

The Canadian Federal Case¹

Donald Fisher

1. Introduction

Canadian federalism is characterized by a major paradox. On the one hand is the constitutionally derived responsibility the provinces have for social welfare, health and education. On the other hand is the federal responsibility for concerns of national interest, equality of treatment and opportunity, economic development, Indians and lands reserved for Indians.² This paradox has led to a major line of tension in federal provincial relations as each jurisdiction attempts to fulfil these responsibilities. The provinces therefore have the central role in providing direct operating support to institutions and for developing legislation, regulation, and co-ordination of those institutions. The federal government does not have a direct role in co-ordinating higher education institutions in Canada. Thus different arrangements exist in each province with regard to education.

Federal governments have used the powerful instrument of 'federal spending power'³ to intervene with the enormous weight of federal taxes in precisely the same areas that come under provincial jurisdiction. The major line of tension is influenced through time by structural factors that are simultaneously national and global. The key factors to impact PSE are war, demography, and, the economy. The most recent phase in federal PSE policy with its emphasis on research leading to the creation of applied knowledge is clearly set within and has contributed to the emergence of the knowledge society (Drucker, 2002).

The provinces have to varying degrees attempted to protect the constitutional division of powers by either blocking or accommodating federal interference. Québec has played the most significant role in both protecting its own autonomy and by extension pushing the federal government to observe at least the relative autonomy of the other provinces. As one means to press this case, the provinces created the Council of Ministers of Education (CMEC) in 1967. More recently, the provincial first ministers created the Council of the

¹ The chapter draws heavily on the monograph, Donald Fisher, Kjell Rubenson, Theresa Shanahan, Claude Trottier, Jean Bernatchez, Robert Clift, Glen Jones, Jacy Lee, Madeleine MacIvor and John Meredith, (2007) Canadian Federal Policy and Post-Secondary Education Vancouver: Centre for Policy Studies in Higher Education and Training (forthcoming).

² Education for Aboriginal peoples is controversial and a critical historical issue in Canada. Section 91(24) of the Canadian Constitution Act, 1982 designates "Indians and Lands reserved for the Indians" as a federal responsibility. This means registered (status) Indians (living on-reserve or on Crown land) are under legal jurisdiction of the Indian Act, kept on register by the Department of Indian and Northern Affairs Canada (INAC) and their schooling is a federal responsibility.² INAC is responsible for Indian education in the three territories.

³ The federal spending power draws on the historic, prerogative right of the Crown to make gifts to its citizens (Cameron, 2004, p. 7).

Federation (COF) and in February 2006 made post-secondary education and skills training the topics of their first summit.

In this chapter the aim is to provide an overview of the general trends in federal policy for PSE. These trends are a key part of the policy environment. They simultaneously enable and constrain what provinces are able to do as they in turn develop their own policies for PSE. While we discuss the federal context in relation to the grouping of rules we are at the same time aware that within the context of globalization some nation states are stronger than others. Immanuel Wallerstein assigned countries to core, semi-peripheral, or peripheral status, while Susan Strange defined state strength in terms of both structural and relational strength (Volgy & Bailin, 2003). Structural strength refers to a state's capacity to create rules and norms for engaging with other states, while relational strength signified that a state could deter or minimize challenges from others. According to Volgy & Bailin, a strong nation-state is able to write and re-write the rules of the game. Using these definitions and concepts, it appears obvious that the US remains a strong-and indeed the strongest-nation state in the world, while other Western OECD countries retain some strength although not always able to "write the rules of the game". As Canadian political scientist McBride (2001) contends, "strong states are the facilitators of globalization while weak states are the recipients" (p. XXX).

This chapter is divided into four parts. First is a description of the federal policy context. Second is a section on fiscal policies. Third is a description and analysis of the major federal policy themes and their impact in the three provinces of BC, Ontario and Québec. Finally is the section on performance trends.

2. Federal Context

2.1 Design and Governance

When the final version of the British North America Act was signed in 1867, the entire educational sphere had been relegated to provincial jurisdiction, primarily at the urging of Lower Canada (Standing Senate Committee on National Finance & Leblanc, 1987: 1-2).⁴ The provinces therefore have the central role in providing direct operating support to institutions and for developing legislation, regulation, and co-ordination of those institutions. The federal government does not have a direct role in co-ordinating higher education institutions in Canada. Thus different arrangements exist in each province with regard to education.

Federal governments have always viewed PSE in relation to their own responsibilities for national well-being.⁵ The overriding imperative is to ensure that all citizens enjoy similar rights and living standards regardless of their province or territory of residence. The

⁴ Section 93 of the Canadian Constitution Act of 1982 gives primacy to provincial authority over education.

⁵ Beyond the supra-provincial issues referred to above, the federal government is responsible for education in the territories, of service personal (and their children) and training programs operated for inmates in prisons.

federal case for involvement in PSE has repeatedly invoked the senior government's responsibility for national economic policy including human resource development, and for the educational and occupational standards that ensure citizens' inter-provincial mobility and equity. To these has often been added a paternalistic (but occasionally justified) doubt concerning the will and/or capacity of provincial governments to make the long-term investment that their individual and collective interests entail.

Over the last two decades, the federal government has used its spending power to reduce indirect transfers to PSE and to channel that money into direct funding to universities for research, research chairs, research infrastructure, and, the 'indirect costs' of research. Federal governments have become stronger and more dominant in the federal-provincial relationship since the mid-1990s. Yet we should note that while federal ministerial portfolios cover health and social welfare,⁶ this is not the case for PSE (Young and Levin, 2002)⁷ except in the case of Indian and Inuit education.

Major areas of federal involvement in education evolve out of areas of federal responsibility⁸ such as national defence, Indian affairs, the territories, prisons, external affairs and the economy. The federal government is responsible for the education of service personal (and their children) through the Department of National Defence. Similarly, the solicitor general is responsible for education and training programs operated for inmates in prisons. The Department of Foreign Affairs and International Trade (DFAIT) provides education and technical assistance to other countries and funds education exchange and work-abroad programs. This work is often coordinated through direct relations with the Association of Universities and Colleges of Canada (AUCC). Since 1994, DFAIT along with Industry Canada has provided funding for the Canadian Education Network (CEN). Their mandate is to assist international students in their search for higher education in Canada. Similarly, with some funding from the Canadian International Development Agency (CIDA), the Canadian Bureau for International Education (CBIE) manages services for foreign students in Canada. In the Yukon (Senkpeil, 1997), the Northwest Territories (Hilyer, 1997) and Nunavut, education is, in part, a federal responsibility because departments of education in these territories are funded largely by the federal government.

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⁶ Through the 1970s and into the 1990s, federal responsibility for health and social welfare was housed in the federal Department of Health and Welfare. Human Resources and Development Canada (HRDC) took over the responsibility for social welfare when it was created in 1994. Finally, in 2003 when HRDC was split into two ministries, Social Development Canada (SDC) and Human Resources and Skills Development Canada (HRSDC), the former took over social welfare and the latter took over the educational skills development components.

⁷ For the first time after the 2004 election the Liberal government appointed a Parliamentary Secretary responsible for PSE in HRSDC.

⁸ These are outlined in Section 91 of the Canadian constitution 1982.

