Marshalling Resources for Change

08

System-Level Initiatives to Increase Accessibility to Post-secondary Education

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1. Introduction

Canada has a highly educated population, and our overall rates of participation in post-secondary education are among the highest in the world. The problem of accessibility in Canadian higher education lies not in the overall rate of participation, but in the disparities and inequities in participation among elements of the Canadian population. Canadians from lower economic groups are less likely to obtain a post-secondary education than individuals from wealthier backgrounds. Canada's Aboriginal populations have extremely low levels of participation compared with the population as a whole. Once admitted, there may also be important differences in whether students from different groups succeed in completing a post-secondary credential, or whether they are able to continue into professional or graduate programs.

The objective of this paper is to review approaches to improving accessibility to post-secondary education undertaken at the level of the higher education system. We recognize that many of the most important initiatives associated with increasing accessibility take place at the level of the post-secondary institution, but that is the subject of another discussion paper in this series. This paper is a review of the literature focusing on the mechanisms available to government to increase access. In addition to summarizing key themes within the research literature, we use sidebars to provide relevant examples. The sidebars are not "best practices," but they help illuminate specific points for discussion. The paper is organized into four major sections: a review of government funding tools to improve access, a discussion of approaches that involve the community in solutions to problems of accessibility, an overview of strategies that involve rethinking the definition and boundaries of the post-secondary system and a discussion of the importance of data and tools to measure and monitor accessibility. We employ a broad definition of accessibility to include issues of retention, completion and success in addition to the ability to enrol in a post-secondary institution.

2. Government Funding Tools to Improve Access

Governments use a variety of funding mechanisms to increase access to post-secondary education. These mechanisms generally involve five basic approaches:

- Attempting to increase the number of spaces for students by expanding and coordinating the post-secondary education system

- Student financial assistance

- Regulating tuition fees

- Targeting special funding to increase access for specific groups

- Performance-based funding.

2.1 Expanding and Coordinating the Post-Secondary Education System

The funding tools used by government to increase access have evolved over time. The most common approach during the 1960s and 1970s was to increase the supply of spaces in post-secondary education by increasing funding to institutions. Governments adopted a "more is better" approach to higher education access and assumed that "more students would 'automatically' lead to more equality of opportunities, as well as more economic and social benefits, in the sense of high overall returns to society as a whole" (Maassen, Magalhaes & Amaral, forthcoming, p. 6). Human capital theory provided a rationale for increasing funding to post-secondary expansion; there would be large private and social returns associated with public investments in post-secondary education that would lead to economic growth and prosperity.

During this period governments focused on funding policies directed at institutions such as negotiated budgets, line-item budgets, block grants and, by the end of the 1970s, engaged input-based formulas to allocate funds. Many governments also took steps to create higher education systems with different types of institutions. The Canadian provinces created post-secondary systems that included university and community college sectors. Some American states created tiered public higher education systems designed to increase access while also supporting elite, research universities (for example, California and Texas), and the American Federal Government provided Title III support to institutions that served specific populations, such as Aboriginal, Alaskan Native, and Historically Black Colleges and Universities. Combined with relatively low (or no) tuition fees, this strategy increased the post-secondary participation rates of students in the traditional age cohort in the U.S., Canada, Australia, New Zealand and Western Europe (Salmi & Hauptman, 2006).

The approach to higher education funding switched dramatically in the 1980s and 1990s as most OECD countries reduced per-student public funding to post-secondary education. Governments struggled to respond to an international oil crisis, increasing budget deficits, increasing demands for post-secondary education and competing demands for resources from other public sectors. Human capital theory was used to argue that public returns on government investment in post-secondary education were reduced as the level of education of the population increased. Greater emphasis was placed on the individual benefits associated with post-secondary education, and therefore the need to increase the level of private investment in post-secondary education.

The approach to higher education funding policies during this period has been labelled "more is problematic" (Maassen et al., forthcoming, p.6). Governments began to question the real contribution of post-secondary education to national economic development. Funding strategies in the United States, the United Kingdom, Canada, Australia, New Zealand, and some continental European nations began to emphasize the demand side of the equation (Salmi & Hauptman, 2006). Private (tuition fee) costs were increased in Canada, the U.S., Australia and New Zealand and student financial assistance mechanisms were viewed as key elements of government access policies. Several OECD nations combined input-based funding formulas with elements of output-based performance funding. Australia introduced tuition fees in 1986 and performance-based funding for under-represented groups in 1994. In North America the practice of performance funding grew rapidly in one-third of U.S. states and in the Canadian provinces of Alberta and Ontario; the share of performance-funding in total public funding stabilizing at a low level of less than four per cent (Lang, 2006; Council of Ontario Universities, 2001).

By the end of the 1990s, governments had become increasingly aware that some populations had less access to post-secondary education than others, and some governments took steps to increase access while paying attention to these differences. For example, the United Kingdom created its *Widening Participation Strategy* to increase access to higher education for groups with low socio-economic status and under-represented ethnic minorities, and Australia examined issues of under-representation in several reports and initiated a review of equity groups. The approach to higher education funding policies has been described as "more but different," where "gradually the policy discourse has shifted from focusing on problems (and costs) of over-education to the need to develop human competencies and skills in line with knowledge economy goals" (Maassen et al., forthcoming, p. 6).

In addition to engaging enrolment-driven formulas, OECD governments have been funding specific access initiatives to serve under-represented groups through special grants to institutions and performance funding. Several examples are federal grants for Hispanic Serving Institutions in the United States, the establishment of Wananga-Maori colleges in New Zealand, special funding for under-represented students in Quebec, facility renewal, maintenance and upgrading grants to ensure increased access for students with disabilities in Ontario, and performance-funding for students from low-participation neighbourhoods and state schools, and students with disabilities in the U.K. (and Welsh-language students in Wales). Several European nations reconfigured their enrolment formulas adding large output-based components and introduced performance agreements to address access and quality goals (Salmi & Hauptman, 2006; Strehl, 2007).

To increase PSE access and participation, OECD nations have been combining funding policies with structural policies such as:

- eliminating binary systems to increase access to university education (transforming polytechnics into universities in 1992 in the United Kingdom, merging colleges and universities in Australia in 1988) or transforming colleges/polytechnics into regional universities

- differentiating the college sector in binary systems to improve regional access to degree programs (the creation of polytechnics in Finland in 1995, university colleges in British Columbia in early 1990s; and Institutes of Technology and Advanced Learning in Ontario in 2000)

- improving the ability of students to transfer between institutions in the post-secondary system and increase access and mobility (transfer agreements in Alberta and British Columbia, introduction of European Credit Transfer System within the Bologna process in Europe, creation of the École de Technologie Supérieure in Quebec to facilitate college-university transfers)

- expanding distance learning (Open University in the United Kingdom, Thompson River University in British Columbia, Athabasca University in Alberta, Télé Université in Québec)

- increasing access by encouraging the expansion of a private post-secondary education sector (New Zealand, Japan, Philippines, India, Portugal).

A Canadian Framework for Degrees

In 2007, the *Statement of Quality Assurance of Degree Education in Canada* was endorsed by the Canadian provincial ministers responsible for advanced education. The statement includes the *Canadian Degree Qualifications Framework* and the *Procedures and Standards for New Degree Programs and Institutions*. The major purpose of this statement was to ensure that new programs and institutions meet appropriate standards, help compare degree credentials internationally and create a context to facilitate credit transfer (Council of Ministers of Education, Canada, 2007).

2.2 Student Financial Assistance

OECD nations use a variety of financial aid tools to improve accessibility of under-represented groups, including need-based grants, subsidized loans and merit scholarships. The research literature on student financial assistance and accessibility to post-secondary education addresses several major themes: the role of universal vs. targeted aid in improving accessibility; the impact of loans on access, retention and success of various groups of population; and the impact of needs-based vs. merit-based assistance in addressing equity gaps.

2.2.1 Universal versus targeted aid

Universal aid such as tax credits or family allowances have been historically used in Germany, Austria, Belgium, France, and Canada, and, since 1997 to a lesser extent in the U.S. to lower the costs of attending post-secondary education for all students. The costs associated with universal tax credits in Canada are significant, and they now represent a major component of total government spending on student financial assistance (Neill, 2007, p.11). However, there is a growing body of evidence suggesting that universal aid initiatives are inefficient and may even fail to reach

those populations that most need financial support. For example, tax credits are of little benefit to individuals who do not earn income (and therefore do not pay taxes), leave little room for targeted means-tested assistance and are unlikely to have a significant impact on increasing access or address the needs of under-represented populations (Dynarski, 2007; Fisher et al., 2006; Junor & Usher, 2004; Neill, 2007; Wellen, 2004). It is suggested that to increase accessibility to post-secondary education in Canada tax credits should be refundable, or should be reduced and reinvested in operating grants to post-secondary institutions and targeted student financial assistance programs.

2.2.2 Loans versus grants

American and Canadian research suggests that the prospect of having a large debt can have a negative impact on PSE access and retention for students from lower socio-economic backgrounds, rural and Aboriginal students (Heller, Miller, cited by Davies and Quirke, 2002; Canadian Millennium Scholarship Foundation, 2006; R.A. Malatest & Associates, 2004). U.S. research, for instance, suggests that increased hours of employment contribute to voluntary withdrawal from PSE and that bursaries and loan remission positively impact persistence (Canadian Millennium Scholarship Foundation, 2006). We do not, however, know how much debt is manageable and there is a need for research on student perceptions of debt in relation to participation and retention in Canadian post-secondary education. The findings of several Canadian studies illuminate several worrisome trends in this area: a growing number of students are graduating with higher levels of debt, and between one-quarter and one-third of students with debt default on loan repayments (Berger, Motte & Parkin, 2006, Ch. 5, p.1).

