary access, affordability, and persistence. Although Junor and Usher (2004) conclude based on the 2002 Canadian Undergraduate Survey Consortium and 2003 Canadian College Student Survey Consortium work that "...participation patterns for most ethnicities are roughly in line with their share of the population", but they note that there are exceptions to this rule (58).

Recent research into the impact of race and ethnicity and participation concluded visible minorities and youth with an immigrant parent are more likely to attend university (Coelli, 2005b). This reflects the reality that visible minority youth are predominantly Asian in Canada, and Asian males in particular are more likely to go on to university than non-Asian males (Junor and Usher, 2004). Additionally Asian males are much less likely to go to college than to university (Junor and Usher, 2004; Finnie, Lascelles, and Sweetman, 2005). Another discrepancy highlighted by Junor and Usher (2004) is that black university applicants to Ontario universities have been disproportionately female.

Maximova and Krahn (2005), concerned about the potential impact of race on post-university earnings, found that the earnings of visible minority graduates in Alberta do not differ significantly from those of other graduates. They conclude that previous research demonstrating the disadvantaged position of racial minority groups in the labour market "...was likely due to non-recognition of their educational credentials obtained in their respective countries of origin" (Maximova and Krahn, 2005: 102). This finding also highlights the important connection between immigration/immigrant status and race and ethnicity in the research: there are often overlapping discussions that incorporate both immigration status and race/ethnicity.

Butlin (1999) found that high school graduates born outside Canada were more likely to attend university, but less likely to attend a college or technical institute. A hypothesis is that many immigrants to Canada come as highly skilled workers, with post-secondary credentials. These factors, along with their demonstrably high levels of motivation (exemplifying immigrants), suggest that their children will be more likely to participate in post-secondary education – and particularly in university education.

Aboriginal Peoples

For Canadian and Saskatchewan institutions in particular, one of the most important population of students and potential students are those from Aboriginal/Indigenous communities. There is a growing body of literature addressing the Aboriginal/First

Nations experience with access and affordability in post-secondary education. According to recent research done by the Millennium Scholarship Foundation, there are likely to be distinct differences between Aboriginal post-secondary education students and non-Aboriginal students:

Aboriginal university and college students are, on average, older than the typical student and more likely to be married or to have children. More than half of Aboriginal university students are 22 years of age or older while almost one-third of Aboriginal university students have children, as do almost half of Aboriginal college students (*Changing Course*, 2005: 5)

This reality has implications for the need to support students differently, and to think about access and affordability needs in a different way. For example, older students with family responsibilities will need particular requirements for suitable housing and childcare supports. In research done by EKOS Research Associates, on-reserve First Nations respondents identified a number of particular barriers that made participation in post-secondary education more difficult. These included such things as a lack of self-confidence and motivation, a lack of understanding of Aboriginal culture on campuses, experience of racism on campus, and the history of forced assimilation through non-Aboriginal educational institutions (*Changing Course*, 2005; see also Junor and Usher, 2004). These barriers have meant that participation rates among Aboriginal people have been consistently lower than those for non-Aboriginal people.

Hampton and Roy (2002) outline the importance of the historical context around education for First Nations people. Their experiences with education for assimilation has had a lasting impact on First Nations peoples' approaches toward post-secondary education, and has acted as a deterrent to participation (R.A. Malatest and Associates, Ltd., 2002; Junor and Usher, 2004).

Finnie, Lascelles, and Sweetman (2005) also discuss the factors impacting First Nations peoples' participation in post-secondary education. They argue that

...post-secondary participation rates are uniformly the lowest for Native (First Nation) Canadians, but the effects are almost entirely indirect, operating through high school grades and related outcomes (i.e., Native ethnicity has a negative effect on these), as well as through the levels of the background variables (e.g., lower levels of parental education) (22).

Although post-secondary education is a key instrument in addressing societal inequality, research in the United Kingdom on the impact of race and class on post-secondary choice has demonstrated that:

...the field of higher education is still far from a level playing field. ... despite increasing numbers of working-class students, in particular those from minority ethnic backgrounds, applying to university, for the most part, their experiences of

the choice process are qualitatively different to that of their more privileged middle class counterparts (Reay et al, 2002: 871).

Although the class system may arguably not be entrenched in quite the same way in Canada as in the UK, research emphasizes that

...the combination and interplay of individual, familial and institutional factors produces very different ‘opportunity structures’. Behind the very simple idea of a mass system of higher education we have to recognize a very complex institutional hierarchy and the continued reproduction of racialised and classed inequalities. Higher education is not the same experience for all, neither is it likely to offer the same rewards for all (Reay et al, 2002: 872).

Disability

Junor and Usher (2004) note that many Canadian institutions

...define as “disabled” any person who, because of a persistent/permanent physical, sensory, speech/communication, health/medical, psychological/psychiatric, developmental, learning or other disability, experiences difficulties in accessing employment, education, or community participation (59).

Butlin’s (1999) research into the factors related to post-secondary education participation concluded that individuals with activity limitations were less likely to participate in post-secondary education. More specifically, when controlling for other factors, he concluded that high school graduates reporting an activity limitation were less likely to go to university than graduates without an activity limitation, but that activity limitations had no impact on participating in college or vocational/technical training.

Using the 2002 Canadian University Survey Consortium and Canadian College Student Surveys, Holmes (2005) concludes that post-secondary students with disabilities are more likely to have family responsibilities and to be older than other students (see also Junor and Usher, 2004). Students with disabilities between the ages of 20 and 34 are also more likely to be female. The severity of the disability is also an issue when assessing individuals’ access to post-secondary education, and Junor and Usher (2004) conclude that while there appears to be an overrepresentation of disabled students in both colleges and universities based on national surveys, it is likely “...that students with “severe” disabilities are in fact underrepresented in post-secondary education” (60).

OECD research has confirmed the importance of providing supports – both institutional and financial – to those with disabilities in order to increase their participation in post-secondary study (2003). Financing is often reported as the first barrier to participation for potential students with disabilities; with such institutional barriers as physical inaccessibility following. The lack of links between high school and post-secondary institutions, and between post-secondary institutions and the world of work for disabled people also have an impact on the student’s ability to make good choices for the future.

Distance to a Post-Secondary Institution

Researchers argue that distance is an important factor when it comes to accessing post-secondary education. It has been examined in terms of its interactions with gender, family background (particularly income), community characteristics, and its impact on institutional and/or program choice.

Recent studies by Frenette (2003, 2002) have focused on the impact of distance from a post-secondary institution on participation. In his 2002 study, Frenette argues that distance to post-secondary institutions, particularly to universities, has a discernible impact on whether or not young people living 80 km or farther away from an institution go on to post-secondary study. Using the Survey of Labour and Income Dynamics, Frenette (2002) finds that distance matters more for students from families with lower income. When distance greater than 80km is factored in, students from the top third of family income groupings are six times more likely to go on to university than those from the bottom third.

More than 50% of Saskatchewan residents live further than 80 km from the nearest university. However, Frenette (2003) notes that distance is not such an issue for Saskatchewan residents when it comes to colleges. Almost half (48.8%) have both a university and a college nearby, almost another half (47.8%) have a college nearby, and only 3.5% of the Saskatchewan population has neither a college nor a university within commuting distance.⁴

As with other factors impacting access to post-secondary education, Frenette (2003) highlights the need to understand these barriers as being interconnected. He argues that distance matters because it exacerbates financial costs, emotional costs (associated with leaving social networks), and incomplete information about the value of university education due to the fact that there is a limited number of university-educated role models in communities farther away from a university (see also R.A. Malatest and Associates, Ltd., 2004). However, he emphasizes the overwhelming importance of distance, noting that "...students with a university-educated parent are just as deterred by distance as students without a university-educated parent are" (2).

Earlier research conducted by Butlin (1999) noted that students attending high school in rural areas were less likely to go to university, but more likely to go to college than those in urban centres. Finnie, Lascelles, and Sweetman (2005) also conclude that living in a rural area during high school decreases an individual's likelihood of going on to university study. As with the Frenette research, the researchers found that distance had little impact on college access. This research is further confirmed by Dubois (2002), who argues that the fixed costs of university are higher for those who must relocate to attend.

⁴ Frenette (2003) compares this to the overall Canadian situation: 86.7% of Canadians have access to a university and a college nearby, 10.6% have access to a college only, and 2.7% do not have a university or a college nearby (7).

Finally, in the Alberta Advanced Education and Career Development's 1995 High School Survey, researchers found that rural students were less likely to continue on with post-secondary education than urban students, and that those rural students who did continue on were more likely to choose colleges and technical institutes than those in the major urban centres (in Hemingway and McMullen, 2004).

Rural versus urban locations seems to have an impact on potential students' expectations as well. Andres and Looker (2001) found that rural youth in Nova Scotia and British Columbia were less likely to expect to study beyond high school, and more likely to expect to go to non-university post-secondary education. They were less likely to expect to complete a university degree. The researchers note that there are many explanations as to why the expectations of rural high school students may be lower, including labour market differences, community exposure, relocation fears, and community disconnect; but that structural barriers such as family background are also important factors and should be monitored and addressed.

The impact of community characteristics (including the presence of role models) on participation in post-secondary education has also been explored by Cartwright and Allen (2002), using data from the 2000 Programme for International Student Assessment (PISA) (see also Rahman and Situ, 2006). They found that urban students did better in reading than did rural students, and were influenced greatly by the average educational attainment in the community, the community employment rates, and the educational requirements and earning capacity of jobs in the community. R.A. Malatest and Associates Ltd. (2002) found that only 12% of youth aged 20 to 29 years in the western provinces had a university degree, while 43% had some post-secondary education and/or a trade certification. This reality is likely to have an impact on what younger people see as possible.

Michael Coelli's (2004) research on tuition fees and inequality also emphasized the importance of neighbourhood characteristics (including average education and income levels of neighbours) as significant predictors of post-secondary education attendance. Further, EKOS Research Associate's 2005 survey of First Nations residents on-reserve identified the absence of role models who have post-secondary education experience as a significant factor influencing the participation of First Nations youth in post-secondary education (*Changing Course*, 2005). When trying to assess factors influencing participation, the impact of an individual's environmental and community context cannot be underestimated.

There is an important gender differential that has been observed in various research pieces dealing with distance, geographical location, and post-secondary participation. In particular, young females seem to be more deterred by distance than young men (Frenette, 2003; Andres and Looker, 2001). However, others such as Dubois (2002) modeled youths' educational choices using the 1995 School Leavers Survey and found that rural young men were less likely to go on to university than those living in urban centres, while young women in rural and urban centres were equally likely to go on to university. However, research shows that after a distance of 80km from a university,

male and female students are equally likely to participate in university education. When individuals are located between 40 and 80km away from a university, females are more likely to access a university.

Evidence from the 2005 Canadian Undergraduate Survey Consortium Survey of first year University of Regina (U of R) students seems to support the argument that geography matters: over half (53%) of students who highlighted personal motivations chose the U of R because it was close to home, and a further 39% pointed to the accessibility of campus from home (Office of Resource Planning, University of Regina, 2005). Of all students, almost one-third (31%) reported wanting to live close to home as the most important motive for attending the U of R.

Finally, there is a question in the literature around whether or not distance influences program/career choices: whether the local college becomes the default post-secondary choice because of students' lack of resources, for example. According to Dubois (2002), Saskatchewan, PEI, Ontario, Nova Scotia, Manitoba, and Newfoundland and Labrador people are more likely than those from other provinces to enroll in university. She argues that this may be due, at least in part, to the fact that other provinces have invested more heavily in colleges than in universities over the past decade.

Distance from a college does have an impact on post-secondary participation. Frenette (2003) notes that when a college is within commuting distance, students from lower and middle-income families are more likely to stay in their communities and commute to the college. Students from the top income tier are not influenced by distance: they are still more likely to go to university. Thus, overall, the participation rates among urban and rural students balance out: however, Frenette argues the access issue becomes whether or not these students attending a college have the ability to go to a university or another college outside their region (see also Hemingway and McMullen, 2004). If not, their access is limited by distance.

An alternative perspective comes from Andres and Looker (2001), who suggest that it is necessary to think carefully about whether or not low post-secondary participation and completion rates among rural youth is really problematic: perhaps it is a reflection of the quality of life perspective, rather than the economic rationality usually associated with post-secondary education decision-making literature.

In the US literature, Leinbach and Bailey (2005) highlight the debate around the impact of two-year colleges on access. Some argue that two year colleges impede access because they attract those with lower financial resources and those within the geographic area of the college who might otherwise go on to a four-year degree, while others noted that shorter local programming facilitate participation for those who might not have enrolled in a four-year degree.

In the United States, community colleges were created specifically to "...serve students who were not readily admissible to the university, students with limited financial means, poor academic records, language differences, and family concerns that make it hard for

them to attend four-year institutions” (Walker, 2001: 2). Many argue that community colleges should expand their range of programming in order to better accommodate the needs of the students in their geographical areas, rather than requiring them to transfer to other institutions to complete their chosen program (see Walker, 2001). For Canadian students, Looker and Andres (1999) highlight some of the similar issues associated with transferring between colleges and universities, including lost credits, lack of information about the process, and declines in grades.

High School Experience

The importance of high school in impacting decision-making and one’s ability to participate in post-secondary education overall has been emphasized in the literature. A number of factors are often examined, including the role of academic achievement, attitudes toward and experiences in school, involvement in extra-curricular activities, and part-time employment. These factors are often considered in conjunction with other characteristics, such as gender and family background.

Academic Achievement and Attitudes Toward School

High school experiences are very strongly linked to individuals’ participation in post-secondary education. Their achievement (including grades and completion of high school), their attitudes toward school, and their participation in extracurricular activities and employment all have an impact on future post-secondary participation. Family background interacts with high school experience as well. Krahn and Andres (1999) argue that

...social class advantages appear to be passed from one generation to the next, to a large extent, through the high school tracking system, since high school academic program is a strong predictor of postsecondary participation and completion (47).

Research undertaken by Statistics Canada into high school academic engagement showed that young females were more likely than males to show attitudes and behaviours that indicated greater academic engagement in school. More young women were likely to report getting along with teachers, finishing their homework on time, and being interested in what they were learning in class. They were less likely than males to think that “...school was a waste of time” (McMullen, 2004: 3). In addition, Finnie, Lascelles, and Sweetman (2005) argue that boys are worse off than girls in terms of the intermediate variables impacting post-secondary attendance: “they fail more often, have lower high school grades, enjoy school less and find it less interesting, and get along with teachers less” (23).

There appear to be gender differences in terms of self-assessed skills among young men and women as well. Results of the Programme for International Student Assessment (PISA) showed that...

...higher proportions of young women than young men judged their skills to be very good/excellent in reading and writing and to a somewhat lesser extent, in communication skills. In contrast, larger proportions of young men rated their problem-solving, math and computer skills as being strong than young women did (McMullen, 2004: 3).

As might be expected, the research shows that students with lower grades (those below 70%) in high school were less likely to go on to post-secondary education than students who reported grades of 70% and above (Barr-Telford, 2004: 6).