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The federal government is involved in educational areas that contribute to the national interest. In the 1970s and 1980s, this resulted in federal resources being allocated to the Canada Studies Program for educational programs and curricula that focus on elevating student awareness of Canada at home and abroad. This work is currently handled by the academic relations unit within DFAIT and is mostly directed toward Canadian studies programs in other countries. Similarly the Official Languages in Education Program focuses on educating official minority language students in their mother tongue and promoting bilingualism.¹⁰

The federal government has a history of involvement in vocational and technical training. The federal government's role in this area is seen as an extension of their responsibility for national economic development. Their concern with producing a well trained work force for Canada to compete in the global economy heightened in the 1980s, and 1990s. The responsibility for these programs has moved between different ministries, but from 1994 was housed in Human Resources and Development Canada (HRDC) and is currently housed in Human Resources and Skills Development Canada (HRSDC). This involvement is most obviously seen in the federal government's support of community college skills training programs. Federal support for these programs reached a highpoint in the late 1980s. The recent agreements with the provinces have largely placed this activity in the hands of the provinces.

The federal government's responsibility for economic development has lead them to support university-based research. Through national research councils and institutes as well as various intermediary bodies like the Canadian Foundation for Innovation (CFI), the federal government has become the largest source of support for university-based research. Industry Canada is the federal ministry that oversees all the national research funding bodies except for those involved in the fields of medicine and health. Consequently the federal government wields considerable influence over this aspect of PSE. Similarly the federal government has a role in financing student PSE, in the past through the Canada Student Loan Program (CSLP), and currently through the Canada Millennium Scholarship Foundation (CMSF). CSLP was the responsibility of the Secretary of State until 1994 when this function was taken over by HRDC and subsequently in 2003 by HRSDC. The federal government also funds PSE for Indian and Inuit students, initially through the Post-Secondary Assistance Program (1977), and now through the University and College Entrance Preparation Program (1983) and the Post-Secondary Student Assistance Program (1989).

⁹ Registered Indian families living off reserve do not come under federal jurisdiction. Metis and non-status Aboriginal students come under provincial jurisdiction. Inuit peoples, by force of a 1939 Supreme Court decision, became legally 'Indian' under the Constitution and are also administered under the Indian Act (Miller, 2004).

¹⁰ This program saw the federal government enter into bilateral agreements with the provinces to provide money for support of minority languages programs including immersion programs and also protected other minority language responsibilities (Young and Levin, 2002).

Finally, there are national organizations involved in PSE that have connections with the federal government. The Council of Ministers of Education Canada (CMEC) is made up of all the provincial ministers of education and PSE and represents and protects the interests of the provinces. While it has historically had limited impact on education in Canada because it only acts when all the ministers are in agreement there are examples of pan-Canadian activities initiated by the CMEC. Some examples of national bodies representing constituent interest groups include the AUCC, the Canadian Association of University Teachers (CAUT), the Canadian Federation for the Humanities and Social Sciences (CFHSS), the Canadian Federation of Students (CFS), the Association of Canadian Community Colleges (ACCC), the CBIE and the CEN.

The federal government has used legislation to intervene in PSE with quite dramatic results. Two early examples are the Veterans Rehabilitation Act (1945) and the Technical and Vocational Training Assistance Act (TVTA Act, 1960). In the former case, the federal government provided funding to universities in the form of tuition fees of all qualified veterans enrolling at a university and an additional grant of \$150 per veteran. By 1946, veterans accounted for almost 50 percent of the total enrollment in universities. The TVTA constituted a massive, direct intervention in education, not only at the post-secondary, but also at the secondary level, which clearly went beyond the federal government's constitutional mandate. Over the six-year life of the Act, the government channelled \$1.5 billion into capital and operating costs for provincial technical and vocational institutions, including vocational training facilities at secondary schools (Bell, 2004). The funds provided under the Act were a major impetus to the establishment of provincial community college systems (Dennison and Gallagher, 1986, p. 15). In these ways, federal governments have exerted significant influence over the design of provincial education systems. More recent legislation in the areas of research (legislation creating funding councils, 1977) and student assistance (Canada Student Financial Assistance Act, 1994) has tended to be more indirect as the funding has been directed to individual faculty and students.

While the Canadian Charter of Rights and Freedoms (1982) could potentially be used to argue for admission to PSE, this has not occurred. The Charter has been used to try and ensure that hiring does not discriminate on the grounds of gender, age, ethnicity and disability.

The ability of the federal government to regulate or monitor PSE is invariably exercised in an indirect way and through the power of the purse. The most recent example is the provision in the Canadian Research Chair program where universities were required to submit a research plan for approval by a federal committee as they applied for their quota of chairs.

2.2 Planning and Priorities

Given the constitutional division of powers it follows that Canada has not had a national strategy or plan for PSE. Because an overlap of responsibilities exists between the federal and provincial levels of government, we can observe a continuous struggle for

recognition, credit and increased accountability. Federal governments have used their spending powers as means of both channeling funds directly to federal priorities, and as levers for realigning the behaviour of provincial legislatures. What has emerged from the basic line of tension and the ensuing struggle is a patchwork of indirect and direct federal spending, and an assortment of conditional and unconditional federal-provincial agreements governing grants and transfers.

The 10 provincial systems of higher education have developed somewhat independently but set within larger national priorities and the constraints imposed by the federal-provincial relationship. The clearest example of how this process of influence works is through research funding (a more detailed analysis will come later in the section on research and development). Recently both levels of government have talked about the central importance of higher education as they search for ways to make Canada more competitive in a global, knowledge economy. Increasing capacity and access in higher education systems we are told are the most important investments governments can make for the long term social and economic health of Canadian society. At the federal level the new conservative government has paid less attention to PSE than their liberal counterparts, although the new government is on record as being committed to a dedicated federal transfer for PSE. The CMEC have made increasing capacity in PSE a top priority and a year ago provincial ministers of finance publicly declared that an infusion of \$3.2 billion a year was needed to deal with the infrastructure problems facing our Pan-Canadian PSE systems.

At the provincial level we have seen a flurry of activity. Three provinces (Ontario, New Brunswick and Newfoundland and Labrador) created fully fledged Commissions to study PSE. Students in Québec have made it clear that PSE is as important to them and their future as it ever was in the past. The Albertan and British Columbian governments are both looking to PSE as the institution whose turn it is for increased investment. There appears to be general agreement on all political fronts that PSE should be moved up the political agenda. The most recent indicator of this change was the National Summit 'Competing for Tomorrow: Postsecondary Education and Skill Development' convened by the Council of the Federation on February 24, 2006.

2.3 Information

Statistics Canada is charged with maintaining statistics on all aspects of Canadian life. Specific sections of the organization are assigned responsibility for education and produce analytic reports on a regular basis that map all aspects of PSE both nationally and provincially. Data sets are made available through regional data banks and the agency will perform more detailed and directed analyses upon request. Other federal ministries and agencies produce reports on aspects of PSE. The two main examples are HRSD in the area of vocational and labour market training and CMSF on student access.

In recent years, the CMEC has become increasingly interested in PSE and made some noises about Pan-Canadian initiatives. Indicators of this trend are the announcements from the CMEC and the Summit referred to earlier. In a separate initiative the Liberal

federal government created in 2005 the Canadian Council on Learning (CCL) with a budget of \$85 million to further a national strategy for learning.