2.2.3 Income-contingent loans

Income-contingent loans (ICL) are frequently discussed as an instrument to increase accessibility to post-secondary education, and this approach is used in Australia, New Zealand and the United Kingdom. Under this model, assistance is provided in the form of income-contingent loans that are available to all students, and the arrangements for loan repayment

Income-Contingent Loans in England

In England, the 2003 funding reforms included regulated tuition fees, income-contingent loans and non-repayable grants for poorer students. The new income-contingent loans are available to all students without income-means testing; they are interest-free but indexed to inflation. The threshold for repaying the loans was increased; interest charges should not exceed nine per cent of the income, and after 25 years the remaining liability is forgiven. The higher fees and larger debts are expected to be offset by grants for low- and middle-income students. About one-third of all students are expected to receive these grants (Wellen, 2004).

are tied to the individual's income after graduating. In the research literature supporting income-contingent loan mechanisms, this type of funding is often called "smart" funding (Wellen, 2004), first, because it allows more public funding to be used in expanding the system and less funding for student financial assistance, and, second, because contributions are scaled to the students life-cycle thus making the system "beneficiary-financed" rather than "user" or "parent-financed."

There was some movement towards implementing a national income-contingent loan program in Canada in 1994 (Fisher et al., 2006). Several student organizations argued that income-contingent loans were frequently accompanied by major increases in tuition fees (such as in Australia) and led to increased student debt. Some post-secondary institutions feared that governments would decrease the level of funding for institutions as they increased expenditures on a new national student funding initiative. Income-contingent loans were not introduced in Canada, though some observers argue that elements of income-contingency can be found in the Canadian student loan system in the form of loan forgiveness, interest relief (deferring payments on student loans

during periods of underemployment), and debt reduction policies. Canada may be the only country that uses student loan debt reduction as a mechanism for providing students with financial assistance (Junor & Usher, 2004). However, not all eligible students participate in these income-contingent programs (see Berger et al., 2006, p. 11).

2.2.4   Needs-based vs. merit-based assistance

It is generally assumed that needs-based student financial assistance in the form of grants or loans remove barriers for low and middle income students and increase access to post-secondary education. Merit-based aid is regarded as more regressive relative to targeted aid since students from families with higher income and educational backgrounds have greater opportunities to receive higher grades. American research addresses the redistributive effect of merit-based aid programs funded by state lotteries (with greater numbers of tickets bought by low-income earners) and negative effects of increased costs of college for non-recipients of the scholarship

Georgia's HOPE Scholarship and Grant Program

The State of Georgia (U.S.) created the HOPE Scholarship and Grant Program in 1993 to provide financial incentives and support for outstanding Georgia students taking their first degree or diploma program, and to help students complete their programs within the recommended time periods. The program pays tuition and mandatory fees, and provides a modest book allowance for eligible students. Only students who have achieved a certain GPA and SAT score are eligible. While some studies found that this scholarship increased first-year enrolment for both white and black applicants (Cornwell, Mustard & Sridhar, 2006; Dynarski, 2000), it is also acknowledged that the program widened the racial and income attendance gaps (between black and white students and low- and high-income students).

(private colleges in Georgia, for instance, responded to the introduction of the HOPE (Helping Outstanding Pupils Educationally) scholarship by increasing tuition fees (Dee & Jackson, 1999; Dynarski, 2002; Heller, 2001; Long, 2004)).

On the other hand, the experiences of a dozen U.S. states show that broad-based merit-aid programs with low threshold of access generally increase access and reduce racial gaps. According to Dynarski (2002) in order to access such a program in Arizona, students should have a grade-point average of 2.5 on a four-point scale, and 60 per cent of high school graduates in U.S. exceed this level. She also argues that the widened gap in participation between white and black populations in Georgia could be explained by a provision that reduced HOPE scholarships for federal needs-based grants recipients who are disproportionately black. Canadian research studies have demonstrated that needs-based assistance programs can sometimes benefit wealthy students more than poor students because of the way financial need is assessed. For example, students from wealthy backgrounds who are independent (older than 22 years of age) and attending high-tuition professional programs may be assessed as having a greater financial need than a student from a poor family attending a low-tuition program (Fisher et al., 2006). The policy challenge has been to find mechanisms for measuring student need so that financial assistance is given to those who need it most, and to find an appropriate balance between (expensive) grant and (less-expensive) loan programs in promoting accessibility.

2.3   Regulating Tuition Fees

The role of tuition fees as a source of revenue within higher education systems varies dramatically by jurisdiction. While tuition fees have long been commonplace in the United States and Canada, many countries only recently introduced fees as a mechanism for partially supporting system expansion, and there are jurisdictions where there are no tuition fees. Some jurisdictions have provided institutions with considerable flexibility to establish tuition fee levels, though concerns over accessibility have led many jurisdictions to regulate or directly control the level of tuition charged by all or some institutions. For example, in some systems there are major differences between the level of fees charged by universities for professional programs, and the level of fees charged by high access institutions, such as community colleges. There is probably no other issue that so clearly demonstrates the different approaches to the coordination of higher education

Access and Fee Re-Regulation in Ontario

In 1998, under the Harris government in Ontario, the tuition fee levels for some programs were controlled, but universities were allowed to increase professional and graduate program fees with the condition that a component of tuition income was used by institutions to support need-based student assistance. According to Frenette (2005b), changes in enrolment patterns by socio-economic background were more prominent in Ontario than other provinces because of Ontario's deregulated tuition in professional programs. The probability of enrolment of students whose parents held a graduate or professional degree in costly fields increased, as well as of those whose parents had no post-secondary education. The situation was quite different for students from middle-income backgrounds. This disparity in terms of low- and middle-income is explained by the way student assistance was calculated. The student aid system was adjusted to help students in need, but middle-income students did not qualify for increased assistance, while their parents were unable to cope with higher tuition fees. Davies and Quirke (2002) found that following deregulation, medical students at the University of Western Ontario were coming from increasingly wealthy families.

among the Canadian provinces than tuition fee policy: low university tuition and no tuition fees in the CEGEP sector have been longstanding com-ponents of Quebec government policy, while Ontario and British Columbia have both experimented with tuition freezes and, at different times, forms of fee deregu-lation. Manitoba and Newfoundland and Labrador have decreased tuition fees, and this was a major recommendation in a 2007 review of affordability to post-secondary education in Saskatchewan. The inter-national experience is equally varied. For example, the United Kingdom has recently introduced fees, and Ireland has abolished them.

Recent comparative and Canadian studies on enrolment rates show that overall participation rates have continued to increase regardless of whether governments have frozen, increased or eliminated fees (Swail & Heller, 2004; Wellen, 2004, Finnie, Laporte & Lascellas, 2004). However, the relationship between fee levels and accessibility is nuanced and complex. As David Stager noted two decades ago (1989), while students are somewhat influenced by tuition levels when they make decisions about post-secondary education—what is often called price-sensitivity—the key question is whether under-represented groups are more sensitive than others. It could be argued that higher fees allow higher education systems to provide more spaces. When introducing fees in 1998, the U.K. government reasoned that instead of subsidizing well-off students via public funding it would be fairer to increase access for under-represented groups. At the same time, studies examining low-income, part-time students or black students have found that these groups may be more price sensitive than the population as a whole (Finnie, Laporte & Lascellas, 2004; Swail & Heller, 2004; Wellen, 2004).

It is also important to remember that decisions to attend post-secondary education are influenced by a wide range of factors in addition to the level of tuition costs. Recognizing the interplay of tuition fees, available student aid programs, costs of living and public grants to institutions provides a more accurate international comparative picture (Usher & Cervenan, 2005). Some authors suggest that labour market condi-tions, increasing private returns to post-secondary education and social and cultural influences provide strong incentives for individuals from low-income

groups to access higher education (Wellen, 2004; Swail & Heller, 2004). Davies and Quirke (2002) found that the rate of participation by students from low-income backgrounds grew, despite increasing tuition fees, for several reasons: the demand for university credentials remained high because they were seen as a major way to access better jobs, the value of lower credentials, like the high school diploma, is declining, and the shift towards a service-oriented labour market reduced manual or blue-collar opportunities for those without post-secondary education. At the same time, while participation of low-income students increased as well, they are not likely to choose high-tuition fields.

2.4 Targeted Funding for Special Groups

Governments frequently use funding formulas as a mechanism to stimulate enrolment growth, and while these formulas and funding mechanisms are regarded as efficient tools for increasing student spaces, they are not designed to meet the specific needs and recognize the additional costs associated with edu-cating certain groups of students (Salmi & Hauptman, 2006). Demand-side mechanisms that directly fund students—such as grants, scholarships and students loans—are viewed as more effective mechanisms to attract mature, rural, isolated and Aboriginal students. However, most student aid programs are not designed to address the special needs of older students, for instance. Based on an international survey of funding instruments, Salmi and Hauptman conclude that supply-side policy mechanisms, such as funding formulas and special-purpose/categorical grants, should be redesigned to create incentives to recruit older students, perhaps by paying a higher premium to institutions according to the level and intensity of their distance learning activities.

Governments target special-purpose grants to fund institutions that focus on attracting certain groups of population such as Aboriginal population (e.g., tribal colleges in the U.S., First Nations University of Canada, and Batchelor College in Australia). Studies on barriers to post-secondary access and retention by under-represented groups generally conclude that these types of institutions

Special Purpose Funding in the United States

Federal development grants, planning grants, loans for capital improvements and student-driven formula funding are allocated through Institutional Development Programs (under Title III and V of the *Higher Education Act* of 1965) to institutions that enroll large proportions of minority and financially disadvantaged students with low per-student expenditures. These programs started by supporting the nation's Historically Black Colleges and Universities. About 214,000 or 16 per cent of all African-American higher education students in the nation are currently enrolled at these institutions. This type of funding has been expanded to support American Indian Tribally Controlled Colleges and Universities, Alaska Native and Native Hawaiian Serving Institutions and more recently Hispanic-Serving Institutions. To be eligible institutions must meet eligibility requirements that focus on the ratio of the targeted population to total student enrolments. At least 20 per cent of the undergraduate students must be Alaska Natives for the institution to be designated an Alaska Native Serving Institution, and the figure is 10 per cent for Native Hawaiian Serving Institutions. A Hispanic-Serving Institution is defined as a non-profit institution that has at least 25 per cent Hispanic full-time equivalent enrolment (U.S. Department of Education, 2007).

contribute to increasing access and success, and they are better at addressing the learning and community needs of particular ethnic groups. Some of these institutions have been very successful in recruitment and achieving high rates of graduation. However, it is also largely acknowledged that these semi-independent post-secondary institutions governed by respective communities face financial problems, have inadequate infrastructure, and lack indigenous staff, and that federal funding does not cover all Aboriginal students (for example, students not on reserve) (R.A.Malatest & Associates, 2004; Stein, 1990).