High school completion is required for many post-secondary paths, and is an important predictor of post-secondary participation. According to the Youth in Transition Survey, Saskatchewan has a higher high school completion rate by age 22 than the average across the country (Brink, 2005). Drop-outs who returned to high school and then went on to post-secondary education were more likely to go to college/CEGEP, technical or trade schools, or private vocational/training institutions than to university. However, others note that students who feel like they were not well enough prepared academically in high school were less likely to go on to post-secondary study at all (R.A Malatest and Associates, Ltd., 2004).

Using the Youth in Transition Survey, Shaienks et al (2006) conclude that there are differences in why high school students drop out, and these differences impact their future participation in post-secondary education. Male youth were more likely to drop out because of work reasons, while female youth were more likely to drop out because they were pregnant and/or had to look after a child. Drop outs who return to school and move on to post-secondary education often find it difficult to return to school with age, and were likely to be working full-time or part-time and returning to a non-traditional institution (Shaeinks et al, 2006; Brink, 2005).

Riddell (2003) argues that by increasing the capacity of educational institutions, access could be improved

...because high school achievement is positively correlated with family background. The higher grades received by students from wealthier families may reflect receipt of more support while attending school and prior to attending school, as well as attending better schools (66).

Increasing capacity would be accompanied by a decrease in admission standards, thus benefiting those without the privileges associated with wealth.

Coelli (2005b) also argues this point. Using Labour Force Survey data, he finds that cohort sizes negatively impact university attendance, particularly for low-income youth. As cohort sizes increase and the demand for university spaces increases, entrance standards become more stringent. This has a dramatic impact on youth from lower income backgrounds, who have not benefited from the social capital accessible to families with higher incomes. In *The Price of Knowledge*, Junor and Usher (2004)

report that nearly 13% of Canadian university applicants are not offered admission (based on research by Ken Snowdon). They also note that although students might be admitted to their chosen institution, they may not be admitted to their program of choice.

Corak, Lipps, and Zhao (2003) argue that since increasing tuition fees and lagging student support do not seem to have impacted post-secondary education participation between 1990 and 1997, it may in fact be an increase in admission standards that creates a stronger link between family background and participation in particular institutions or fields of study. Thus while participation overall may not be impacted by tuition fees, it is possible that the background of the students participating in particular programs (generally higher cost, professional programs) will change.

Evidence from the United States points to the importance of academic preparation for post-secondary participation and success. Leinbach and Bailey (2005) argue that "...minority, immigrant, and low-income students [are] disproportionately less well prepared for post-secondary education and generally score lower on standardized assessment tests" (4). It is argued that this has an important impact on how we think about access to post-secondary education, and what supports might be needed to help students succeed.

The importance of academic ability as a reflection of other factors is emphasized in much of the US literature. In research conducted for the US Department of Education, Learning Point Associates (2004) states that "...academic ability appears to be the product of exposure to the demands of specialized cultural experiences – schooling being the most common – that interact with a wide variety of human potentials" (7). They argue that there are supports that must be provided to help students maximize their abilities and therefore their academic and career successes.

Employment During High School

Employment during high school is also related to access to post-secondary education. Finnie, Lascelles, and Sweetman (2005) conclude that working too much in high school is likely to impact a student's likelihood of going on to post-secondary studies (23). However, working a moderate number of hours is linked to higher levels of participation in any post-secondary education for both males and females, and is linked to increased levels of university participation among females.

Parental Expectations

Overall, Canadian parents expect their children to attend a post-secondary institution. Recent research on parental expectations has found that 95% of Canadian parents believe an education after high school is important and 93% had expectations that their children would go on to some form of post-secondary education after high school (Shipley et al, 2003). These expectations vary based on the gender of the child, parental education, and the child's age, but overall, parents want post-secondary education for their children.

deBroucker and Lavallee (1998) argue that parental expectations are key to post-secondary participation:

Parents also contribute to their child's education by passing on attitudes and expectations, providing encouragement and opportunities to learn, helping outside the classroom, standing as positive role models, and so on (24).

These important parental expectations are also visible in various communities. Recent research by the Canada Millennium Scholarship Foundation found that the educational aspirations of First Nations people living on-reserve were high: about 70% of those aged 16 to 24 hoped to complete post-secondary education, while almost 80% of parents want their children to do so (*Changing Course*, 2004: 2).

Referring to COGEM Research Inc's research with post-secondary non-attendees, Looker (2002) argues that family members are important role models for young people, sometimes in a positive way by encouraging them to go on, and sometimes in a negative way – discouraging them from considering post-secondary education.

However, Junor and Usher (2004) note that the 2002 Survey of Approaches to Educational Planning shows that there are slight differences between urban and rural parents' expectations for their children. Slightly more urban parents (96%) expect that post-secondary education is in their children's futures, while 90% of rural parents do so. Parents from rural areas are also slightly more likely to expect their children to attend a community college rather than a university.

EKOS (2006) found that for many parents, post-secondary education means university education. However, Saskatchewan parents are more likely to see a variety of educational possibilities – including vocational/technical/trade schools as an option for their children than do parents in other provinces.

Information and Guidance

For many students, the decision whether or not to attend a post-secondary institution is related to their having decided on a career goal. Much of the literature argues that career and educational guidance and information needs to be provided through the public school system (in a better way) and it needs to involve parents and families in order to be truly successful, particularly for those students who may be facing additional barriers to participation in post-secondary education (Looker and Lowe, 2001; COGEM, 2002; Canadian Career Development Foundation, 2003; others).

However, Looker (2002) argues that the research shows

...school officials (teachers and/or counselors) play an important role for only a minority of students. Several of the students in the COGEM study were critical of the information made available to them – or not made available to them – through their schools (10).

When people have access to information on post-secondary education is an important piece of the puzzle. Thinking about how information is best delivered is an important question that comes out of this research.

Financial Considerations

In the opening discussion around factors impacting participation in post-secondary education, it was noted that much of the research focuses on an interconnected range of factors that impact access and participation. Discussion of financial barriers is not limited to this particular section: rather, the impact of finances, whether as student financing of education, parental background and financial supports, or issues with the student financial assistance system, run throughout the bulk of this review as it does through the literature.

Financial Barriers and Incentives

Financial barriers to participation in post-secondary education, while related to other factors such as family status, family income, etc., are important pieces of the access and affordability puzzle. Foley (2001) argues that educational costs are a major deterrent to the pursuit of post-secondary education. According to Bowlby and McMullen (2002), approximately two out of three young Canadians aged 18 to 20 who faced barriers in pursuing their education reported financial barriers, whether or not they actually enrolled in post-secondary education.

Using the 2002 Post-Secondary Education Participation Survey, Barr-Telford et al (2003) reported that almost four in ten (39%) of the young respondents who had not started post-secondary education reported facing financial barriers to participation while a further two in ten (22%) reported “lack of fit” with available programs (7).

Financial barriers also impact various communities more profoundly. In a 2005 survey of First Nations people living on-reserve in Canada, EKOS Research Associates found that financial barriers were most often reported by First Nations youth not planning to go to post-secondary as holding them back from participation. Although this research involved a small sample, the results indicate the importance of financial barriers to access. Almost six in ten (59%) of those not planning to participate said they had to work to support their family while 40% reported not having enough money (*Changing Course*, 2005).

Usher and Junor (2004) argue that although much of the research presents financial barriers as being uniform, in fact there are three kinds of barriers: price constraints, cash constraints, and debt aversion. Price constraints affect those who believe that the price of education (including tuition and opportunity costs) is too high for the possible benefits of that education, while cash constraints refer to the inability to pay – or to access the cash – for post-secondary education. Finally, debt aversion refers to those who are unwilling to borrow to finance their education, for a number of reasons. The literature around debt aversion is more fully discussed in the “Issues with Student Financial Assistance” section

of this review. As is noted in the research, the form that financial barriers take has implications for the kind of policy options and interventions designed to address these barriers.

Parental Savings

Saving for post-secondary study is an increasingly investigated indicator of post-secondary participation. According to the 2002 Survey of Approaches to Educational Planning, Saskatchewan parents want to save for their children's educations. Over half (59%) of Saskatchewan parents interviewed are currently saving for post-secondary education, while an additional 24% indicate that they will be saving. Only 17% of parents with children under 18 are not saving, or intending to save, for their children's future education (Shipley, Ouellette, and Cartwright, 2003).

When parents were asked how important saving for and paying for children's education was, EKOS (2006) found that this is parents' third most important financial goal, behind paying off major debts and saving for retirement. It is more important for those with university-attending children, those with students living at home, urban parents, parents in Ontario and Atlantic Canada, and for parents of students aged 18 to 21. The importance of saving for this education is related to parents' household income.

Saving for education is also related to the financial means of a family, and both the incidence of saving and the amount saved increases with family income. According to EKOS' 2006 *Investing In Their Future* survey, saving is more common among parents of university students (versus college students), students studying in Alberta, and younger students who live at home. In addition, high income earners, dual-parent households, households with parental post-secondary education, and parents that are highly involved in their children's finances are more likely to have saved money for post-secondary education.

While it seems that many parents are saving for their children's post-secondary education, it is not clear that saving equals participation. The Post-Secondary Education Participation Survey of 2002 found that while almost three-quarters (74%) of all young Canadians reported having access to savings (their own or their parents), only half (50%) of young Canadians had attended post-secondary studies (Barr-Telford et al, 2003). Thus, it seems that having access to savings does not, in and of itself, determine participation in post-secondary studies. There may be other factors at work, including how much is being saved and for what purposes.

Parental expectations seem to be caught up with parental savings, at least to a degree. Barr-Telford et al (2003) found that young Canadians were more likely to go on to post-secondary study if they felt their parents wanted them to do so (67% compared with 34%).

Recent research by EKOS Research Associates highlights the differences between and among particular communities when it comes to saving for post-secondary education.

EKOS found that almost four in ten (39%) First Nations parents living on-reserve were aware of or actively participating in post-secondary education savings for their children, as compared to the rate of over 70% in Saskatchewan overall (*Changing Course*, 2005; Shipley, Ouellette, and Cartwright, 2003). Junor and Usher (2004) note that parents in rural Canada also seem to save more than those in urban centres, perhaps because rural families know that their children may have to move to attend a post-secondary institution. However, EKOS's (2006) most recent survey of parents found that in fact rural families were less likely to have saved for post-secondary education (32% compared with 39% of urban families).

EKOS (2006) asked non-saving parents why they had not saved for their children's education, and found that a majority of these parents were unable to provide financial support. In addition, although many parents seem to be saving for their children's post-secondary education, they also indicate that their children will contribute to their own education through work (before and during studies – 80% and 66%), taking out loans (36%), receiving scholarships or academic awards (40%), and need-based funding (29%). Just under one in ten (8%) also indicated that their children would need to interrupt post-secondary education in order to work (Shipley, Ouellette, and Cartwright, 2003).

In the recent EKOS (2006) survey of parents, Manitoba and Saskatchewan parents reported saving for an average of 12.6 years for their children's education – a bit longer than average, in part because students in these provinces tend to be a bit older than average. They were more likely than parents from other provinces to report that their children had the means to support themselves or that they are supporting their children in other ways.

Labour Market

Financial forces external to the individual may also have an impact on whether or not they participate in, and complete, post-secondary study. Dubois (2002) argues that labour market conditions affect participation in part because they have an influence on opportunity cost. When wages (and labour market demand) are high, people are less likely to participate in post-secondary education.

Research undertaken by COGEM Research Inc. found that friends' experiences with the labour market were also important in influencing individuals' choices to participate in post-secondary education: "When young people saw friends who had no PSE making good money in a secure job, this influenced their perception of the potential benefits of taking additional education themselves" (Looker, 2002: 8). In addition, Statistics Canada (2006) recently reported that the "...average real earnings since 2000 have increased at a faster pace for young, less-educated male workers than for any other group, including university graduates" (1). Although the income gap between less-educated males and more-educated males still exists, that gap is closing and may be having an impact on the choices facing young men in particular.

Knowledge and Perceptions

Usher (2005a) argues that Canadians in general, and those from lower income backgrounds in particular, may be viewing post-secondary education as an unwise investment. Using data from the 2003 Ipsos-Reid survey of Canadians (published by the Canadian Millennium Scholarship Foundation in 2004), Usher reports that Canadians in general and those from lower income backgrounds in particular overestimate the average cost of a year's tuition fees and are likely underestimate the financial benefits of achieving a post-secondary education. However, given the variation in tuition fees by province and the variation in the salaries of post-secondary educated workers which are impacted by age, stage of career, profession, etc, there are concerns about how these conclusions were drawn. In spite of these concerns, the argument that perceptions matter and have an influence on post-secondary participation and completion contributes to the discussion around barriers to access and affordability.

However, Rahman and Situ (2006) argue that research shows "...significant differences between average earnings of PSE participants from different parental income backgrounds" (33). Thus, when assessing whether or not low-income families underestimate the returns to investment in post-secondary education, their perceptions should be measured against the average earnings for their income grouping, rather than against the average for the entire population.

Finnie (2004) argues that there are demand and supply-side factors that determine whether students go on to post-secondary study. Particularly, students go to university if "...they perceive that the benefits outweigh the costs, and they have the means of paying the associated out-of-pocket expenditures..." (4) But wanting to go is not enough: the student cannot go without an existing place for him/her in the chosen institution and the student must satisfy the entry criteria in order to participate.

Other research also advocates a balanced approach to the impact of knowledge and information, arguing that information must be tied to financial assistance:

...While information on its own is no substitute for adequate financial assistance, a lack of good information may discourage some students from participating in post-secondary education. Others may embark on their studies poorly prepared to meet the full costs that await them. Either way, the transition to post-secondary education is more difficult than it need be (*Closing the Access Gap*, n.d.: 7).

4. Factors Impacting Retention and Completion

As important as participation in post-secondary education is the ability of participants/learners to complete a post-secondary education program and earn the relevant credential. Barr-Telford et al (2003) note that when "...individuals increase their earnings and employment prospects and society gains a more highly skilled

workforce. Leaving post-secondary education prior to completion thus implies a loss of investment both for individuals and society” (10).

Many of the factors that influence access to post-secondary education also influence retention (persistence) and completion. Research shows that students leave a post-secondary program for many reasons. The most commonly cited in the research are financial reasons and “lack of fit”. Referring to results from the Youth in Transition Survey, Barr-Telford et al (2003) includes the following in their definition of “lack of fit”: not having enough interest or motivation, not being sure what they wanted to do, wanting to change programs or that the program was not what the youth wanted. Financial reasons are often defined to include general financial situation, could not get a loan, and wanting or needing to work. In addition, institutional factors – characteristics and supports associated with a particular post-secondary institution – have also been shown to have an impact on persistence.

Program Fit

Understanding lack of program fit is an important part of understanding why youth leave post-secondary institutions before completing the program they were enrolled in. According to Lambert et al’s 2004 assessment of the Youth in Transition Survey, 9% of youth who left post-secondary studies wanted to change program or institution.