3. Fiscal Policies

The two segments of policy that have experienced the most change and had the most impact are under the headings of 'transfer payments' and 'research and development'. This is not surprising as these policy priorities account for the majority of the federal 'power of the purse'. The latter will be covered under a separate section. The other area of fiscal policy that is particularly relevant with regard to impact at the provincial level is 'vocational and technical training'.

The federal government accepted the principle that funds should be transferred to support university education with the introduction of the Veterans Program in 1945. The program covered tuition fees and provided a per capita grant that was distributed by the NCCU directly to the universities. Once the principle had been established and with expectations in place, it was an easy step during the 1950s to make grants albeit through intermediary bodies on the basis of provincial populations and student enrolment, and the need for capital development. A key turning point came in 1967 with the passage of the Federal-Provincial Fiscal Arrangements Act (FPFAA). The Act replaced the direct federal grants to the universities with a system of transfers to the provincial governments to support the operating costs of universities. This measure brought the rest of Canada into line with the province of Québec that had in 1959 been allowed to opt out of the original program of direct grants. The per capita amount was increased to cover the cost of vocational as well as university education.

In what must be regarded as a fundamental change in the relationship between the two levels of government, the federal level was willing to concede to the provinces greater autonomy. From the provinces point of view this was merely a re-affirmation of their constitutional role with regard to PSE. Yet this was not a complete victory for the provinces as the FPFAA did include conditions and cost-sharing mechanisms. As noted earlier, the changes at the federal level in 1967 did lead to the creation of the CMEC. The constitutional role of the provinces was fully recognized in 1977 with the passage of the Established Programs Fund (EPF) which for the first time provided a system of unconditional block transfers to the provinces for PSE and Health. Social welfare was covered under a separate transfer, the Canadian Assistance Program (CAP). While guidelines were provided for the amount that should be allocated for PSE, the Act clearly gave all the authority to the provincial jurisdictions. The EPF remained in effect until 1996.

The main story here is the withdrawal of the federal government from having control over the disbursement of the PSE funding. Unconditional block grants provide for little or no accountability and place the federal government in an indirect relationship with PSE systems and institutions. This has also meant that the federal government gets no credit for this spending. PSE gradually became invisible in the political debates between the two levels of government. Health has been the overwhelming pre-occupation for all

governments since the late 1980s. In 1996, the CHST extended the block grant approach to include social welfare (CAP), but within a framework of fiscal restraint. Education did not appear in the title of the program. The Social Union Framework Agreement of 1999 symbolized an historic acknowledgement by the majority of the provinces that such intervention is a legitimate and necessary element of the Canadian federal compromise, and one in which the provincial governments have a right to consultation. The increases that were allocated under SUFA were targeted for Health

The dominance of Health as a policy priority became clearer in 2004 when the federal government divided the CHST into two transfers, the Canada Health Transfer (CHT) and the CST, with PSE in the latter. Budget documents explained that this would increase transparency and accountability, but more likely the intent was to increase visibility of the federal funding going to the politically popular health-care system. The CHT was apportioned 62 percent of the block and the CST was left with the remaining 38 percent. Once again PSE does not even appear in the title of the transfer.

The differential emphasis between Health and the other two parts of the federal transfers is profound. Between 1988/89 and 2005/06, the federal transfers to the provinces for Health and for Social Programs (PSE and Social Assistance) combined in 1988 dollars increased 68.4 percent and 9.1 percent respectively. The difference is even more pronounced if one only reports the cash transfers. Over the same period, again using 1988 constant dollars, we find that while Health increased by an enormous 106 percent, PSE and Social Assistance actually declined by -14.2 percent. The gap between the transfers for Health and for PSE and Social Assistance combined, become even more pronounced if we just focus on the last decade. Between 1995/96 and 2005/2006, the federal transfers to the provinces for Health and for PSE and Social Assistance combined in 1988 dollars increased 77.2 percent and decreased -2.2 percent respectively. The difference is even more pronounced if one only reports the cash transfers. Over the same period, again using 1988 constant dollars, we find that while Health increased by an enormous 137.7 percent, PSE and Social Assistance actually declined by -25.1 percent.

In many ways the differential emphasis and the invisibility of PSE is predictable given the way decisions are made in a parliamentary democracy. Both Health and Social Welfare have ministers at the Cabinet table whereas PSE does not. The best estimate we have of the decline in federal transfers to PSE provides startling confirmation of how this area has moved to the bottom of the policy agenda. Between 1988/89 and 2005/06, the total transfer (both cash and tax points) for PSE in 1988 dollars decreased from \$5.084 billion in 1988/89, to \$4.903 billion in 1995/96, and finally, to \$3.031 billion in 2005/06, for a total of \$2.053 billion or -40.38 percent. From the late 1980s, the federal government turned its attention to funding research and infrastructure through the granting councils and special programs.

4. Shaping the “Rules of the Game”: Policy Themes

The rest of this chapter is divided into six major thematic sections and a conclusion. The seven themes in their order of presentation are ‘Providing Equal Opportunities’,

‘Accountability’, ‘Marketization’, Labour Force Development’, ‘Research and Development’ and ‘Internationalization’.

4.1. Providing Equal Opportunities

The influence of the federal government on access and achievement is indirect. In the former case the influence is exercised through loans, scholarships and fellowships. In the latter case the influence is even more distant in that the scholarships and fellowships are awarded on the basis of academic merit.

Patchwork federalism’ is without doubt an apt description of the federal role with regard to student assistance. Equal access within and between provinces has been the long-standing goal of federal programs. Unfortunately, this goal is as elusive now as it was in the 1930s when the first federal student financial assistance programs were established. Cost-sharing between the two levels of government was the modus operandi as the federal government invited provinces to sign on for assistance first for students in vocational programs and then just before the Second World War for university students. The only common feature of this national program was that recipients of financial aid had to prove themselves of academic merit and have demonstrated financial need. The provinces administered their programs and inevitably created a patchwork of loans and grants. As noted earlier, the Veterans program was more direct and far more effective as an instrument of equalization at least for males.

The next major commitment at the federal level came in 1964 with the establishment of the Canada Student Loans Program (CSLP). Provinces were given the choice of joining the program or opting out and receiving their share of the funds to support their own financial assistance programs. Québec immediately took advantage of the opting-out provision and has remained the only province in this position. The new money for loans did not create more uniformity across the country but rather made the patchwork more complicated. Apart from increases in the amounts of available assistance, the CSLP remained largely unchanged until 1995. The CSLP provided guaranteed loans for full-time students with demonstrated financial need.

Over the last 20 years, the political pressure for balancing the budget, reducing government debt, and paring down the size and scope of government has taken priority over almost all other government activities. Neo-liberalism became the basis for federal policy and as a consequence, federal policy on student financial assistance and related matters in the 1990s moved away from the grand programs of the past towards a more targeted and even niche approaches to help students pay for the rising costs of PSE. In this context, the federal Liberals overhauled the CSLP in 1994, and as part of their 1998 Canadian Opportunity Strategy created the Canadian Millennium Scholarship Fund (CMSF) with an endowment of \$2.5 billion. The new system of awards was available to all PSE students including part-time students. The federal government was able to negotiate agreements with all the provinces even though they saw these fellowships as an invasion into their territory. Other targeted programs introduced in 1998 included the Canada Education Savings Grant (CESG) and the Canada Study Grant (CSG). The

federal government also funds PSE for Indian and Inuit students, initially through the Post-Secondary Assistance Program (1977), and now through the University and College Entrance Preparation Program (1983) and the Post-Secondary Student Assistance Program (1989).