In addition to funding special purpose institutions, several governments have been encouraging all institutions to attract under-represented students. Ontario, for example, identified in 2004 four under-represented

Targeting Under-Represented Populations in Australia

In 1990 Australia identified six groups that should have more equitable access to higher education: indigenous students, students with disadvantaged socio-economic backgrounds, students with non-English speaking backgrounds, students with disabilities, students from rural and isolated areas, and women in non-traditional fields of study. In 1994 equity funding was linked to performance indicators measuring access, participation, retention and success of these groups. A review of the system identified both strengths and weaknesses (James et al., 2004). The systematic, evidence-based strategy emphasized measuring and monitoring equity outcomes, and the initiative has led to a greater understanding of system and institutional performance. For example, an analysis of the equity indicator data reveals that the most significant gap is in access for low socio-economic status groups and students from rural and isolated area. The level of access and retention of students with disabilities and women in non-traditional fields improved. However, the review noted that equity group membership is an inexact approach to determining individual disadvantage, the system of indicators is technically sophisticated, and equity groups should be re-evaluated to consider the inter-connectedness between groups.

groups of population in PSE—Aboriginal students, students with disabilities, first-generation students, and Francophone students—and allocates special-purpose grants to institutions, largely based on enrolment numbers. England and Scotland pay premiums to institutions for students from geographic areas with historically low participation rates. Ireland increased the share of funding provided to institutions through vouchers for disadvantaged students. Australia defines equity groups and uses performance funding to address access and persistence of under-represented groups.

Governments also co-fund access programs and community programs for under-represented groups (see below) and use legislation to target particular forms of accessibility. For example the Accessibility for Ontarians with Disabilities Act (AODA) has built-in accountability requirements that require institutions to make their buildings more physically accessible to students with disabilities. Institutions are required to report on how they are going to use capital funding to achieve physically accessible facilities. Major policy challenges in addressing the needs of under-represented groups deal with identifying and defining the neediest groups of population, and surpassing the self-identification issue. Collection of relevant student information via institutional, regional or national longitudinal surveys is essential in overcoming these challenges.

2.5   Performance-Based Funding

As mentioned earlier, some governments have developed mechanisms for funding institutions based on their performance, but there are substantive differences in approach. Performance funding can be directed to research or teaching; it can constitute a small share of overall funding as in set-aside perform-ance-based funding in North America, or be organized in the form of a more systematic relationship between governments and institutions through performance contracts. The allocation mechanism can be competitive, in that institutions compete among each other for performance funding (such as in Alberta,

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Types of Performance Indicators

The most widespread type of performance indicators in North America are graduation rates (Alberta, Ontario, Colorado, Florida, New Jersey, South Carolina), and employment rates (Ontario, Alberta, South Carolina, Tennessee), but some mechanisms also include retention/persistence indicators (Tennessee), average time to completion (New Jersey), and the default rate on loans (Ontario—which is not attached to funding) (Council of Ontario Universities, 2001). In some European countries significant portions of enrolment-driven funding formulas link funding to student progress, such as the number of students who complete each year of studies (England), the number of graduates (Netherlands), the number of credits achieved by students (Norway), or the number of students who pass exams (the so-called taximeter principle of funding used in Denmark) (Strehl, 2007; Salmi & Hampton, 2006).

Florida and Ontario) or non-competitive (such as in Colorado, New Jersey, Tennessee and South Carolina). Performance funding mechanisms can support improvements in accessibility by rewarding access (via input performance indicators such as the number of entering students from low-participation neighbour-hoods or under-represented groups), persistence (via output performance indicators, such as graduation rates in Ontario) and equity goals (through equity indicators in Australia or performance contracts).

One of the major issues associated with performance funding is to create a mechanism that supports change in performance without destabilizing the higher education system. Typically one to two per cent of the PSE budgets are based on performance indicators (most U.S. states, Ontario), and this is usually seen as a large enough share of total system funding to generate behavioural change (Council of Ontario Universities, 2001). However, performance funding can be inefficient since generating perform-ance data can be expensive and time consuming

given the small share of overall funding allocated through these mechanisms. On the other hand, there can be serious problems if the share of performance funding is too large. South Carolina initiated a performance funding system in 1996 and was expected to allocate all funding by 1999–2000. The experiment is generally viewed as a failure because there were too many indicators and standards, and the signals to institutions were mixed and confusing (Bruneau & Savage, 2002). The system has been revised to ensure that no more than five per cent of total funding is distributed using performance indicators.

Another concern with the use of performance funding to support accessibility is the failure to account for institutional differentiation. System-wide benchmarks in a highly diversified system (rural vs. urban institutions, large vs. small, comprehensive versus specialized) may lead to the inequitable treatment of institutions. A number of jurisdictions have attempted to address this problem. For example, in New Jersey the graduation rate for high-risk students became a separate indicator. South Carolina divides its 33 institutions into four categories, and Alberta makes the distinction between research and non-research institutions (Council of Ontario Universities, 2001).

More recently governments in many jurisdictions have started using a new form of performance agreement with institutions called performance contracts. Typically these are not legalistic contracts, but rather agreements that take into account differences in institutional mission and provide some funding stability (such as the multi-year agreements in Ontario and France). Performance contracts frequently involve agreements over enrolment, and they can include expectations to increase enrolment of previously under-represented populations (such as in the new arrangements in Ontario). While performance contracts are a relatively new funding and accountability mechanism, they have already been used in a range of jurisdictions, including Austria, Denmark, Finland, Spain, two Canadian provinces (Ontario and Quebec) and several American states. There has been little research on the role of performance contracts in terms of accessibility to post-secondary education.

Performance Contracts in Quebec and Spain

The Quebec Ministry of Education introduced performance contracts in 2000. These contracts between the government and universities were designed to define objectives for a three-year period; measure the extent to which objectives were reached, and report on the outcomes. In 2003, according to Trottier and Bernatchez (2005), performance contracts accounted for 14.2 per cent of overall system funding (p. 25). The Quebec government did not renew these performance contracts in 2003. In Spain performance contracts have been signed between the government of Madrid and six public universities in the capital city (Salmi & Hauptman, 2006). The agreement is set for five years and combines formula funding and performance funding. The funding formula allocates resources for teaching and research and represents 85 per cent of total funding. The remaining support is targeted towards government policy objectives, including compensatory payments to reduce past resource disparities.

2.6 Funding Tools to Improve Access and Persistence: Research Gaps

There have been a large number of Canadian research studies that analyzed various factors affecting participation in post-secondary education (Berger et al., 2006; Drolet, 2005; Fisher et al., 2006; Frenette, 2003, 2005a, 2005b, 2007; Finnie et al., 2004, 2007; Junor & Usher, 2004).

One of the clear lessons from this research is that access cannot be understood in terms of a single factor; access to post-secondary education involves the interplay of a complex range of factors, including parental background (income and educational attainment), available aid and level of tuition fees,

information on the costs and benefits of receiving a post-secondary education, and distance to post-secondary institutions. In the same way, these studies suggest that increasing access requires a range of policy measures, including student financial assistance, community involvement, improving information on costs and student aid, system design, and the need for additional data in order to understand inequities in opportunity.

However, there continue to be a number of important gaps in the research on funding policy instruments and their impact on access. Canadian studies on access focus on university participation rather than college participation, and on the general population rather than particular groups. There has been little research on how the level of tuition fees and borrowing influence the participation of under-represented groups. There is also a need for more research on policy instruments designed to increase access for Aboriginal populations, to increase regional access, and to address the special needs of new immigrant populations in large metropolitan areas.

3. Involving Community

Governments and post-secondary institutions are not the only agents in expanding access. Many other community members and organizations have a committed interest in ensuring that access to post-secondary education is open and equitable. Although many access initiatives developed by these groups (for example, counselling or scholarship programs offered by local businesses) are administered at a local level, in some cases, system-level governments have facilitated or developed programs that engage members of communities-—whether defined by geography, language, or ethnicity—in the effort of expanding access to post-secondary education for particular populations.

A report on post-secondary access in Canada by the Canadian Policy Research Networks (2002) demonstrates that financial support alone is not enough to expand access to and encourage success in post-secondary education. A student's plan or expectations related to post-secondary education is one of the strongest indicators of whether he or she will pursue post-secondary education. Of particular interest to those concerned with expanding access are those students who are qualified to attend post-secondary institutions but choose not to apply. As the CPRN report notes, "this self-selection process eliminates many qualified students, often on the basis of family background or other characteristics over which they have no control. It is important to examine factors affecting educational plans in so far as this helps us to identify specific groups of students who may need to be targeted for policy interventions" (p. 6). Socio-economic status was identified as a major factor and directly proportional with student plans. Other factors include demographic characteristics such as gender, language, province of origin, ethnic and immigrant status, rural status, and disability. The report also identified social factors such as family structure, access to information and counseling services, the character of the counseling students receive, students' attitudes, parental attitudes, and student academic ability (pp. 8–10). A student's community influences her or his expectations for post-secondary education.

Community involvement is also important in terms of improving student retention and engagement. Many of the same factors that influence educational plans also affect a student's decision to continue and complete post-secondary education. Students also face the additional challenges of living away from and leaving family or community support networks, problems associated with academic preparation and confidence, and being able to pay for post-secondary education (pp. 14–16). Many of these factors are strongly influenced by members of the student's local community and can be alleviated through the supports offered by community-based outreach programs.