Several researchers have discussed ways of addressing lack of program fit, and what might have led to this improper fit. In an unpublished paper on the importance of career development strategies, Rosove (2005) argues that “...lack of program fit suggests that students entered a program that, with proper counseling and labour market information, they would be less likely to choose” (2). Career development counseling is seen to be a key component of reducing lack of fit, particularly for youth.

Finances

Financial issues are also important when thinking about completion and retention. The need to meet educational and living costs, whether through working part-time or reducing courses taken, may increase the possibility that a student will not complete his/her program of study (Hemingway and McMullen, 2004). Lambert et al (2004) report that approximately one in ten young post-secondary students who left post-secondary study left because of a lack of financial resources.

Others, however, have found that financial reasons may be less important for understanding persistence than for initial participation decision-making. In research done by Foley in 2001, over three-quarters of youth asked why they did not attend or complete a post-secondary education reported non-financial reasons. However, the most frequently cited reason was “did not have enough money to continue” – reported by 23% of respondents – which indicates the importance of finances as well as non-financial reasons (Foley, 2001). Foley’s research showed, however, that finances were more important for

an individual's original decision to pursue a post-secondary education and a less important role in post-secondary persistence.

Using data from six Canadian universities, McElroy (2005) concludes that student debt does have an impact on persistence and completion. Students who received high levels of student loans were more likely to leave post-secondary education without completing, while those who received a greater proportion of grant-based funding were likely to continue on and complete. Ultimately, as debt increases, persistence declines. McElroy speculates that this relationship may be evidence of debt aversion and/or the impact of unmet need and financial hardship for some students.

Personal and Family Characteristics

Personal characteristics, such as gender, are also related to retention and completion. Researchers note that post-secondary graduation rates, which measure the percentage of graduates among people at the 'typical' age of graduation, generally have risen for both men and women across all fields of study. However, by 1998:

...the bachelor graduation rate for women was 26% compared to 21% for men. At the master's level, the female graduation rate almost doubled in seven years, rising from 3% in 1991 to 6% in 1998, when it surpassed the rate for men (5%). Only at the doctoral level did the graduation rate remain higher among men than among women (1.2% compared to 0.7%). For both men and women, the rates doubled in the seven years leading up to 1998 (McMullen, 2004:5).

Using the Youth in Transition Survey, Lambert et al (2004) concluded that there were certain personal characteristics that were associated with a student dropping out of post-secondary studies. They found that men, married students, and those from families with lower levels of education were more likely to leave before completing their programs. Additionally, those who were less engaged in high school, with lower high school grades, and were less engaged in post-secondary were also more likely to leave. Finally, parents' attitudes and educational levels also impacted on the likelihood that post-secondary students would continue on in post-secondary study. This reinforces work done earlier by Krahn and Andres (1999), who concluded that Edmonton and Vancouver high school students with university educated parents were both more likely to go on to university and to complete their post-secondary programs.

In a study of Aboriginal peoples and post-secondary education, R.A. Malatest and Associates, Ltd. (2004) conclude that the key factors impacting the retention of Aboriginal students in post-secondary institutions are family and personal issues. The stress of post-secondary education was exacerbated by complex responsibilities and often moving to urban centres, away from the support of family and friends.

Institutional Factors

The institutional setting, and the ways that post-secondary institutions support students seems to be of particular importance for students facing more challenging transitions to post-secondary study, including Aboriginal students and those with dependents.

Alcorn and Levin (1998) argue that although equality of access (or opportunity) is now generally accepted and supported through student financial assistance, distance education, and off-campus programming, the onus for failure or success is still left almost entirely on the student. The researchers argue that "...acceptance of the idea of equality of condition requires that post-secondary institutions assume some responsibility for students' success as well as entry, with all the changes that implies..." (7).

Ways of supporting First Nations students in a university setting to help ensure that they are able to actively participate in and complete their programs have been identified in recent literature. Based on their research with students at FNUC/U of R, Hampton and Roy (2002) emphasize the importance of the position professor/student relationship, and argue that relational factors may be more salient for First Nations peoples than for non-First Nations people (see also Schwartz and Ball, 2001). By understanding the importance of these relationships, the need to include First Nations content in curriculum while appreciating different approaches to learning and evaluation, and possible inclusion of such approaches as having a role for Elders in the classroom, it is possible for post-secondary institutions to do a better job supporting First Nations students in a sometimes hostile environment (Hampton and Roy, 2002; Schwartz and Ball, 2001).

Research focusing on students with dependents also highlight the need for institutionally-provided/located supports such as child care services, counseling and family support programs, family housing, student associations and cultural centres, food banks, health care services, financial supports, transportation programs, and family centres with diaper changing tables (Georgian College Institute of Applied Research and Innovation, 2005). Having these service located on campus where they are easily assessable for "one-stop shopping" facilitates access for students with dependents in particular, but will also help to meet the needs of other students. In addition, Georgian College Institute's (2005) research shows that other institutional adaptations like continuing continuing education programs and distributed learning, full/part-time enrolment options, and flexibility in educational programming and assessment are important to students with dependents.

In research undertaken in the UK, Sandra Winn (2002) notes that there are a number of motivation-enhancing approaches to teaching that can help support students with demanding family or employment commitments succeed in post-secondary education. However, she concludes that these efforts will not succeed

...unless they are located within a framework set by government, which is effective in targeting financial support towards these students whose childcare responsibilities impeded their capacity to study, and which provides greater incentives for part-time study (Winn, 2002: 455).

Defining Success

Although the literature traditionally defines post-secondary success as the completion of a program and the receipt of the relevant credential, Hampton and Roy (2002) also note that it is important to understand how First Nations peoples define post-secondary “success”. Rather than thinking about it as an individual act, success may include the “...relational dimensions of family and community as well as temporal dimensions such as contributing to multiple generations” (10). Others (R.A. Malatest and Associates, Ltd. 2002) have noted that success may not be as easy to define as the completion of a post-secondary credential. Rather, completing a portion of a credential may be considered success for some, as long as there is a positive sense of direction for the person’s journey. The focus is on the process, or the journey, rather than the short-term achievement (Hampton and Roy, 2002; Holmes, 2005).

This problem of measuring “success” is reflected in the literature from the United States as well. Researchers such as Bailey, Jenkins, and Leinbach (2005) argue that many students in the community college system in particular have different goals for themselves, which may or may not include completion of a credential. Individual students may assess their participation in post-secondary education as a success, not just completion. In addition, students may leave without completing a credential because they are “sampling” colleges which are less expensive and located closer to their homes. Finally, some students have specific goals that can be met by taking a small number of courses rather than completion of a credential.

It is also necessary to understand when and whether students leave post-secondary education for good, or if they are “stopping out” and intend to come back. According to Lambert et al (2004), a sizable proportion of young people participating in the Youth in Transition Survey reported leaving post-secondary education (15% of youth aged 18 to 20 in December 1999). However, almost 40% had returned to post-secondary studies in the following two years, aged 20 to 22. Importantly, women were more likely to return than were men.

Family type is important when considering the students’ background (including parents), but also when thinking about the student him/herself and whether or not s/he has children and/or a spouse. Holmes (2005) concludes that most students enrolled in university and college in 2002 are married or in a long-term relationship, and that many will attend post-secondary education on a part-time basis. These students are more likely to interrupt their education for employment, financial, or family reasons, but tend to succeed academically. These students are also more likely to have student debt, and are likely to have accumulated the highest levels of repayable debt.

In EKOS Research Associates’ (2006) *Investing in Their Future* survey of students and parents, researchers report that just over one-third of post-secondary students (35%) have interrupted their studies at some point – this likely reflects the diverse student population including graduate students, older students, and part-time students. The most commonly cited reason for this study interruption was lack of money. These figures indicate the

need to think about the multitude of pathways people can and do take in post-secondary education.

5. The Costs and Financing of Post-Secondary Education

Costs of Education: Educational Costs and Living Costs

When the costs associated with accessing and completing post-secondary education are discussed in the literature, researchers generally divide them into educational costs (including tuition fees, books, supplies) and living costs (accommodation, utilities, etc). Many have noted that the living costs are the more substantial of the categories, which require the greatest expenditures – particularly for those living away from home (Frenette, 2003; Junor and Usher, 2004; Barr-Telford et al, 2003).

Based on the 2002 Post-Secondary Education Participation Survey, Barr-Telford et al (2003) concluded that post-secondary students aged 18 to 24 were likely to report spending more money on food, accommodation, utilities, and other non-educational expenditures during the academic year than on tuition, fees, books and supplies (\$5,400 compared with \$3,700). Overall, university students tended to spend more than college students for both educational and non-educational expenses, but particularly more so on tuition, fees, books, and supplies.

Students living at home (with parents or guardians) were more likely to face reduced costs during the academic year. Barr-Telford et al (2003) found that the

...median non-educational expenditure of full-time university or college students living at home was about half of that of their counterparts living away from home (\$4,500 compared with \$8,160 for university students and \$3,700 compared with \$8,100 for college students) (12).

Work done by Hemingway (2004) using EKOS data concludes that “...living away from home has large financial consequences” (5). Living costs are identified by many as an important barrier to post-secondary access. In a study of First Nations University of Canada students, Thomas Prokop and MacDonald (2004) found that many were concerned about accessing worry-free childcare, transporting children to and from care, and the ability to access suitable housing on a fixed income that is close to important amenities like grocery shopping. These important elements of living were particularly challenging for those who had moved into urban areas to attend a post-secondary institution. Many reported that it was difficult to balance academic success with family commitments, particularly when worrying about childcare and housing (see also Wallace, Maire, and Lachance, 2004).

Access to safe, good quality housing is of vital concern to many groups of students, particularly those with families. In a study involving Métis students in Saskatoon, researchers concluded that the housing needs of these students were not being met. This

has implications for retention and completion of post-secondary programs. While slightly more than half (52%) of the students participating in the study had moved to attend a post-secondary institution, almost half (46%) had reported facing problems finding affordable housing in a good location and having trouble negotiating policies related to rental accommodations in the city (Broxbourne International, 2004).

Research on the Saskatoon housing market has shown an "...affordability gap between what students have available in income to pay for rent and the cost of rent on the market" (Wallace, Maire, and Lachance, 2004: 37). One of the solutions suggested for this problem is the creation and expansion of community or post-secondary institutional housing designed to accommodate not only single students, but students with families.

Impact of Increasing Tuition Fees

Tuition fees have increased substantially over the past fifteen years, and many provincial governments have moved to address public concerns about post-secondary education affordability. However, contrary to many of the concerns around rising tuition fees, recent research finds that tuition fee increases have not have an equally negative impact on all potential or current students. Usher (2006a) argues that in real dollars, when taking tax credits into account, tuition fee increases have had minimal impacts for individuals from middle and higher income backgrounds, but more pronounced impacts for those from lower income backgrounds. By including the value of the tax credits (particularly for those more likely to make use of them) and adjusting tuition fees for inflation, Usher argues that tuition fees are not such a substantial problem for most.

However, there is a great deal of disagreement on this issue. Using the Survey of Consumer Finance, Christofides, Cirello, and Hoy (2001) argue that tuition fees do not seem to have an impact on post-secondary participation by family background. In addition, Finnie, Usher, and Vossensteyn (2004) found that there appeared to be no relationship between rates of post-secondary education participation in the 1990s in spite of dramatic tuition fee increases. These researchers argue that tuition fees are among many factors influencing participation and that institutional capacity constraints must also have had an impact on participation. However, they note that there is a need to do further research on participation and tuition fees in a broader context in order to more fully assess this relationship.

In contrast to these conclusions, Dubois (2002) uses the 1995 School Leavers Follow-Up Survey to determine that for every 10% increase in tuition fees, the probability of a high school leaver enrolling in post-secondary education decreases by .9% (24). Further, Coelli (2004) examines differential tuition fee increases in the 1990s, using the Survey of Labour Income Dynamics and tuition fee data. Unlike the Christofides, Cirello, and Hoy (2001) study, Coelli finds that students from lower-income families are more negatively affected by increased university tuition fees. However, Rivard and Raymond (2004) found no such effect. Others have suggested that the results of the Rivard and Raymond study may be impacted by their exclusion of Ontario and Quebec data – especially given that Ontario's tuition fees are some of the highest in the country (see Frenette, 2005).

The most recent research concludes that tuition fees do have an impact on post-secondary participation – particularly on university participation. Recent research by Christine Neill (2005) using the Labour Force Survey also concludes that for every \$1,000 increase in tuition fees, the demand for university places is likely to decrease by 2 to 5% for 17 to 19 year olds. Neill concludes that part-time students and the youngest potential students are most affected by tuition fee increases, perhaps because they are less attached to the university.

Coelli (2005b) also argues that tuition increases have a negative impact on university participation, particularly on the attendance of low income youth. By examining provinces that froze tuition fees and those that increased tuition fees during the 1990s, he finds that the likelihood of lower income individuals attending a university decreased in those provinces that increased tuition fees. However, he also notes that enrolment tended to increase in the provinces that increase tuition fees, in part because they were likely also expanding capacity with the additional revenues and responding to demand.

Additionally, work by Johnson and Rahman (2005) with the Labour Force Survey argues that higher tuition fee levels in the 1990s did serve to reduce the probability of younger people (aged 17 to 24) participating in university education, but particularly had an impact on those aged 17 to 19. Similar to Neill's (2005) conclusions, the researchers estimate that university participation rates of 17 to 19 year olds decreased by between 1 and 3 percent with every \$1,000 increase in tuition fees. These researchers argue that their work, along with that of Neill and Coelli, contradicts the Junor and Usher (2004) claim that tuition fees are not a barrier to access.

Researchers argue that students develop “coping mechanisms” for dealing with fees. Corak, Lipps, and Zhao (2003) argue that students respond to increasing tuition fees and differential tuition fees by:

...choosing a different field of study or a different institution, borrowing more from public or private sources, working more during the summer or during studies, pursuing part-time students or otherwise taking longer to complete studies, saving on other aspects of education costs like living arrangements by for example living at home longer, deciding not to pursue university education and instead going to college, or finally, not pursuing post-secondary education at all and entering the labour market sooner (4).

While the research is often contradictory on whether tuition fee increases limit access to post-secondary education or not, it seems that fee increases have a greater impact on particular groups (such as the young and those from lower income families). However, others have pointed out that in jurisdictions where tuition fees are frozen or reduced, unintended consequences like declines in educational quality may occur (Swail and Heller, 2004).

Some researchers have argued that the proportion of people facing issues with the costs associated with post-secondary education is increasing. MacKenzie (2005) argues that increasing tuition fees and targeted assistance to the lowest income students moves financial obstacles to participation in post-secondary education into the middle of the income distribution range.

There are particular concerns about the impact of tuition fees on students and potential students in professional and graduate programs as well. Over the past fifteen years, tuition fees in professional (e.g. dentistry, law, medicine) and graduate programs have increased at a faster rate than those in undergraduate programs. While participation in these programs has not decreased overall, researchers have asked whether or not the socio-economic status of students has been impacted by these price changes.