On one hand, the federal government's expenditure as a proportion of total student assistance expenditures in Canada has increased from 39 percent in 1990/91 to 57 percent in 2002/2003. The change was a direct result of the addition of the CMSF funding. On the other hand, the general trend in federal PSE policy with regard to financial assistance since the mid-1990s has been away from universal toward targeted programs and away from funding institutions to funding individuals. We have seen a significant increase in the use of tax credit incentives by the federal government to encourage post-secondary education participation. While it is clear that financial assistance programs do assist the students from lower income families, as these students account for approximately 60 percent of the awards, it is also clear that the situation is reversed when one only considers 'independent' students. Further, a disproportionate number of PSE students who attend post-secondary institutions (primarily universities) are from upper income families. It follows that these same students benefit differentially with regard to grants and scholarships. This situation has long given rise to charges that public funding of post-secondary institutions is an unfair subsidy for upper income Canadians. Before leaving the area of student fellowships, it is important to note that the federal government has been supporting graduate students with fellowships across the whole range of disciplines. These fellowships have been administered by the national granting councils (NRC, CC, MRC [CIHR], NSERC and SSHRC) and became increasingly significant after 1977. In 2003, the federal government committed significant new money through the Canada Graduate Scholarships. The formula for distributing these funds broke with previous practice and used student enrollment by discipline and field rather than the amounts distributed currently by the three granting councils. This has meant that for the first time the Humanities and Social Science disciplines have benefited the most.

At the PSE level, a significant number of Aboriginal organizations and institutions are taking responsibility for delivering education to Aboriginal people. Many public universities and colleges are responding to Aboriginal educational needs through the provision of Aboriginal specific student services and programs, and through increased access. The federal government, while refusing to recognize post-secondary education as an Aboriginal right, continues to fund individual Aboriginal students so that they can access post-secondary education. They also support Indian and Inuit institutes and organizations involved with post-secondary education. In 2003, the First Nations University of Canada became the first university dedicated to Aboriginal education. A major source of support for this institution is the federal ISSP. The federal government included in their 2003 budget the provision of \$72 million over the next two years to improve educational outcomes for Aboriginal people and ensure they are provided with training and employment opportunities on major projects

One final note concerns the related issue of student fees. While the federal government clearly has no direct role in setting fees, federal policies do influence tuition fee policy. The knock-on effect of reductions in the transfer payments was the re-regulation of tuition fees by the provinces. So while tuition fees as a proportion of institutional revenue remained relatively stable during the 1980s, they began to climb dramatically in the 1990s. Between 1984 and 2004, tuition as a share of university operating revenues nationally, increased from 13.8 percent to 30.3 percent. By contrast, government funding had decreased from 81.6 percent to 57.2 percent (CAUT, 2006, Figure 1.3). The average increase in undergraduate Arts tuition fees goes from approximately \$1,700 in 1991/92 to approximately \$4,000 in 2005/06 (Statistics Canada, 2005; CAUT, Almanac 2006, Table 3.21, \$2005). The increase in the average annual cost of university tuition for professional programs in Canada was much more pronounced.¹¹ When measured against the after-tax family income, university tuition fees increased from 6 percent in 1990/91 to 9 percent in 1998/99 for families in the middle income quintile, and jumped from 14 percent to 23 percent for families in the lowest income quintile over the same period. In constant dollars, university tuition fees in 2002 were the highest they had ever been at any time in the past century.

4.1.2. Accessibility

Accessibility is defined as participation and retention in, and graduation from the post-secondary system by all willing and capable persons regardless of age, gender, socio-economic status, race, culture, religion and geographic region. This priority is based on the principle that everyone with the intellectual ability and the desire has the right to higher education. The objective here is to enable the greatest number of these people to attend post-secondary institutions but also to obtain the diploma or degree in question within a reasonable time frame.

By far the most important policy priority in the development of higher education policy since the mid-1980s is the desire to create more access into the system. While the emphasis has varied between different governing parties, successive governments in all three provinces have developed a clear consensus on this issue. Accessibility as a priority in BC and to some extent in Ontario overlaps with the trend toward 'academic drift' in the system, a trend that has been propelled by both professionals within these systems and governments. Another major policy priority that is often inseparable from the accessibility theme is access to vocational education and training, and in a more general sense, lifelong learning. While some of these vocational policy initiatives will be discussed under the heading of accessibility, the major focus on 'Skills' will be covered as a separate priority.

System structure has been a critical factor with regard to access. Québec, more than any other province in Canada, has made accessibility for all its citizens a top priority. This

¹¹ These fees rose from approximately \$2,100, \$2,000, \$1,800 and \$1,700 for Dentistry, Medicine, Law and Engineering in 1989 to \$12,942, \$10,349, \$6,772 and \$4,677 respectively in 2005/06 (CAUT, 2006, Figure 3.6, \$2005).

commitment harks back to the 1960s when the system was reconfigured and is therefore tied to some extent to the concern with nation building. Initially, the emphasis was placed on access to institutions. The implementation of a unified two-level system, development of the Cégep network in the regions, and foundation of the Université du Québec were aimed, among other things, at promoting geographical accessibility to postsecondary education and reducing inequalities connected with gender and language of instruction. The loans and bursaries program was aimed at reducing inequalities stemming from socioeconomic status. The creation of the Télé-université distance education university as well as the continuing education initiatives of the Cégeps and other universities were designed to favour access to post-secondary education for adults. In 1993, then again in 2005, the government reiterated its decision to have a two-level system in order to encourage access.

While on the face of things both BC and Ontario have developed binary PSE systems there are major differences between them. The key and most important difference is the connection between the two sectors. In BC the colleges were from their outset designed to prepare a large proportion of their students for transfer into university degree programs. The BCCAT was created to organize and facilitate these transfers and has been a major success story. In contrast the Ontario CAATs were created as a completely separate sector with clearly defined non-degree functions. Only universities could award degrees. As transfer was not a goal it follows that no intermediary body exists and there are no mechanisms to facilitate this process. A consistent theme in the history of PSE in Ontario has been to undermine the boundary separating the two sectors.