Given these factors, governments sometimes initiate programs that connect post-secondary institutions and their immediate local communities in order to promote post-secondary access and success for under-represented populations. These initiatives are frequently responses to government studies or statements that identify problems in access to post-secondary education. These reports give shape to the actual access strategies, either by noting particular access needs, or by recommending particular access initiatives. For example, *Ontario: A Leader in Learning* (Rae, 2005), argued that "outreach programs for low-income groups, persons with disabilities, Aboriginal peoples, some racial minorities and francophones could be better encouraged and supported" (p. 18) and recommended that to achieve these goals, "[the province] can do a better job, starting in elementary school, of celebrating the various skills, professions and talents that make up our society. We have to bring high schools, guidance counsellors, local communities, parents and students into the picture at a much earlier date" (p. 20). A similar Alberta report, *A Learning Alberta* (Alberta Advanced Education, 2006), recommended that the province "provide funding for regional accessibility plans. The plans must be

developed by inter-sectoral partnerships between residents, literacy and other community-based learning providers, Community Adult Learning Councils, regional consortia, post-secondary institutions, schools, libraries, Parent-link centres, businesses, and others in a specified geographic area" (p. 19). Provided with such a mandate, local, provincial, and federal governments may fund and support community-based programs that address these identified needs.

The goals of these community-based access programs vary. Some programs are designed to prepare students for admission to post-secondary education. Another approach is to help admitted students persist and succeed in post-secondary education, or to work towards strengthening an individual's or community's relationship with post-secondary education in the interest of promoting lifelong learning (Swail & Perna, 2002; Dougherty, Reid, & Nienhusser, 2006). The changing structures of these programs also reflect a shift in thinking on student access. There is now a recognition that admission means little if students cannot succeed in and complete their post-secondary education (Lambert, Zelman, Allen & Bussière, 2004). These shifts draw broadly on research that relates the importance of academic and social integration into post-secondary education to access and success (Astin, 1993; Tinto, 1987). The historically low graduation rates associated with many high-access programs has led to an increased focus on sustained support beginning early in the student's secondary education and continuing through their post-secondary experience. It has also led to engaging the support of the student's community (Myers et al., 2004; McElroy & Arnesto, 1998). By improving social and academic integration through sustained support and community involvement, community-based access programs can contribute to the widening of participation in post-secondary education.

3.1   Interests of Students, Community Members, and Local Industry

Students, community members, and local industry all have a vested interest in expanding access to post-secondary education in their local communities.

3.1.1   Students

A study of young Canadians by the Canadian Research Policy Networks (de Broucker, 2006) analyzes current and prospective students' perspectives on access to post-secondary education. The students involved in this study indicated a desire for locally-oriented programming and resources, asking policy-makers to "root schools and post-secondary institutions in their communities…. Schools or colleges in each community should be seen not simply as places where you take courses, but more broadly as centres for community development and access to learning" (p. 15). In addition to this strong local mandate, students also identified as priorities national policies and standards for higher education that would increase mobility between institutions, sectors, and provinces, and expressed a desire for comparability between credentials (pp. 14–15). Students also suggested that the provinces work with employers to develop core competencies for employment in order to connect academic credentials with labour market options both locally and internationally.

3.1.2   Community members

The *Report on Public Expectations of Postsecondary Education in Canada* by the Council of Ministers of Education, Canada (1999) identifies expectations for post-secondary access by the Canadian public. The report's findings indicate that while Canadians are generally quite satisfied with post-secondary education (p. 13), there are several areas in need of improvement. The public strongly believes that post-secondary education should be widely accessible (p., 5; see also "Post-secondary drivers", 2005). Like

students, the broader public also desires increased coordination of post-secondary institutions at the system level (p. 7). Many also indicate a desire for post-secondary institutions to "serve as pillars of regional economic growth and of global competitiveness" (p. 1), focusing on local and regional economic and social priorities (p. 9; see also Livingstone & Hart, 2001).

Within communities, particular groups, especially those who do not feel that they have been well-served by post-secondary education, may be a particularly strong voice for improving access. These groups can provide particularly important input for community consultations and community-based access programs.

3.1.3 Local business and industry

The primary goal of local industry, in expanding access to post-secondary education, is to ensure a supply of well-trained and properly-credentialed workers in appropriate numbers. Programs sponsored or in partnership with local industries can develop direct or indirect relationships with institutions to meet these goals.

Local industries may establish programs that draw direct links between students in a particular community, local post-secondary institutions, and those businesses or industries. These programs inform

First Nations Community Involvement

Indian and Northern Affairs Canada's *Native Education and Training Strategy* (1991, Appendix 5a) establishes guidelines that encourage Aboriginal communities to offer input on the governance, curriculum, and services of regional postsecondary institutions, to ensure that members of that community are represented in post-secondary policies and programming.

"**3. Native Community Involvement with Postsecondary Institutions**

Eligibility to receive funding under the Strategy will be dependent upon a college or university agreeing to:

(a) Ensure that a process exists which would provide local Native community 3 representatives with direct access to the governing body/senate on all aspects effecting Native postsecondary education within the institution;

(b) Establish a Native committee with significant local Native community membership to oversee key Native programs and services. The committee will also assist in the determination of appropriate mature student admissions criteria for Native students and be involved in reviewing the admissions protocol affecting Native applicants;

(c) Develop, in collaboration with the institutional Native committee, a comprehensive plan of action, including an evaluation process, designed to enhance the institution's sensitivity to Native issues and to increase the accessibility and retention rates of Native students within the institution. This plan should be approved by the institution's governing body/senate.

Colleges and universities which have demonstrated a previous commitment to addressing the educational and training needs of Native people through the provision of quality Native programs and services, will be given preference in terms of Strategy funding."

Francophone Community Engagement

The Ontario Office of Francophone Affairs' *Stratégie pour compléter le système d'éducation en français langue première au Canada* offers a strategic plan to ensure that Ontario's francophones have access to a full range of educational and postsecondary options in the province. One cornerstone of this plan is engagement in francophone education from the entire francophone community. The minister's speech announcing the initiative (Ontario Office of Francophone Affairs, 2005) notes:

> "…[It is] necessary for the broader Francophone community to become a stakeholder in this educational mission and for schools to tap into associations, in all their diversity, the business world, and, of course, the leadership of parents and youth.…Who are these key partners? Of course, we immediately think of major provincial, territorial and national organizations, economic players, including credit unions and various business organizations, numerous cultural organizations, and postsecondary institutions."

students about learning options, train workers for jobs in these particular industries in partnerships with post-secondary institutions, and can provide enhanced employment opportunities upon completion of the program.

Local businesses and industries are also invested in expanding access to post-secondary education in the interest of general regional economic growth. More training and educational opportunities mean a large pool of skilled workers from which to hire. The development of technology clusters, for example, demonstrates a mutually beneficial relationship between post-secondary institutions and industry (Wolfe, 2002; Bramwell & Wolfe, 2005).

Along with the benefits to students and institutions these programs can bring, the influence of local

industries on post-secondary education have created concerns about market-driven behaviour within academic institutions, an abandonment of basic research in favour of externally funded applied research, and threats to academic freedom and institutional autonomy (Slaughter & Leslie, 1997), as well as a concern that students are being directed into non-degree programs that might limit their future educational opportunities (Greenbank, 2006). From this perspective, the influence of local industry may have negative implications for access.

3.2   Types of Community-Based Access Programs

Community-based access programs usually involve some combination of relationships between the school system, the post-secondary system, and local community members and organizations. There are several different types of initiatives with different objectives, including early outreach programs, concurrent outreach programs, dual enrolment programs, and geographic access initiatives. Many such programs

Involving Industry

In order to expand the number of skilled workers for the oil industry, Petro-Canada has established the Petro-Canada Millwright Centre and funded a 300-seat expansion of millwright programs at the Northern Alberta Institute of Technology (Petro Canada, 2007).

A recently-established co-op program in Bruce County, Ontario, links the local hydro company with students of Fanshawe College's Mechanical Technician diploma program. The press release for the program notes that "the Co-op Diploma Apprenticeship Program combines a college diploma with apprenticeship training, which adds flexibility to the apprenticeship system, responds to employer needs and attracts more young people to the skilled trades" (Government of Ontario, 2007).

are initiated by particular institutions and community groups. This report focuses on initiatives facilitated or developed by system-level governments.

3.2.1 Early outreach

Students are usually recruited into early outreach programs in middle school or in the first years of high school. These programs are aimed at the remediation of a perceived educational deficit, and as such are often aimed at specific, educationally disadvantaged populations, as identified by ethnic, socioeconomic, or geographic status. These programs commonly include tutoring, counselling about post-secondary options, and assistance with the post-secondary application and funding process. Early outreach programs respond to the importance of educational plans in students' post-secondary achievement. They work to expand and adapt students' understanding of post-secondary education and of their place within it, while also addressing and mitigating the factors that may affect such plans, including academic ability and confidence, and parental attitudes about education.

Evaluations of community-based access programs (Myers et al., 2004; Swail & Perna, 2002) have found that such programs can achieve higher success rates

Upward Bound

Perhaps the most well-known early outreach program, Upward Bound is the primary component of the federally-run group of TRIO programs in the United States that work to improve the post-secondary participation rate of first-generation, low-income students. Upward Bound offers counselling and tutoring in academic subjects and in the post-secondary application process, and works to involve parents in these activities. Upward Bound's primary goal is admission to post-secondary institutions—other TRIO programs (primarily Student Support Services) support eligible students once they enter a post-secondary program (McElroy & Armesto, 1998).

by engaging with multiple stakeholders within the local community, including parents and community leaders. Local business and industry can serve as a source of funding and support. Some outreach initiatives have expanded to include participation from schools and local organizations in order to

Pathways to Education Canada

Pathways to Education Canada (2007) is a charitable organization created to reduce poverty and its effects by lowering the high school dropout rate and increasing access to post-secondary education among disadvantaged youth in Canada. The Pathways to Education Program is a proven effective model, first created and implemented in 2001 in Regent Park by the Regent Park Community Health Centre, that is now expanding with local partners to five additional locations in Canada. The Pathways to Education Program provides four key supports—academic, social, financial, and advocacy—to ensure that young people will successfully complete high school, continue on to post-secondary programs and become actively engaged in their career development.

