

Institutional Strategy and Practice

08

Increasing the Odds of Access
and Success at the Post-Secondary
Level for Under-Represented Students



CANADA MILLENNIUM SCHOLARSHIP FOUNDATION
FONDATION CANADIENNE DES BOURSES D'ÉTUDES DU MILLÉNAIRE



Published in 2008 by
The Canada Millennium Scholarship Foundation
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Institutional Strategy and Practice: Increasing the Odds of Access and Success at the Post-Secondary Level
for Under-Represented Students

Includes bibliographical references.

Layout Design: Charlton + Company Design Group

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

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Background Paper for:

**Neither a Moment nor a Mind to Waste:
Strategies for Broadening Post-Secondary Participation**

The Canada Millennium Scholarship Foundation

March 2008

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I. Introduction

The Access-Success Challenge

Increased access to and persistence in post-secondary education (PSE) has been the subject of considerable research and debate for nearly 40 years. Interest in this area coincides with the growth of higher education itself and the arrival of the knowledge society, which is founded on information and communication technologies. Today's workforce requires qualified and highly educated workers, and post-secondary institutions have seen their enrolments soar accordingly. In Canada, however, the population is aging rapidly and the birth rate is low. Many baby boomers will retire in the next decade, leaving the workforce in need of qualified workers.

Given the upcoming shortage of workers with post-secondary qualifications, the issue of post-secondary participation and completion is an important one. But the dropout rate in North American colleges and universities remains high, varying from 20 to 25 percent in the first year of study and from 20 to 30 percent in subsequent years (Grayson 2003). One Canadian study showed that 24 percent of young people between the ages of 18 and 24 dropped out of post-secondary studies within 18 months of their first registration (Barr-Telford et al. 2003).

In addition, 2001 Canadian census data indicated that despite a significant decline in the secondary dropout rate, 24.7 percent of working-age Canadians were without a high school diploma (Myers and de Broucker 2006). Of those aged 18 to 20 graduating from secondary schools in 2003, the *Youth in Transition Survey* indicated that only 62 percent continued on directly to a post-secondary program (Tomkowicz and Bushnik 2003).

While individuals who do not go directly on to PSE after high school may do so at a later time, return to PSE tends to be more common among those who have already pursued it; the least educated tend to fall further behind their more educated counterparts over the course of their lives. Those with less education

will also typically experience comparatively poorer labour market outcomes, such as lower wages and greater risk of unemployment (Myers and de Broucker 2006; Osborne 2003). Furthermore, more circuitous routes to PSE tend to be more characteristic of students at greater risk of dropping out of PSE (Engle 2007).

Given the increasingly competitive globalized labour market and the imperatives of a knowledge-based economy, it is small wonder that access to PSE has continued to play an important role in the Canadian political and social agenda (Sussex Circle 2002). For several decades, research studies have explored the factors leading students to abandon their studies or, conversely, to persevere until they obtain their diplomas or accreditation (Barr-Telford et al. 2003; Chenard 2005; Robbins et al. 2006; Robbins et al. 2004; Tinto 1993, 2006; Pascarella and Terenzini 1991, 2005). Many analysts and researchers have found that the decision to interrupt studies cannot be attributed to a single factor but rather is due to multiple factors in play at various moments in the life of students (Galand, Neuville and Frenay 2005; Sauvé et al. 2006; Neuville et al. 2007). These factors have particular significance for under-represented populations, such as Aboriginal students, low-income students and first-generation students (i.e., individuals who are the first in their family to enter, or potentially enter, PSE).

The large number of dropouts and secondary students choosing not to enter PSE has grave consequences. It means fewer students enrolled in higher education, lost opportunities for the students themselves and loss of revenue and productivity for society (Grayson 2003). The challenge is to both provide wider access to studies and to put mechanisms into place to ensure that students persevere beyond first year.

Universities and colleges can play a leading role in improving access and increasing the success of under-represented groups, supported by a favourable policy framework and environment established

by governments. Their role involves strategies and practices touching on recruitment, financial aid, outreach, curriculum reform, student support services and pedagogical innovations. This report will look at relevant practices currently being implemented by institutions both in Canada and abroad.

A Holistic Approach

Our holistic approach to the study of access and success in PSE is rooted in the notion that institutions need to take an integrated approach when addressing these issues. That is, in order to meet all of students' needs, an articulated approach covering everything from admissions procedures to policies encouraging persistence and success is called for. As well, general policies must be linked to concrete programs which incorporate specific strategies and actions.

The approach to persistence and success in PSE emphasized in this report considers student motivation from the perspective of the "social cognitive paradigm." According to this paradigm, students' motivation stems from the interaction of multiple factors related to their personal background and their learning environment. The combined influence of these factors determines whether students are engaged in academic learning on a behavioral, cognitive and emotional level, which in turn influences the likelihood of them persisting with and succeeding in their studies.

This approach assumes that one cannot isolate a single factor to explain access and success in PSE. Each factor is part of a dynamic system, a configuration of multiple variables interacting directly with each other. Modification of one or more variables can bring about a modification of the overall motivational configuration, but, on the other hand, there is always the possibility that this configuration will evolve in unexpected ways. Nothing is fixed: a learner might undertake a course of study with a particularly unfavourable motivational configuration, but nevertheless experience favourable conditions during his

or her studies which positively influence the overall motivational configuration, leading him or her to persist with and succeed in his or her studies.

Another significant aspect of the holistic approach is timing, which plays an important role in interventions aimed at improving both access and success. With regard to the former, early intervention can improve the chances of access for many high school students; conversely, interventions which begin in the later stages of high school may be too late for students who have already mentally dismissed PSE as an option for various reasons. In terms of encouraging persistence and success at the post-secondary level, timing is also crucial. Students' needs evolve over the course of their post-secondary career. Of particular relevance, as we shall see later on, is the first year of post-secondary studies, when interventions can play a crucial role in keeping students in the post-secondary system. The further they advance in their PSE studies, the less likely they are to need targeted assistance.

It is also important to note that access and success should not be targeted in isolation. Access is a prerequisite for success: a student cannot succeed in higher education if he or she never has the opportunity to enter PSE. But placing too much emphasis on access can be problematic. If a given institution focuses on policies designed to improve access without later supporting students in their studies (in terms of persistence and success), there is a danger that at-risk students will end up not finishing their degree. At the same time, focusing primarily on policies which support persistence but do not prepare at-risk, under-represented populations for PSE could result in failure to meet the goal of increasing access and ensuring a sufficient flow of students into the higher education system.

Organization of the Report

The remainder of this report offers a literature review and an overview of institutional practices. Section II identifies barriers to access, persistence and success in PSE among the target populations (i.e., Aboriginal students, first-generation students and students from low-income families), while Section III presents

avenues of action derived from research done in these areas and performance evaluations conducted on programs of intervention and support following their implementation. Section IV is intended to highlight some particularly interesting practices with regard to post-secondary access and success. In particular, we have favoured those practices aimed at

improving access in the target populations or those which illustrate the type of measures which we advocate here—that is, comprehensive intervention programs which address access and success in a holistic way. The final section provides a list of recommendations and some concluding observations.

II. Barriers to Overcome

“Although the patterns and trends of social exclusion and participation in tertiary education differ between countries, a feature which crosses these geopolitical boundaries is that patterns are in the main long-standing, deep-rooted, and have proven stubbornly resistant to significant change despite all the dedicated effort: [for instance, to changing] the relationship between family income or parental educational level and participation rates in tertiary education. The stubborn persistence of many of the key socio-economic patterns of participation over time remains”

(Billingham 2005).

In Canada, the post-secondary participation rate for students from well-off backgrounds is fairly high. Accordingly, in order to increase overall participation and make access more equitable, it makes sense to focus on youth from under-represented groups and develop specific policies for them. These groups include students from low-income families, first-generation students and Aboriginal students, all of whom are less likely to participate in PSE due to various barriers (Berger, Motte and Parkin 2007).

Barriers to Access

Research conducted with secondary-level students indicates that the barriers faced by the three target populations are broadly similar. It indicates that, among others, geographic distance, gender, socio-economic status, ethnicity, employment category, family responsibilities and financial need are factors which have an impact on whether an individual will or will not pursue PSE or whether he or she will delay the pursuit of PSE (Engle 2007; Taylor 2007; Tomkowicz and Bushnik 2003). In addition, students’

goals and aspirations (which help determine their attitude to PSE) and their confidence in eventually succeeding all play a strong role.

For our purposes, barriers to access to PSE can be grouped into six categories: finances; family, cultural and social environment; academic preparation; post-secondary aspirations; self-esteem; and barriers arising directly from post-secondary institutions. This latter highlights the role institutions can play, particularly in the area of information and reception, in attracting groups who are less familiar with PSE (Bourgeois et al. 1999) and is discussed further below.

Table 1 summarizes the main barriers faced by youth under-represented in PSE. Identifying these barriers can help post-secondary institutions target areas for intervention. However, it is important to bear in mind that these barriers rarely appear in isolation. On the contrary, most youth must deal with a combination of barriers, and in under-represented populations, the barriers are often more numerous and more difficult to overcome.

While “non-traditional” mature students are not one of the groups which we will focus on in this report, they too are generally under-represented in PSE, and findings related to this population can shed some light on issues of access. In particular, issues pertaining to mature students may overlap with issues faced by Aboriginal students—among the latter group, those interested in pursuing PSE are often older and married, possibly with children.

Research done in Europe has shown that institutions play a not insignificant role in terms of adults’ decision on whether to return to PSE or not (Bourgeois and Frenay 2001; Bourgeois et al. 1999). That is, institutions may themselves represent an obstacle to access due to the complexity of their admissions procedures, the lack of available information or the attitudes of staff in charge of admissions, who may not be sensitive to the needs of the people seeking information. Moreover, policies intended to favour

Table 1: Barriers to Post-Secondary Access among Under-Represented Groups

	Finances	Family, Cultural and Social Environment	Academic Preparation	Aspirations	Self-Esteem	Institutional Barriers
Aboriginal Students	<ul style="list-style-type: none"> • Lack of resources* • Must provide for their family 	<ul style="list-style-type: none"> • Lack of role models • Enforced cultural assimilation • Reluctance to leave reservation 	<ul style="list-style-type: none"> • Poor academic preparation • Poor academic results • Have abandoned secondary prior to completion 	<ul style="list-style-type: none"> • Lack of interest/ motivation • Don't like school • Don't consider PSE necessary to get a job 	<ul style="list-style-type: none"> • Lack of self-confidence and belief in capacity to succeed in PSE 	<ul style="list-style-type: none"> • Programs don't respond to needs • Unknown environment • Admission criteria • Lack of information • Counselling structure • Complexity of admissions procedures
Low-Income Students	<ul style="list-style-type: none"> • Lack of resources • Lack of information • Cannot rely on family • Aversion to debt 	<ul style="list-style-type: none"> • Lack of role models • Lack of support 	<ul style="list-style-type: none"> • Poor academic preparation • Year behind (PISA)** 	<ul style="list-style-type: none"> • Lack of information • Negative attitudes • Consider PSE unattainable 	<ul style="list-style-type: none"> • Lack of self-confidence 	<ul style="list-style-type: none"> • Unknown environment • Lack of information • Admission criteria • Counselling structure • Complexity of admissions procedures
First-Generation Students	<ul style="list-style-type: none"> • May lack resources • Don't consider PSE a good investment 	<ul style="list-style-type: none"> • Lack of role models • Lack of support 		<ul style="list-style-type: none"> • Not sure that PSE is necessary 		<ul style="list-style-type: none"> • Unknown environment • Lack of information • Admission criteria • Counselling structure • Complexity of admissions procedures

* The organization and availability of funding is challenging.

** PISA (international student assessment program) findings indicate that students from low-income backgrounds tend to be a year behind in academic achievement

access among under-represented groups may further complicate matters if they are not explained clearly and in detail (Bégin and Ringette 2005).

Overall, a review of the literature suggests two theories regarding institutions' influence on non-traditional adult participation in PSE. The main hypothesis is that certain institutions do not facilitate adult participation in PSE at all. Another hypothesis suggests that the arrangements offered by certain institutions do not meet the needs of all adults interested in PSE (Bourgeois and Frenay 2001).

Factors Associated With Dropping Out

Success in PSE is measured by the receipt of a diploma, degree or certificate at the end of one's studies. Given the high dropout rate during the first 18 months at colleges and universities, in discussing success in this report we will speak primarily of persistence, since this is the best predictor of success

in PSE: "The more a student persists in the pursuit of a learning activity, the more likely he or she is to succeed" (Viau 1994).