While the creation of the college sectors in both provinces was regional and clearly designed to reduce regional disparities, there are again differences, which, as alluded to earlier, are part of the trend toward 'academic drift'. In BC, a consistent aim has been to increase access for both full and part time students to degree-granting programs outside the Lower Mainland and Victoria. Through a series of major reports and legislation, this priority was further translated into action by the Socred government. Actions, for example, like the creation of the first university outside the Lower Mainland and the establishment of University Colleges, came to have a clear impact on the structure of the higher education system. During this whole period, there was a strong focus on generating access to degree programs outside the Lower Mainland and in densely populated areas which up to that point had not been adequately served by universities. Most recently, degree-granting status has been granted to virtually all PSE institutions in a hierarchy of undergraduate and graduate applied and 'pure' degrees. In contrast, despite numerous provincial and national reports recommending integration between the sectors, successive Ontarian governments have refused to make structural changes to the system. Accessibility was improved during this era by overall expansion of the number of post secondary institutions and the introduction of post secondary bilingual programs in CAATs where French was the primary language of instruction in order to meet the needs of Franco-Ontarians. In 2000, the progressive conservative government as part of a package designed to increase choice, passed legislation to allow the CAATs to allow applied degrees as long as the applied degree program did not duplicate an existing program offered by a university and the program met strict conditions and standards

developed by the Postsecondary Education Quality Assessment Board (PSQAB). In parallel to the Télé-université in Québec, BC and Ontario created similar institutional structures to promote distance learning and serve the non-traditional learner.

The differences we can observe between the three provinces are to some extent a result of both political ideology and the economy. The foregoing chapters certainly demonstrate differential concern with affordability, with Aboriginal and other under-represented groups, and with successful entry into the system and successful outcomes. A mainstay of Québec policy over this whole period up to the election of the Liberal government in 2003 has been to make PSE financially accessible. Again this is housed in the concern with nation building but also in the attachment of the Parti Québécois to democratic socialist principles. Many fiscal strategies were aimed at promoting access: tuition-free college education; allocation of a specific amount for the implementation of the school success plans to be integrated with the Cégeps' strategic plans; university funding based on the number of students enrolled; regulation of university tuition fees; loans and bursaries program; and university funding partly based on the number of degrees awarded. In addition, Québec has created a system of fellowships for post-graduate students parallel to the federal programs. Others were of a more specific nature: tax deductions for students or their parents, special funding for the Télé-Université and universities in outlying areas, and support programs for members of Aboriginal communities and for integration of the disabled. Québec and Ontario have been vigorous in their financial support for postgraduate students, creating in both cases a parallel system of fellowships.

While not as extensive or pronounced we can observe a similar trend in BC during the 1990s. When the NDP government took office in 1991, they made the Socred's 'Access For All' policy the foundation of its integrated reforms in academic higher education. The NDP governments, while continuing this ambition, also gave more attention to under representation in post-secondary education by minority groups, especially the Aboriginal youth. To address the concerns of the latter, special aboriginal institutions were created, furthermore, the NDP government also focused on new forms of vocational oriented post-secondary education offerings as well as responding to the unions demand for expanding apprentice training in the province. Significantly, despite the pressure to de-regulate student fees, the NDP maintained their commitment to low fees by freezing them over the last five years of their mandate (1996-2001).

The election in Ontario of the Progressive Conservative government in 1995 saw the beginning of a very different approach to accessibility. The neo-Liberal 'Common-Sense Revolution' translated into the de-regulation of tuition fees and thereby the creation of a quasi market in the public sector. Like Québec, this government did maintain the long-term commitment to providing a system of post-graduate fellowships alongside the federal programs. Later on the grounds that these measures would increase access and choice the government opened up degree granting status to the private sector by allowing for the establishment of not-for-profit universities. The Liberal government in BC (2001) took up similar neo-Liberal themes. Having introduced a three-year spending freeze on education and health but still expecting the higher education system to increase enrolment

by 8,500 seats over the period 2002-05, the Liberal government allowed institutions to fill the funding gap with increased fees.

The winds of political change had an impact on student fee policy in all three provinces. The election of Liberal governments in both Ontario and Québec in 2003, brought a reversal of fortunes. In Ontario, the liberal democratic administration moved to de-regulate fees while in Québec the neo-liberal administration embarked on policies designed to decrease the amount of financial assistance and to de-regulate fees. In BC, a vastly improved fiscal environment and political considerations, in conjunction with the upcoming election, resulted in a fundamental reversal of the Liberal's tuition fee policy. The 2005 Throne Speech re-regulated fees and stipulated that any further increase be limited to the rate of inflation.

Finally, in distinction to the other two provinces, gaining access to PSE in Québec has not been enough in itself. Perseverance was required: the program should be completed and the diploma/degree in question obtained. In the mid-1990s, the government set completion objectives for high school diplomas, college diplomas and bachelor's degrees. The goals were part of a general orientation wanting learners of all ages to succeed by acquiring the knowledge to which they aspired.

According to the *National Centre for Public Policy and Higher Education*, the ability of students and their families to afford educational costs is linked to the amount of tuition fees charged and student assistance received from the government. Post-secondary studies are more affordable in Québec than in Ontario or BC. First of all, Québec's students have access to tuition-free college education. They benefit from one or two years more of tuition-free education than their counterparts, depending on whether they are taking a pre-university program or a career program. In addition, university tuition fees in Québec are the lowest in Canada. On average, in 2005/06, undergraduates pay \$2,003 a year, compared to the Canadian average of \$4028 (Table 6). What is more, additional compulsory fees were lower in Québec (\$527) in 2004-2005 than the Canadian average (\$608), and far lower than those of Ontario (\$686) or British Columbia (\$748). The trend becomes even more obvious when we plot the changes in undergraduate tuition fees across the period 1986/87 to 2003/04 using 1986 dollars. As Figure 3 illustrates while Québec has maintained very low fees, the change in government policy in the mid-1990s in Ontario and then in 2001 in BC, lead to dramatic increases in the fees charged. Students in Québec have access to a needs-based loans and bursaries program that is far superior to the rest of Canada. Although this student assistance program was more profitable for students from less well-to-do backgrounds, there were still many questions regarding student debt and how parental contributions are calculated. In spite of these limits, the circumstances of Québec's full-time students were more advantageous in 2001 than those of students in BC or Ontario, who were only eligible for a maximum of \$260 a week or \$275 a week in the form of loans or bursaries respectively, compared to a maximum in Québec of \$416 a week for college students, \$489 a week for undergraduate university students and \$512 a week for master's or doctoral students (Table 7). Lastly, according to the CMSF (2002), the accumulated debt for Québec students at the end of

their bachelor's degree was also a lot lower (\$13,100) than in Ontario (\$22,700), the Western provinces (\$20,300) or the Atlantic provinces (\$22,400).

These data on loans and bursaries do not take into account the changes made to the Québec policy in 2004-2005. Subsequent to the students' strike in 2005, however, the program was changed back to pretty much how it had been in 2003-2004, so the differences between the three provinces are still significant. Higher fees and less advantageous assistance programs in Ontario and BC one assumes have a cumulative negative impact on the affordability of PSE in those two provinces.