Regarding impacts on medicine, Kwong et al (2002) surveyed Canadian medical school students outside Quebec and concluded that the proportion of students with family incomes lower than \$40,000 declined in Ontario between 1997 and 2000 but not in other provinces. Tuition rates associated with Ontario medical school had increased faster during that time period than in other provinces, and the researchers concluded that tuition fees had had an impact on access to medical school.

When studying five Ontario law schools, King et al (2004) found that there had been an increase in participation among students whose families were in the top 40% of income distribution while middle income students' participation declined.

In spite of methodological concerns about these two studies (no control groups, focus on existing students rather than on students "at risk" of becoming enrolled), the researchers have argued that increasing tuition fees have had an impact on participation. According to Frenette (2005), enrolment in professional programs between 1995 and 2000 increased among those whose parents had a graduate/professional degree and among those who had no post-secondary education, the latter possibly due to the existence of financial incentives and supports for very low income students. Those whose parents had a credential below the graduate or professional level became less likely to access professional programs, which seems to support concerns about decreasing middle class access to post-secondary education.

According to Frenette's (2005) work using the National Graduate Surveys of 1995 and 2000, there are certain characteristics associated with going on to professional studies. Students whose parents have a professional degree are more likely to go on, as are those with higher levels of scholarships in the bachelor's degree. Those with a degree in health and the biosciences are more likely to go on to medicine or dentistry as might be expected. Males are more likely to go on, although the gap between male and female participation is closing. Older graduates of bachelor's degrees and those who are married and/or with dependents seem less likely to go on.

Financing Education

Post-secondary students finance their studies in a variety of ways, including through employment income, savings, family support, scholarships, and loans from government and private sources (Allen and Vaillancourt, 2004; Junor and Usher, 2004; EKOS, 2006).

Barr-Telford et al (2003) used data from the Youth in Transition Survey to find that the most often reported source of funding for post-secondary education for young Canadians (18 to 24) was employment earnings from summer and part-time work. Second and third most important were non-repayable funding from parents, a spouse/partner, or other family members and scholarships, grants, and bursaries. Fourth most commonly accessed was government student loans and funding borrowed from private sources.

The Canadian Undergraduate Survey Consortium 2003 Graduating Students Survey also asked students how they financed their post-secondary education. Top sources reported were summer work, parents or relatives, current employment income, and government loans/bursaries (Office of Resource Planning, U of R, 2003). In fact, almost half (47%) of U of R graduating students reported receiving funding from parent/family/spouse, and one-third reported relying on earnings from summer work. Another third indicated that they had received academic scholarships, and just under one-third reported using earnings from current employment (30%), personal savings (29%), and/or government loans or bursaries (30%). Just under two in ten (17%) reported accessing a loan from a financial institution; a higher proportion than the overall average (11%). A smaller proportion than the overall average indicated accessing a university bursary (12% compared with 18% overall). One in ten participated in a co-op program or work term, and a small proportion reported accessing investment income (4%), RESPs (1%), or other sources (5%).

Overall, the 2003 Graduating Students Survey found that a typical student used three sources of financing to pay for their current year's education (Office of Resource Planning, University of Regina, 2003). In addition, most graduating students reported having at least one credit card, and regularly carrying a balance of about \$1,300.

These patterns of financing are similar for college students as well. The 2005 Canadian College Student Finances survey showed that the majority of students (84%) used money that they had personally secured (Prairie Research Associates, 2005). For most, this was from employment income (68%). The next most common sources of funding are personal savings and parental/family supports, followed by government funding – usually student loans (31%). Younger students are more likely to report using work income, personal savings, academic scholarships, and parental supports, much like university students. However, older college students are less likely to rely on those sources and more likely to rely on government assistance that includes Employment Insurance, money from Indian and Native Affairs Canada, training programs, and social assistance (Prairie Research Associates, 2005).

The most recent research undertaken by EKOS (2006) with Canadian post-secondary students found that the largest portion of students' financing comes from employment

earnings (part-time, full-time, summer), at 37%. Government loans make up the next largest share of annual income, at 14%. However, it must be noted that this is the average across all students – not just student loan borrowers. As with employment income, there are students who are not employed and there are some without loans, so these averages are a bit misleading. Loans combined with government bursaries means that government funding provides 19% of annual financing. Savings and investment income make up 14% of financing, and parental/family support provides 15% of income. Private loans make up 6% overall. EKOS (2006) notes that employment financing has increased by \$800 since the 2001-02 survey, as have government loans. Borrowing from private sources and from family remained relatively constant.

Employment

An integral part of financing post-secondary education for many students and potential students is part and/or full-time employment, during studies and/or over the summer. According to recent Statistics Canada research, the "...summer job market has grown at a far slower pace in recent years than the job market for students who held jobs during the school year" (Usalcas and Bowlby, 2006: 5). In the summer of 2005, the employment rate for students who were planning to return to their studies in the fall averaged 57.1%, compared to 46.9% the previous year. During the 2004/05 academic year, students had an average employment rate of 38.9%, up from 31.9% in 2003/04.

Usalcas and Bowlby (2006) conclude that older students (those aged 18 to 24) were more likely to have combined school and work. Female students were more likely to have jobs than male students, which the researchers argue is reflective of the work each gender traditionally seeks. Average hourly wages for full-time students who had jobs during the school year did not change over the last eight years, but older students earned more during the summer than previously because they tended to work longer hours for higher rates of pay. Older female students were more likely to be working part-time than male students (50.5% compared with 40.7%).

EKOS's *Making Ends Meet* Survey (published in 2003) found that approximately two-thirds of post-secondary students were working during the school year, for an average of nineteen hours per week. This was particularly evident among those who lacked parental support and/or student loans. In addition, Hemingway (2004) has suggested that students may take a reduced course load to earn additional funds, which compounds the debt they accumulate to complete their credential.

According to EKOS Research Associates' (2006) *Investing in Their Future* survey, 75% of Saskatchewan post-secondary students worked during the summer. They worked an average of 35.6 hours per week, for an average of 14.9 weeks over the summer (EKOS Research Associates, 2006). In addition, while only half of Saskatchewan post-secondary students reported intending to work during the academic year, 70% reported employment-related income over the year in which the median earnings were \$335.

These inconsistencies are reflected in other analyses of working hours. Over 40% of Saskatchewan full-time students were likely to be working during the academic year, up from approximately 38% in 1998 (Usalcas and Bowlby, 2006). Just under 60% of Saskatchewan students were working over the summer months in 2005, up from just over 50% in 1998. There are discrepancies in these numbers, however. The Canadian Undergraduate Survey Consortium's 2003 Graduating Students Survey found that about 60% of university graduates were currently employed, and working an average of almost 19 hours per week (Office of Resource Planning, University of Regina, 2003).

Further, students are working longer hours. In 2004/05, students spent 15.3 hours per week at their main job, compared to 13-14 hours in the 1980s and 1990s. Statistics Canada gathers information on students' main job, so it is also possible that some students will have additional work hours (and jobs) that have not been recorded here. Finally, employment rates for both in-school work and summer employment were above the national average in the Prairie provinces, meaning that prairie students were more likely to be employed full and/or part-time during the year (Usalcas and Bowlby, 2006).

Neill (2005) argues that increases in educational costs, including tuition fees, have an impact on the amount of hours that students work. However, she argues that for some, this is not a negative thing: in-school work experience has a positive impact on future earnings. For others, though, an increasing number of working hours means a greater likelihood of discontinuation. According to Neill's work with the Labour Force Survey, approximately 45% of full-time college and university students are working. In particular, older students are more likely to be working more. Neill (2006b) also finds that increased working hours are directly related to tuition fee increases, particularly for middle and higher income students. She suggests that the lowest income students may be relatively protected from tuition fee increases by the presence of student financial assistance.

Half of the students participating in EKOS Research Associates' (2006) *Investing in Their Future* survey reported that they thought they could finish their education more quickly if they weren't working. About six in ten of those responding to the 2003 Canadian Undergraduate Survey Consortium Graduating Students Survey reported that their non-co-op related work is having some negative impact on their academic performance, including about 1 in 10 who said that the impact was significant or substantial (Office of Resource Planning, University of Regina, 2003).

Others argue that students' potential earnings from part-time employment are constrained by the labour market, and cannot increase without increases in the market itself (MacKenzie, 2005). If the economy were to take a turn downward, this avenue for funding post-secondary education may be compromised.

Parental/Spousal/Family Supports

Understanding the ways in which parents and families financially support their children/spouses is an important part of understanding education financing. EKOS

(2006) finds that how involved parents are in their children's finances varies with household income. They note that "...less than one-third (32%) of parents with household incomes below \$30,000 are involved in their children's finances, compared to 70 per cent of parents with household incomes of \$80,000 or more" (59). Additionally, parents with full-time jobs, those who save for post-secondary education, those providing supports for their children's studies, and those with at least one parent with post-secondary education are more likely to be involved in the finances of their post-secondary attending children.

The 2002 Survey of Approaches to Educational Planning provides some insight into parental behaviours in supporting their children's post-secondary participation. Over half (56%) of all parents with children under the age of 18 indicated that they would have to adjust their personal spending to save for post-secondary education (Shipley, Ouellette, and Cartwright, 2003). Almost nine in ten (84%) reported that they would help pay for the education from earned income, 71% reported providing free room and board and the use of a family car, 28% reported a willingness to take out loans on behalf of the child, and a further 12% indicated that they would sell some assets in order to free up financial supports (see also EKOS, 2006).

In their research on parental supports for their children's post-secondary education, Hemingway and McMullen (2004) note that in the United States, parents are able to borrow from government-sponsored PSE loan programs. Given that these types of programs do not exist in Canada, the researchers argue that it is likely that there are many strategies that parents may consider: "...some Canadian parents might be expected to take out private bank loans, borrow against lines of credit, or take out second mortgages on their homes" (3). Others will pay off their mortgages before their children go on to post-secondary studies, in order to free up funding, and postpone other purchases. The researchers argue that these measures may or may not result in financial hardship, but are likely to have an impact on various facets of the parents' lives including spending and retirement savings.

These financial impacts also appear in the EKOS 2006 *Investing in Their Future* survey. Canadian parents were likely to report that financing their children's education meant that they weren't able to save for large purchases (43%), save for retirement (42%), pay for other children's education (31%), pay off major debts (28%), or save for short-term needs (29%). The impact least reported was the ability to pay off the household mortgage. As might be expected, households with higher levels of income are less likely to report these impacts.

According to EKOS' (2006) survey of post-secondary students and their families, just under six in ten (59%) Saskatchewan students reported receiving financial supports from their parents. Over seven in ten (71%) reported receiving funds from family members overall, totaling an average of \$3,241 (52). These amounts are higher than in many other provinces. Parents of older students in Saskatchewan are less likely to be providing support, either because they have the means to support themselves or they support their children in other ways.

Parents who reported providing support for their children in the EKOS (2006) survey were asked what vehicles they used to provide that support. Overall, Canadian parents provided 27.1% of financing from RESPs, 47.7% from general savings, and 12.5% from going into debt. Manitoba and Saskatchewan parents differed slightly from this average picture: they reported providing 32.4% of financing from RESPs, 40.1% from general savings, and 13.7% from debt financing.

When asked how long they would financially support their children's post-secondary education, the average parent estimated that 3.9 years would be the maximum amount of time (EKOS, 2006). However, the average number of years increases when the parents have university-attending children, among those who provided additional sums of money, when the students have no government or private debt, when parents have saved for post-secondary education, among two-parent households and higher income households, and among households where parents have had post-secondary education.

Student Borrowing

Much research has shown that the amount of student debt (particularly accumulated through government sources) has been increasing over the past twenty years (Allen and Vaillancourt, 2004; Junor and Usher, 2004; Finnie various). Using data from the 2002 National Graduate Survey Follow-Up of the Class of 2000, Allen and Vaillancourt (2004) concluded that graduates of 2000 "...owed significantly more than their 1995 counterparts, who in turn owed more than the 1990 graduates did. In fact, the bachelor's graduates of 2000 owed almost one-third more (30%) than the class of 1995 while the college graduates owed 21% more. This confirms Finnie's (2001) findings, based on an assessment of National Graduate Surveys, that overall borrowing had more than doubled between 1985 and 1995.

The Canadian Undergraduate Survey Consortium (2000) found that over half (56%) of the class of 2000 had debt over \$20,000 (as cited by Hemingway, 2004: 31). Hemingway (2004) notes that Ontario's *Investing in Students Task Force* reported that the average debt of a university graduate in 1998-99 was \$20,496. The average college diploma graduate faced debt of \$12,167. The Canadian Undergraduate Survey Consortium (2003) research concluded that over half of graduating students (56%) had some debt from their education, most commonly related to student loans (see Office of Resource Planning, U of R, 2003).

University of Regina students were slightly more likely than the average to indicate that they had any debt: 59% of them did so. U of R students were slightly less likely to have borrowed through student loans, but much more likely to have loans from financial institutions. Of all U of R students, 38% reported having no debt, 15% had \$10,000 or less, 18% had between \$10,001 and \$20,000 and 25% had \$20,000 or more (with 12% having more than \$30,000).

About half of the college students participating in the 2005 Canadian College Student Finances survey (Prairie Research Associates, 2005) reported having some education-related debt. This debt varied by program, with those in access and upgrading programs (typically subsidized by government, and with lower tuition fees) having the least amount of debt and those in degree programs most likely to have the most debt, as well as the highest incidence of borrowing. Prairie Research Associates (2005) reports that many students also expect to have debt by the time of graduation or program completion: "...over half expect that it would be over \$10,000, including 17% who expect that it will be over \$30,000" (4).

Generally speaking, student debt increases with the length of the program the student undertakes. In particular, single low-income students who must move to study are faced with the highest level of debt among single students. However, "...it is assumed that income and ability to pay after graduation increases in proportion to the time spent in school" (Hemingway, 2004: 30).

Instances of borrowing have increased as well as amount of debt on average. Holmes (2005) notes that Aboriginal university students are more likely to borrow, and more likely to borrow more than non-Aboriginal students. Using 2002 data from the Canadian Undergraduate Student Survey, Holmes argues that 63% of self-reported Aboriginal university students have accumulated educational debt but points out that Aboriginal college students tend not to accumulate large amounts of debt.

In addition, students with disabilities are more likely to accumulate debt, and higher levels of debt, than those without disabilities. Their concerns about job prospects and their ability to manage educational debt reflect the uncertainty facing people with disabilities in the Canadian labour market (Holmes, 2005).

Using the 2003 EKOS Survey of Student Finance, Hemingway and McMullen (2004) found that government student loan programs were a major source of borrowing: "...45% of bachelor's graduates and 41% of college graduates left school with government student debt" (18). In addition, almost one in five also borrowed from other sources. One-third (33%) of college graduates had government student loans only, while 8% had non-government loans and 8% had both government and non-government loans. Similarly, one-third (34%) of bachelor's graduates had government loans, 8% had non-government loans, and 11% had both government and non-government loans.

The 2006 EKOS survey concludes that 42% of students had some form of government debt, averaging \$13,490 – reflective of the fact that students from all levels and years of education are included in the sample. This amount has increased from the 2001-02 survey. Saskatchewan students are very slightly less likely to report having government debt – 40% report having this type of debt compared with the 42% of Canadian students overall. Among borrowers only, Saskatchewan students at all levels of post-secondary education report having an average balance of \$15,479 in debt altogether.