According to an evaluation completed by an arm's-length agency, Pathways has achieved tremendous success in lowering the dropout rate in the Regent Park community. The report notes that Pathways has offered a significant return on investment for donors, and has:

- Reduced the dropout rate from 56 per cent pre-Pathways to 10 per cent today;

- Lowered student absenteeism by 50 per cent;

- Reduced the number of students deemed to be "at risk" academically by 60 per cent;

- Increased the college/university enrolment of graduates from 45 per cent to 80 per cent—twice the provincial average.

potentially deal with some of the systemic issues that underscore some of these educational disadvantages (Swail & Perna, 2002).

3.2.2   Concurrent outreach

Concurrent outreach programs work with students from under-represented groups in the period immediately preceding application to a post-secondary institution and provide support while they attend the institution. These programs often include: recruitment (to post-secondary education and to the program itself); assistance with the post-secondary application process; and social, academic and limited emergency financial support throughout an otherwise standard academic program. Concurrent outreach programs also may admit students to the post-secondary program according to adapted admissions standards, and may provide a slightly modified curriculum (including additional courses or a modified progression through the program). Another version of such programs is the transitional program, designed to offer non-traditional and returning students academic and social support in a pre-university year.

Concurrent outreach problems address the issue of attrition, which can be a dramatic problem for those students who have successfully entered post-secondary education, but who lack the academic and social support and capital to see them through to a credential (Lambert, Zelman, Allen & Bussière, 2004; Tinto, 1987). Among Canadian students, post-secondary attrition averages approximately 40 per cent, but can be significantly higher for minority, part-time and mature students, and for students who are employed for many hours while they attend post-secondary education (Grayson & Grayson, 2003). By providing academic and social support and by increasing opportunities for students to become integrated and engaged with the institution, concurrent outreach programs can mitigate many of these challenges.

Concurrent outreach programs can dramatically improve participants' access and graduation rates, but these initiatives are particularly sensitive to shifts and reductions in government funding because they are designed to provide continual and ongoing support over the course of a student's program (Alcorn & Levin, 1998; R.A.Malatest & Associates, 2004).

Aboriginal Access Programs in Manitoba

The Aboriginal access programs in Manitoba adapt entrance requirements for targeted populations to a variety of academic and professional degree and certificate programs, and provide academic and social support systems for enrolled students, including a cohort model of enrolment and progress towards degree. In these programs, the universities and colleges retain control of the curriculum and of certification, while the province identifies qualified participants and administers the funding. Despite tenuous budgets, the graduation rate of the programs is about 40 per cent—compared with a five per cent graduation rate for Aboriginal students not in such programs. The programs serve as models for similar work in other provinces. (Alcorn & Levin, 1998, R.A.Malatest & Associates, 2004).

3.2.3   Dual enrolment

Dual enrolment programs allow students to simultaneously pursue secondary and post-secondary courses, often receiving credit towards both a secondary and a post-secondary credential. Dual enrolment programs take two basic forms: high school students can enrol in particular courses at a local college or university while they are completing secondary school, or some selected post-secondary credit courses can be offered in secondary schools. Under certain circumstances these programs can be important mechanisms for expanding access because dual enrolment can:

• Reduce the overall cost to students of a post-secondary credential. Most post-secondary credits offered by American state-run, dual enrolment programs, are paid for through state education budgets, not by individual students. In many cases, these credits can later be transferred to a post-secondary degree program.

- Help students who might not have otherwise considered post-secondary education. Dual enrolment courses provide students with an example of the expectations of post-secondary work and their ability to succeed in a post-secondary classroom. This is particularly true for students who pursue their dual enrolment credits at a post-secondary institution.

- Allow students to begin post-secondary work as full-time students. For students who otherwise might have begun post-secondary work as a part-time student, spending their first year as full-time student in a dual enrolment program can increase persistence and their chances of earning a credential.

While dual enrolment programs are common in the United States, Canadian cases are far more unusual (Skolnik, 2004). A further challenge to these programs in Canada is the lack of coordination between post-secondary institutions at the system level; only a few Canadian provinces maintain well-organized articulation and transfer agreements between institutions. If students cannot easily transfer dual enrolment credit towards a post-secondary credential wherever they choose to complete their program, many of the benefits of dual enrolment programs are threatened.

3.2.4   Expanding geographic access

Given Canada's immense size and the relative concentration of post-secondary institutions in urban and southern areas of most provinces, ensuring geographic access to post-secondary education in Canada has been a challenge. As Frenette (2007) has noted, students across Canada tend to attend post-secondary education locally, and consequently, if there is not a post-secondary institution near their homes, they are less likely to pursue post-secondary

Dual Enrolment Programs in the United States

A study of dual enrolment programs in the United States offers recommendations for ensuring that dual enrolment programs help expand access to post-secondary education. Hoffman (2005) argues that:

To serve as a strategy for promoting college access and credential attainment, dual enrolment programs should meet a number of criteria:

- The mission is to serve a wide range of students.

- The program is embedded within a K–16 structure and a high school reform initiative.

- There is equal access for all qualified students across all the state's schools.

- Concurrent credits are used as a proficiency-based acceleration mechanism.

- The secondary and post-secondary sectors share responsibility for dual enrolment students.

- The program collects data for purposes of assessing impact and improving the program.

- Funding mechanisms are based on the principle of no cost to students and no harm to partnering institutions. (pp. 1–2)

A second study, for the United States Department of Education (Karp, Bailey, Hughes, & Fermin, 2004), offers "recommendations to policymakers and program regulators":

- Clarify program goals so that the policies and regulations support the stated goals of the program.

- Identify funding mechanisms that meet the needs of all stakeholders.

- Think through the implications of both minimal and detailed dual enrolment policies on program activities. Develop ways to ensure the rigour of dual enrolment courses.

- Identify the needs of students beyond academic course taking.

- Meet the needs of students interested in technical courses as well as academic courses. (p. 2)

York University's Advance Credit Experience

The York University Faculty of Education Advanced Credit Experience (ACE) is a post-secondary education experience for high school students. The students who attend ACE are from diverse ethno-racial and low-income backgrounds and are the first generation in their families to attend post-secondary education. They gain exposure to higher education so that they may concretely experience some of the benefits of choosing to pursue their education beyond high school. This program allows students to be part of an environment that is supportive and nurturing, which values critical thinking, personal growth and development. This program is intended to increase their likelihood of success and their level of confidence in undertaking post-secondary courses The ACE students return to their high schools as role models and leaders within the school and positively influence other students to pursue a similar journey towards higher education (Faculty of Education, York University, 2007).

education. Furthermore, moving to another municipality in order to pursue post-secondary education adds significantly to the cost of a credential, a challenge compounded by the lower average economic status of rural Canadians. Finally, the geographic barriers for students in particular rural communities—including especially First Nations communities—compound existing challenges to post-secondary access for these populations.

Geographic access has been expanded in two primary ways. One is through creating new institutions and, in some provinces, new institutional types that allow students to complete some or all of their post-secondary education in or near their home community. This also includes the development of new degree types—including in particular the new baccalaureate degrees that are offered in the community college sector (Floyd, Skolnik & Walker,

2005)—so that degree-level qualifications may be obtained from a larger number of institutions. A second is through distance education and modified versions of open learning institutions that allow students to accumulate correspondence credits from one or more institutions that can lead to a degree or other credential.

Both such programs, however, are only viable as long as post-secondary credits are relatively portable from one institution to another. Furthermore, if transfer (whether physical or virtual) is a built-in component of the programs, so called "pipeline problems" can emerge: many students are lost in the transfer process, and relying on transfer to expand access can mean that many students will not successfully make the transition (Pusser & Turner, 2004; see also Andres & Krahn, 1999).

University College of the North

A new post-secondary institution was established in Manitoba in 2004. University College of the North offers coursework in 12 northern communities towards degree programs in Arts and (soon) in Education, as well as towards numerous technical and vocational certificates and diplomas. UCN also offers a transfer-year program for students who wish to begin their studies close to home before completing their program at one of Manitoba's other post-secondary institutions.

UCN is an example of community delivery of post-secondary education. This access strategy is identified as particularly valuable for Aboriginal students in the Canadian Millennium Scholarship Foundation's *Aboriginal Peoples and Post-Secondary Education* report (R.A. Malatest & Associates, 2004), which states that "the goal [of community delivery] is to eliminate much of the financial and social hardship brought about by long-term resettlement to a university campus. These programs have been especially important in allowing access for those who live in remote areas" (p. 26).

Campus Saskatchewan

Campus Saskatchewan is an online service that allows individuals to locate and register for courses and programs offered online and through correspondence. Like similar services in Manitoba, B.C., and Quebec, Campus Saskatchewan allows students to identify distance courses offered at all of Saskatchewan's post-secondary institutions and, in accordance with the regulations of the institution through which students are registered, earn credit towards a credential. Campus Saskatchewan also hosts the Saskatchewan Transfer Guide, which allows students to see how courses from one institution will transfer to a second. Through these services, Campus Saskatchewan acts as an online, centralized source of information about distance learning opportunities in the province, and allows students to earn their degrees in whole or in part by drawing on distance courses offered at multiple provincial institutions (Campus Saskatchewan, 2007).

3.3   Community and Accessibility

Community-based access programs and the engagement of local populations with post-secondary institutions complement financial and institutional programs to promote post-secondary access and success for under-represented populations. By addressing both the immediate social and academic needs of students, and enhancing community-institution relationships, the best such programs can offer lasting improvements in opportunities to pursue post-secondary education for community members.

4. Rethinking the System

As we have already noted, accessibility can be addressed through a variety of approaches and mechanisms, including the ways in which governments fund and steer post-secondary institutions, and through linkages between governments, post-secondary institutions, schools and communities. Another approach is to rethink the "system" in terms of questioning the existing boundaries between educational sectors, reconsidering the roles of different institutional types, and restructuring the mechanisms for system governance or coordination.