Table 2 breaks down factors associated with dropping out, which need to be addressed in interventions aimed at improving PSE persistence.

Generally, the students most likely to abandon PSE have the following characteristics: male, married, unfavourable family environment, not engaged at secondary level, poor academic record in math and computer science, not engaged with PSE and lived with a single parent or in an alternate family arrangement while in high school (Bussi eres 2006).

Barriers to persistence typically include a lack of academic preparation prior to admission to PSE, a lack of social and academic engagement, low level of education of parents and parents' negative attitude regarding the importance of PSE. Students also abandon their studies because they are not satisfied with the program, they do not see the value of the program in terms of future employment prospects or they are uncertain about their career path (ibid.).

Table 2: Factors Associated with Dropping Out of Post-Secondary Studies

	Well-Being	Finances	Social/Family/ Friends' Support	Academic Preparation and Results	Motivation	Self-Esteem
Aboriginal Students	<ul style="list-style-type: none"> • Isolation • Stress • Racist attitudes on campus 	<ul style="list-style-type: none"> • Need for financial aid 	<ul style="list-style-type: none"> • Far from home community • Lack of awareness of cultural realities on campus 	<ul style="list-style-type: none"> • Choice of studies • Engagement • Academic history 	<ul style="list-style-type: none"> • Value of education • Intention to persist 	<ul style="list-style-type: none"> • Poor opinion of one's own ability
Low-Income Students	<ul style="list-style-type: none"> • Isolation • Stress 	<ul style="list-style-type: none"> • Need for financial aid 	<ul style="list-style-type: none"> • Parents lack PSE credentials 	<ul style="list-style-type: none"> • Choice of studies • Engagement • Academic history 	<ul style="list-style-type: none"> • Value of education • Intention to persist 	<ul style="list-style-type: none"> • Poor opinion of one's own ability
First-Generation Students	<ul style="list-style-type: none"> • Isolation • Stress 	<ul style="list-style-type: none"> • Need for financial aid for some 	<ul style="list-style-type: none"> • Parents lack PSE credentials 	<ul style="list-style-type: none"> • Choice of studies • Engagement • Academic history 	<ul style="list-style-type: none"> • Value of education • Intention to persist 	<ul style="list-style-type: none"> • Poor opinion of one's own ability

III. Avenues for Action

How can the numerous barriers to PSE access and success faced by Aboriginal, low-income and first-generation students be surmounted? As mentioned previously, it is necessary to take a holistic, integrated approach, as the impact of a piecemeal approach will be very limited (Berger, Motte and Parkin 2007). It is also necessary to reshape attitudes toward the education system. Representatives from different levels of education need to work together to promote a smooth transition from secondary to post-secondary, just like the transition from primary to secondary school. Studies must be viewed as a continuum. If we wish to increase the participation of under-represented groups in PSE, it is necessary to step up recruitment efforts and to ensure that youth who are recruited are retained in the system until they obtain a credential. In order to reach these objectives, institutions will need to adopt multiple strategies in order to accommodate the needs of diverse client groups (Woodrow 2000).

In addition to the question of *what* should be done, the issue of *who* should do it is also crucial. Is it the responsibility of the federal government, provincial governments or municipal administrations? Is it the responsibility of elementary schools, high schools, colleges or universities? Or is it instead a family responsibility? In keeping with the holistic approach emphasized in this report, we have taken the view that intervention is not the sole responsibility of any one stakeholder but rather requires working in partnership. In the words of Michael Kelly, president of the Higher Education Authority, “the first element of a national framework is social partnership” (Kelly 2007). Opening access to PSE will not be possible without the help and collaboration of everyone concerned. Kelly proposes a model which has already been tried in Ireland with favourable results in terms of access to EPS (see Section IV for further details).

Access for Under-Represented Groups

Access to PSE for under-represented groups is a preoccupation in many countries. The issue has been the subject of numerous research projects in recent years. The Pell Institute in the U.S. has produced many papers exploring access for first-generation and low-income students. In the U.K., Continuum is the primary research centre studying policies for widening access.

Canadian, American and British researchers are in agreement on the following points: (1) post-secondary institutions must make changes to adapt to the needs of under-represented groups and step up their recruitment efforts, (2) partnership is essential to succeeding in this mission, and (3) it is necessary to measure the outcomes of practices in order to understand how effective they are. Access to PSE must be more equitable and youth must be given a chance to make use of their skills and be helped to overcome barriers which might hinder their access to PSE (Reed et al. 2007).

Among all the barriers to access, there exist two which are of paramount importance (Choy 2002): (1) a significant number of students do not have aspirations to pursue their education beyond high school, and (2) their academic preparation is inadequate. In order to overcome these difficulties, we must unite our forces, bring in all stakeholders working with youth and first encourage them to want a better future. It will then be necessary to see to it that they are better prepared and able to meet the conditions for accessing PSE. Early intervention is an important strategy with regard to access, since it is necessary to provide information about PSE, accessibility, the advantages of higher education, available opportunities and financing methods as soon as possible to both students and parents (Berger, Motte and Parkin 2007).

Table 3 summarizes different available strategies for two key issues: financial aid and recruitment. Financial aid may come from post-secondary institutions, governments or private donors. Recruitment is primarily the business of post-secondary institutions, which should ideally develop a partnership network with schools, communities, families and private enterprises. We have used Osborne's model to present recruitment interventions: "in-reach" involves post-secondary institutions and their efforts to attract students, while "out-reach" involves representatives of groups outside the post-secondary sector (Osborne 2003).

Intervening for Success

"If the access movement wants to contribute to greater social justice and help create a genuinely inclusive form of social cohesion, it must seek to influence the nature of the higher education curriculum, approaches to learning and teaching, and definitions of ability, and not focus simply on getting more and different people into the existing system"

(Billingham 2005).

Table 3: Areas of Intervention for Increased Access

Target Group	Financial Aid	Institutional Provisions: Out-Reach	Admissions Policies	Institutional Provisions: In-Reach
Aboriginal Students	<ul style="list-style-type: none"> • Bursaries, scholarships, government loans • Raise awareness of parents to improve financial planning • Need-based financial support • Financial reward based on academic merit 	<ul style="list-style-type: none"> • Facilitate research projects in local communities to raise awareness for access opportunities • Create partnerships between universities and Aboriginal groups • Raise awareness about available programs and services • Get leaders involved • Build capacity in local communities • Use Aboriginal role models 	<ul style="list-style-type: none"> • Adapt admissions criteria to attract under-represented students 	<ul style="list-style-type: none"> • Transition programs • Dual-credit courses • Make orientation programs more interesting • Design programs in accordance with cultural needs • Recruit Aboriginal education counsellors • Organize academic programs within Aboriginal communities • Access program
Low-Income Students	<ul style="list-style-type: none"> • Bursaries, scholarships, government loans • Raise awareness of parents to improve financial planning • Need-based financial support 	<ul style="list-style-type: none"> • Raise awareness about available programs and services 	<ul style="list-style-type: none"> • Adapt admissions criteria to attract under-represented students 	<ul style="list-style-type: none"> • Transition programs • Make orientation programs more interesting and accessible
First-Generation Students	<ul style="list-style-type: none"> • Bursaries, scholarships, government loans • Raise awareness of parents to improve financial planning • Need-based financial support 	<ul style="list-style-type: none"> • Inform parents about transition to university, financial aid and career planning 	<ul style="list-style-type: none"> • Adapt admissions criteria to attract under-represented students 	<ul style="list-style-type: none"> • Transition/bridge programs • Make orientation programs more interesting and accessible

As indicated in the above quotation, taken from a publication by the European Access Network, fundamental change will come about only through improvements in curriculum structures and design, as well as in pedagogical practices for all forms of PSE.

Several studies have shown that, in order to stimulate post-secondary persistence, it is important to develop support systems which take into account the characteristics and difficulties of students (Chenard 2005; Sauvé et al. 2006; Roy 2006). Universities have developed varied structures and frameworks to support students in post-secondary settings: welcoming activities, workshops on strategies for success, seminars, twinning of students at various levels, mentoring, support networks, help centres, individual consultations, make-up courses, telephone helplines, approaches to teaching, and indirect approaches by professors and support personnel (Cartier and Langevin 2001).

Current approaches to lowering dropout rates and failure in higher education tend to have significant limitations, however. As Begin and Ringette (2005) put it: “The actions are numerous and varied, but there is little coordination among them.” Too many different people are involved. Actions are undertaken disjointedly. Little is done to encourage an integrated and coordinated approach. Moreover, those who intervene do not have an overview of the student’s situation. Support measures are often developed in an isolated manner in a given faculty. There are often no structures to facilitate the exchange of information, and the experiences of various faculties are thus not woven into subsequent comprehensive plans of action. Institutional structures attempt to integrate students into programs but do not concentrate on the needs of the students.

Table 4 presents areas of intervention with regard to PSE persistence and success. We have identified

Table 4: Areas of Intervention for Success—Policies, Strategies and Practices

Target Group	Financial Aid	Pedagogy	Advising	Student Services	Campus Facilities/ Administration
Aboriginal Students (1)*	<ul style="list-style-type: none"> • Bursaries, scholarships, government loans (1,2,3) • Need-based financial support (1,2,3) • Financial reward based on academic merit (1) 	<ul style="list-style-type: none"> • Follow up on students’ progress (1,2,3) • Faculty development (1,2,3) • Faculty reward system (1,2,3) • Design programs in accordance with cultural needs (1) • Organize academic programs within Aboriginal communities (1) • Reduced workload (1) • Alternative evaluation as part of positive discrimination (1) • Offer programs partly on campus and partly in community settings (1) • Make orientation programs more interesting and accessible (3) • Improve instruction in introductory courses (3) 	<ul style="list-style-type: none"> • Advising for first-year students who are at risk of dropping out (1,2,3) • Guidance in the selection of right courses/program (1,2,3) 	<ul style="list-style-type: none"> • Continuous academic and personal support (1,2,3) • Academic advising (1,2,3) • Career advising (1,2,3,) • Student affairs programming (1,2,3) • Mentorship (1,2,3) • Student orientation, transition programs and seminars for first-year students (1,2,3) • Peer support (1) 	<ul style="list-style-type: none"> • Daycare, housing support (1,2,3) • Campus welcome centre (1,2,3) • Create a learning commons (1,2,3) • Residences (1,2,3) • Participation of Elders (1) • Aboriginal staff (1)
Low-Income Students (2)*					
First-Generation Students (3)*					

* The numbers following each strategy indicate the under-represented group(s) the approach is designed to support.

five categories of support which post-secondary institutions should integrate into their plan for retaining students. Each category includes a list of practices, strategies and policies which have been recommended or tried out by certain institutions.

The First-Year Experience: A Key to Success

“Since [1987], interest in the first year within U.S. colleges and universities has grown exponentially. Many campuses have joined the national conversation about the first year in an effort to improve student learning, personal development, and persistence to graduation”

(Barefoot et al. 2005).

Achieving and Sustaining Institutional Excellence for the First Year of College is a major review of successful practices in the first year of studies in post-secondary institutions in the United States published in 2005. It provides some excellent findings which help to identify institutional strategies and practices designed to promote student success in the critical initial year which have proven to be successful.

As part of the review, a panel of experts isolated five criteria for measuring the effectiveness of institutional strategies and policies designed to promote student success in the first year:

- an intentional and comprehensive approach to improving the first year;
- internal assessment of the approaches adopted;
- administrative support and sustainability;
- involvement of large numbers of stakeholders, such as faculty, administrators and student service professionals; and
- a broad impact on a large proportion of first-year students, including those from under-represented groups.

The top initiatives contributing to excellence in the first year include innovative practices in the following areas of activity:

- Advising
- Central advising centre
- Common reading
- Convocations
- Core curriculum/general education
- Electronic portfolios
- Experiential learning
- Faculty development
- First-year seminars
- Learning centres
- Learning communities
- Liberal arts
- Mentoring
- Orientation
- Peer leaders/advisers
- Residence life
- Service initiatives
- Summer academic programs
- Supplemental instruction

The review emphasized aligning first-year initiatives with overall institutional priorities, purposes, strengths and needs and student characteristics. It also indicated that students from under-represented groups are best supported by colleges and universities which adopt policies that meet several of the effectiveness criteria listed above.