The 2002 Post-Secondary Education Participation Survey found that 56% of all young Canadians who had taken some post-secondary studies had never applied for a government student loan. However, over four in ten (44%) had applied for one, and over one-third (35%) of those who had taken post-secondary education had received a government student loan (Barr-Telford et al, 2003).

Much of the focus around student debt has been on government student loan programs. However, many more students are borrowing from private sources: through banks (and student lines of credit) and credit cards. Finnie's (2001) analysis of the 1985, 1990, and 1995 National Graduate Surveys shows that while other borrowing is more moderate at the college and Bachelor's degree levels, Master's and PhD graduates are more likely to have borrowed from private sources, and argues that these other sources of debt should be taken into account when assessing overall student borrowing. More recent studies have indicated that other borrowing has increased across credential types.

Much of the Canadian research concludes that 10 to 20% of students are borrowing from private sources in order to fund their post-secondary education (Hemingway and McMullen, 2004). According to the EKOS (2003) survey of post-secondary students in 2001-02, 14% of students aged 20 to 21 borrowed from private (bank) sources, while one in five (20%) of students aged 22 to 23 did so. These line-of-credit balances were significantly higher for those whose father's education level is grade 12 or less, and for those who did not receive parental support (Hemingway, 2004: 30). This type of borrowing is particularly difficult to assess, given that researchers must rely on students' self-reported data.

Overall, the amount borrowed by students accessing private sources of funding has increased by almost \$2,900 since 2001-02, and students in rural areas are more likely to borrow privately than those in urban centres (EKOS, 2006). New EKOS (2006) research shows that Saskatchewan students are more likely to access private sources of funding than those in other provinces – approximately 40% reported carrying a balance on their private loans, compared with 29% of Canadian students.

EKOS (2006) found that most students are concerned about the amount of debt they will have by the time they graduate. Only one in five students (20%) overall are not concerned, whereas almost six in ten (59%) are moderately or very concerned about their debt. Saskatchewan students, however, seem to be slightly less concerned about their debt: 14% reported being not at all concerned and 35% reported being very concerned (compared with 20% and 32% of Canadians overall). When considering just those students accumulating debt, almost half (47%) reported being very concerned about their debt. According to the survey,

...concerns about debt generally decrease as personal, parental, and employment income increases, and are higher among students with loans (government or private) or credit card debt, as well as among students who have lines of credit or debt from any source (EKOS, 2006: 147).

Finally, concerns about debt also increase with the amount of debt accumulated and the amount of debt expected to accumulate over time.⁵

EKOS (2006) reports that one-quarter of post-secondary students interviewed had concerns about debt that impacted their decisions about school a great deal, while about one-quarter (22%) reported that debt didn't concern them at all. Students who were concerned about this debt made decisions to study closer to home to reduce costs, chose schools with lower tuition, took reduced course loads (24%), attended part-time (22%), or attended college instead of university (19%). This also impact students' choice of program (15%), the decision to take a break from studies for more than one term (15%), or the decision to enroll in a shorter course (12%).

Managing Debt

As debt levels increase, the management of study-related debt has been gaining more attention in the Canadian literature. Researchers argue that various factors impact a graduate/leaver's ability to repay his/her student loans: size of debt, employment (including type and hours worked), earnings, interest rates, and personal circumstances. EKOS (2006) has shown that students expecting to accumulate more than \$40,000 in student debt are likely to be in graduate school, be in the later 20s, live alone, have moved to go to school, and have lower levels of household income, as well as having debt from both government and private sources.

Defining manageable debt has been a challenge for researchers. Most recently, Baum and Schwartz (2006) have defined manageable "not [as] the risk of default, but [based] on levels of debt that will not unduly constrain the life choices facing former students" (3). They argue that borrowers will likely define a manageable debt as one that allows them to maintain a certain standard of living not too different from others in similar circumstances, which means that they may perceive debt to be unmanageable at a different point than others might do so.

Allen and Vaillancourt (2004) note that the one in five graduates from 2000 who were able to repay their student debt within two years were likely to have smaller loans, higher income (13% for bachelor's graduates and 24% for college graduates), a job at all (for college graduates), and were less likely to be married and/or to have dependent children. Those who had not completely paid off their loans within two years of graduation had overall higher debt loads when leaving education. Bachelor's graduates started out with \$8,000 more debt and college graduates had twice the debt of those who had repaid their loans (\$6,000 more). In 2002, these bachelor's graduates still owed \$16,300 while college graduates owed \$10,300.

Many graduates have reported facing difficulty in repayment. According to Allen and Vaillancourt's (2004) analysis, a small but notable proportion of graduates left school with higher levels of student debt. The researchers found that although these graduates had higher than average incomes, they were more likely to report difficulties repaying

⁵ See also Prairie Research Associates, 2005 for discussion of college students' concerns about debt.

their loans. Over one-quarter (28%) of bachelor's and one-third (34%) of college graduates still repaying in 2002 reported difficulties in repayment (Allen and Vaillancourt, 2004).

According to the work done by Finnie (2001) using the 1985, 1990, and 1995 National Graduate Surveys, graduates who are more likely to be facing difficulties are those who are unemployed, with lower income, and women. Research undertaken by the Maritime Provinces Higher Education Commission (2005) concludes that "...graduates from less educated family backgrounds are much less likely to be debt-free, owe more money on average, and have a higher debt-to-earnings ratio than their peers from more highly educated backgrounds" (4).

Much of the literature around difficulties repaying student debt speaks to the debt-servicing ratio as a measure of debt burden (Allen and Vaillancourt, 2004; Baum and Schwartz, 2006; others.) The debt-servicing ratio is the ratio of debt payments expressed as a percentage of personal income. In the US literature, general consensus has settled on 8% as an appropriate debt-servicing threshold (NASFAA, n.d.). Anything greater than 8% poses a substantial risk for graduates' ability to repay their loans without undue hardship. However, as Schwartz and Baum (2006) argue, this threshold may not be the most appropriate way of assessing debt manageability for Canadians.

Instead, Schwartz and Baum (2006) argue that it is important to create a meaningful debt management measurement, which can be used to better inform flexible repayment policies. They compare students in repayment to the parents of dependent children who borrow through the student loan system: parental contribution calculations take into account competing demands for funds, whereas students in repayment are not allowed any discretionary income when calculating their repayment plan. They suggest that this kind of approach should be used when figuring out what percentage of income those in repayment should be repaying at any given time.

According to Allen and Vaillancourt (2004), college graduates had median debt-servicing ratios of 6% while bachelor's graduates had ratios of 8%. This is similar to the conclusions drawn in Usher's (2005a) work on comparative debt burdens. Usher argues that Canada's student borrowers have one of highest debt-to-income ratios among western countries, at 50%, which translated into a 6.6% debt servicing ratio.⁶ He notes that the countries with the highest ratios are those which charge the highest interest rates and use the revenue from student loan interest to subsidize other aspects of the loan system that are usually non-repayable, like grants.

However, in spite of this relatively low debt-servicing ratio, Allen and Vaillancourt (2004) report that there are a number of graduates who have unacceptably high ratios: one-quarter of college graduates had ratios of 10% or higher while one-quarter of bachelor's graduates had ratios exceeding 13%. They do note that these ratios may

⁶ Usher compares debt information for Canada, Australia, Germany, Netherlands, New Zealand, Sweden, United Kingdom, and United States.

reflect hardship, but that they also may reflect graduates' choices to pay lump sums on their loans in order to repay more quickly: this isn't clear from the NGS survey data.

Finnie (2001) argues that as graduate earnings increase, debt burdens decline substantially because of the greater ability to address the debt. Using the amount of student debt compared to the graduate's average earnings to create a debt: earnings ratio, Finnie argues that tied to earnings is the type of credential obtained: university graduates are less likely to have a higher debt to earnings ratio than those graduating with a college credential. However, there are differences reported across programs, and particularly for women: in part this is because of the overrepresentation of women in lower paying professions. Women are also more likely to have lower repayment rates relative to men's, even when they are within the same discipline. It is unclear whether or not this is related to lower salaries or differing hours of work.

Of bachelor's graduates in the 2002 NGS Follow-Up Survey, those in medicine are more likely to have student loans and have the highest average student debt (Allen and Vaillancourt, 2004). Three-quarters of medicine graduates owed more than \$25,000, and on average owed \$38,200. However, they were also more likely to repay their debt more quickly than those in other bachelor's degrees. Over one-quarter (26%) had fully repaid their debt after graduation, and on average had repaid 40% of their debt.

One of the drawbacks of much of the literature addressing debt manageability is that it is focused primarily on the repayment of government student debt. Debt repayment and management strategies are not designed to take any other accumulated debt into account when establishing the terms of repayment, for example. Schwartz and Baum (2006) demonstrate that "...families with student debts are more likely to have credit card debts and to have borrowed to purchase a vehicle" (9). However, they are about half as likely to have mortgages as those families without student debts.

The Canada Student Loans program contains a series of debt relief tools designed for those with unmanageable debt. Interest Relief provides the ability to stop payments on a loan temporarily, while government continues to pay the interest on the loan. Revision of Terms, which involves extending the repayment time; Debt Reduction in Repayment, which may reduce the debt of borrowers in persistent financial difficulty; and Loan Forgiveness, where permanently disabled or deceased borrowers have their loans forgiven; are all designed to assist borrowers having severe difficulties in repayment (Situ, 2006).

The most frequently utilized of these is Interest Relief: in 2001-02, 140,000 borrowers used the program, accounting for \$1.7 billion of the total \$6.1 billion federal loan portfolio. However, there are gaps between those who are eligible for the program and those who are approved: people may not be aware of the program, not have good information on how the program works, or they might be unwilling to go through the application process. Many personal factors seem to impact the willingness to apply for interest relief, including gender (women are more likely than men to use the program), educational type (those with university debt are more likely to apply, though a larger

proportion of graduates of private institutions would qualify), and province (Saskatchewan/Manitoba have approximately the same proportion of graduates who would qualify for the program as who take advantage of it) (Situ, 2006).

As important as the financial ability to repay is the impact of student debt repayment on life course choices. As debt has increased, more researchers have begun to question the impact of debt on personal choices. Using Statistics Canada's Longitudinal Administrative Database (LAD) matched with the Canada Student Loan Program administrative records, Finnie (2005) makes comparisons among borrowers to assess whether or not their varying levels of debt have impacted particular life choices such as marriage and having children. He finds that student debt has no impact on marriage and fertility outcomes, but that inexplicably, those with larger debts have higher marriage rates. However, Finnie does find that loan repayers with higher levels of debt are less likely to start saving (through RRSPs) right away than are those with less debt. These effects last for about five years, when all loan repayers are making use of savings vehicles.

EKOS (2006) asked post-secondary students about whether or not, and how, debt impacted their personal decisions. Overall, 39% of Canadian students reported that debt concerns impacted decisions about their personal life a lot, while 35% reported that it impacted them somewhat. One-quarter reported that it affected them very little (16%) or not at all (9%). Saskatchewan students were more likely to say that debt impacted their decisions a lot (45% compared with 39%) and slightly less likely to report that it didn't impact them at all (7% compared with 9%). These impacts are felt most by those with loans, those using credit cards and carrying debt, rural students, older students, independent students, working students, and those not receiving parental support. EKOS (2006) reports that Saskatchewan students are more likely than students in other provinces to report that their finances were very important (had a lot of impact) when they decided to stay at home during post-secondary study.

6. Current Student Financial Assistance System

Canadian student financial assistance is jointly managed by the federal government and individual provinces and territories. The student financial assistance system is incredibly complex, and includes the following instruments: federal and provincial student aid programs comprised of needs-based loans and/or grants (administered in an integrated or non-integrated manner); interest subsidies; support for senior undergraduate and graduate students through the federal granting councils; grants for particular demographic groups (e.g. Aboriginal students, female doctoral students in particular disciplines, and first generation students); grants and tax credits to support saving for post-secondary education (e.g. CESP, RESP); education and tuition tax credits; tax credits for interest paid on student loans (Finnie, Usher, and Vossensteyn, 2004; others); and most recently announced in the 2006 federal budget, the tax exemption of all scholarship and bursary income.

In addition to the publicly-provided funds, students also have access to institution-based aid and privately supported funding. Various provinces also have their own initiatives, such as the Health bursaries for people in particular health programs, the subsidy for dentistry students at the University of Saskatchewan, and the Graduate Tax Credit for graduates entering or staying in the province.

Issues with Student Financial Assistance

Many researchers have argued that the student financial assistance system, including government student loans and grants, should be revisited and revised. While the system is designed to supplement other funding obtained by a student (and his/her family), there are concerns about the system's inability to meet the needs of all students in the 21st century. Researchers have raised concerns about required parental supports (Vossensteyn, 2004; others), loan limits (Finnie, Usher, and Vossensteyn, 2004), supports for graduate and professional students (Finnie, Usher, and Vossensteyn, 2004), required spousal supports (Usher, 2004b), the adequacy of supports for part-time students and lifelong learning (OECD, 2004 and 2005), and the complexity of the program (Finnie, Usher, and Vossensteyn, 2004) among other things.

Dependent Students and Parental Support

Researchers have begun a discussion around the way that students applying for government financial aid are classified as requiring the support of parents (dependent students) versus becoming independent. Because of the criteria used to classify students as dependent or independent (based on a combination of age, length of time out of high school, time in the labour market, presence of dependent children, etc.), some researchers argue that some students qualify for financial assistance when they should be relying, at least in part, on parental contributions. Finnie, Usher, and Vossensteyn (2004) argue that students should be considered dependent for their first credential, and then could be considered independent after that.

Researchers note that there are two approaches that can be used to assess a dependent student's (and his/her family's) ability to pay for post-secondary education: through an income test and through a means-test (Vossensteyn, 2004). Some argue that the means-test is preferable to the income test, as it looks not only at taxable income but other forms of property. It may also be structured in such a way to include an examination of applicants' other financial commitments.

Part of the concern expressed through the research is about the extent to which parental contributions are being met for students in the student financial assistance system. Hemingway (2004) argues that it is likely that parents are not contributing the amount they're expected to under student financial assistance rules. He points to a lack of dedicated savings for post-secondary studies and declining overall family net worth as indications that parents are likely not able to fulfill their assigned financial responsibilities. Hemingway also asks if the current expectations under the CSLP and provincial loan programs are realistic.

Others argue that there should be an additional portion of the student financial assistance program targeted at parents. They should be able to access unsubsidized supplementary loans to help them meet their assessed obligations (Finnie, Usher, and Vossensteyn, 2004). Hemingway (2004) also notes that there is a link between parental contributions and parental education: both parental contributions and the proportion of parents contributing to their children's post-secondary education increase with the father's level of completed education.