Perhaps the greatest Canadian example of reforming an entire higher education system occurred in Quebec during the Quiet Revolution under Lesage, and the creation of a Ministry of Education. Gérin-Lajoie followed his secularisation of the educational system with the creation of the *Collèges d'enseignement général et professionnel* (CEGEPs), the elimination of year 12 at the high school level and the elimination of one year of study to earn a Bachelor's degree (Durocher, 2007). At the same time, the Quebec government created the new multi-campus University of Quebec system and restructured the governance of its existing French-language universities.

Some of the most dramatic reforms to higher education have taken place outside North America over the last few decades. The mass expansion of higher education in the United Kingdom and many other European countries required major changes in system structures and governance arrangements. The current dramatic expansion of higher education in China is a function of major changes in how the system is coordinated, funded, and defined. In other words, these major transformations are not simply a response to changes in how governments fund institutions: they have usually involved rethinking the educational system.

Many of these reforms are idiosyncratic to the specific contexts, problems and challenges associated with the particular system, though three types of reforms illustrate different ways of rethinking the system in order to facilitate greater accessibility to post-secondary education: K–16 initiatives, adjusting the roles of institutions and reforming governance structures.

4.1   K–16 Initiatives

Education has traditionally been discussed in terms of distinct sectors operating under different levels of government control with quite different objectives. The school sector became responsible for providing education for the first 12 or 13 years of mostly mandatory schooling. It was assumed that secondary school would fulfill the educational requirements of most students. Conceptualizing education as extending from kindergarten to the end of undergraduate education requires a rethinking of the system of traditional educational boundaries and arrangements. Within this perspective, policies from various levels of governance can target specific or larger transition issues such as facilitating transitions between sectors and institutions, Advanced Placement and International Baccalaureate programs, and rethinking year 12.

These issues all fall within a K–16 perspective of education, which is a reframing of the traditional 12 or 13 years of schooling that prepared the majority of students for the workforce, and the elite for university studies. Many students accessed an additional two years of study at community colleges before entering the workforce, yet the conceptualisation of "basic" education remained entrenched in a K–12 perspective. A high school diploma is no longer the minimum educational requirement for a productive workforce in the context of a knowledge economy.

As Kirst and Venezia (2006) note, reforms that fall within the traditionally separate silos of K–12 and higher education are "likely to perpetuate barriers that thwart student success" as "some of the most difficult challenges can be found at the juncture between our high schools and colleges" (p. 36). Some

of the most challenging issues associated with accessibility to post-secondary education involve student transitions from one sector or institution to another, and these transitions often involve leaping over the chasms between educational islands.

Tafel and Eberhart (1999) indicate that state-wide school-college partnerships in the United States take many forms, though most focus on early outreach and college preparation programs. For example:

- Minnesota's *Get Ready!* Targets under-represented minority students and their families as early as Grade 4, whereas the Georgia *PREP* initiative provides supplementary academic readiness to middle and high school students at risk.

- Florida encourages school-college collaboration with its Partnership in Education Excellence, which focuses on collaborations between colleges of education and school districts. In Virginia, the pre-collegiate awareness program funds academic activities on post-secondary campuses for students in grades 8 to 11.

- In Missouri, the K–16 coalition focuses on increasing mathematics performance in grades 11 and 12 as well as year 13 and 14 in colleges.

The authors highlight what they believe are necessary conditions for successful initiatives based on detailed analyses of programs in three states. They argue that successful programs require: explicit goals; a state-wide organizational framework; incentives to sustain partnerships; a comprehensive data system to identify system gaps and inform new policy; a communication system to disseminate information and encourage public engagement; and mechanisms to identify substantive issues that require immediate attention.

Advanced Placement courses and International Baccalaureate programs, like the dual enrolment initiatives described in section 3, provide students with opportunities to obtain credits that will later be recognized by post-secondary institutions. These initiatives have traditionally served to fast-track elite students.

A number of studies and commissions in the United States have argued in favour of a K–14 perspective that would lead to a rethinking of grade 12 as the final year of secondary school. In its 2001 preliminary report, the National Commission on the High School Senior Year (2001b) noted a major gap in communication between education system participants in dealing with the transition between school and post-secondary

The Co-reform of Teacher Education in Georgia

Georgia's P–16 initiative has involved ongoing collaboration with the Office of School Readiness, the Department of Education, the Department of Technical and Adult Education, and the University System of Georgia, educators from the P–12 and post-secondary institutions, school board members, youth advocates, legislative and business leaders. There is a state P-16 council as well and local and regional councils; recommendations move from local councils to the state council, and then to proper authorities and government structures. One of the objectives of the initiative is the "co-reform of teacher education, advanced educator preparation programs, and public schools toward practices that result in all children meeting high

academic standards" (Zimpher, 1999, p. 4). In 1996, a P–16 teachers and teacher education sub-committee was appointed to identify areas of change and make recommendations. The sub-committee recommended a new framework for teacher education, increased availability of alternative teacher preparations programs, and changes to strengthen traditional programs. The state's Professional Standards Commission and Board of Regents acted on the recommendations and in 1997 the Innovative Program Rule was passed to expand alternative teacher preparation programs, the first of which was approved in 1998. A new policy on teacher preparation was in place in the fall of 2000 (Zimpher, 1999).

education. The solution, according to the Commission's final report, "is to 1) improve alignment [K–14], (2) raise achievement and (3) provide more (and more rigorous) alternatives [to students]" (p. 20). For example, the Commission argued for an increase in the number of Middle College Schools, such as LaGuardia's Middle College High School, a high school on a college campus for students at risk of dropping out. These types of institutions could deal with years 11–14 or 12–14. (p. 30). This institutional model is obviously very similar to the Quebec CEGEP.

4.2   Roles of Institutions

Governments frequently create new institutional forms or adjust the roles of existing institutions in order to increase access to post-secondary education while also addressing the needs of students and the labour market. Several Canadian provinces have established institutional models that bridge the traditional differences between community college and university education, such as the university colleges of British Columbia. Other special-purpose Canadian institutions include art colleges, and open universities, such as Athabasca University in Alberta. The central assumption is that a post-secondary system will be more accessible if it provides students with a range of educational options offered by different types of institutions. Increasing the breadth of possibilities will provide students with more opportunities to identify an educational program that matches their interests, objectives and circumstances. Recent provincial government reports have recommended the creation of new institutional types to address emerging needs, such as regional universities in British Columbia, and polytechnics in New Brunswick.

4.3   Governance and Coordination Structures

As we have already noted, access to post-secondary education can be improved if steps are taken to facilitate the transitions between what have traditionally been separate educational sectors and institutional types. In some situations the government structures for education parallel these divisions and there are few opportunities to consider educational policy across sectors.

In perhaps the greatest current experiment in furthering student mobility and transitions, the European Union's Lisbon Strategy and Bologna Process have led to the development of supra-national governance structures to facilitate communication between national governments and agencies as these systems move towards the adoption of a common degree framework and deal with the complex issues associated with student mobility between institutions and systems.

The governance arrangements for German higher education were modified in September of 2000. The new arrangements clarify the responsibilities of each level of government for higher education in this federal system. The *Länder* are now responsible for educational policies for higher education, except for policies that deal with admissions and degrees, though the *Länder* can deviate from federal regulations. Institutional governance structures have also been modified.

Haslam and Rubenstein (2000) indicate that the "final component of K–16 alignment is the development of governance structures that facilitate K–16 relationships. Current governance structures impede meaningful collaboration between K–12 and higher education systems" (p. 6). One approach that has proved successful has been the creation of state-wide K–16 Councils. In Georgia and Maryland, these state councils support regional councils to implement system changes. These state councils can help establish system goals, create new organizational frameworks, identify incentives for developing and maintaining partnerships, develop new data systems to inform policy, and develop communication systems.

Several Canadian provinces have created structures designed to coordinate and facilitate credit transfer between post-secondary institutions. For example, the British Columbia Council on Admissions and Transfer provides a forum for clarifying how credits earned at one post-secondary institution will be

treated by others. The end result is a transparent process where students have access to a transfer guide that provides them with information on credit transfer within the province. Alberta was the first province to create a transfer council, and it has now developed a number of structures and arrangements associated with its Campus Alberta initiative.

Unité du continuum de l'apprentissage en langue française, Ministry of Education, Ministry of Training, Colleges and Universities, Ontario

Although several jurisdictions across Canada, the United States and Europe have created Ministries or Departments of Education that addressed JK–20 education, in July 2007, the Ministry of Education and the Ministry of Training, Colleges and Universities of Ontario announced a restructuring of the French language policy and program branch (FLEPPB) of the Ministry of Education (K–12). This is a first initiative to rethink the educational governance structures for an underrepresented group, in this case Ontario's French first-language official minority. The Assistant Deputy Minister responsible for French-language education (K–12), through the director of the FLEPPB (K–12), would assume responsibility for a third unit dedicated to French-language post-secondary programs and policy called the French-language continued learning unit. Transferring responsibility of this new unit to the FLEPPB creates a JK–20+ perspective for policy development and implementation, and creates an official dialogue space for policy-makers and governing bodies regarding French-language education in Ontario.

5. Measuring Success

As the examples used throughout this discussion paper illustrate, accessibility has become an important policy issue in many jurisdictions, and governments in different jurisdictions have developed policies, mechanisms, and structures that are designed to increase access to post-secondary education for the population as a whole, but also by specifically targeting under-represented populations. An important component in these initiatives is the collection and analysis of data that allows policy-makers to obtain a clearer under-standing of the problems that need to be addressed, as well as data that can assist in the evaluation of new initiatives to determine whether they have been successful in addressing the problem.