Low-Income Students

Demography Is Not Destiny is a major study of access and completion rates of students from low-income families at large public universities in the United States. The study, sponsored by the Pell Institute and published in 2007, concludes that these under-represented students are not particularly well-served

by public policy and by institutions themselves. The study proposes several means of increasing participation in PSE among students from low-income families (Engle and O'Brien 2007).

Low-income students attending large public universities differ from their peers in terms of the resources they bring with them, as well as the experiences they have once on campus. Both factors are likely to reduce the chances of these students earning a degree. As described by faculty and staff, as well as by the students themselves, the profile of the low-income student is one of risk. Low-income students are described as lacking sufficient preparation for and exposure to the college experience.

The public universities experiencing the most success with low-income students paid special attention to their needs through the following five categories of initiatives:

- focusing on the first year;
- monitoring student progress;
- improving instruction in introductory courses;
- supporting student success; and
- offering special programs for at-risk populations.

Due largely to their lack of exposure to college, low-income students frequently told researchers that they either were not aware of the programs and services that existed on campus or they did not understand the function these programs served or how they could benefit from them.

The study also showed that admissions criteria play an important role. At some institutions, the impetus for increasing admissions standards comes from the system or state, often in the form of bans or restrictions on remediation, which were in effect at half of the institutions in the study. At one institution, a state-wide ban on affirmative action also forced a change in admissions policies. Some of the institutions saw decreases in the racial and economic diversity of applicants and enrollees after increases in admissions standards went into effect.

Federal loan limits have exacerbated the problem by increasing students' work burden. Several institutions reported a dramatic increase in the number of students with private alternative loans.

Developmental Education in Colleges

Promising Practices for Community College Developmental Education, sponsored by Columbia University's Community College Resource Center, is a review of multiple studies of remedial, or developmental, education programs intended to assist students to succeed in American community college settings and to transfer to four-year degree programs. The authors, Schwartz and Jenkins (2007), reviewed promising organizational and instructional characteristics, services, faculty-related practices and policy initiatives.

As a basic principle, the authors found that the most successful programs tended to take a holistic and multi-dimensional approach to developmental education: services were well-integrated and developmental educators occupied a status comparable to that of other educators on campus. Effective programs were goal oriented and had a set of agreed-upon criteria by which they would be evaluated. Orientation programs that fostered high expectations, articulated the effort required for success, and encouraged students to access all available academic and personal supports enhanced student success, as did frequent reinforcement of these messages. Multi-faceted and integrated counselling services, as well as pre-registration counselling, were found to have positive benefits for many at-risk students.

These programs were also most successful when they were highly responsive to the profiles of students in their own contexts. In many cases, being responsive involved the use of assessment and placement.

Promising developmental teaching practices tended to be active and often inquiry based. They provided students with new ways of acquiring skills. Often, effective instruction was characterized by dynamic student-student or teacher-student interactions. Culturally responsive teaching approaches, designed to promote inclusive learning for a diverse student population, were identified as promising practices. However, mastery learning, characterized by a curriculum divided into manageable units and ensuring a student's mastery of that material before he or she moves onto the next unit, was also deemed effective. Highly structured learning assisted

students to comprehend and organize multiple concepts simultaneously, and explicit instruction and practice in developing critical thinking, analytical reasoning and problem-solving skills were identified as elements of effective developmental education in community colleges.

Like the other studies reviewed in this section, Schwartz and Jenkins' review also identified the first semester as an important period for student success and found that a number of studies advocated completing all developmental courses before taking any academic or career courses. They noted that while some studies called for a mix of developmental and college-level courses in order to maintain student motivation, delays in taking remediation courses appeared to be associated with a negative effect on completion and transfer. Early identification was therefore viewed as an important process in enhancing student success.

Another similarity between this study and the other studies discussed here is that it identifies programs that promote a sense of belonging and learning in community as promising practices. As

well, programs that explicitly link multiple courses together to increase skill transfer were found to support student success. Outside-of-class but course-specific support offered through peer-facilitated group tutoring was also identified as a promising strategy.

A number of studies identified part-time and full-time faculty committed to the principles of developmental education and ongoing professional development as beneficial in the context of strategies for at-risk students. Collaboration and curricular alignment, as well as multiple opportunities for the exchange of ideas about teaching and learning, were seen as elements that could enhance student success.

From a policy perspective, this major study emphasizes the importance of establishing policies that reward commitment to developmental education and to practices that enhance persistence among at-risk students. Data collection, analysis and dissemination, at both the state and the institutional level, were said to promote a more proactive approach to responding to student needs and improving educational practice.

IV. Effective Practices for Access and Success

This section provides an overview of a range of emerging programs that facilitate academic success and access to PSE in communities and institutions in Canada and internationally. While these programs are almost invariably responsive to local needs and contexts, some common trends emerge. First among these is their responsiveness: program coordinators inevitably emphasize the importance of attending to the needs and experiences of the individual students, of ensuring that students are known, and feel known, within these programs. In varied ways, these programs are also culturally responsive, seeking to promote more diverse educational cultures within post-secondary settings and more open communication between institutions and prospective learners both on and off campus. Furthermore, they are responsive in their approaches to partnership: these programs typically draw on the services, resources and energies of multiple stakeholder groups and evolve as the groups learn from and about each other. Perhaps because of these characteristics, many of the programs described in this section are community-based but have prospered through an understanding of their relationship with the broader context of educational institutions, social policy and regulatory frameworks.

In terms of their models of practice, these programs typically rely on holistic and multi-faceted approaches to intervention, in keeping with the model of interacting and intersecting barriers and opportunities described earlier. They attend to a range of needs: academic, social, emotional and financial. They also often emphasize early intervention, recognizing that students' educational aspirations and actual opportunities may be determined well before the later years of secondary education. Another characteristic is the programs' emphasis on removing information bottlenecks and creating an equitable basis for

students' decision-making through initiatives that both familiarize students with the nature of post-secondary institutions and provide ongoing support to students as they venture into post-secondary settings. Finally, they are often characterized by a process of engendering leadership and community involvement by offering students progressively greater opportunities for leadership and mentorship: while they are mentored, they also mentor, guiding others through the stages of the educational process they have already successfully negotiated.

These programs are not without their challenges. The process of forming partnerships among multiple stakeholder groups and finding ways to operate within and among the disparate institutional cultures they inhabit can be fraught with difficulty. Moreover, as discussed in the context of the Pathways to Education project (described in detail below), existing funding structures do not necessarily lend themselves to the support of programs that share responsibility—and therefore accountability—among diverse institutions.

Ultimately, there is no universal and generic answer to the challenges of fostering post-secondary access and success for under-represented groups. The importance of attending to the specifics of individuals (their context, needs, etc.) is paramount, and what these projects have achieved is in no small way due to their capacity to enable multiple groups to share their knowledge and experience in order to foster an ongoing and evolving dialogue of examination and problem solving.

While the focus in the programs below is on institutional and community-based initiatives, some of the examples are meant to provide insights into the potential impact of national policy at the institutional level.

First Nations House of Learning: British Columbia

The University of British Columbia's First Nations House of Learning is guided by a President's Advisory Committee that includes Elders and representatives from Aboriginal communities, as well as university faculty. It makes the university more accessible to First Nations, Metis and Inuit students and improves the university's ability to meet the needs of Aboriginal students.

There are several need-based programs available at UBC that Aboriginal students can apply to: general bursary (winter and summer), work study program, affiliation bursary, affiliation scholarship, awards for Aboriginal students and awards for students with disabilities.

The House of Learning enables Aboriginal peoples to share their knowledge and culture with one another, the university community and the wider community as a whole. The university provides Aboriginal students with a building, the Longhouse, to serve as a home away from home. The building reflects the architectural traditions of the Northwest Coast and brings together a wide variety of services.

Career Pathways: Alberta

The Career Pathways framework is a focused approach to education designed to help students move into meaningful, productive futures. Schools in the Calgary Board of Education (CBE) have engaged in the process of becoming Career Pathways schools, which improve high school students' access to current, accurate and relevant education, career, workplace and labour market information. This will help them to make informed decisions about their preferred future. Schools provide opportunities to address learner needs and try to maximize community support for off-campus activities which complement each learner's pathway. Career Pathways includes career planning and career exploration, developing employability skill sets for students through coursework and experiential learning and being paired with an adult mentor.

All high schools involved in the program have career centres and full-time career practitioners. All schools engage in a variety of off-campus opportunities, including work experience, summer internships and work-study. A system-wide academic integration document and website have been produced for teacher use in middle/junior and senior high schools. Some schools have designated Pathways for students which focus on specific career-based training and opportunities (e.g., fine and performing arts, recreation and athletics, tourism, health and biomedical). Community partners have supported opportunities for students to view and participate in preliminary exposure and training for potential careers (e.g., the Symposium in Health Services/Recreation and Athletics hosted by University of Calgary; Registered Apprenticeships offered to students during the summer and school year). Partnerships with post-secondary institutions are established to bridge the transition from school to post-secondary (e.g., dual credit and certification as pharmacy technology assistant from the CBE and Southern Alberta Institute of Technology, with support from Alberta Education). One high school opened three years ago with the goal of being a Pathways school. Every one of the 1,700 students at this institution is involved in all aspects of the Pathways in their daily learning.

A review of the program completed in 2007 examined the work of secondary schools and included questions exploring the impact of Career Pathways on students. The review's findings indicated that Pathways schools' completion rates and scholarship applications had increased over the previous three years. Work preparation and transition rates from school to work and post-secondary studies had also improved.

Access Program and Transition Program: Manitoba

The University of Manitoba's Access Program is designed to help first-year students with their transition to PSE. Preference is given to persons who are Aboriginal (Status, Non-Status, Metis, Inuit), residents of Northern Manitoba and low-income earners. The program aims to increase student success through

academic and personal support. It includes an extensive orientation regarding university expectations, a staff-taught credit course on study skills and exam preparation, individualized academic advising and personal counselling and financial support. Access students may pursue most programs of study which lead to a degree or diploma at the University of Manitoba. Students must first qualify for regular university entrance or be a mature student in order to take advantage of this program.

Personal support/counselling is also available for Access Program students, in the form of housing assistance, childcare assistance, university/urban adjustment assistance, communication and personal development workshops and career counselling.

Many Access Program applicants receive funding from outside sources, including Band Sponsorship, Study Assistance for Social Allowance Recipients (SASAR), scholarships and bursaries. Students with insufficient outside funding can apply to the Manitoba Student Financial Assistance Program. In mid-May all completed applications are screened by a committee. Applicants who have been recommended by the committee are invited to Winnipeg for interviews. Successful applicants receive a non-repayable Access Bursary. These students are required to attend an extensive orientation in August. As well as the financial aid itself, financial support staff and counsellors are available to provide assistance to Access Program students.

Another initiative, the Transition Year Program, helps Aboriginal students build the academic and personal coping skills needed for success in the post-secondary program of their choice. The Aboriginal Focus Programs' (AFP's) Transition Year Program provides a supported first year of post-secondary study in full- or part-time community-based programs. It offers 18 to 30 credit hours of first-year courses through a program plan that respects the learning needs and goals of students.

The Transition Year provides students with an orientation regarding the common expectations and procedures of academic institutions (registration, schedules, library and lab usage, etc.) and academic advice, as well as access to the supports and services available at the University of Manitoba. The selection

of degree-credit courses in the Transition Year is determined in collaboration by the AFP, program sponsors and the faculty from which the courses are drawn. The following are examples of credit courses that have been offered in the program: Introduction to University, English Composition, Introduction to Psychology, Native Peoples of Canada and Interpersonal Communication Skills. There are also non-credit math preparation, math skills and university skills courses.

The ACCESS Model Program: Manitoba

The ACCESS program offers admission to specific Red River College programs for low-income residents of Manitoba who have not had the opportunity to succeed in college education due to social, economic, geographic or cultural barriers or a lack of formal education. Specifically, the nursing and civil engineering technology (CET) programs, which are designed as a transition to multi-year programs, and the integrated business administration (BAI) program offer priority access to individuals from under-represented groups.

All of these programs provide need-based access to bursaries and to counsellors who assist students in seeking alternative funding if they do not meet ACCESS criteria. As well, they offer students academic and personal counselling, tutorial assistance and supplementary classes, and allow for a modified pace of study.

The one-year CET program is designed especially for applicants from Aboriginal populations. It incorporates Aboriginal guiding principles and the services of an Aboriginal cultural and spiritual advisor.