Spousal Assistance and Loan Assessment Criteria

Usher (2004b) argues that a major issue for married students trying to access the Canada Student Loan Program is that the calculations for parental support are different from those for spousal support. He suggests that the existing regulations assume that students are married to other students therefore the spousal support provisions are not relevant. However, he calculates that "...at any given level of income, spouses are required to contribute \$15,000 more than parents to a family member in post-secondary education" (Usher, 2004b: iii). In addition, spousal contribution calculations do not take into account student loan repayment: if a spouse is repaying his/her student loan while contributing to his/her partner's education costs those repayments are not accounted for in the contribution calculations. The structure of this policy has implications for lifelong learning, graduate students, and for those in professional colleges.

Unmet Need

One of the concerns expressed by a number of researchers is the need to ensure access to sufficient funding for post-secondary education through a stable government program (Finnie, Usher, and Vossensteyn, 2004; Hemingway and McMullen, 2004). Given that government student financial assistance programs are designed to supplement other funds for post-secondary education, it is not always the case that the funds allotted to applicants will provide sufficient funding.

Using EKOS (2003) data on student financing, Hemingway (2004) argues that many categories of students expend more than they are allowed under existing loan limits. These gaps are particularly noticeable for married students, single-parents, and students in professional and graduate programs because of their higher costs (see also Finnie, Usher, and Vossensteyn, 2004). If students are unable to meet their needs through the student financial assistance system, this is referred to in the literature as "unmet need", although there are differences in opinion on whether unmet need really exists given that the system is meant to supplement students' other contributions.

However, the most recent EKOS (2006) survey of student finances concludes that students receiving government loans overall have the largest monthly surpluses (after accounting for necessities), even though before borrowing they have the largest deficits. However, before borrowing, students in Saskatchewan have deficits of over \$500, and are likely to receive on average \$379 per month from government loans. It seems that

Saskatchewan students on average may have greater post-borrowing deficits than students in other provinces.

Neill (2006a) suggests that the existing cap on student borrowing through the student loan program(s) means that students borrow as much as they can through the student loan program, "...with any additional borrowing from the private sector" (6). Thus, an increase in loan limits will shift borrowing away from the private sector and into the government loan programs. She argues that students are unlikely to borrow more overall, because they are likely to continue borrowing the same amounts to meet their needs. However, this increase in loan limits may reduce the overall cost of an education and support increasing enrolments, because borrowers do not need to incur the costs of servicing private debt throughout their studies. In fact, she finds that a \$1,000 increase in loan limits will increase enrolment rates by just over 1%. This increase would have the greatest impact on youth living away from home and are receiving the maximum student loans and those whose parents have relatively low education levels.

Policy Instruments: Value of Grants versus Loans

Recent Canadian research around the benefits of grants versus loans has shown that there are particular reasons to use both, and that there are situations in which one type of instrument is much more likely to result in increased participation among particular groups than the other. Loans are required to be repaid, while grants are payments made to individual students that do not have to be repaid.

Johnston (2004) notes that one of the things that sets grants aside from other forms of subsidy is that grants can be targeted, either toward particular classes of students (e.g. low income) or "...toward the pursuit of other public purposes (e.g. encouraging more students to study education or medicine, or to practice in certain venues such as inner cities or remote villages)" (2).⁷

Determining what impact that both grants and loans have is an important precursor to identifying which instrument to use. It is argued that loans are the best instruments for supporting individuals who want to attend post-secondary education but have liquidity issues (cannot access the necessary cash) while grants can increase incentives for individuals from underrepresented groups to participate in post-secondary education (Finnie, 2004). Loans tend to go farther because as they are repaid they subsidize the funding available for current students. Another argument in favour of loans comes directly from the perspective of individual rates of return: students are the primary beneficiaries of their education, so they should have to repay the costs incurred. Johnston (2004) argues that if grants and loans are found to be similarly effective in reducing barriers to access, then the preference should be for loans and for using former grant expenditures to subsidize the larger volume of student loans.

⁷ Johnston (2004) provides an excellent assessment of the varieties and forms of grants available to be used for different kinds of situations on page 2.

Finnie, Usher, and Vossensteyn (2004) argue that grants are price subsidies that can do three things: they can help reduce financing constraints, they can reduce the cost of education and increase the rate of return for that education (since the money would not have to be repaid), and can encourage demand for post-secondary education even in cases when the education may not be worth the individual's while (see also Usher, 2006b). They can also be used to address debt aversion.

In the literature, debt aversion is defined in a fairly narrow way. Finnie (2004) argues that debt aversion describes "...situations where individuals are unwilling to take out loans to finance their post-secondary schooling even though they know the schooling represents a good investment and it could be facilitated by the loans in question" (17). Finnie describes three forms that debt aversion could take: risk-based debt aversion, value-based debt aversion, and sticker price (or "sticker shock") debt aversion.

If individuals are concerned about their debts being unmanageable if their post-graduate incomes are lower than expected or their debts are higher than expected, then they could be considered to experience risk-based debt aversion. Those with value-based debt aversion are unwilling to borrow as a matter of principle. Others have noted that this seems to be present within Aboriginal communities in Saskatchewan, based in part on their historic relationship with the federal government. Finally, if an individual is deterred from borrowing because the overall debt to be accumulated seems excessive, s/he experiences sticker price debt aversion (Finnie, 2004).

Some researchers note that the existence of debt aversion can be difficult to prove, and cannot be described as a barrier for low income students:

...how can one reliably know, for instance, that someone chose not to attend post-secondary education because of fear of debt? It is not obvious that we can rely on self-reports for this – a student who answered "fear of debt" might be telling the truth, but he/she might also be covering for the fact that his/her secondary school grades weren't very good" (Usher, 2006b: 21).

Instead, Usher (2006b) argues that even without debt aversion, lower income students "...will be less likely to attend post-secondary education unless they are given some kind of subsidy which would increase their subjective rate of return" (23).

The impact of grants over repayable loans for particular at-risk groups is well explored in other countries. As part of the "Aim Higher" program in England which targets individuals from lower income/class families, students who are provided with "opportunity bursaries" are shown to be more likely to stay in high school and move on to post-secondary education, and to perform well academically and otherwise (Hatt, 2005).

Loan Subsidies: Interest and Repayment

Canadian, provincial, and territorial governments provide some subsidies to student loan borrowers, during the course of the individuals' schooling and after completion of the program. Up-front, interest payments are made by governments in order to minimize the initial costs of borrowing. Debt management programs, which may involve the suspension of repayment (including interest), are also considered loan subsidies.

Loan subsidies are a way to address inequities that exist between those who need to borrow for their education and those who do not. Finnie (2004) argues that borrowers pay a higher real cost for their schooling than non-borrowers because they are likely to pay a greater share of the total costs themselves.

Currently, student loans in Canada are repaid in a mortgage style repayment plan: loans are consolidated, and payments including interest are calculated and set over a fixed amortization period. However, some researchers argue that Canada should investigate an alternate approach to repayment, and more clearly link post-secondary graduates' (or non-completers') loan payments to their income (ie. income contingent loan repayment). There are a range of possible changes that could be made to both the way that interest fees are established and managed and how repayment could work, in order to ensure manageability of debt (see later section in the review on debt manageability).

Although income contingent loan programs are often grouped together for discussion in the literature, some researchers argue that income contingent loans are composed of a series of features, rather than a fixed package of programs:

...Some of the features in existing ICR programs in Australia, for example include universal coverage, no real interest on the loans, a lengthy repayment period (25 years or more), an income threshold below which no payments are required, a fixed rate of repayment of marginal income above the threshold, and loan collection through the income tax system (Usher, 2005c: 4).

Both Usher (2005b) and Schwartz and Baum (2006) argue that Canada's repayment programs contain elements of income contingent repayment. Because Canada allows qualified graduates who earn low incomes to access "interest relief", suspending their repayment terms for up to three years, there is in effect a relationship between income and loan repayment built into the program.

One of the major concerns voiced against income contingent loans is their established use in conjunction with tuition fee policy. Countries such as Australia, New Zealand, and the United Kingdom have introduced or increased tuition fees at the same time as creating income contingent repayment loan programs, in order to ensure that students can access the newly necessary funds to pay their tuition fees (CFS, 2004; Usher, 2005c; Schwarz, 2006). In Canada, researchers writing about tuition fee and student loan policies have also advocated the use of ICR as a way to increase tuition fees or when tuition fee increases are imminent (Stager, 1989; West, 1993; Government of Canada, 1994)

Tax Credits

There are a number of “tax benefits” provided by the federal and provincial/territorial governments to support post-secondary education participation. Federal benefits include such programs as Registered Education Savings Plans (RESPs), which allow for tax-free investment on behalf of a child for future post-secondary education. The investment becomes taxable when the child withdraws the funds. The federal government also provides full tax exemptions for scholarship, bursary, and grant income for students. Moving expenses for post-secondary relocation are also tax deductions. Finally, students receive tax credits for the tuition fees they pay and another based on their full or part-time monthly participation in post-secondary education (Junor and Usher, 2004). Provincial benefits vary, but most have chosen to mirror the aforementioned federal tax credits.

However, many researchers now point to the importance of re-assessing the impact and benefits associated with education and tuition tax credits. Finnie, Usher, and Vossensteyn (2004) have argued that many tax credits do not accomplish their intended goals, and benefit the highest income earners the most. If these credits are intended to provide students with financial support, it is unclear whether or not they actually accomplish that goal.

However, OECD research argues that tax credits have a valuable role to play in supporting access to lifelong learning (OECD, 2004). Based on the arguments presented in the research, it seems that the value and use of tax credits need to be revisited.

Sustainability of Student Financing

Recent research and writing around student financial assistance has focused on the sustainability of the existing program(s) for the future. Junor and Usher (2006) argue that rising costs in the student loan system due to expanded student eligibility criteria and rising loan interest costs mean that governments will need to investigate whether or not these approaches to student financing are sustainable for the next thirty years.

Merit-Based Funding

Merit-based funding is usually defined as funding allocated based on an individual student’s academic merits. Need-based funding is premised on the understanding that a student facing particular challenges must have access to financial supports that are non-repayable, and reflect his/her level of need.

Gucciardi (2004) notes that there is relatively little written in Canada about the merit versus need-based funding debate, and particularly about the undergraduate merit scholarship system in Canada. Although all merit-based funding is often discussed as a homogenous grouping, Gucciardi argues that in fact they can be distinguished by their funding source, their selection criteria, their eligibility criteria, and their tenure. Educational institutions, federal and provincial/territorial governments, and non-governmental/private organizations provide approximately \$200 million per year to over

200,000 scholarship recipients. Educational institutions provide over half of this funding, as they face an increasingly competitive environment in which they work to attract the “best and brightest” students. However, Gucciardi notes that governments have been increasingly present in the merit funding sector: this is a change, as traditionally governments focused on need-based funding and left institutions to focus on merit.

In the United States, observers and researchers have noted that institutions have placed a greater focus on merit-based aid, regardless of family resources. Fay Vincent (2005) refers to a 2004 College Board Report which noted that “...recent years have seen student aid programs focusing increasingly on affecting students’ choice of institutions, on rewarding academic achievement, and on reducing the financial strain on middle income families” (2). He argues that this market-oriented trend reflects the increasingly competitive world of post-secondary education. Further, he suggests that elite schools (such as Harvard and Yale) will continue to eliminate tuition fees for students from the poorest backgrounds, but that those institutions which do not have the financial ability to do so will likely continue to focus on attracting high-achieving students by providing them with financial incentives at the expense of other, potentially needier, students.

7. Roles and Responsibilities in Financing Post-Secondary Education

Unpacking the current range of roles and responsibilities in the financing of post-secondary education is a vital piece for the discussion of who should take responsibility for post-secondary education financing in the future. When thinking about the respective roles and responsibilities in the financing discussion, many researchers point to the need to clarify expectations of the post-secondary education system and to determine who benefits (and in what ways) from post-secondary education.

Generally speaking, researchers agree that there are a number of “partners” with responsibilities in financing post-secondary education in Canada. Students and their families (including spouses), governments (federal, provincial, and band), institutions (through the provisions of supports to students), and employers are all considered within the research as having roles to play in the shared financing of post-secondary education. They can contribute in various ways. Johnstone (2004) argues that

...the entire complex of policies setting forth tuition fees, expected parental contributions, means testing, student and/or parental loans and the degree of governmental subsidization thereof, and the entire panoply of government and/or institutional grants, or bursaries, can be viewed as devices that shift a relatively fixed, or *given*, set of expenses among these parties in pursuit of various higher educational policy goals (1).

Some researchers argue that government’s involvement in post-secondary education funding reflects society’s understanding that education is a shared responsibility between students and society, but within narrowly defined parameters:

...This notion of “cost-sharing” revolves around the argument that public funds are limited. As a result, higher education increasingly must compete for scarce public resources with other important public services, such as health care, infrastructure, and primary and secondary education. As the demand for higher education continues to grow, even more resources will be necessary to maintain existing quality (Vossensteyn, 2004: 1)

Others note that many of the research questions around the distribution of responsibility for the funding of post-secondary education focus on the following assumptions:

1) all consumers of government services (including services) should pay the full cost of these services, 2) a less subsidized, more market-oriented system would be more responsive to the needs of the economy, 3) subsidies to students are an undesirable redistribution of income from the general taxpayer to the well-to-do since it is the children of well-off parents who disproportionately attend post-secondary institutions, and 4) increased government expenditures cannot be justified if they will increase the province’s deficit (Allen, 1999: 17).

Recent public opinion research about shared financing in post-secondary education has found that 90% of Canadians think that the cost to the student for additional education is a good investment (Ipsos-Reid, 2004). After being informed about the average starting salary for a university graduate, most Canadians reported that students should have a reasonable amount of debt when graduating: 19% say up to \$10,000; 33% responded between \$10,000 and \$20,000; 20% say that \$20,000 to \$30,000 is acceptable, and 10% say that \$30,000 to \$40,000 is okay. Only 11% of Canadians think students should have no debt when they graduate from post-secondary education (Ipsos-Reid, 2004).

In addition, most Canadians expected that parents should provide financial support for their children’s education: either for the entire length of their first degree/diploma (28%) or for varying years of education. Saskatchewan respondents were more likely than those from other provinces to indicate that parents should be responsible for the first degree/diploma. However, almost three in ten (28%) Canadians said that parents should not be contributing anything because post-secondary education is the responsibility of the student. Finally, Canadians saw a role for government in providing needs-based loans and grants to address both educational and housing costs (Ipsos-Reid, 2004). Clearly, the Canadian public is split on how costs should be shared among post-secondary partners as well.

In EKOS’ (2006) *Investing in Their Future* survey, current post-secondary students and their parents were asked who should be responsible for financing post-secondary education: governments, parents, or students. Although both students and parents reported that there was a role for each of them, both groups were more likely to say that government should have a greater responsibility for providing funding for post-secondary education.

The responsibilities indicated for students and parents varied, depending in part on the financial situation and age of each. Students who relied on student loans or had higher levels of income were less likely to rank parental (and government) responsibility as highly as those who relied on parental financing (particularly the younger students). Rural students are also less likely to assign higher levels of responsibility to parents and governments. However, there is a connection between student debt and government responsibility: as education debt increases, the responsibility assigned to governments also increases (EKOS, 2006). It is interesting to note, however, that these survey questions exclude any references to other potential financing partners such as employers and post-secondary institutions, so we do not have an opportunity to gauge Canadians' opinions on these partners and their responsibilities.