4.1.3. Post-Secondary Participation Rates

If we examine total full-time and part-time university enrollment, including both undergraduates and graduates between 1992/93 and 2003/04 we can observe a similar trend (CAUT Almanac 2006, Table 3.1, p. 20). Total full-time enrollment in Canada had risen to 717,400, an increase of 26 percent, while part-time enrollment had declined dramatically to 202,300, a decrease of -20.6 percent. Only BC and Alberta show an increase in both full-time and part-time enrollment. In BC, full-time enrollment increased to 64,400, an increase of 41.1 percent, while part-time enrollment increased to 17,750, an increase of 4.9 percent. While Ontario and Québec both record an increase in full-time enrollment to 309,910 (34.5 percent) and 157,110 (16.4 percent) respectively; part-time enrollment in both provinces declined by -25.4 and -21.4 percent respectively. If we turn our attention to college enrollment then the discrepancies between full-time and part-time enrollment are even more stark (CAUT, Almanac 2006, Table 3.2, p. 22). Over the period, 1991/92 to 1999/00, full-time enrollment in Canada rose to 408,260 for an increase of 16.9 percent, while at the same time part-time enrollment dropped to 84,400 for a decrease of -40 percent. Once again BC is the only one of the three provinces that records a rise in college enrollment across both categories. Full-time enrollment increased to 39,180, and increase of 33.8 percent, while part-time enrollment increased to 47,720, an increase of 2.3 percent. Ontario records an increase in full-time enrollment to 143,629 (29 percent) but a massive decrease to 10,990 (-87.6 percent). Québec records a tiny decrease for full-time enrollment down to 162,875 (-0.5 percent) but like Ontario a massive decrease in part-time enrollment to 8,840 (-85.6 percent).

Comparing participation rates across Canadian provinces is not easy because there is no uniform demarcation between secondary and post-secondary levels. In Québec, elementary and secondary school combine for a total of 11 years. Comparing participation rates across Canadian provinces is difficult because, then post-secondary college education (2 or 3 years) takes over. In British Columbia and Ontario, elementary and secondary school combined take 12 years (13 years in Ontario up until 2003) and students can go right from secondary school to university. Given these assumptions we can see that in all three provinces participation rates have increased during the 1990s for both the 18 to 24 and the 25 to 29 year olds (See Table 8). Participation rates for the 18 and 24 group have increased by about the same amount for all three provinces between 1990 and 2000. Only BC records a dramatic increase for the 25 to 29 group and almost all of that occurs between 1990 and 1997. All three provinces hover around the magical

threshold of 40 percent which marks the promotion to a 'universal' PSE system. By the end of the 1990s Ontario's participation rates had fallen below Quebec and British Columbia in both age categories. This pattern corresponds to a period of cuts to universities, tuition increases and restructuring of student assistance programs in Ontario. A national survey of literacy and numeracy conducted in 2003 by Statistics Canada concluded that 42 percent of Canadians over 16 years of age cannot meet most everyday reading and numeracy requirements. Of the three provinces only BC scored 'significantly higher' than the national average on all four measures studied: prose literacy (the ability to read and make use of texts); document literacy (the ability to read and understand forms, maps and graphics); numeracy and problem-solving. Ontario hovered around the Canadian averages while Québec scores were uneven. They were around the Canadian average in numeracy and problem-solving but below average on the two literacy measures.

Participation rates in PSE for Aboriginal and Inuit students, lags far behind the rates for the general population. While an increasingly large number of Aboriginal students have been funded through the PSEA, completion rates are poor. Further, many eligible students do not receive support. In 2000/01 approximately 8,500 applicants were unable to obtain funding for PSE. The Assembly of First Nations project that the number of students on the waiting list for federal funding for PSE would approach 40,000 by 2005-06. Canada's Aboriginal peoples have a unique relationship with the federal government. Through INAC the Government of Canada is charged with honoring and upholding the additional rights and responsibilities conferred on Aboriginal peoples. The question remains as to whether the federal government will recognize PSE as a treaty/Aboriginal right.

4.2. Accountability

An underlying but consistent theme across all three provinces and across part political lines has been the commitment by governments to make the connections between educational spending and useful outcomes more transparent and understandable by the general public. Accountability refers to the possibility of making organizations responsible for their actions. Accountability is defined as an institution's demonstration of meeting their mandate or competency in achieving their mission. Concomitant with academic autonomy and a measure of self-governance, comes the responsibility to demonstrate accountability to the public and the government who has determined its mandate. Accountability is actualized through reporting. Efficiency is actually closely linked to accountability, and emerged as a priority within the same context. It refers to the achievement of objectives at the best possible cost – to an organization's ability to meet them while reducing the effort required to do so or choosing other options that are less costly (not exclusively monetarily) in terms of effort. Similarly, accountability is associated with both the 'quality' of management and of outcomes.

Federal governments have made numerous attempts to make provincial governments more accountable. As noted elsewhere in this chapter, the emphasis over the last decade has been to decrease the direct transfer payments in favour of indirect but accountable

research funding and grants and loans to students. Yet while we can infer that the provinces have responded to federal policy it remains difficult to isolate the lines of causation. This policy priority has clearly taken on different forms in the three provinces. Both Québec and Ontario have made this a major policy priority. While accountability has been important in BC the emphasis has been on the general public interest aspect rather than a focus on institutions.

Québec has the longest history of regulating universities. In the 1970s, the MEQ created the CREPUQ committee and charged it with evaluating the 'quality' of degree programs. The work of this committee is symptomatic of the way successive governments have eroded the autonomy of the universities. In the 1980s, Conseil les Univerités began sector based studies on engineering, social science and education. Across the PSE system institutions are directly accountable to the MEQ by having to submit 'success plans' and 'annual reports' at the college and university levels respectively. Furthermore, since the early 1990s and as part of the government's desire to promote both accountability and efficiency, universities required to do internal evaluations which are in turn monitored by government. All programs are evaluated with regard to quality and relevance. In 2000, the Québec government first stated its accountability priority clearly: universities (a) kept their autonomy and their power to organize their activities as they saw fit, and (b) were answerable to society and public authorities for their management of public funds (MEQ, 2000). In conjunction with the Québec Policy on Universities, and with regard to efficiency in particular, the government plans to monitor how all universities are managed, define a number of indicators in cooperation with these institutions on their management, and adapt them to fit the special features of each. Concerns with accountability and efficiency have also been evident over the past 15 years in four funding strategies, the last two of which have nevertheless been abandoned: the obligation of colleges and universities to submit many different kinds of data; the payment of a lump sum amount to universities for every degree awarded; university performance contracts covering the 2001-2004 period; and the failing grade 'tax' in the Cégeps which students were charged for every course they failed, except for the first.

In Ontario, institutional accountability has been the major priority. Governments have required institutions to account for public funds and to demonstrate achievements on government prescribed benchmarks or indicators. A system- wide accountability perspective has been more problematic in Ontario because of the lack of system level planning. Moreover the form of accountability has proven more controversial in the post-secondary system and has reflected the area of most change in this policy priority. Accountability first becomes a priority in the early 1990s, as the NDP government began an auditing system for universities which rested with the institutional governing bodies. The Progressive Conservatives were far more aggressive in their approach in part as a reflection of their neo-liberal outlook. Accountability and quality were identified as major thrusts of their higher education platform. Key Performance Indicators (KPIs) were introduced and all colleges and universities were required to report on a set of KPIs for each program. This is in addition to existing accountability reporting by academic senates and governing boards of universities. In the 2000 budget

the government started to put money back into the system by way of operating grants.¹² The new funding was tied to performance indicators: enrolment growth¹³ and university performance.¹⁴ In addition the government has increased the use of targeted and matching private sector funds. This combination of funding mechanisms has enabled the government to steer universities. In BC, the NDP commitments to accessibility and to vocationalism are good examples of the ways governments have attempted to make the higher education system more accountable to the public interest. The NDP was determined to make the non-university segments of the higher education system more accountable to the public. Through a series of skill and training initiatives, the PPSEC, as well as the use of other intermediary bodies the government used KPIs to make institutions in both the public and the private parts of the college sector more directly accountable in their planning and the student outcomes. At the university level, the NDP created the New Programs Committee to monitor and approve all new degree programs. The creation of new vocational niche universities and the emergence of applied degrees increased the vocational orientation of the PSE system and thereby helped achieve the underlying goal of making the system more accountable..