Westview Partnership: Ontario

The goal of Toronto's Westview Partnership is to provide access to PSE for first-generation students who may experience systemic barriers to continuing their education or training. Like most access programs, the Partnership targets students in high school; however, because educational pathways are frequently determined at an earlier stage in students' lives, a significant number of Westview programs are designed to serve younger students, and one program

provides social/procedural, academic and financial assistance to students in a post-secondary institution. Over the school years JK to 12, students in the target neighbourhood are often involved with Partnership programs to varying degrees. The programs seek to engage youth and their families in the world of education and to demonstrate the value of advanced planning for post-secondary education or training.

The Partnership began in 1991 as a collaborative venture between York University's Faculty of Education and the North York School Board, now part of the amalgamated Toronto District School Board (DSB). It began with five schools: one high school, one middle school, and three elementary feeder schools. By 1994, the Partnership had grown to 11 schools, and it currently encompasses 22 public schools, one Catholic school and York University. The total number of students in post-secondary pathway programs exceeds 2,000 yearly, with another 4,000 benefiting from the presence of a pre-service teacher candidate from the Faculty of Education at York in their classrooms. This number constitutes more than half the population in the participating schools.

One of the Partnership's fundamental design principles is the premise that intervention at the high school level only is not sufficient for all students. Many first-generation students have written themselves out of the educational picture by the later stages of secondary school. They may have physically dropped out, been forced out of the system or have disengaged from the academic stream. Many who remain do so under duress, putting in the least possible effort. Somewhere in their middle school years, many children make the decision that PSE is neither attainable nor desirable.

The Partnership also places an emphasis on partnering with local community groups in design and delivery whenever possible. Westview believes that working with existing organizations is far more likely to result in sustainable initiatives and to empower residents, children and adults alike to support and engage in the schooling process.

A third principle is to offer programs in varied spheres of endeavour—academics, literacy, athletics and recreation, the arts and science and technology. This helps students to realize that there are many

pathways to PSE beyond traditional reading and writing skills and that there are many options to pursue once there.

The segment of the population targeted is circumscribed demographically and geographically by the boundaries of the Toronto DSB-North West 2 Family of Schools. The area, generally known as Jane-Finch, includes students who face systemic barriers such as ethnicity, gender, socio-economic class or status and length of time in Canada. Most residents experience a combination of these challenges, often compounded by others such as learning disabilities and single parenting.

The Toronto DSB serves approximately 280,000 elementary and secondary students comprising over 150 nationalities and 80 languages. Approximately 25 percent of elementary students and 43 percent of secondary students were born outside Canada; approximately 50 percent are English language learners.¹ Within Toronto, more than 160,590 children are growing up in high-poverty neighbourhoods. The city saw a 400 percent increase in immigrant families living in poverty between 1999 and 2001, and more than 311,500 immigrant families are living in high-poverty neighbourhoods (United Way 2001).

The Jane-Finch community represents an area within Toronto where education-related challenges are particularly acute. Every second year, the Toronto DSB publishes the Learning Opportunities Index (LOI), a ranking of elementary and secondary schools based on 10 statistically valid and reliable measures taken from Statistics Canada, postal code analysis and its own information. The LOI is a measure of social and cultural capital in a school population and represents challenges facing a school. It ranks each school from most needy to least needy. All of the schools in the Jane-Finch community fall within the bottom quartile, and most are within the bottom five percent. Westview Centennial Secondary School has ranked neediest for six of the past eight years. The DSB has documented that students in low-income neighbourhoods are less likely to achieve provincial standards in reading and writing and are less likely to receive extracurricular, nutritional and cultural supports than students in more advantaged neighbourhoods.

1. These numbers are based on information from Donna Quan, System Superintendent, Toronto DSB Intergovernmental Committee for Economic and Labour Force Development, at the Toronto DSB's 9th Annual Meeting, May 2006.

As the above statistics indicate, students in the community served by the Westview Partnership face enough barriers that they may be deemed first-generation students. Even if their parents have attended post-secondary, it is likely to have been in another country, and the experience is not transferable, as both parents and children struggle to learn English and adapt to schooling in their new country.

In seeking to help students in the area, Westview has developed partnership programs with a number of groups over the years. These include Seneca College, numerous York University academic and administrative departments, community groups, the Toronto Catholic District School Board, government departments and private donors. Partnership programs offer multiple layers of support and intervention across school levels, community and academic settings, and audiences. The programs create a diverse range of scaffolding for student success, varying in breadth, duration and intensity.

Programs respond to student needs through academic remediation and enrichment, informed and empowered parent-teacher communication, advanced credit programs and social interaction rooted in post-secondary settings that can productively inform students' educational aspirations. Specific measures include:

- Academic support through multiple tutoring programs and dedicated summer camps such as Promoting Excellence, which engages at-risk Grade 8 students with literacy and numeracy activities and recreational opportunities that enable them to earn a Grade 9 credit course before beginning Grade 9. This program continues into secondary school through peer mentoring programs, after-school arts classes, etc. Results in students' Grade 9 achievement have been dramatic.
- Enrichment programs in various fields including math, science and the arts, offered as summer and after-school programs through the collaborative efforts of groups on campus, in the schools and in the community.
- Experiential education such as the York/Seneca Science and Technology Program of secondary-level summer internships in the sciences.
- Short-term familiarization programs such as Higher 5, through which every Grade 5 class in the area is offered the opportunity to spend a day pursuing enrichment activities on campus.
- Sustained bridge programs such as the Advanced Credit Experience (ACE), which offers middle-achieving students at risk of not attending PSE the opportunity to spend a semester on campus. They take a first-year humanities course with other high school, first-year university and college students. ACE students receive prior and ongoing tutoring and preparation and also earn three credits in cooperative education working in various faculties and departments.
- Mentoring by peers and community members, such as the Westview Alumni@York project, which offers successful third- and fourth-year York students from the local community tuition credit for mentoring first-year peers. Other mentoring programs involve groups from diverse faculties and departments on campus, as well as community members involved in athletics, academics and character education, teachers and lawyers.
- Employment opportunities for youth in the community which offer financial support for continuing education.
- Community-based programs geared toward improving community-school partnerships and community engagement in schools—for example, the Home and School Learning at Firgrove Model School program, which assists parents, primarily new Canadian single mothers living in subsidized housing in the community, to understand and intervene in their children's education while simultaneously improving their English proficiency. This model includes simultaneous educational programming for children, as well as social interaction through a shared meal. A community-based Master's of Education program (York) offers evening and weekend courses in which teachers, administrators and parents collaborate in examining issues in urban education and in developing research projects.

The Westview Partnership is predicated on providing ongoing K-12 support for children and families in a highly transient neighbourhood. As such it is a long-term intervention whose results may not become completely apparent for 10 or more years. The project goal is to track students at or above Grade 8 to determine their eventual post-secondary destination and to collect qualitative research data from participants and parents of students in elementary school Partnership programs. A number of research initiatives in the Faculty of Education and the Faculty of Arts (Sociology Department) at York University are currently ongoing. Initial results are extremely encouraging.

Pathways to Education: Ontario

The first Pathways site, Regent Park, is the oldest and largest public housing project in Canada. The average family income is \$18,000 per year, approximately 75 percent of its residents are immigrants and nearly 80 percent are visible minorities. English is a second language for nearly 60 percent of adults, and the community has twice the number of single-parent families as the rest of Toronto. There are no high schools in the community, and a number of residents have reported the negative effects of the community's stigma among educators. It is no surprise that prior to Pathways, the dropout rate in Regent Park was 56 percent, twice Toronto's average, with over 70 percent of children who dropped out coming from single parent or immigrant families. Many at-risk communities share similar dropout rates.

The Pathways to Education initiative responds to the overwhelming evidence that schools alone cannot address the varied risk factors faced by youth in communities such as Regent Park. Effective support must be community-based, and a comprehensive and integrated approach is required to meet challenges.

The program was launched in 2001 as an initiative of the Regent Park Community Health Centre after an extensive process of community consultation and engagement. The comprehensive, community-based and results-focused approach differentiates it from many Canadian and U.S. efforts, as it focuses on the support required to address the barriers faced by many young people.

The program has built strong working relationships with youth, as well as funders, schools, the community, health centre and parents. It is comprised of more than 90 percent of geographically eligible students and has enrolled more than 1,000 students in six cohorts. The program works to increase academic retention, attainment and success for students throughout high school. Each component of the Pathways program model is monitored and reviewed in order to ensure continuous improvement.

Based on data from the first three of six cohorts who have completed secondary school (summarized below), the program has been effective in increasing the post-secondary participation rate of low-income and first-generation youth. Pathways has thus demonstrated that the dropout rate (and other factors) can be improved with a comprehensive program. Moreover, it has shown that this can be done in a cost-effective way.

As of September 2007, the Program had been implemented in four additional low-income communities in Ontario (Lawrence Heights and Rexdale in Toronto, Ottawa West and Kitchener) and one in Quebec (Verdun).

Pathways to Education is structured around four pillars of support: academic, social, financial and advocacy. Each of the four supports is part of a holistic approach helping young people graduate and develop a positive self-image and attainable future. The program provides students with the tools they need to succeed in the classroom and the skills they need to adapt to life beyond Regent Park.

- **Academic Support**

The goal of tutoring is not only to provide support in core academic subject areas but also to address individual learning styles, study skills, ESL needs and literacy levels. Students are expected to attend tutoring twice a week if their marks fall below certain percentages set for each subject area. Many Pathways students continue to attend tutoring even if their grades are above the set percentages because it is a safe and positive learning environment and they develop relationships with their tutors. The Pathways tutoring approach has been designed to address academic, social and community challenges. More than 200 volunteer tutors come to Pathways from a variety of backgrounds.

- **Social Support**

Career mentoring not only offers youth the chance to learn about their education and employment choices for the future but also helps them develop interviewing skills and confidence. All mentors are carefully recruited, screened and trained volunteers. There are over 75 volunteer mentors participating in the group mentoring program, with dozens of others involved in specialty and career mentoring offerings for Pathways' older youth. A significant aspect of successful mentoring is the level of student engagement in the mentoring placement. The mentor's role is to help students achieve success and deal with issues arising from planning and participating in both formal and informal mentoring activities. As well, students learn about peer, family, community and self support by discussing their experiences in high school, with their families and in the community.

- **Advocacy**

Because Pathways' students attend 40 different high schools (although the vast majority are accounted for by nine schools), their particular needs may not be met. In addition, language and cultural barriers prevent many of their parents from advocating on their behalf in the schools, justice system or other community-based programs. The program's Student-Parent Support Workers (SPSWs) help to overcome this problem by acting as a "bridge" between schools and parents. Each SPSW manages case loads of approximately 50 students. They have a physical presence in each of the high schools that Pathways' youth attend and collect, review and evaluate Pathways' students' attendance, grades and credit accumulation. The SPSWs liaise with teachers, guidance staff, social workers, safe schools advisors, attendance counselors, vice-principals and other administrative staff. They provide information about community resources and events. They refer Pathways' youth to community agencies for additional health or other supports. Since Regent Park is a culturally diverse area, services are often provided to parents in their first language. As the area is home to a high number of immigrant families, students may feel the

pressures of being "in between" their parents' home culture and Canadian culture. SPSWs try to help them manage these challenges.

- **Financial**

Transportation Support: As the average Regent Park household income is \$18,000, and there are no high schools in the community, affording transportation to high school is a challenge for many people. Transportation support is one way Pathways provides everyday support to students and families with an economic disadvantage.

Post-Secondary Support: For families from Regent Park, the high cost of PSE is a significant obstacle. Due to financial constraints, many of the community's youth do not have the luxury of dreaming about or planning for college or university. To help overcome the financial barrier, Pathways holds \$1,000 in trust for each year of high school completed, to a maximum of \$4,000, to be used toward post-secondary financial support. The funds are disbursed directly, on the student's behalf, to post-secondary institutions for tuition, books and other approved expenses.

By far the Program's greatest achievement is the delivery of integrated supports through a community-based program. With the support of the Toronto DSB, attendance, credit accumulation and other data are collected and analyzed. Program improvement also requires data from students, parents, staff and volunteer mentors and tutors, who collectively inform an ongoing understanding of the needs and challenges faced by Pathways' youth, along with ideas to continue to make the program even more effective.