Increasingly, there is consensus that Canada's data and research infrastructure supporting policy development in post-secondary education requires improvement. In its September 20, 2007 press release, the Canadian Council on Learning argues that "Canada has no clear picture of how our post-second-ary education is faring on the international stage due to a striking absence of key information." Reports in several provinces have noted the absence of national data on important policy questions, and research on post-secondary accessibility is a key objective of the new Higher Education Quality Council in Ontario. Limitations in Canada's national data infrastructure in this area, and the huge delays associated with obtaining what data are available, has been noted by the OECD.

This is not a uniquely Canadian issue. Many juris-dictions have had to take steps to improve their data systems, and they have had to devote new resources to ensure that the data and analysis needed to identify problems and evaluate the success or failure of new initiatives are available. A well-documented example often cited by American literature is the Florida Board of Education's K–20 Education Data Warehouse, and its capacity to link with existing external data-bases (Florida Department of Education, 2007).

The research in this area is highly technical. Accessibility is an extremely complex topic and there are difficult challenges associated with defining and measuring access. While research on the long-term success of various initiatives is not as readily available as are case studies focusing on new innovations, our review of this literature suggests that there are three broad themes that should be considered: the object-ives for collecting data, transparency and openness and the importance of a strategic approach.

5.1   The Objectives

There are a range of different reasons to strengthen the collection and analysis of data on post-secondary education, but it is important to note that different objectives require different types of data, different tools and approaches for data collection, and different types of analysis.

Monitoring student access and persistence is an important objective at both the institutional and systems level. Some jurisdictions have developed data systems that track the movement and progress of students throughout their education system. In addition to data, Goldberger (2007) argues that there should be "a public reporting system that allows students, policymakers, and practitioners to identify institutions achieving strong results with high-priority subgroups…" (p. iii). Rich demographic data need to be collected so that differences in success by demo-graphic characteristics can be monitored at all levels of post-secondary education, from vocational training to professional and graduate programs. In multi-jurisdictional federations such as Canada, realities of student mobility and regional access to minority-focused post-secondary education (French first-language, First Nations, etc.) stress the need for inter-jurisdictional longitudinal monitoring.

A second objective is quality assurance. Many jurisdictions have taken steps to develop quality assurance mechanisms, and these mechanisms or

structures have led to the development of data systems designed to meet the government's object-ives in this area. Changes in the European Union have led to the development of national quality assurance agencies that collect data on program and institutional performance.

A related objective is to assess and enhance teaching and learning within the post-secondary system. Teaching and learning are extraordinarily complex processes, and there are a range of different approaches to assessing the quality of teaching and the quality of learning. In the context of accessibility, it also becomes important to focus attention on differences within the student population in order to understand why some populations are more successful than others. A number of Canadian uni-versities now participate in the National Survey on Student Engagement (NSSE) which collects data on student behaviours associated with learning

A fourth objective is to collect and disseminate data so that students can make informed choices about post-secondary education. An increasing number of organizations and publications rank insti-tutions. Most claim to rank institutions for the benefit of potential students, in order to enable them to choose the institution that is the best fit for them, particularly helping first-generation students make informed choices by providing data on programs,

staff/student ratios, institutional resources and student life. Australia and Germany have national listings developed by government or arm's-length institutions, and Germany's CHE University Ranking system is frequently cited as a leading example. The European Union has initiated a Euroranking project to better inform students in European Union coun-tries on their choices within the new mobility afforded to them by the Bologna Process. Not surprisingly, there are substantive differences of opinion on how to rank institutions and on the types of data or indi-cators that can or should inform student plans for post-secondary education.

5.2   Transparency and Openness

A second theme relates to transparency and open-ness. Governments can play a role in data collection and analysis that can lead to a population that is more informed about, and engaged with, higher education policy issues. Potential students can benefit from increased information that will lead to more informed educational choices. The public availability of data will also provide opportunities for scholars to use these studies as a foundation for further research on accessibility.

National Data Collection in Australia

As part of the "Backing Australia's Future—Realising Our Potential" initiative, the Australian Government announced plans for a national data collection on higher education application and offers in its 2007–2008 budget. A discussion paper was released in July 2007. Consultations were held in the six state capitals during the fall of 2007. There is hope that this initiative will provide complete, accurate and standardized data available at a national level, and allow for analysis of the data at a detailed level. The Australian Government is also addressing the need for complete and transparent

data on all students (K–12, vocational education and training and higher education) by implementing new national policies on data collecting of student background information in all state jurisdictions. Since 2007, background information has been collected in schools regarding students' sex, Indigenous status, socioeconomic background and language background. The data will be accessible for integration with existing and anticipated national data bases to track student access and success (Australian Government, 2007).

5.3   A Strategic Approach

Developing new, sophisticated approaches to collecting data on accessibility and monitoring the success of the higher education system cannot be accomplished quickly or in an ad hoc fashion. Higher education system reforms have often led to the development of strategic approaches to research and data collection. In complex systems of higher edu-cation, a strategic approach requires the involvement of multiple parties operating at the institution and system level, and investments in the development of research tools and in the dissemination of findings.

In September 2007, the Canadian Council on Learning published *A Pan-Canadian Data Strategy for Post-secondary Education*, "as a comprehensive plan for gathering and utilizing information that is required to make possible the sustained success of the PSE in Canada" (p.1). They identified three types of short term objectives:

1) "ongoing and adequate funding for the essential data instruments;

2) comprehensive data on special and salient issues in each of the eight priority areas for the PSE sector discussed; and

3) immediate implementation of a unique student identifier, collection and reporting of faculty numbers for colleges, data on adult education and data on private providers (p. 1)".

The eight priority areas addressed by their data strategy are:

1. A skilled and adaptable workforce

2. Innovation, knowledge and knowledge transfer

3. Active, healthy citizenry

4. Quality PSE

5. Access and opportunity for Canadians

6. Participation and success for under-represented groups (linked to 5)

7. Lifelong learning

8. Affordability

Discussions about a pan-Canadian data strategy need to address areas where data are missing or scattered regarding accessibility. These areas would include, for example, data that could lead to a better understanding of access and persistence of graduate students, students from rural areas, adult and conti-nuing education students, students in vocational and workforce training, and on the social integration of students.

5.4   How Will We Know if We Are Successful?

Higher education systems need data in order to explore and understand accessibility. They need to be able to determine what individuals or groups are experiencing problems in accessing the system, or in successfully completing their education. Governments need to know where to target resources, and whether new initiatives are addressing the needs of targeted populations.

Although many data sets and accountability measures such as reporting are in place in most Canadian provinces, what is lacking is a system-wide data infrastructure that allows for detailed longitu-dinal tracking in a K–20 perspective, and across the educational jurisdictions in Canada. As student mobility increases, student profiles change, and the supply side of the equation is accounted for in discussions around accessibility at all levels of post-secondary education (college, undergraduate, professional and graduate programs, vocational and workplace training, etc.), discussions around what data to collect and for what purpose need to be explored in a national and supranational K–20 context. Without a stronger data infrastructure it will be impossible to know whether government policies and initiatives are succeeding in improving accessibility to post-secondary education in Canada.

6. Concluding Observations

Although Canada's overall rates of participation in post-secondary education are among the highest in the world, stark inequities exist in the post-secondary participation rates of certain groups in Canada. Our objective in this paper was to provide an overview of system-level approaches to increasing accessibility especially for under-represented groups. In general, we have focused on reviewing the literature rather than critiquing existing research. In doing so, we have identified a wide range of policy instruments, funding mechanisms, and innovative strategies that have been employed by government to deal with access issues. We have attempted to include details on certain strategies in sidebars noting the limitations of these approaches where appropriate. Our review of the literature leads us to suggest that there are a number of issues that Canadian governments should consider when developing mechanisms to improve access.

6.1   Context

This paper illustrates that a number of elements go into the accessibility equation, and these factors interact rather uniquely within jurisdictions and within targeted groups. Policy responses to access issues evolve from, and are embedded in, historical, social, economic, political and cultural contexts. Therefore, it is important to note that not all policy instruments travel well, even across North American jurisdictions. While Canada may learn from the United States and other countries, importing their policy mechanisms may not be appropriate, nor are we advocating in this review that Canadian governments should adopt most or all of the strategies described in these pages. Indeed although some provinces have already adopted some of these approaches, others are in the early stages of experimenting with new, uniquely Canadian ways of increasing accessibility.

6.2   Develop Clear System Definitions and Goals for "Accessibility" and "Success"

There is little doubt that accessibility is an important goal in provincial policies for higher education, but the goal is frequently expressed at the system level in quite general terms without articulating clear system-level objectives or targets. A related problem is that various definitions are employed by different stakeholders in post-secondary education as to what is meant by "accessibility" and student "success."

Arguably, system-level goals are necessarily expressed generally. They cover a multitude of sectors, institutions and groups. Consequently, system-level goals can become "nobody's goals," which everyone can avoid. This is compounded by imprecise notions of "accessibility" and "success." In contrast, meaningful expressions of access goals usually exist at the sector, institutional and targeted group level. Therefore, Canadian governments might improve system-level access by clearly defining the goals and objectives of the system related to accessibility and by improving alignment of the sector/institutional/group access goals with system-level goals. Governments need to reaffirm a broad and precise definition of accessibility that includes admission and retention of students, as well as successful outcomes for them.

If governments are determined to integrate targets for accessibility into accountability mechanisms, our review suggests that stakeholder buy-in must be obtained in order for these measures to be successful. Ideally the agreement must be negotiated with the institutions and not imposed on institutions. Mutually agreeable objectives that respect institutional autonomy and that are consistent with the institutional mission must be arrived at. Also, the level of funding attached to performance indicators

must be less than five per cent of the total funding to the institution. The literature suggests that this level is sufficient to produce change in institutional behaviour without destabilizing the system in the event that institutions do not meet their targets. Finally, punitive systems are less effective than reward systems when tying performance indicators to funding.