While the NDP took this direct approach during the 1990s, the Liberals have adopted a different definition of accountability. Accountability has come to mean both quality assurance in the most general sense as well as a blurring of the boundary between the public and the private sectors. In the latter case, this is direct political accountability to the capital interests that are the main backers of the Liberal party. As they put in place a Quality Assurance Board (2003) and dismantled much of the infrastructure created by the NDP to guarantee accountability they put their faith in the market as the best means of making institutions accountability. In other words, accountability to the marketplace was the best means of making the system accountable to the public. In the university sector, the government has provided targeted funding for particular occupations and simply decreed that more students will be educated without an increase in funding.

More than any other province, Québec has been concerned with efficiency. In 2000, the government introduced a new management framework focusing on outcomes, respect for the principle of transparency, and increased accountability. Likewise, according to the Québec Policy on Universities, it is one of the principles on which government and university initiatives are based: the policy says that universities are supported financially by the state and that they must run their institutions efficiently by using the resources at their disposal optimally. The policy's second priority is described in the following terms: the universities' performance in terms of education quality, research excellence and the system's overall efficiency (MEQ, 2000, p.17).

¹² They have also created the SuperBuild Fund which allows for capital expansion (upgrades, renovations or existing building and new residences) but does not contribute to operating costs.

¹³ Enrolment growth is determined by growth of 1st entry undergraduate programs and 2nd entry professional and graduate programs.

¹⁴ Performance is determined by institutions graduation and employment rates, and student loan default rates.

4.3. Marketization

Marketization is defined as combining market principles of private property, competition and profit with state interests of authority, public interest and citizenship. Marketization in higher education is reflected in a shift of the education system from state-centred towards market-driven through the introduction of notions of market primacy, free trade, deregulation and privatizations with a corresponding reduced role of the public sphere (Shanahan, 2002). Young (2002) describes marketization in Ontario higher education policy in terms of the introduction of market mechanisms, not precluding nor increasing government control, but changing government's approach to reform, and changing the nature of government control over the system in order to induce universities to adopt priorities identified by the government.

This policy priority is reflected right across social policy in Canada through retrenchment measures which began with the federal government (Progressive Conservative party) in the late 1980s and continued into the 1990s (with the federal Liberal government). The federal measures had provincial consequences and resulted in cuts, restructuring, the introduction of performance based funding and reinvestment through targeted initiatives. In Ontario, the province saw: the reorganization of local government, the consolidation of the provincial government's control over education (through a massive amalgamation of school boards), massive cuts in social spending and an over all reduction in the size of government accompanied by cuts in corporate and individual taxes (Courchene and Telmer, 1998). The shift towards the market was apparent in the opening up of the private sector in previously public-dominated areas, deregulation, downsizing and rationalization. Increasing industry partnerships are particularly evident in the area of research where there has also been an increase in investment in research and development both provincially and federally with a view to making Ontario/Canada internationally competitive by building on a strong science and technology infrastructure.

This policy priority in both Ontario and BC is evidenced in the re-regulation of tuition fees, the use of matching funds from the private sector (student aid, research and development, and the encouragement of specific fields like computing and engineering), and the introduction of legislation that opens up post-secondary systems of education to the market. As noted earlier, the re-regulation of tuition fees by the Ontario conservatives and the BC liberals has resulted in dramatic increases in these fees. The largest increases have been introduced for courses leading to those credentials that lead directly to employment and are thus most sensitive to market pressures. Changes in tuition policy suggest that the government is moving away from supporting students and is shifting that responsibility to the students and their families, universities and the private sector. In so doing it is keeping government costs to a minimum while increasing students costs. By downloading the costs of the post-secondary system to "consumer" student the government is adopting a market paradigm.

The neo-liberal commitment to market ideology and to the reduction in the size of the public sector has lead governments in both provinces to introduce legislation that creates

the conditions for the establishment of quasi-markets (Marginson, XXXX). In Ontario, The Ministry of Training, Colleges and Universities passed new legislation for degree granting and operating a university in Ontario entitled the *Post-secondary Education Choice and Excellence Act*, 2000.¹⁵ This new Act permits organizations to offer programs leading to a degree, or to operate a university, either with the consent of the Minister of Training, Colleges and Universities or by an act of the Legislative Assembly of Ontario. The Act also continues the Postsecondary Education Quality Assessment Board (QAB), an advisory board to the Ministry of Training, Colleges and Universities.¹⁶ All applications for ministerial consent must be referred by the Minister to the Postsecondary Education Quality Assessment Board (QAB) for recommendation. The QAB evaluates programs offered by out-of-province institutions, new free standing institutions and college applied degree programs. However existing Ontario degree-granting institutions are exempt from assessment by the QAB. The government claims that private universities will increase choice for students, enhance competition between publicly funded universities and improve accessibility.¹⁷

Institutions in Ontario wishing to offer degrees, or programs leading to degrees, must comply with the legislation. The Act prevents institutions from granting degrees, providing programs of post-secondary study leading to a degree, or being known as universities, unless they are so authorized by an Act of the Legislative Assembly of Ontario or have the consent of the Minister of Training, Colleges and Universities. To date there are 17 institutions that have been granted restricted degree-granting authority by the Legislative Assembly of Ontario. All are bible colleges or small religious-affiliated institutions.¹⁸

Private career colleges are privately owned and are operated as commercial enterprises. They must be registered under the *Private Career Colleges Act*, administered by the Ministry of Education and Training. The non-degree private sector was the only part of the Ontario system that experienced significant expansion. The number of these colleges rose from over 200 in 1990 (Jones, 1997, pp.137-161) to 320 in 1994/95 and finally to over 450 in 2004 (Ministry Website). While the number of institutions has more than doubled it does not appear that enrolment has kept pace. Further, this includes only those private career colleges required to register with the Ministry under the Private Career Colleges Act, that is, those that offer vocational programs). Other unregistered institutions offer a myriad of non-vocational programs but neither government, or anyone else is keeping track.

¹⁵ See: Ontario Ministry of Training, Colleges and Universities (2000).

¹⁶ The Board is chaired by Donald Baker and consists of ten part-time stakeholder representatives.

¹⁷ OCUFA observes that “It is unlikely that the province will see a proliferation of private, full-service universities. Such institutions would be highly specialized with a strong vocational or professional orientation.” See OCUFA (October 2001).

¹⁸ See Table 9 in Appendix for a list of these institutions. Note that all but ICS and Redeemer University College on the list are restricted to granting “religious” degrees. ICS has the authority to grant Masters degrees in Counseling and Redeemer has authority to offer secular degrees such as B.A. and B.Sc., though its Act is somewhat restrictive in its language. Glen Jones suggests that Redeemer may be thought of as Ontario’s first real private university in this respect but its degree-granting authority is much more limited than its public peers.