Since 2001, the Pathways program has:

- reduced absenteeism by 65 percent;
- reduced the percentage of youth with serious attendance problems by over 75 percent;
- reduced the percentage of the most academically at-risk students by two-thirds for each cohort and grade;
- reduced the dropout rate for Regent Park youth by 75 percent—i.e., from 56 percent to approximately ten percent—over the first three cohorts;

- increased the five-year graduation rate from 42 percent to over 75 percent and more than doubled the rate to over 85 percent after six years;
- seen a 90 percent acceptance rate for four-year graduates who applied to colleges and universities;
- increased the proportion of high school graduates from Regent Park going on to PSE from an estimated 20 percent (colleges eight percent; universities 12 percent) to over 80 percent among cohort 1 and 2 graduates (over 90 percent of these are first-generation students);
- seen remarkable retention rates in post-secondary programs, with 98 percent of cohort 1 and 2 post-secondary students remaining enrolled; and
- seen Pathways students outperform their peers at the same secondary schools and those in three comparable communities.

The Pathways to Education experience suggests that many factors must be addressed in order to achieve a significant increase in post-secondary participation for low-income and first-generation young people. “Institutional” responses from secondary and post-secondary schools, as well as related government initiatives, are necessary but not sufficient to overcoming barriers. A community-based approach provides crucial elements for success through supportive relationships.

Sustaining the Pathways approach has not been easy, as it does not fit within the mandates of government ministries, which, for example, provide funding to support schools, colleges, universities and apprenticeship program. These have become the focus of analysis rather than the success of young people or their communities. While Pathways has received most of its funding from the private sector (foundations, corporations and individuals), it has begun to receive some public funding based, at least in part, on the results achieved. Sustaining these results, as well as developing the program in other communities, will require a significant public investment comparable to that given to traditional educational institutions. This would appear to be necessary if under-represented youth are to be

included in PSE—an outcome whose social benefits extend far beyond increased post-secondary participation rates.

Pathways to College: Ontario

“Now it’s our job to welcome these students to college and support them so they can remain successful and graduate from George Brown”

(Brenda Pipitone,
Director, Office of Special Projects
and Community Partnership).

Since 2005, George Brown College and the Pathways to Education Program in Regent Park have worked together intensively to ensure the successful transition to college for Pathways’ students, who face many academic, social and financial challenges. The knowledge gained through this partnership has also informed the college’s work with other first-generation students at George Brown and in high schools across Toronto. The college’s partnership with Pathways is the cornerstone for building a bridge from the community to college.

The partnership began in May 2005, when the Pathways to Education Program approached George Brown College to help the first cohort of students planning to attend the college in September to make the transition to PSE. Since then, in continuous collaboration with Pathways to determine what supports work best for students, the college has worked with the first three Pathways cohorts in both formal and informal ways. The partnership includes the following:

- A primary person at the college is designated as the single point of contact for Pathways students.
- Assistance is provided with registration and financial assistance processes, bookstore purchases and other matters as they arise.
- A special college and Student Services Centre orientation is offered.

- Retention is a priority—a targeted mentoring program and ongoing guidance help early identification of risks to academic success.
- A number of meetings and informal discussions are held throughout the year to provide information, support and guidance.
- A group of students in the first Pathways cohort have been trained and are serving as mentors to subsequent Pathways cohorts.
- Orientation sessions tailored for the cohorts of Pathways students have been developed.
- Part-time jobs at the college have been arranged for several students. These provided meaningful employment and a stronger sense of belonging.
- To give younger Pathways students a head start on making the transition to post-secondary, George Brown offers a general interest credit course for Grade 11 and 12 students at Pathways. The course, called “Speaking with Confidence,” provides students with a chance to earn a college credit before graduating from high school and to experience the college environment at classes held on campus.
- For the second and third cohorts of Pathways students, a welcome dinner was held on campus for the new students enrolled at George Brown, providing them an opportunity to come to the college with their parents and siblings, tour the campus and meet some of the college staff and student mentors.

The first year of the collaboration between George Brown and Pathways to Education saw seven students apply to the college, with the numbers rising to 20 and 70 for the next two years. It is expected that the number of students will continue to increase each year.

The college believes that the increase in applications is in large part due to the relationship it has developed with Pathways and the ongoing joint efforts to find the right services and programs to meet the needs of the students, both before they start at the college and after they arrive. Based on the experience of the first year of the partnership, Build-the-Bridge support meetings are now held

with applicants immediately, whether they end up at George Brown or not, in order to give students a head start in terms of adjusting to the post-secondary environment.

As of September 2007, the retention rates for Pathways’ students currently enrolled at the College were:

- Cohort 1 students going from second to third year—100 percent retention
- Cohort 2 students going from first to second year—61 percent retention

Pathways to Education and George Brown College see future potential arising from their collaboration. Pathways, which is in the process of expanding locally and nationally, is using the partnership with George Brown as a model for establishing similar connections with other educational institutions. For its part, George Brown is using the knowledge and expertise it has developed in its partnership with Pathways to broaden the scope of its work to include other first-generation students within the college and in local high schools and community agencies.

Donors also make it possible for George Brown to give scholarships and awards to needy students. Through the Ontario Trust for Student Support program, contributions to student endowments are matched dollar for dollar by the Government of Ontario, which doubles the impact of every contribution to student success. The money raised supports an endowment, which generates annual student awards in perpetuity, with annual interest distributed in the form of bursaries, scholarships and entrance awards to students who are in financial need (information provided by B. Pipitone via personal communication, November 20, 2007).

Seneca Centre for Outreach Education (SCOrE): Ontario

SCOrE equips economically and educationally disadvantaged youth with skills and strategies to overcome barriers to employment. It is a one-year general arts and science certificate program for youth who have not completed all of their Grade 12 courses and who are first-generation post-secondary students between the ages of 19 and 26. The program offers

financial aid, mentoring and personal and academic support. Upon completion of the one-year program, students are eligible to enroll in a college program at Seneca or (with an additional term of courses, and a minimum B average) at York University.

Seneca Aboriginal Services provides a further level of support specifically for students from Aboriginal communities who are taking part in SCOrE, including advising, a peer support program, community referrals, social events and a student club. Aboriginal Services also provides assistance in accessing financial aid and scholarships.

First Generation Program: Ontario

The First Generation Program at Brock University is designed to help those students who are the first in their immediate families to attend PSE. It aims to ease the transition of these students from high school to university. It offers both academic and personal support. As part of the academic support, study groups are designed by course, workshops are organized for students, one-on-one help with school-related issues is provided by a learning skills instructor and consultations regarding academic issues are offered.

Extracurricular activities of the First Generation Program include opportunities to volunteer in the community throughout the year, opportunities for group discounts for classes and workshops delivered by other departments at Brock University and recognition for participation in guest speaker lectures and events organized by various groups at Brock University and in the Niagara Peninsula. The program creates first-generation teams that play in sports intramural leagues, tournaments and recreational leagues. First-generation students are also encouraged to participate in social events organized for them.

The LEAD Project: Ontario

The LEAD (Leadership Experience for Academic Directions) program, a joint effort of the University of Windsor and the Windsor-Essex Catholic District School Board, connects at-risk students entering

secondary school with two university student mentors, one from the faculty of education and one from the faculty of human kinetics. The four-year program offers students guidance and support, both academically and in terms of peer leadership skills.

At-risk students identified for the LEAD program take part in a nine-day outdoor education field experience at the Muskoka Woods Outdoor Education and Leadership Camp. As part of their preparation to become peer leaders for future participants, these secondary students are then mentored by a teacher candidate and a kinesiology student who has typically taken part in a comparable outdoor education program. Each mentoring team works with up to three high school students, assisting students in building caring capacity and leadership skills.

This program illustrates a number of key practices in programs promoting academic success and persistence, including early intervention, the necessity of support from multiple stakeholder groups, the use of peer mentoring, emphasis on transitional support and attention to students' skills and needs beyond narrowly defined academic practice. One of its strengths is its emphasis on multiple and diverse levels of mentoring, which increase opportunities for mediation and communication. A major goal of the project is to influence teacher practice through intervention during teacher candidacy to create lasting understanding of the needs and lives of at-risk students. Currently, a four-year study to examine student outcomes is underway.

University of Windsor Multi-Year Agreement (MYA): Ontario

In conjunction with the 2005 Budget, the Ontario government introduced a plan to invest \$6.2 billion into the post-secondary education and training system by 2009–10, entitled Reaching Higher. The government's goal was to use these investments to improve access, quality and accountability in the post-secondary system. One element of meeting this goal was the introduction of Multi-Year Agreements (MYAs), in which each institution is required to

provide an annual summary of their efforts to increase enrolment, persistence and success among under-represented groups. Institutions also provide a yearly overview of strategies and programs used to support access in accordance with the Student Access Guarantee, a policy that ensures that no qualified student will be barred from attending Ontario's public colleges and universities due to lack of financial support.

In response to the requirements of the MYA process, the University of Windsor provides an annual summary of practices and programs that track participation of students from under-represented groups, including students from Aboriginal communities and first-generation university students. It then delineates the services, programs and projects intended to promote success for students identified as members of those groups. The key points of this summary, discussed below, illustrate the kinds of programs and policies promoting access and success for under-represented groups that are being undertaken within the MYA framework.

- ***Aboriginal Student Identification***

With careful attention to personal privacy, the Aboriginal Education Centre at the University of Windsor works with the Cashier's Office to identify students who may be from First Nations communities on the basis of, for example, Band funding or home address.

- ***Aboriginal Student Services and Programs***

The University's Turtle Island Aboriginal Centre provides service and support for Aboriginal students. Turtle Island acts as a social centre and a presenter of special presentations for the Aboriginal community on campus. It also coordinates support services for students from Aboriginal communities and acts as a liaison and facilitator with regard to education and funding bodies.

The Aboriginal Education Counsellor works as an admission advocate and provides referrals to campus services, academic advisors and faculty. The counsellor also influences programming decisions—for example, by working with the faculty of arts and social sciences to develop a minor in

Aboriginal studies, a program which promotes Aboriginal issues on campus and in the community and provides further support for recruitment efforts. The counsellor plays an important mediating role on campus and in the community, through building strong ties to faculty and facilitating research projects involving the university and local Aboriginal communities. These projects have raised awareness of access opportunities within the communities. For example, in 2006, the faculty of education, the Walpole Island Heritage Centre and Aboriginal research team members were involved in a collaborative project that documents and records language and mathematical concepts involving Turtle Island. Similarly, a multi-disciplinary team from the faculty of arts and social sciences and education has undertaken a \$200,000, three-year SSHRC grant. The project, entitled Better Futures for Bkejwanong, involves a partnership between Turtle Island Aboriginal Education Centre, NinDaWaabJig Heritage Centre, and the Bkejwanong Research Action Group and focuses on a comprehensive assessment of social, educational, psychological and physical correlates of individual and community risk and resiliency.

The Aboriginal Education Centre works closely with educational coordinators from First Nations' groups and attends career and regional education fairs for Aboriginal students. As well, the University worked in partnership with several Aboriginal groups to organize two health fairs, one in Windsor and one on Walpole Island. These events are important opportunities for building relationships that sustain students through the application process and beyond into their academic careers.

The MYA also provides information about programs that integrate academic field work within Aboriginal community settings. One example is First Nations Master's of Social Work students who are completing their practicum at Walpole Island First Nation.

Finally, the university has developed a number of scholarships and bursaries for students from Aboriginal communities to support access and retention.

- ***First-Generation Student Identification***

Recent National Survey of Student Engagement data indicated that over 50 percent of new students at the University of Windsor come from families where neither parent has a university degree. In April 2007, the university administered a web survey to new registrants in order to identify first-generation students who might benefit from specialized support services.

- ***First-Generation Student Services***

The university has created easily accessible information for these students and their parents, including a website designed to provide information on the transition to university, a more detailed calendar outlining the rhythms of the academic year and links to financial aid support, the Centre for Career Education and a monthly parent newsletter. As well, the university offers online services to enhance first-generation students' career preparedness, access to experiential education and interview skills.

A learning commons currently in the early implementation stages will bring together in a common location most undergraduate student academic support services. The learning commons' extended service hours, as well as access to services through the quickly evolving student portal, will address the need to support at-risk students.

The MYA also outlines projects currently at the planning stages. The university is developing a one-stop student services area linking admissions, student financial aid and the cashier's office to provide more effective one-on-one service. Planning for a first-year advising centre supporting at-risk and undeclared students is underway. Further support will be accessible through the Student Wellness Network, currently being established by a multi-disciplinary team on campus. Finally, the university is improving its undergraduate scholarship package, which will more adequately address the access needs of first-generation students.