Students

Canada has a student-centred model of post-secondary education financing. Finnie, Usher, and Vossensteyn (2004) defines this as a framework in which

...students are regarded as having primary responsibility for the costs of their studies. As such, they often face relatively high tuition fees. This implies that public funds to higher education institutions should not fully cover instruction costs and that financial support is focused on students, not their families (although family contributions are taken into account (21).

Some argue that students are seen as a heavily subsidized group, because of the fact that they do not usually pay for the full "ticket price" of their post-secondary education upfront (Allen, 1999). Others point to the social benefits of post-secondary education, and to the fact that post-secondary graduates are more likely to earn greater incomes over their lifetimes which means greater contributions through the tax system.

Others point to the need to let tuition fees increase and educational costs rise in order to better reflect market forces. However, market mechanisms of funding students and of funding institutions do not always work in practice. For the students attending private schools (such as the private vocational schools in Saskatchewan) and students paying a greater proportion of their costs because of differential tuition fees, market mechanisms may not be in their interests, given their long-term prospects (Vossensteyn, 2004).

Still others have argued that in fact the role of equity in post-secondary education can only be guaranteed by the provision of debt-free education for those from the lowest income families. Mackenzie (2004) argues that providing non-repayable assistance to poor students means that they will not contribute an extraordinary amount to their education, but that "...the student [is] in exactly the same position as that of the student whose parents were able to afford to provide support sufficient to enable the student to avoid incurring debt" (26).

The role of students in financing post-secondary education and the ways in which governments provide supports to students are often debated in tandem. Universal

supports (such as tuition interventions) are seen as having higher public costs, because they benefit students from all backgrounds – including the affluent ones. Targeted programs which deliver potentially greater benefits to those with the greatest need often go against the idea that society benefits from post-secondary education and that the society (through the government) should support students equally (Finnie, Usher, and Vossensteyn, 2004). Some writers have also noted the importance of assessing how funding for post-secondary education is administered, whether to students directly or to institutions. Pakravan (2005) argues that institutional subsidies (including operating grant funding transferred from provinces to institutions) are proportionately better for upper middle and higher income families.

Finally, in order to participate in post-secondary education, students have must take risks. Many factors can impact the expected individual benefits of post-secondary education:

...Not all who begin a degree program will graduate and not all graduates will find remunerative jobs. Unanticipated changes in health status, in the demand for various kinds of workers or in family situations can intervene to upset even the most carefully planned life... (Schwartz and Baum, 2006: 5).

Governments

Government investment in post-secondary education is often justified on two major grounds: efficiency (“prosperity”) or equity grounds. Efficiency grounds refer to the fact that the whole of society benefits from education as well as the individual accessing education (Riddell, 2003). Equity grounds rely on the importance of society’s values: the promotion of equal opportunity, social mobility, and better distribution of economic rewards (Riddell, 2003). In addition, some have noted that an important element of the equity argument, and government’s provision of student loan programs, is that there are “...individuals who might benefit from higher education but who do not have the financial resources to finance the investment are typically unable to use their potential human capital as collateral for a loan” (Riddell, 2003: 7).

Allen (1999) argues that the social (government) investment is worth it, given that the rates of return for most post-secondary credentials are positive. Investments made on behalf of the public to educate the public result in higher incomes and higher contributions through the income tax system over the longer term.

Some researchers in the US have emphasized the importance of targeted government investment to maximize societal potential: Williams and Swail (2005) argue that the greatest opportunity is to focus on those who benefit the most – the first generation, low income, and disabled individuals traditionally underrepresented in most educational systems.

Federal Government

Given that post-secondary education falls within the provincial jurisdiction in the federal division of powers, spending on post-secondary education in Canada tends to involve some negotiation by the government actors. In Canada, the federal government's support for the post-secondary sector has taken the form of direct support for research and development, capital and infrastructure projects, and supports provided directly to individual students and their families through tax credits, student loans/grants, student loan interest subsidies, and scholarships.⁸ Indirect funding to the provinces, provided through the varied transfers (most recently the Canada Social Transfer), are also meant to be used to support investment in post-secondary education.

Governments also provide funding for post-secondary education using indirect means, such as family allowances, tax benefits, and subsidized savings plans such as Registered Education Savings Plans (RESPs) and the Canada Education Savings Grant (GESG) (Vossensteyn, 2004; others). In spite of these avenues of funding, some researchers have pointed to current federal government's potential discussions with the provinces and territories about changing its involvement with student financial assistance, possibly with the planned elimination of the Millennium Scholarship Foundation (Junor and Usher, 2006).

Others have argued that the "...re-emergence of Ottawa as a key player in post-secondary education over the last decade has not just been about funding levels but rather about targeted funding" (Pakravan, 2005: 26). The federal government has the ability to "incent" provinces to spend on the post-secondary education objectives it identifies by providing matching funds, for example. Further, Canadian youth have suggested that the federal government should be involved in guaranteeing national standards for the costs, quality, and accessibility of post-secondary education (deBroucker, 2006).

The federal government also has a very important role in providing educational support for Status Indians (First Nations peoples). Through the Post-Secondary Student Support Program, First Nations bands receive funding to support access to post-secondary education for their members. The program is considered moderately successful, and includes tuition support, travel support, and living expenses support for students and their families. For 2001-02, federal funding for this program totaled \$285 million, of which \$49.7 million was allocated to Saskatchewan (INAC and PWC Consulting, 2005). In 2001-02, the average funding per funded First Nation student in Saskatchewan totaled \$14,100.

However, it has been demonstrated that this program is not sufficient to support all of the individuals who want to attend a post-secondary institution, and the federal government has been asked by many to revisit the funding it provides for this program. In 2001-02, PSSSP funding reached only 3% of all status Indians in Saskatchewan. Howe (2006) notes that the funding cap placed on this program causes harm to Saskatchewan

⁸ Junor and Usher (2004) argue that the in-school interest subsidy means that between 15 and 30% of the face value of the loan is equivalent to a grant.

“...because the subsidy cap encourages Registered Indians to wait for funding before pursuing their post-secondary education. By encouraging them to wait, and making them wait longer, many may never begin” (13).

Provincial and Territorial Governments

As primary guardians of post-secondary education, the provincial and territorial governments provide funding to students directly, indirectly through tax credits (including the Graduate Tax Credit in Saskatchewan), and to institutions through support for operating grants, scholarships/bursaries, research, and infrastructure. Although the federal government is heavily involved in providing supports to post-secondary studies in order to meet its priorities, the provinces and territories have a vital role to play in supporting the post-secondary environment within their boundaries. In the 21st century, most provinces and territories want to ensure they have a well-educated labour force, in which all potential students with the desire and ability can access post-secondary education.

There are concerns about how governments provide funding to post-secondary education. Some researchers (see Junor and Usher, 2006) argue that governments are increasingly focusing on universal instruments to help fund students' post-secondary education, particularly through tuition freezes and tax credits. Junor and Usher (2006) argue that this focus does not benefit poorer students, and that targeted measures to address their needs must be undertaken.

Post-Secondary Institutions

It is generally concluded that institutions have a duty to ensure that they provide quality education and that they provide the necessary supports to help students succeed in their programs.

Most direct funding for public post-secondary institutions comes from governments. Funding for operations comes directly from the provinces/territories whereas a larger proportion of funding for research comes from the federal government (see Junor and Usher, 2004). In addition, in many provinces students accessing post-secondary education provide upwards of one-third (or more) of an institution's operating funds through tuition and ancillary fees.

Given the public nature of these institutions and of their funding, they are expected to maximize their services to students and benefits to the public while balancing their books. Some have argued that provincial funding for operating grants, rather than transfers to students who would take the funding with them as they chose an institution, “...fail to create desirable incentives for colleges and universities” to make good choices about where they allocate resources (Pakravan, 2006: 26). However, others point to the need to ensure the autonomy of the post-secondary sector, and particularly of the public universities, through guaranteed funding for operations.

Employers

When Canadian youth were considering the future of post-secondary education in Canada in the 2006 CPRN-led dialogue on post-secondary education, they emphasized the importance of contributions made by the business sector. Arguing that the business sector could offer greater support to students, they suggested that businesses could create scholarships and bursaries and government could implement a business tax designed to support post-secondary education (deBroucker, 2006).

Employers have a particularly important role to play in supporting lifelong learning and job-related training. Peters (2003) argues that:

...The support of an employer can mitigate many of the factors that impede training, such as costs, demands of the workplace and family responsibilities. In the AETS [Adult Education and Training Survey], an employer is considered to have sponsored (or supported) a training activity if they have done any of a range of activities, including such things as providing the training, paying for the training (either directly or by reimbursing an employee), allowing the trainee to work a flexible schedule to accommodate training, or providing transportation to or from the training location (13).

OECD research shows that partnerships between business and non-profit organizations “are crucial in attempting to upgrade the skills of low-qualified workers” (OECD, 2006c: 18). Incentives for employers to support employees’ lifelong learning and skills acquisition have been piloted in a number of different countries, in the recognition that there is a very important role for employers in the pursuit of higher education.

Financial Institutions

More recent research into adult learning/lifelong learning has argued that there may be a role for financial institutions in financing post-secondary education. OECD (2004) research suggests that these institutions may be able to administer various savings and loans schemes targeted at adult learners while acting as intermediaries between capital markets and education/training markets. However, these researchers note that financial institutions have had limited impact on lifelong learning to date.

This research also raises the question of the role of financial institutions in financing post-secondary education generally. Although it seems that there is little research done on the role of banks/credit unions in the provision of student supports (like lines of credit) in part because of the proprietary nature of the financial services information, it would be an interesting line of inquiry to pursue.

Private Sector/Non-Governmental Organizations

Research from the United States supports the argument that there is a role for the private and the non-governmental sector in providing supports for students through grants and

bursaries (Institute for Higher Education Policy, 2005).⁹ The Institute for Higher Education Policy (2005) notes that funds for US students in post-secondary education come from community foundations, service and fraternal organizations, corporations, independent foundations and educational trusts, research centres, associations and societies, local organizations, and individual donors. It is clear that these sources do provide funding for post-secondary education students in Canada as well, but the amounts and types of funding they provide are not well documented.

These researchers argue that this kind of scholarship/grant assistance can help students who slip through the cracks of other programs, facilitates choice and affordability, and allows for new ideas in student financing to be tested out; such as supports for students who provide service to their communities (Institute for Higher Education Policy, 2005). They suggest that further research needs to be done to fully understand the scope of private financial aid and that government should provide funding to help develop local capacity for fundraising and providing student supports.

Benefits of Post-Secondary Education

There has been much discussion in the literature around the beneficiaries of post-secondary education. Benefits tend to be classified into financial and non-financial, and are considered to accrue to individuals and to society.

As will be discussed further in this literature review, private returns to education – the returns (financial and non-financial) that accrue to the educated individual – are of great importance to funding discussions. It has been demonstrated that individuals who participate in most forms of post-secondary education benefit personally through increased financial returns and numerous non-financial benefits as well: “...more educated workers earn higher wages, have greater earnings growth over their lifetimes, experience less unemployment and work longer” (Riddell, 2003: 8). Non-financial personal benefits include better health, enhanced education and health of children, and personal development and satisfaction (Riddell, 2003; Williams and Swail, 2005; others).

Social Returns to Education

Social returns to education “refer to positive or negative outcomes that accrue to individuals other than the person or family making the decision about how much schooling to acquire” (Riddell, 2003: 9). In his research on the role of government in post-secondary education financing, Riddell (2003) refers to increased productivity, earnings, and output of goods and services as well as better health, increased civic participation, and decreased criminal activity. Much has been written about the importance of knowledge creation and innovation for economic growth, which reinforces the connection between post-secondary education and economic growth (see Riddell, 2003; Government of Canada, 2002; others).

⁹ See also the discussion of the literature around merit funding on pages 84-85 of this review.

Riddell (2003) also points out that parental post-secondary education has a long-lasting impact on children, being linked to “lower education costs, less use of foster care and juvenile diversion, lower crime, lower health costs, and lower dependence on welfare transfers” (16; see also Williams and Swail, 2005; Van Loon, 2005). In terms of overall health costs, Riddell (2003) argues that although better health could be considered a private benefit, if it means that fewer people rely on health care or welfare payments, then there are societal returns as well. Additionally, increased access to post-secondary education has been demonstrated in the United States to have an impact on criminal behaviour: an increase in the high school graduation rate should reduce the costs of crime overall (Riddell 2003). This research holds for Canada as well (Van Loon, 2005).

Much Canadian research also explores the connections between post-secondary education and civic participation and engagement. Social cohesion is found to be enhanced by greater levels of education (OECD, 2005) and Van Loon (2005) notes that the connection between level of education and the likelihood of voting is well established. Wolfe and Haveman (2000) find that

...university graduates in the US are more than twice as likely to volunteer for community service as non-graduates and higher levels of education are positively correlated with the propensity to make charitable donations at a given level of income (cited in Van Loon, 2005: 406).

There are also links between post-secondary education and dependence on the state for transfers. Riddell (2003) notes that there are tax and transfer effects related to participation in post-secondary education. First, those with more education are less likely to rely on public transfers overall. Second, those with post-secondary education are more likely to have higher lifetime earnings, and therefore pay a greater proportion of taxes over their lifetimes. Riddell (2003) argues that for every additional \$1,000 in labour market earnings of a university graduate, taxes paid (sales, excise, and income taxes) are approximately half – or \$500 – that go back to the government treasury.

Research undertaken in California refers to the education “payback”: for every \$1 spent on bringing underrepresented people up to college educational levels, the state will save approximately \$4 in other forms of social spending (Williams and Swail, 2005). This assumption that government investment in post-secondary education will result in substantial financial gains for government over time is reflected in the fact that individuals experience higher rates of return in countries with publicly funded education systems: as long as these countries also have progressive tax systems, the states themselves will also experience higher rates of taxation return (Appleby, Fougere, and Rouleau, 2002).

OECD research has highlighted the importance of the economic of citizens’ participation in post-secondary education. It is argued that for every one year of additional education, economic output (or productivity) increases by between 3 and 6% (OECD, 2005).

Additional benefits accrue to employers, particularly with regard to lifelong learning. OECD (2004) argues that employers receive "...an experienced workforce with updated and upgraded skills that provide the basis for higher productivity, greater corporate adaptability, and increased competitiveness" (47).

Private Benefits

The most commonly referred to benefits of post-secondary education accruing to the individual student are financial. Better paying employment, with increased earnings over the individual's lifetime compared to those with lower levels of education, is considered by many as *the* primary benefit of post-secondary education. However, both the Canadian and US literatures identify a series of non-financial benefits for individuals associated with participation in post-secondary education, including better employment and greater job satisfaction, better employment benefit packages, longer vacations, better working conditions, and better health care (Williams and Swail, 2005).