6.3 Facilitating Transitions and Mobility

There is considerable evidence that the transitions between programs, institutions, and sectors can be difficult, including the transition from secondary school to post-secondary institution, and the transitions within the higher education system as students shift programs or institutions, or return to seek further education. A number of the approaches described in this paper offer ways of facilitating these transitions by involving community members and organizations in support programs, adopting a K–16 perspective, and strengthening the arrangements for credit transfer within the post-secondary system. Some of these approaches are challenging because they involve linkages between very different institutions (universities, colleges, school boards) and communities, and there are sometimes issues of territoriality and concerns about institutional autonomy. However, it is important to emphasize the importance of taking steps that are in the best interests of our students.

There is an increasing national and international dimension to the discussion of transition, transfer and credential recognition. Students move between institutions in different provinces, or transition between institutions in different countries. National discussions on this topic are challenging in Canada given our unique federal arrangements. Some attention must be paid to clarifying the respective responsibilities between the federal and provincial governments in improving transitions and student mobility.

6.4 Target Low-Access Populations

Canada has high participation rates in post-secondary education, but some groups and populations have lower access than the population as a whole. If Canada is to increase accessibility to post-secondary education then it is important to focus special attention on low-access populations.

Large components of Canada's expenditures on student financial assistance are in the form of universal aid programs. A more efficient strategy for increasing accessibility is to spend less money on universal student financial assistance programs that are designed to benefit all students regardless of personal income or circumstances, such as tuition tax credits, and more money on initiatives targeted to those who need it most. Of course it isn't just a matter of student financial assistance; our review has described a wide range of initiatives designed to support targeted groups through academic support initiatives, community involvement and special programs.

6.5 Strengthen Canada's Data and Research Infrastructure Focusing on Access to Post-Secondary Education

At this point Canadian governments do not have the data that they need to develop policy on accessibility to post-secondary education. There are substantive gaps in data, and long delays in the release of data and analysis. Current national data systems need to be improved, and there needs to be a discussion between governments and institutions on approaches to obtaining data that will inform policy. This will not be an easy process since there are complex definitional issues and important resource implications.

We are also suggesting the creation of a research infrastructure that promotes the dissemination, sharing and communication of data. This requires

identifying what data are already collected by institutions and governments. It requires determining whether existing data are useful in terms of contributing to our understanding of accessibility. Finally, given the costly nature of data collection, dissemination and storage, governments must be prepared to invest in research data infrastructure. In particular they must be prepared to invest in new research, such as large-scale longitudinal studies that track students through the educational systems from kindergarten to graduate and continuing education so that we can increase our understanding of accessibility at all levels.

6.6 Recognize That Some Problems Cannot be Solved by Post-Secondary Institutions

While post-secondary institutions clearly have a role to play in increasing accessibility, it is also clear that there are access problems that cannot be solved by these institutions alone but require the involvement of schools, communities and governments. Not all accessibility issues can be solved or addressed "inside" the post-secondary system, but require broad collaboration with a range of agencies, organizations and groups.

Accessibility is now regarded as a key issue in almost every higher education system. Governments can play an extremely important leadership role in defining the access goals and objectives of the higher education system, steering the system in the direction of meeting those goals, as well as bringing together and supporting the collaborative relationships involving different systems, sectors, institutions and communities necessary to find new ways of encouraging

participation and addressing barriers. However, our review suggests that there is no one panacea for accessibility issues in post-secondary education because no one factor fully accounts for accessibility among various groups in Canada's population. Moreover, it is difficult to ascertain the success of any one particular factor or approach to accessibility within Canada or elsewhere because of numerous variables influencing outcomes (for example, variations in tuition rates, costs, policies, support for students, etc). Government approaches must be carefully and uniquely crafted based on their identification of the precise problem they want to readdress.

6.7 Keep an Eye on System Capacity

A system can be extremely successful in encouraging and supporting students so that they will try to access post-secondary education, but it will fail if there are not enough spaces for these new students. There is considerable evidence that post-secondary enrolment will grow nationally over at least the next decade (Hango & de Broucker, 2007), though there are differences of opinion when projecting beyond that point. What is clear, however, is that provincial governments must monitor enrolment demand. As the participation rates of the population as a whole continue to increase, and as demographic trends in some parts of the country suggest important increases in the demand for higher education, it will be extremely important to ensure that the system has the capacity to allow for increased accessibility. Governments must closely monitor the supply of post-secondary education, and, where necessary, build capacity into the system now in terms of human, financial and physical resources.

Acknowledgements

Appendix: Summary of Working Group Discussion

Working Group Lead:
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Working Group Facilitator:
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Discussants:
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Dr. Andrew Parkin, Associate Executive Director Canada Millennium Scholarship Foundation

Introduction

This discussion paper was one of four prepared for an international conference entitled "Neither a Moment Nor a Mind to Waste: Strategies for Broadening Access to Post-Secondary Education" sponsored by the Canada Millennium Scholarship Foundation and the European Access Network. During this conference, held April 6–8, 2008, each of the 350 participants selected a working group and took part in two focused discussions of one of these thematic papers. Working Group 4 focused on system-level initiatives to increase accessibility to PSE, using this paper as a starting point for the discussion. In the first session, the lead author provided an overview of the paper, identified key findings and addressed questions from the group. The group facilitator then asked participants to provide feedback on the paper in terms of concerns with how the theme was addressed, or identifying important issues that should be included. In the second working group session, three discussants provided comments on the paper. Then, the facilitator led a discussion of recommendations for system-level initiatives that could help expand access to PSE. This report's summarizes the key points and recommendations that emerged from these discussions.

Key Factors and Policy Issues

Since participants chose their working group, it is surprising that this working group drew a diverse range of individuals who shared a common interest in looking at post-secondary accessibility from a system-level perspective. This working group included provincial and federal government officials, institutional leaders, business leaders, and individuals from a range of community organizations. The discussion paper received very positive feedback from the working group. Participants indicated that the paper captured the key issues and provided a balanced analysis of system-level initiatives associated with increasing access. Each of the three discussants highlighted particular elements of the paper that they believe captured important issues, including the need to expand access initiatives and student assistance to populations that have the greatest needs, and the importance of creating an

environment where policy is informed by the research. The working group discussion focused largely on ways to move the access agenda forward at the system-level, including specific recommendations.

The group identified a number of key considerations and policy issues that must be considered in any attempt to initiate system-level change in this policy area. Access issues are multi-faceted and extremely complex; they are "wicked problems" in that they are difficult to define and that no clear solution may exist. There are also substantial differences by province in demographics, levels of access, access policies, and system structures. While increasing access to post-secondary education should be a Canadian priority, there is no simple, national solution. Increasing access means bringing together governments, institutions, business and communities to find approaches that recognize national, provincial, and local contexts.

However, the group noted that there are a number of key problems that must be addressed in order to move forward. One is that there is no clear sense of agency or urgency. The issue involves multiple governments, institutions and stakeholders with little sense that the problem is "owned" by anyone There is limited recognition of its importance. There is a need for leadership and for greater clarity in terms of who is responsible for what. The second problem is goal ambiguity. There is a need for greater clarity in establishing goals and priorities for accessibility to PSE. Finally, our capacity to define and address access issues has become limited by an extremely inadequate data and research infrastructure supporting policy development in this area. We simply do not have the national data and research infrastructure necessary to make informed policy decisions on post-secondary education.

In the concluding session, working group members were asked to articulate specific recommendations for moving forward on the agenda of increasing access to post-secondary education. In order to obtain some sense of the magnitude of support for each recommendation, the facilitator asked group members to vote on each recommendation, a process that led to

the group abandoning some recommendations and reworking and rethinking others. A group secretary took extensive notes of these deliberations on flip charts. The group leader and facilitator carefully reviewed these notes and prepared a summary of the group's recommendations. These recommendations were later reviewed in a plenary session by the conference. The feedback from the working group suggested that these recommendations, discussed below, were a fair representation of its conclusions.

Recommendations

1. Develop and communicate clear goals for increasing participation in, and graduation from, post-secondary education.

The first important step in moving forward is to develop goals and to send a clear message that increasing access to PSE is an issue of national importance. We also need to work towards increasing student success by establishing goals for post-secondary completion. This is an issue of economic development, social justice, and empowering our citizens. Governments, institutions, business and communities can all play a role in increasing accessibility to PSE. Moving this issue forward will require bold leadership, role clarity, and collaboration.

2. Develop a national strategy to strengthen our data collection and research infrastructure supporting post-secondary education policy.

The working group concluded that it is important to develop a "culture of evidence" where access policy is informed by research. Our current data and research infrastructure is clearly adequate. We need to strengthen our capacity for policy development by ensuring that we have a policy research infrastructure that will support informed decisions and further the level of public debate. A possible starting point for moving forward on this issue might involve supporting a comparative analysis of other national data systems, and creating a national panel to make recommendations on strategy and approach.

3. Focus on Transitions and Student Mobility

Many access problems involve difficulties in transition, including student transitions between school levels within the school system, between schools and post-secondary institutions, between different post-secondary institutions, between post-secondary institutions and the labour market, and between the labour market and post-secondary institutions. Early intervention initiatives in our schools are extremely important. Schools, universities, and colleges are often separate silos. It is important to "rethink" the educational system, perhaps by including strategic P-20 solutions in order to develop solutions that look across existing components in order to develop more holistic approaches. We need to strengthen the system's capacity for accessibility by developing transparent arrangements for articulation and transfer, revisiting the roles of existing institutions, considering the creation of "open" post-secondary institutions and ensuring that appropriate resources are in place.

4. Target Support to the Populations With the Greatest Needs

A great deal of federal and provincial support to access is provided through universal programs, but given limited public resources it may be time to shift the balance between universal student financial assistance (through tax credits and savings programs) and targeted student financial assistance programs. Initiatives that provide a small level of support to everyone who participates do little to encourage participation from under-represented populations; a much more effective public policy would put meaningful levels of support in the hands of those who need it most.

5. Foster Success for Canada's Aboriginal Populations

The level of education of Canada Aboriginal population is, on average, much lower than the level of education of the population as a whole. It is extremely important that Canada's Aboriginal populations have the resources necessary to increase access to schools and post-secondary education for their communities. We need to honour the Aboriginal leadership and respect Aboriginal approaches to education.

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