- ***Student Access Guarantee***

The MYA summary must also outline the strategies and programs that the post-secondary institution employs to support access to all qualified Ontario students regardless of financial barriers, in accordance with the Student Access Guarantee. The government continues to provide support, for example, through the Ontario Student Assistance Program, limits to students' annual repayable debt and matching of funds raised by institutions to establish endowments.

The University of Windsor's MYA summary refers to its promotion of the availability of need-based funding to both prospective and current students through printed and online materials and in workshops and information sessions. The student portal provides 24-hour access to an awards search function that informs students about the university's grades- and need-based funding options. In the 2005-06 year alone, the online award application interface processed 9,662 applications for awards, the majority of which were for need-based funding.

Outreach programs are an important part of the Student Access Guarantee as well. In the 2006 MYA, the university reported on the organization of high school visits incorporating discussions of financial planning for PSE and financial assistance possibilities, with e-mail follow-up to students. Deadlines for assistance applications are extended whenever possible to provide access to the greatest number of students. Long-term outreach programs were also delineated.

Beyond these services reaching out to specific under-represented groups, the University of Windsor's current strategic plan directs significant resources toward the further development of an on-campus culture which is "centred on learning." Focusing on the unique learning needs of the highly diverse undergraduate and graduate student population, strategic initiatives have focused on the provision of first-year programs and courses intended to increase students' chances of persistence and success in faculties such as engineering, business and arts and social sciences.

Aboriginal Access Program: Ontario

In 2007, Lakehead University mandated a new Vice-Provost, Aboriginal Initiatives, to assist the growing Aboriginal student population and to act as a clearing house for Aboriginal research, academic programs, student support services and community collaboration. The university also has an Aboriginal Management Council, formed in response to the Ontario Ministry of Education and Training's Aboriginal Education and Training Strategy in the early 1990s.

Lakehead University is committed to promoting opportunities through education for people of Aboriginal Ancestry. It offers a wide range of programs designed to encourage Aboriginal individuals who might not meet the regular or mature student admission criteria to pursue a university education. There are several programs offered specifically for Aboriginal students: the native teachers education program, indigenous learning program, native language instructors program and native nurses entry program. The native access program is a nine month full-time preparatory program, teaching necessary skills and academic preparation, required for the successful completion of a university degree.

Lakehead University also established the Office of Aboriginal Culture and Support Services, which offers a wide range of services: administrative, academic, individual, cultural and transitional support. The office assists students to achieve their academic goals by advocating on behalf of students on a number of issues, including funding from their bands or other funding agencies.

Outreach Schools Network: Quebec

Entry into colleges and universities in Quebec is dependent on students obtaining the Quebec High School Leaving Diploma, a Grade 11 (or Secondary V) certificate requiring passing grades in ministry-administered subjects such as mother tongue, second language, science, history of Quebec and Canada and

mathematics. For many young people this becomes a challenge, with the result that the province has traditionally been faced with a major high school dropout problem, especially among male students. For example, in 1979 the proportion of 19 year olds who left school without a diploma was 40.5 percent (Ministère de l'Éducation du Québec 2007). In 1989, out of every 1,000 students who began elementary school, 357 were likely to discontinue their studies, including 206 who were identified as relatively competent pupils who should have been able to graduate (Ministère de l'Éducation du Québec 1991).

Great efforts have been made to address this concern over the years, and they have had some success. In 2005, only 19.7 percent of 19 year olds were without a secondary school diploma (Ministère de l'Éducation du Québec 2007). There are a number of factors that have helped improve the overall situation, including increased funding, curriculum reform and improved in-service for teachers.

One unique response to the dropout problem was developed by the Protestant School Board of Greater Montreal (PSBGM, now known as the English Montreal School Board) in the 1970s. Although it has received minimal publicity, the PSBGM's Outreach Schools Network has been a noteworthy success.

The Outreach Schools Network started as a small program run out of a storefront school on Walkely Avenue in a working-class section of Montreal, making use of a surplus teacher. The goal was to attract unemployed youth who had left school and try to keep them busy during the day. Within a few months, many of the youth indicated that they wished to try to write the same examinations that their peers were sitting at the local high school, and soon an actual academic program was born: Options High School. Over the following years, one school after another was created by other innovative teachers with financial and moral support from the Student Services Department. By 2005, the network of alternative schools had grown to encompass ten separate programs.

Outreach Schools Network programs share certain common features. Students in the programs could be referred to as "dis-" students: the disinterested, the disaffected, the disenfranchised and those with

discipline problems. Dropping out or being pushed out of regular high schools for a variety of reasons, all these students share a common problem: lack of success.

The alternative schools tend to be small, autonomous units, ranging from a staff of seven teachers at Options II High School to a staff of two to three at a small program for unwed mothers. Teachers teach more than one subject, and the programs operate with a head teacher who also carries out administrative duties.

The Quebec Government's educational reform, the Quebec Education Program (QEP), has now entered high schools, having moved through the grade levels from elementary school. Interestingly, many of the reforms or good practices implemented through the QEP had already been in evidence in Outreach Schools for years. For example, the schools emphasized small teams of teachers working in a collaborative manner. Many of them began as team projects and were initiated from the bottom up instead of from the top down. Teachers strove to make the schools attractive to their clientele, creating option courses and local programs adapted to the needs and interests of the students. Schools were also separated by cycle: "junior" schools focused on Grades 7 through 9, while senior schools concentrated on high school leaving courses in Grades 10 and 11. In the days before the 75-minute period was common, alternative schools often used large blocks of time for afternoon sessions in physical education, media, art and so on. Some Outreach Schools devoted themselves to making use of technology. In the early 1980s, it was rare for disaffected students to be permitted to take computer courses, but in the alternative schools, educational technology was no longer reserved for the privileged. Perhaps most important of all, the Outreach Schools connected with their students in a way traditional schools seemed unable to do. Students were closely monitored by their teachers through Teacher Advisory Groups or Advocacy Groups, and immediate feedback to parents was the rule rather than the exception.

In a nutshell, the alternative schools gave control of the educational organization back to the teachers and the students. Schedules and operating hours

were made flexible, with schools returning to the Monday to Friday mode of operation that the rest of society followed. Courses could be concentrated so that students could take advantage of final ministry examinations in January, when the chance of student "burn-out" was reduced, instead of June.

New programs were launched. For example, the only high school of the English Montreal School Board to offer a government-approved "Volet 2" program was one of the alternative schools with a total population of only 45 students. This program made contacts with the manufacturing and service industries to allow students with weak academic potential to work two days per week as interns, while studying high school subjects the remaining three days of the week. Many students used their experience to enter the job market, while others renewed their interest in finishing high school. Funding by the ministry allowed the school to hire a coordinator for the project, and eventually the program grew to involve students from most of the Outreach Schools.

Autonomy encouraged experimentation, and as the numbers of students were generally quite small, inter-disciplinary projects were easy to coordinate. For example, one school, Programme Mile End, set up a simulated research company called OrangeCorp, in which students created and executed specific research projects within the community. One study found out that nearly 60 percent of local corner stores sold alcohol to children. After their research was reported in the *Montreal Gazette*, the students were interviewed for the CBC national radio show *As It Happens*, as well as the evening television news. The local police station commander soon distributed their report to his officers, and by September all grocery stores were obliged to post a large notice that selling of alcohol to minors was strictly forbidden. Thanks to projects like this, students who had been problematic and in danger of dropping out of school altogether had become re-motivated and actively involved in their learning. They all graduated.

In 1994, the PSBGM commissioned a study by a private consulting firm to analyze the Outreach Schools Network, examining financial costs and benefits, as well as satisfaction rates among stakeholders. The report recommended an immediate infusion of

monies into the system, which it described as underfunded. It found that the students were consistently more satisfied with their school than students from regular high schools. It showed that teachers were more motivated and expressed a higher degree of satisfaction than did regular teachers, including a more positive psychological impact from their work than those in regular high schools (Wener Consulting 1994).

The report also corroborated a study of the Outreach system in the late 1980s that found Outreach students to be highly satisfied with their schools. Students indicated that in spite of not having access to proper cafeterias, libraries, labs or gym facilities, they were satisfied because of their caring teachers (Hatfield 1987).

Most English school boards in Quebec operate some kind of alternative program within their territories, although most are organized within regular high schools. However, the English Montreal School Board is the only one that operates a comprehensive system of such schools. In 2005–06, over 500 students were enrolled within its nine Outreach Schools. Considering the type of challenging clientele that comprise the student population, it had a favourable retention rate (see Table 5 below). The Outreach Schools Network also played a large role in the

overall school board graduation rate, which ranked among the highest in Quebec, in spite of the fact that its territory comprises some of the most socially and economically disadvantaged areas of Montreal (Ministère de l'Éducation du Québec 2005).

Québec en Forme: Quebec

This program, run by the André and Lucie Chagnon Foundation, is based on the philosophy that intervention with regard to academic success can begin as early as the pre-school level and that a healthy, active lifestyle will increase the chances of success. Its ultimate mission is to help disadvantaged youth get out of poverty by helping them overcome developmental disadvantages. For example, the psychomotor development of pre-school children from low-income backgrounds is over one year behind that of children from well-off backgrounds, and this delay has negative effects on learning.

Québec en Forme is based on a partnership between the provincial government, university researchers, elementary schools and the community. It advocates for improvement of physical health and social integration through physical activity, two factors associated with academic success.

Table 5: Outreach Schools Network Retention Rates

	Retention Rates 2005–06				2004–05	2003–04
	Active Students	Departed Students	Total	Rate	Rate	Rate
Elizabeth High*	12	6	18	67%	45%	77%
Options I	39	10	49	80%	78%	93%
Options II	108	14	122	89%	74%	68%
Outreach	30	13	43	70%	78%	60%
Perspectives I	37	5	42	88%	83%	76%
Perspectives II	51	8	59	86%	79%	69%
Programme Mile End	44	12	56	79%	65%	72%
Venture	49	3	52	94%	80%	84%
Vezina	46	16	62	74%	79%	93%

* School for pregnant teens and single mothers.

The program was begun in 2002. Since then, it has expanded to encompass 140 participating schools in disadvantaged areas. It has enabled 35,788 children aged four to 12 to benefit from psychomotor development activities and supplementary physical activities outside of class. The approach used is global, integrated and customized.

By 2010, the results of research evaluating psychomotor development, physical health, academic adaptation and academic success in participating children will be available.

NSCC Access Programs: Nova Scotia

Nova Scotia Community College (NSCC) offers multiple access programs in response to the needs of under-represented groups. These include the Adult Learning Program, the African Canadian Transition Program and the Pathways Stream. NSCC recruitment policies also encourage access through a program that sets aside one seat per program for the first qualified applicant from a First Nations community, the first qualified applicant of African Canadian descent and two qualified graduates of the Adult Learning Program.

The Adult Learning Program provides adults without a high school graduation diploma with the opportunity both to develop employability skills and to take credit courses toward a high school diploma. Because the program takes place within the college environment, it also functions as an access program for students with previously challenging relationships with school environments. Students in this program can also get credit for courses taken previously from vocational schools, colleges or universities and for prior experience through a process of learning assessment and recognition. For students who qualify for registration, the program is tuition free.

The African Canadian Transition Program is aimed at adults self-identifying as of African-Canadian descent and who have not completed high school.

It offers these students an opportunity to explore the history and culture of Black People in Nova Scotia and around the world through a one-year program that often acts as a transition into the NSCC Adult Learning Program. The program enhances skills in critical thinking, problem-solving, time management, budgeting, communications and stress management—all skills relevant to success and persistence in school. Approximately 20 students a year are accepted into this tuition-free program.

The Pathways Stream offers students the opportunity to develop the skills and knowledge necessary for PSE in the context of NSCC's standard arts and science program. The program includes foundational skills and familiarization courses. Students can be accepted into the Pathways Stream at any semester break and can sample up to four units of electives from within and beyond general arts and science, which may be transferred to the program they later choose.

The National College Access Network: United States

Since 1995, the National College Access Network (NCAN) has been assisting local communities across the United States to start, develop and maintain college access programs. Member organizations have assisted over four million students to access PSE. NCAN grew out of an informal network of individuals at local, institutional, state and national levels involved in facilitating post-secondary access. It serves as a clearing house of information and guidance for organizations beginning or already engaged in access projects aimed at meeting the needs of under-represented groups in PSE, as an advocate for PSE access policy and as a facilitator of research and results-based study of access programs.