In addition, work done by Johnson and Rahman (2005) also concludes that university graduates have much better employment prospects, and are less likely to be unemployed in the future. They also argue that this probability has an impact on young people's decisions to go to university versus not participating in post-secondary education. It must be noted, however, that when further assessing and evaluating the rates of private returns to individual students/graduates, that there are many factors impacting exactly how much an individual will benefit financially from his/her education. One of these factors is the type and quantity of education undertaken. Chris Li (2006) argues that in 2003, graduates who held a certificate from a private college earned about the same as high school graduates, but were more likely to be employed. Thus, the employability factor may increase with education, but incomes may not reflect the additional years of education.

Calculating Rate of Return

One of the key themes in the research literature around dividing up the responsibility for the costs of education is the calculation of the "rate of return" for educational investment. This requires the assumption, based on human capital theory, that paying for post-secondary education is an investment in an individual's future, and that the return on that investment can be rationally calculated accordingly. Appleby, Fougere, and Rouleau (2002) note that human capital investment theory stipulates that "...learning becomes worthwhile where the rate of return is greater than the rate of interest" (14). Many of these studies use varying approaches to calculating rates of return, which may help explain some of the differences in projected outcomes.¹⁰ It must also be noted that rate of return calculations are usually focused on those graduates engaging in "initial education and training" rather than on adult lifelong learning. OECD (2004) notes that it is much more difficult to assess the returns to adult learning, "...whether as "second

¹⁰ See Boothby and Drewes for a discussion of some of the approaches to calculating ROR and the rationale for making choices.

chance” education in later life, the topping up of skills, or renewing qualifications in a changing world” (44).

Riddell (1995) found that the rate of returns for post-secondary education rose between the early 1980s and 1992, when graduates could expect a 25% to 40% return on their investment in post-secondary education. Additionally, the gap between university and non-university graduates remained constant during this time.

Robert Allen (1999) uses a similar approach to calculate the “social rate of return”, which represents the financial benefit to the student and to the Treasury (society) combined. Using BC data and focusing on the student’s cost of books and supplies, foregone earnings, and the costs of constructing and operating schools, Allen concludes that the returns associated with grade 12 or trade certificate completion (without grade 12) are among the highest (19% to 40%) while college and university returns vary between 8% and 16%. In most cases, returns are highest for women. Allen noted very little variation between university programs, concluded that all university degrees have resulted in a positive rate of return.

Boothby and Rowe (2002) conclude that a bachelor’s degree will provide a rate of return of 12% for men and 13% for women, while a college credential would provide returns of 16% for men and 18% for women. Boothby and Drewes (2006) argue that this change in the respective rates of return for different credentials is due to the fact that college diplomas are earned in a shorter period of time and thus cost less than university degrees.

Boothby and Drewes (2006) argue that much of the literature around rates of return to education focus on university education, rather than the importance of the non-university post-secondary sector. Using the 1981 through 2001 censuses and focusing on the earnings function approach to assessing the impact of non-university post-secondary education, they find that trades certification do not generate the earnings gains expected based on the literature. Gains are less than half of the advantage associated with completion of a bachelor’s degree. However, they do produce larger gains for men than for women, whereas women are more likely to benefit from college diplomas and bachelor’s degrees. Additionally, they find that having more than one credential does not provide additional benefit in terms of financial returns.

Ferrer and Riddell (2002) have argued that university graduates were better off than those with trades certification or a college diploma. Men and women with non-university post-secondary credentials could expect a return of 5% and 3% respectively, while those with a bachelor’s degree could expect a return of 21% overall (Boothby and Drewes, 2006).

There are limits to rates of return research. Much research shows that there are differential rates of return to investment in post-secondary studies which vary based on program of study, level of credential, age at completion of education, and gender (Stager, 1998; Rahman and Situ, 2006; Boothby and Dewes, 2006). Boothby and Dewes (2006) note that overall

...earnings for university-educated women have increased very little in relation to high school completers. If there is an increased labour demand for individuals with advanced skills, it would seem that the astonishing increase in the supply of university-educated women over this time period [1980 to 2000] has prevented any price effects from occurring (11).

Earlier research by Betts, Ferrall, and Finnie (2000) also found that there were variations in the earnings of Canadian graduates by various assessments of university quality (in Frenette, 2005). Usher (2005a) adds to the discussion of rates of return by hypothesizing that Canadians may perceive that returns to post-secondary education (particularly university) may be more non-financial than financial.

Boothby and Dewes (2006) also explore the impact of age at post-secondary completion and rates of return. They conclude that the earnings premium for completing post-secondary studies is growing for younger women but is not growing at the same speed for younger men. Ultimately, although men tend to achieve higher wages than women, the gap between the returns premium for men and women is closing with the gains made by women.

Based on their examination of Longitudinal Administrative Data and CSLP data, Rahman and Situ (2006) conclude that family income has an impact on rates of return for post-secondary education, particularly for men. They conclude that "...for any given level of educational attainment, individuals with rich family background are likely to earn more than their counterparts from poor families" (3). This gap narrows with greater levels of education. In addition, they argue that the benefits of higher education are highest for those from the lowest family income backgrounds, given the position of disadvantage from which these individuals start.

In work focusing on rates of returns for Saskatchewan post-secondary education using 1990 and 1995 data, Stager (1998) concludes that there are varying rates of return, depending in part on gender and area of study. For graduates in the social, biological and physical sciences, rates of return range from 7 to 12% overall. Rates of return are higher for graduates of law, engineering and commerce (13 to 16%) but are highest for graduates in medicine (20%). Stager argues that these differences may be due to differences in productivity levels, including the number of hours worked per week and the productivity per hour. Overall, he concludes that returns are better for women than for men, for all programs of study. An example of when post-secondary education may not pay off financially is for male graduates in the humanities, the rate of return is actually negative rather than positive.

An important piece of the rate of return calculations is the impact of gender on rates of return. Finnie and Wannell (2005) used the National Graduate Surveys from 1982 (with 1984, 1987), 1986 (88, 1990), and 1990 (1992, 1995) to explore the gender earnings gap over that time period. They found that although the gender gap started off smaller for each successive cohort, it tended to widen in the post-graduate years. While women's earnings had been shifting upwards with each successive graduating class, the gap

between male and female earnings continued to expand post-graduation. When trying to explain what was causing this gap, the researchers proposed that it could be from hours of work undertaken (possibly as a result of family commitments), and to a lesser extent past work experience, job characteristics, province of residence, or various types of gender-based discrimination.

Howe (2006) argues that rates of financial return for post-secondary graduates in Saskatchewan are particularly noticeable for Aboriginal peoples. In particular, he notes that Aboriginal females face the greatest financial return for education, "...catching up financially with males and non-Aboriginal people" (5). Howe calculates that an Aboriginal male will earn an additional \$500,000 over his lifetime with a university degree, while an Aboriginal female will earn an additional million dollars over her lifetime, compared to those without high school qualifications.

Discussions of rates of return are almost always linked to discussions of the costs of education. Stager (1998) argues that because the rates of return for individuals' investments in post-secondary education, doubling tuition fees (from \$2,600 to approximately \$5,280) would still result in enhanced financial benefits for graduates (7). He calculates that doubling fees would reduce the private rate of return for males in bachelor's programs by 1.6% overall, while it would impact the rate of return for females by 4%. However, the elimination of tuition fees would increase the collective rate of return by approximately 2.3%.

Finally, some researchers have noted that as participation rates increase, it is likely that the financial benefits associated with post-secondary education will decrease. Looker (2002) argues that if most Canadians have some sort of PSE credential, "...the effect would be to transform post-compulsory education into education compulsory for employment" (10).

It must also be noted that learners who begin a program but do not complete it do not tend to benefit from an increased rate of return. According to Swedish research presented to the OECD (2004), adult learners who did not complete their credential "...experience earnings that were rather dismal" (63).

8. Lifelong Learning and the Labour Market

Much of the current research into post-secondary education access and affordability is focused on youth: those between the ages of 18 and 24. However, the importance of lifelong access to learning opportunities cannot be underestimated, and a growing body of literature explores the issues related to lifelong learning and transitions between the labour market and the post-secondary education sector.

According to the Adult Education and Training Survey conducted in 2002, over one in three Canadian workers participated in formal, job-related training (Peters, 2003). However, one in three Canadian workers developed their job skills through self-directed

training. According to the Council of the Federation (2006), the American Society for Training and Development reports that employers in Canada spend about \$560US per employee annually on workplace training – an amount that is low compared to Australia/New Zealand's \$915 per employee, USA's \$826, but close to that spent by European workplaces (\$571).

OECD research shows that those with some post-secondary education are more likely to participate in non-formal job-related education and training (Schleicher, 2006). This conclusion holds in Canadian research as well, with over half of workers with university credentials participating in formal, job-related training in 2002 compared to 38% with non-university certifications, and 18% of those with the least education (Peters, 2003).

Younger workers tend to have higher participation rates in job-related training (both formal and informal) than older workers (Peters, 2003). However, Canadian research shows an increase in the proportion of older workers participating in job-related training between 1997 and 2002, perhaps reflecting structural changes in the labour market due to the aging workforce. Training that was unnecessary before for soon-to-be retired workers becomes more relevant when workers are choosing to stay on, or to target new employment during the retirement years.

The Maritime Provinces Higher Education Commission (2005) found that post-secondary graduates who had borrowed to help finance their post-secondary programs were less likely to return to study post-graduation. It is unclear how long this effect lasts, and whether it will impact participation in lifelong learning.

Research shows that various industry characteristics have an impact on whether workers will have access to formal, job-related training. In Canada, workers in public administration, utilities, and educational services were more likely to access further education and training than those in other industries. In addition, the lowest rates of participation in employer-supported training are found in the smallest firms. As firm size increases, so then does participation in training (Peters, 2003). Given that Saskatchewan has a large proportion of small and medium-sized businesses, it is not surprising that more Saskatchewan people are participating in non-employer supported training than in employer-supported training. Saskatchewan workers have become more likely to participate in formal job-related training, with almost four in ten (38%) participating in 2002. However, participation in employer-supported training increased on slightly in 2002 to about 27% of workers (Peters, 2003).

European-focused research emphasizes this around access to job-related education and training:

...More generally, adult education and training are most common in large firms, the public sector and in sectors such as business services, banking or finance; usually for full-time or established workers in a firm; more prevalent for management and senior posts than for non-executive or unskilled jobs; more frequent for young and mid-career workers than for older workers; and more

likely to increase in line with an individual's previously existing level of qualifications" (Schleicher, 2006: 16)

The importance of supporting access to lifelong learning for those with lower education and skill levels is emphasized in the OECD research: It is argued that those with low skills "...see a widening gap between themselves and the skills that are in demand – skills that hold the promise of a better life" (OECD 2006c: 3).

Access to skills training, and to the financial supports needed to ensure that this training is affordable, is an integral part of the discussion around skills development. Although there is not a great deal of research on the range of supports available for Canadian – and Saskatchewan – adult learners in skills-building and training programs, this is clearly an important area for further research.

In the Canadian research, barriers to training are often both financial and non-financial. In the 2002 Adult Education and Training Survey, over 40% of workers accessing training and those not accessing training reported that training was too expensive and they could not afford it. The second and third most common reasons were work-related responsibilities and scheduling. The fourth most common response, identified by over 20% of workers, was family responsibilities (Peters, 2003).

Some researchers argue that there are additional spin-off effects of encouraging lifelong learning in the adult population. One important result is that the children of parents engaging in lifelong learning would also be likely to experience increased educational involvement (Looker, 2002).

Financing for Lifelong Learning

Much of the research out of the OECD argues that financing of lifelong learning should be treated differently than financing of post-secondary education targeted at younger people, or those without existing credentials. In particular OECD (2004) argues that "lifelong learning is likely to be costly, particularly in the case of adults for whom there is a need to balance the need for learning against multiple competing objectives" (30). Although lifelong learning generates financial returns for employers and employees, OECD research argues that there is a need to finance lifelong learning in a shared way.

Strategies for financing lifelong learning include the use of tax credits to reduce the cost of participating in learning and training and the development of learning accounts (supported by both governments and businesses) which include funds targeted at disadvantaged individuals to support access to lifelong learning (OECD, 2004). Another way that employers have found to support lifelong learning in Germany, for example, has been the creation of "time accounts" under which workers are allowed to bank work time to be used for training.

9. Conclusions and Gaps in the Research

It is clear from the literature that Canada – and Saskatchewan – is not alone in the desire to understand exactly what is happening in post-secondary education and how governments, industry, students, families, and institutions can work together to ensure that citizens have access to post-secondary education both for themselves and for the health of their societies.

The 2005-06 US Secretary of Education's Commission on the Future of Higher Education commissioned a series of issues papers designed to address various policy problems. In the "Costs, Prices and Affordability" submission, Jane V. Wellman (2005) identified four main problems in post-secondary education: student affordability, institutional cost control, economic competitiveness, and increasing public concern eroding support for the enterprise (of higher education).

There are many issues around access and affordability in post-secondary education identified in the literature, as well as extensive discussion around lifelong learning and the roles and responsibilities of partners in the financing of post-secondary education. However, there are gaps in what we know – both about the situation in Canada generally and the situation in Saskatchewan in particular.

First, we need comparable information about Saskatchewan's current post-secondary student population across all of the types of post-secondary institutions in order to gain a better understanding of the barriers and facilitators impacting participation in the province. Second, there is little information about the impact of tuition fees on the composition of the student population in the province across programs and institutions. Third, we do not fully understand who borrows through government student assistance programs and through private sources. In addition, we do not know how and when Saskatchewan students make use of debt management tools and what their experiences are like. We do not fully comprehend the impact of student financial assistance on life cycles, and whether women are affected by borrowing differently than men.

Aboriginal peoples are an integral part of Saskatchewan's present and its future. Understanding what kinds of funding supports they can access for post-secondary education and what kinds of financial and non-financial supports are needed is an important direction of study.

Further research must be done into labour market participation and lifelong learning. What do part-time students (and borrowers) look like? What kinds of sources of financing are lifelong learners accessing? How do employers support post-secondary education in Saskatchewan, and how could they better support their workers? In addition, how can student supports be tailored to ensure that people in one sector of skills training (like Adult Basic Education) can move smoothly into other kinds of education while their funding remains consistent? Do the existing supports available through the student financial assistance system allow for these kinds of transitions, or will they need to be altered to reflect this possibility?

As noted previously, much of the literature deals with identifying problems in post-secondary education as well as identifying possible solutions. For example, Canadian youth participating in a National Dialogue and Summit on Engaging Young Canadians suggested that governments establish a legal “right to learn” in order to ensure that people have adequate access to post-secondary education, including to the necessary supports required to be successful in their studies (deBroucker, 2006: ii). Others note that any changes that are to be made in the student aid system “...should be based on clear decisions about the purposes and target groups” (Vossensteyn, 2004: 6).

Overall, it is hoped that this in-depth review of the Canadian and the Saskatchewan literature will help to provide evidence and context for public discussions around post-secondary education and lifelong learning, while identifying some of the gaps that should be addressed in order for partners in the post-secondary sector to move forward and work together for access and affordability.

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