The network currently includes organizations from 44 states, as well as Ontario and Quebec. While NCAN offers a rich diversity of materials for public access, members have access to even more detailed resources, discussion lists, workshops, newsletters, a member directory and other services.

The Achievers Scholarship Program: United States

The Bill and Melinda Gates Foundation launched the multi-year, multi-million dollar Washington State Achievers Scholarship Program in 2001. The Foundation started a partnership with the College Success Foundation (CSF) to provide scholarships to eligible low-income students to attain a four-year post-secondary degree. The program was initiated due to a concern about disparities in college participation between low-income students and their wealthier peers.

The program targets juniors in 16 designated high schools which have high levels of low-income students and are implementing school re-design. Approximately 500 students each year receive financial support to help pay for college, mentoring and other assistance to assure their preparation for and participation in PSE. After the launch of the program in 2001, enrolment in post-secondary has grown over the five cohorts, particularly in public four-year colleges and universities, increasing from 47 percent to 72 percent. Almost two-thirds of the participants in the scholarship program (62 percent) enrolled in four-year institutions, compared to only 27 percent of low-income students across the U.S. Over half (59 percent) of the participants are minority students.

In 2006–07, the maximum scholarship amounts were \$4,350 for those attending two-year community colleges, \$7,000 for four-year public schools and \$9,700 for four-year independent and out-of-state colleges.

The program includes the following components:

- Hometown Mentors Program—once selected, students in the program are paired with mentors who are members of the participants' communities who value higher education and take an active role in helping students academically. Hometown Mentors support the students from the spring of their junior year in high school until their first two months in college through meetings and information sharing about college admissions and financial aid.
- Achievers College Experience (ACE)—After they are selected and prior to their senior year in high school, students participate in the four-day ACE Program in the summer. Held on a university campus, the purpose of ACE is to provide new students in the program with the information and resources that they will need to be successful college applicants and the opportunity to experience campus life. Students attend workshops about college admissions and paying for college, as well as the ACE College Resource Fair, which allows them to interact with admissions and recruitment officers.
- College Mentor Program—Students are required to participate in the college mentoring program on their campus during their first and second years. The CSF works with participating colleges to identify mentors on campus. The mentors function as a resource to help students with their transition to college life. Achievers Scholars are required to meet with their mentors at least once a month.

Major outcomes of the program include the following:

- Receiving the Achievers Scholarship has a positive effect on students' enrolment in college.
- A majority of students start on the direct path to a Bachelor's degree by enrolling in a four-year institution.
- Participating students' enrolment in two-year institutions has decreased over the course of the program.
- The program has enabled more minority students to participate in PSE.
- Many students have overcome significant barriers to graduate from high school and enrol in college.
- Hometown Mentors and College Mentors help students successfully transition from high school to college.
- Achievers Scholarship recipients borrow less frequently and take on less debt than non-recipients.

- Transfer is common among the students in the program, with more than one-third of the students having changed institutions since they enrolled.
- Students are involved in their community and in leadership activities.
- Students have higher retention and degree attainment rates in comparison to the national average for low-income students.

Aimhigher Roadshow: England

The Aimhigher Roadshow project in England targets students in the equivalent of Grades 9 and 12 in communities with lower levels of participation in higher education. The objectives of this program are to raise awareness of higher education by taking young students out of the classroom environment and inspiring them with an informative, vivid presentation given by a person (a mentor or role model) from a similar background. Roadshow presenters visit schools in Aimhigher areas across England. Presenters use interactive films and their own personal experiences to inspire the participants. These sessions are designed to raise aspirations for the participants and encourage them to consider PSE as an option.

The Roadshow has reached over 354,000 young students in England since January 2002. The program has had a positive effect on attitudes toward higher education: there has been a 64 percent positive shift in attitudes among Grade 9 participants and a 25 percent positive shift among college students. Furthermore, 97 percent of teachers consider the Roadshow “good” or “very good” in terms of its overall effectiveness.

Equity of Access to Higher Education: Ireland

Recent policy development in Ireland illustrates the impact *national* policy can have at the level of individual institutions. Equity of access to higher education is a part of the country’s greater vision of creating economic prosperity and social justice. Allowing entry of diverse populations to PSE helps

maximize participation and graduate output, which, in turn, helps Ireland meet the need for a skilled and diverse labour force. This process promotes additional knowledge, skills and innovation for the economy.

The first element of Ireland’s policy framework for equity of access is social partnership. Achieving access to PSE requires collaboration between social partners and the state. To achieve this end, a life-cycle approach has been introduced, focusing on lifelong learning and the needs of children, young adults, adults, older people and people with disabilities. It is a holistic approach.

The second element of the national framework is legislation. In Ireland, there is a broad legal framework that highlights both policy and practice in relation to access to education by under-represented groups. In the last ten years, four major equality-related bills have been introduced, including the Equal Status Act and the Disability Act. The European Union has also played an important role. The Bologna Process highlights the importance of higher education by promoting social inclusion and equality of opportunity. The policy framework in Ireland complements the European framework.

The third element is National Development Plans (NDP), which are public investments needed for the country’s social and economic development. One of the goals of NDPs is to invest 10.5 billion euros over seven years in order to widen participation. Equity to access requires modernization, reform within the higher education sector and social partnerships. NDP provided a special fund, called the Strategic Innovation Fund (SIF) in order to achieve modernization and reform. Over the next seven years, 510 million euros will be allocated to selected institutions by the Higher Education Authority. Forty-five million euros have already been allocated, with a quarter of this funding supporting projects promoting access and lifelong learning.

The fourth element of the policy framework is the establishment of the National Office for Equity of Access to Higher Education, a department within the Higher Education Authority. This department is responsible for developing and implementing national policy on equity of access to higher education. Among its key achievements, the office has

produced a three-year national plan for achieving equity of access to PSE. It also published the first national evaluation of PSE access programs in Ireland. The evaluation focused on the elements of policy, practice, partnership and targeting. This evaluation framework is important in assisting the institutions in going forward as they try to attract and support under-represented students.

Both the National Office for Equity of Access to Higher Education and the Higher Education Authority have made progress in making resources for access part of the core funding of PSE. Through this model, institutions do not need to apply for separate funding to pay for access activities. A new Recurrent Grant Allocation Model was introduced in 2006, through which baseline funding is allocated as part of the annual core grant to seven selected Irish universities.

Equality of Opportunity for Academic Success: France

In France, statistics show that the children of skilled professionals are more likely to enter PSE than those of unskilled workers (80 versus 40 percent) and that academic failure is more common among youth who were born outside of the country. Moreover, France is dealing with a very high unemployment rate, which has in part been attributed to a lack of adequate preparation: “The counselling system provides insufficient preparation for entering the labour market and does not at all favour equality of opportunity” (Lunel 2007).

In response to these issues, the French government has implemented measures to promote equality of opportunity for academic success and job preparation: “Mandatory schooling must at least guarantee that each student be provided with the means necessary to acquire a common base of knowledge and skills which must be mastered in order to obtain success in one’s studies, pursue one’s education and develop one’s personal and professional future” (Lunel 2007). Measures adopted include personalized counselling and portfolios (based on a “customized applicant file” system first tried out at the Académie de Nantes) at the secondary school level and tutoring services at the post-secondary level.

The new, more active approach to career counselling emphasizes the need to begin preparing students to think about their futures early in the school cycle. Under the new measures, each student must be able to obtain all the information needed to pursue his or her studies and professional development. Starting from the 2007 academic year, students in their third year of secondary school (i.e., the year prior to entering high school) spend two hours per week in career development classes. This course allows them to search for information that can guide them in the pursuit of their studies and to receive personalized feedback from the teacher. The personalized relationship is intended to stimulate students and deter them from dropping out of school before obtaining a degree.

After entering high school, students maintain a portfolio containing information of use to them in choosing a post-secondary program and learning about related job opportunities. This approach favours access to information related to the entire range of available educational choices. It improves the post-secondary admissions process by making high school students more fully aware of what to expect from post-secondary institutions.

In addition, students continue to receive counselling throughout high school, which includes recommendations from the school council regarding each student’s development. In making its recommendations, the council takes into account the potential, skills, motivation and academic results of the student. Those who wish to go on to university will be given greater access to information about the desired program(s), requirements and related job opportunities. This approach requires a partnership between high schools, universities and businesses.

At the post-secondary level, since the start of the 2006 academic year, tutoring services have been offered to students from lower-income backgrounds in the first year to help ensure equality of opportunity in the pursuit of higher education. This measure creates a more welcoming and supportive environment for new students. Emphasis is again placed on a personalized approach, with a recommended ratio of one tutor (under the supervision of a teacher) for every five students. At the end of the first semester,

students' files are reviewed to determine whether they will continue in the program, change or retake certain classes, or pursue a different study path (Lunel 2007).

Counselling and Academic Support in France

While in high school, students benefit from:

- classes which allow them to build a portfolio of information needed to make an informed choice regarding PSE;
- personalized, ongoing assistance through counselling; and
- convenient access to information on university programs and related job opportunities, as well as admissions procedures.

During the first year of university, students benefit from:

- ongoing support via tutoring services; and
- review of their personal file to decide whether to continue with the same program or pursue a different study path.

The Battle Against Failure at University: France

In 2007, a new law on the freedoms and responsibilities of universities went into effect in France. This law conferred upon universities the task of taking an active role in counselling students and helping them make the school-work transition.

This reform is part of the government's battle against failure at university. Its objective is to increase the number of students who obtain diplomas and to provide students with an education which meets the standards needed to ensure future success in their chosen profession. The need for such a reform is suggested by the following statistics:

- 90,000 students leave the education system each year without a diploma;
- 50 percent of students in their first year of university have dropped out or are at risk of failing by the end of their first two semesters; and
- one year after obtaining their degree, 53 percent of graduates with the equivalent of a Bachelor's degree are still looking for a job.

Under the new reforms, students are now able to pre-register for the university of their choice. They may also benefit from an information and counselling service permitting them to make a more informed choice in terms of understanding the program, related employment opportunities and skills which need to be acquired.

The second aspect of the reform pertains to making the transition to the workforce. Each institution now has its own office responsible for communicating information about internship opportunities and jobs related to the type of education offered, as well as helping students to look for their first job.

The new law also offers universities the chance to recruit deserving students to serve as tutors for their less advantaged peers. This reform will go into effect in 2008 (La Nouvelle Université 2007).

Cadigal Program: Australia

The School of Indigenous Health Studies at the University of Sydney developed the Cadigal Program to improve equity of access and participation for Aboriginal and Torres Strait Islander students. The program allows lower scores on the University Admission Index or Tertiary Entrance Rank for Aboriginal applicants, who typically enter the program with less educational experience in the basic sciences and less experience with academic skills necessary for tertiary study.

Researchers examining factors that influence the participation, progression and retention of Indigenous students in full-time health professional courses at the University of Sydney interviewed a representative sample of Cadigal students. Their findings indicate that participants had been very tentative about

pursuing higher education. The Cadigal Program's friendly and effective support at the time of application was a deciding factor in entering the program. The program offered: a two-week orientation program; the option of a reduced load in the first two years of enrolment; an academic support program; peer tutoring; and study rooms with computers, textbooks and anatomical models. Besides the academic support provided, participants indicated that having a place for Indigenous students to go enabled the

development of important social and cultural support. The most alarming findings were related to the negative and racist attitudes of non-Indigenous students toward the program. Recommendations to address this issue included making entry programs like the Cadigal Program more widely known in secondary schools, promoting cultural awareness within the academic community and assisting Indigenous students to develop strategies for dealing with racism and non-acceptance.

V. Recommendations

Recruitment of and Outreach to Under-Represented Groups

Recruitment and outreach programs should be established to reach the target groups. Elements to be considered in this process include:

- a. academic offerings such as Aboriginal language courses;
- b. involving communities, offering academic courses on site in communities and establishing a presence in communities when possible;
- c. establishing agreements to guarantee admission into specific programs for members of under-represented groups;
- d. developing early intervention programs to reach high school students years before application to PSE;
- e. developing articulation agreements between institutions to ease transitions from secondary to post-secondary institutions;
- f. favouring need-based financial aid (grants, not loans) and award monies at an early stage;
- g. providing targeted student services and mentoring programs for academic support and financial advising;
- h. putting resources into recruitment in high schools known to have many students coming from under-represented groups; and
- i. establishing a welcoming environment for students arriving on campus.

College outreach programs, as well as parental and school support with the application process, have been proven to be worthwhile to improve students' access for under-represented groups

(Choy 2002).

Increasing Access for Under-Represented Groups

The following strategies are intended to increase access to PSE for students from under-represented groups:

- a. establishing provisional admissions programs for students from targeted groups with relatively low academic standing;
- b. seeking governmental support for successful programs leading to enrolment of students from low-income groups;
- c. working with first-generation students to help them through the admissions process and ease their initial contacts with post-secondary institutions;
- d. developing a rapport with the families of prospective students in order to increase their knowledge and understanding of the application and admissions process;
- e. making students from the target groups aware of appropriate community resources prior to admission;
- f. anticipating need for academic and other support mechanisms for students from the target groups; and
- g. coordinating information on available financial resources with high schools and community groups.

“Improving ... educational outcomes [for under-represented youth] will require the provision of support and encouragement before they enrol in higher education and during their studies [e.g., education, preparation, financial support]”

(Berger, Motte and Parkin 2007).

“While existing policies appear to be effective in attracting Aboriginal students to community colleges, there is still a long way to go in achieving full Aboriginal participation in undergraduate university programs ... Consequently, the main policy objective as it concerns Aboriginal post-secondary education should be to increase the proportion of Aboriginal students in Canada’s universities”

(Holmes 2005).

From Access to Success in Post-Secondary Studies

Post-secondary institutions must adopt many strategies to go beyond simply providing access to students from under-represented groups. These include:

- a. attending to the particular needs of the target groups when developing retention strategies and programs;
- b. collecting data that will create a clear picture of patterns of retention among the targeted groups at the institutional level and allow for comparisons with other colleges and universities;

- c. designing support services which take into account student needs, academic pressures, family concerns and work commitments;
- d. providing work-study opportunities and advice on managing finances;
- e. introducing “intrusive” or “pro-active” advising, orientation and academic counselling for students at risk;
- f. developing means to encourage students at risk to “connect” to the campus;
- g. developing and supporting a faculty culture which emphasizes the importance of student support;
- h. creating high expectations for retention among faculty, academic departments and support staff;
- i. developing multiple academic and non-academic structures such as learning communities to bring attention to the first-year experience; and
- j. developing various peer and faculty mentoring models to provide personal contact to students from the under-represented groups.

The non-exhaustive lists of strategies which appear above are useful, but may not, in isolation, effect significant change. Colleges and universities must adopt a coherent institutional strategy regarding access and retention of students from under-represented groups.

The help given to students to ensure their success begins with the student’s admission. The institution must ensure that students begin well

(Muraskin 2007).

VI. Conclusion

The challenge of increasing access and success for under-represented groups in PSE is complex and multi-faceted. The barriers to overcome are deep-rooted, long-standing and often systemic. Our mandate has been to bring to light institutional efforts to promote change, and many schools, colleges and universities have put in place programs, policies and practices with positive outcomes for under-represented groups. The efforts described above are well-intentioned, creative and have at least the potential to effect significant change, but some are of more interest than others. In particular, the most successful initiatives are those characterized by a holistic understanding of the characteristics and needs of the learner, a recognition of the importance

of early intervention, a coordinated approach to academic and non-academic services and a commitment to sustainable, multi-faceted partnerships with other institutions and a wide variety of community resources, as well as private and public sources of funding.

All of the above would suggest that while schools and institutions of higher learning may well increase the access and success of under-represented groups in higher education through their own initiatives, they will be most successful when they do not act alone but rather are cognizant of the gains to be made through judicious use of public and private funding and community partnerships.

Appendix

Summary table of aboriginal programs at all Canadian universities (by province)

	Aboriginal recruitment activities (year started, if known)	Native studies degree	Other Aboriginal focused programs (on-campus)	Outreach programs	Transition programs	Aboriginal support programs	Coordinator for Aboriginal students	Aboriginal student centre	Aboriginal student association	Aboriginal student aid	Proportion of Aboriginal students
British Columbia											
University of British Columbia	1979	B	Y	Y	N	Y	Y	Y	Y	Y	0.8%
University of British Columbia — Okanagan	1992	B,M	N	Y	N	Y	Y	Y	Y	Y	6%
Emily Carr Institute of Art and Design	1995	N	N	N	N	Y	Y	N	N	Y	2%
University College of the Fraser Valley	1993	P	Y	Y	Y	Y	Y	Y	Y	Y	2.5%
Malaspina University-College	2004	B	Y	N	Y	Y	Y	Y	N	N	10%
University of Northern British Columbia	1992	B,M	Y	Y	Y	Y	Y	Y	Y	Y	10%
Royal Roads University	N	N	N	N	N	N	N	N	N	N	NA
Simon Fraser University	Y	B	Y	Y	N	Y	Y	Y	Y	Y	~1%
Thompson Rivers University	Y	B	Y	Y	Y	Y	Y	Y	Y	N	5.6%
Trinity Western University	N	N	N	N	N	N	N	N	N	N	NA
University of Victoria	2004	B	Y	Y	N	Y	Y	Y	Y	Y	2.5%
Alberta											
University of Alberta	Y	B	Y	Y	Y	Y	Y	Y	Y	Y	3%
Athabasca University	2003	N	N	Y	N	Y	Y	N	N	Y	NA

(continued)

	Aboriginal recruitment activities (year started, if known)	Native studies degree	Other Aboriginal focused programs (on-campus)	Outreach programs	Transition programs	Aboriginal support programs	Coordinator for Aboriginal students	Aboriginal student centre	Aboriginal student association	Aboriginal student aid	Proportion of Aboriginal students
University of Calgary	Y	B,M	N	Y	P	Y	Y	Y	Y	Y	1.3%
Concordia University College of Alberta	N	N	N	N	Y	Y	N	N	N		NA
The King's University College	2000	N	N	N	Y	Y	Y	Y	N	Y	NA
University of Lethbridge	1977	B,M	Y	Y	T	Y	Y	Y	Y	Y	4.6%
Saskatchewan											
Campion College	Y	N	N	N	N		N	N	N	N	NA
First Nations University of Canada	2003	B,M	Y	Y	Y	Y	Y	Y	Y	Y	87%
University of Regina	1995	B,M	Y	Y	N	Y	Y	P	N	Y	12.5% inc. FNUC
University of Saskatchewan	1973	B,M,D	Y	Y	Y	Y	Y	Y	Y	Y	8.8%
Manitoba											
Brandon University	1988	B	Y	Y	N	Y	Y	Y	Y	Y	NA
Collège universitaire de Saint-Boniface	2000	N	N	N	N	Y	N	N	N	Y	11%
University of Manitoba	2000	B,M	Y	Y	Y	Y	Y	Y	Y	Y	6.4%
University of Winnipeg	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	9.5%
Ontario											
Brock University	Y	N	N	Y	Y	Y	Y	Y	Y	Y	NA
Carleton University	1994	N	N	Y	Y	Y	Y	Y	Y	Y	1.4%
Dominican College of Philosophy and Theology	N	N	N	N	N	N	N	N	N		NA
University of Guelph	2003	N	N	P	Y	Y	Y	Y	Y	Y	~1%
King's University College at Western Ontario	1992	N	Y	N	N	N	Y	N	N	N	NA
Lakehead University	Y	B	Y	Y	Y	Y	Y	Y	Y	Y	NA
Laurentian University	1998	B	Y	Y	N	Y	Y	Y	Y	Y	NA

(continued)

	Aboriginal recruitment activities (year started, if known)	Native studies degree	Other Aboriginal focused programs (on-campus)	Outreach programs	Transition programs	Aboriginal support programs	Coordinator for Aboriginal students	Aboriginal student centre	Aboriginal student association	Aboriginal student aid	Proportion of Aboriginal students
McMaster University	1990	B	Y	N	Y	Y	Y	Y	Y	N	NA
Nipissing University	Y	B	Y	Y		Y	Y	Y	N	Y	3.1%
University of Ottawa	1997	B	Y	Y	N	Y	N	Y	N	Y	0.5%
Queen's University	1991	N	Y	Y	N	Y	Y	Y	Y	Y	1.6%
Redeemer University College	N	N	N	N	N	N	N	N	N	N	NA
Royal Military College of Canada	Y	N	N	N	N	N	Y	N	N	Y	NA
Ryerson University	2000	N	N	N	N	Y	Y	Y	Y	Y	<1%
Saint Paul University	N	N	Y	N	N	N	N	N	N	N	NA
University of Sudbury	Y	B	N	Y	N	Y	N	Y	Y	N	NA
University of Toronto	1998	B	Y	N	Y	Y	Y	Y	Y	Y	<1%
Trent University	1969	B,M,D	Y	N	Y	Y	Y	Y	Y	Y	NA
University of Waterloo	2003	N	N	Y	N	Y	Y	N	Y	Y	1.3%
University of Western Ontario	1992	B	Y	N	Y	Y	Y	Y	Y	Y	0.6%
Wilfrid Laurier University	2000	N	Y	N	Y	N	N	Y	N	Y	NA
University of Windsor	Y	N	N	N	N	Y	Y	Y	Y	Y	<1%
York University	Y	P	Y	N	N	Y	Y	Y	Y	Y	0.8%
Quebec											
Bishop's University	N	N	N	N	N	N	N	N	N	N	NA
Concordia University	2001	N	Y	Y	N	Y	Y	Y	N	N	0.4%
Université Laval	Y	N	N	Y	Y	Y	N	N	Y	Y	NA
McGill University	N	N	Y	Y	N	Y	Y	Y	Y	Y	~1%
Université de Montréal	N	N	N	N	N	N	N	N	N	N	NA
Université du Québec à Montréal	N	N	N	N	N	N	N	N	Y	Y	0.02%
Université du Québec à Chicoutimi	1981	N	Y	Y	Y	Y	Y	Y	Y	Y	6.3%

(continued)

	Aboriginal recruitment activities (year started, if known)	Native studies degree	Other Aboriginal focused programs (on-campus)	Outreach programs	Transition programs	Aboriginal support programs	Coordinator for Aboriginal students	Aboriginal student centre	Aboriginal student association	Aboriginal student aid	Proportion of Aboriginal students
Université du Québec en Outaouais	N	N	N	N	N	N	N	N	N	N	NA
Université du Québec en Abitibi-Témiscamingue	Y	P	Y	Y	P	Y	Y	Y	N	Y	7.1%
Université du Québec: École de technologie supérieure	N	N	N	N	N	N	N	N	N	N	<1%
Université de Sherbrooke	N	N	N	N	N	N	N	N	N	N	NA
New Brunswick											
Université de Moncton	N	N	N	N	N	N	N	N	N	N	NA
Mount Allison University	N	N	N	Y		Y	N	N	N	N	<2%
University of New Brunswick	1977	N	Y	Y	Y	Y	Y	Y	N	Y	<1%
St. Thomas University	N	B	Y	N	N	Y	N	N	Y	N	NA
Prince Edward Island											
University of Prince Edward Island	N	N	Y	Y	Y	N	N	Y	Y	N	NA
Nova Scotia											
Acadia University	N	N	N	N	N	N	N	N	N	N	NA
Cape Breton University	Y	B	Y	Y	Y	Y	Y	Y	Y	Y	8%
Dalhousie University	1970	N	Y	Y	Y	Y	Y	Y	Y	Y	NA
University of King's College	2000	N	N	N	N	Y	Y	Y	N	Y	NA
Mount Saint Vincent University	Y	N	N	Y	N	N	N	N	N	N	0.8%
Nova Scotia Agricultural College	N	N	N	N	N	N	N	N	N	N	NA
NSCAD University	N	N	N	N	N	N	N	N	N	N	NA

(continued)

	Aboriginal recruitment activities (year started, if known)	Native studies degree	Other Aboriginal focused programs (on-campus)	Outreach programs	Transition programs	Aboriginal support programs	Coordinator for Aboriginal students	Aboriginal student centre	Aboriginal student association	Aboriginal student aid	Proportion of Aboriginal students
Université Sainte-Anne	N	N	N	N	N	N	N	N	N	N	NA
St. Francis Xavier University	Y	N	Y	Y	N	Y	Y	Y	N		NA
Saint Mary's University	N	N	N	N	N	Y	Y	N	N		NA
Newfoundland and Labrador											
Memorial University of Newfoundland	2001	N	Y	Y	Y	Y	Y	Y	Y	N	0.4%
Legend:						B = bachelor's degree					
T = temporarily suspended for lack of funding						M = master's degree					
P = planned						D = doctoral degree					
Y/N = activity is or is not undertaken at the institution						NA = unknown or not available					

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