The Ontario government has also been lobbied extensively to allow private for-profit universities such as the University of Phoenix, Lansbridge University (formerly Unexus University) and the British IMC University to offer degree programs in Ontario. To date the private non-profit University of Southern California has been granted permission in November 1999 to offer diploma programs in Ontario.

The policies adopted by each administration from 1985 reflect different ideologies but also different economic climates. Consistent among the administrations is the increasing tendency to view higher education policy as an instrument of economic development with each administration placing varying emphases on social, equitable and educational goals and principals (Lang, House, Young and Jones, 1999). Ideology has also been reflected in the respective government's focus on the elimination of the deficit, balancing the budget and the increased role of the market.

In BC, Bill 15, the Degree Authorization Act (2002) set out criteria under which new institutions, including private and public institutions from outside the province, would be authorized to offer degree programs and grant degrees in British Columbia. In addition, the bill allows public colleges and institutes to offer 'applied baccalaureate degrees' and university colleges to offer 'applied master's degrees' (Hansard, April 11, 2002).

In a move that reflected the spirit of Bill 15 but was not directly related, the Liberals also authorized during their first year in office the creation of a new, private degree-granting institution near the upscale ski resort of Whistler. A Private Member's Bill was introduced in May 2002 to establish Sea to Sky University, and passed without debate. The university will offer intense, three-week liberal arts courses for \$3000 a course including room and board.

In BC, the number of private institutions registered with the PPSEC has mushroomed from 358 in 1993 to approximately 839 in 2003. The number of private institutions operating in the province is approximately 1,200. Over the same period, the number of students has increased dramatically from 48,000 to 115,000. As part of this expansion, the number of private ESL schools has risen from 5 in the early 1980s to over 180 in 2003. (Culos, 2005, Tables 5 and 7, pp. 34-35).

The situation in Québec appears to be relatively stable although the current government may still follow through on some of its neo-liberal agenda. The government was elected instead of the Parti Québécois mainly because the other party had been in power for a long time. Since taking power the liberals and their leader has been one of the most unpopular governments in Canadian history. The strength of the public sector unions combined with the opinion polls probably accounts as much as anything for the lack of change.

Québec has no private universities and only a small private sector at the college level. The system contains 62 small private colleges that teach mainly technical subjects. In 2002-2003, 156,488 students were enrolled in colleges. While the private colleges account for 51 percent of the total number of colleges, they only account for 8 percent of

the students. Within the private sector, 24 colleges have a licence to operate and receive operating funds from the Québec government. The other 38 private colleges merely have a permit to operate but do not receive any public funds. Operating funds are allocated and calculated on the basis of 5 criteria: number of students; students field of study; renting value of building; part-time students; and specific activities supported by the Ministry of Education.

4.4. Labor Force Development

The federal government has a history of involvement in vocational and technical training. The federal government's role in this area is seen as an extension of their responsibility for national economic development. Their concern with producing a well trained work force for Canada to compete in the global economy heightened in the 1980s, and 1990s. The responsibility for these programs has moved between different ministries, but from 1994 was housed in Human Resources and Development Canada (HRDC) and is currently housed in Human Resources and Skills Development Canada (HRSDC). This involvement is most obviously seen in the federal government's support of community college skills training programs. Federal support for these programs reached a highpoint in the late 1980s. The recent agreements with the provinces have largely placed this activity in the hands of the provinces.

In some ways federal involvement in vocational and technical training issues had more impact on provincial systems of education than any other intervention. During the 1960s and 1970s, the federal government adopted a 'grand design', the essence of which was the development of 'manpower'. 'Manpower policy' used labour market training and job creation programs as a means to an economic end of increasing economic growth, decreasing unemployment and promoting economic stability. This policy translated into extensive federal direct involvement in vocational education and training. The massive infusion of funds enabled many provinces to expand their adult training systems and was the foundation upon which provinces built their community college systems. Adult training was defined so as to separate such programs from "education. The definitional criteria were clients who were one year older than school-leaving age and out of school for more than one year, training was to be job-related and it was expected to lead to employment. Through into the 1980s, the federal government purchased training courses or seats from provincial training institutes for its clients, mainly unemployed persons.

In the 1980s, the federal government shifted away from the funding of training facilities and programs in provincial training institutes. A common theme was the disconnect between labour demand and labour supply, and that institutional training needed to be more aligned with high demand occupations in order to address or prevent skills shortages. The introduction of the Canadian Jobs Strategy (CJS) in 1985 served notice to provinces that the federal government planned to reduce institutional training purchases in coming years and to redirect these funds to private and voluntary sectors. The federal government directed more funds toward employer-sponsored training and attempted to have the private sector play a greater role in decision-making on federal training priorities. This led to reduced funding through federal-provincial training

agreements in the late 1980s, and a phasing out of such agreements by the early 1990s. The 'grand design' was replaced by a Labour force Development Strategy and the CLFDB. Human capital had become human resources.

By the mid-1990s, much of the responsibility and funding for training had been devolved to the provinces and territories, through negotiated LMDAs with every jurisdiction except Ontario. A patchwork of agreements emerged including a 'strategic partnership', 'co-management' and for five provinces and two territories, 'devolution'. This retreat from direct involvement and the transfer of jurisdiction meant the federal government gave up a direct line of influence on the national economy. Some interest has recently been expressed in expanding the federal role with the introduction of the Innovation Strategy which also includes a new emphasis on apprenticeship training.

While the Government of Canada's role in training and the labour market is ever-evolving, provincial and territorial jurisdictions in Canada have become increasingly interested in human capital and human resource strategies because of major demographic and labour demand shifts. Regional industry groups and other regional stakeholders may also take a more active role in labour market training policy and programs. This state of flux and dynamism in Canadian labour market policy is made further unstable by the politicization in this policy arena. As McIntosh observed:

As such, labour market policy is perhaps much more directly 'political' than other policy realms. The reason for this is relatively straightforward. Though policy analysts, economists, and political scientists talk about 'attachment to the labour market,' citizens talk about 'what one does for a living' – with living being the operative word. Insofar as what one's is, for most people, an integral part of both their self-identify and the manner in which they interact with the world around them, then government policy that affects 'the supply and demand for labour as well as the labour process itself (2000, pp. 7-8).

While the nature of the Government of Canada's role in training and labour market programs will inevitably change in another phase of development, there are no signs that the extent and diversity of federal involvement will decrease. The greatest challenge facing public policy in the Canadian labour market is for federal and provincial/territorial government to move more toward bilateral and pan-Canadian harmonization of vision and strategy.

This priority refers to the wish to bring training programs closer to socioeconomic realities and meet the demand for highly skilled human resources. Vocational and skills training, was articulated within the context of work organization changes, new technologies, and increased productivity, economic development and competitiveness requirements related to globalization of the economy. Provincial policies were designed to adapt the structure of the economy, modernize companies, and develop value-added light industry in technology sectors. The emphasis has been placed on training quality human resources in the belief that post-secondary education systems must ensure both initial training and upgrading to help people adapt to these changes. This goal entails collaboration with business and the forging of partnerships so that market requirements can be properly met.

While there are clear similarities between provincial policies there are clear differences in emphasis. A defining characteristic of the NDP administrations during the period 1991-2001 in BC was their commitment to vocationalism and skill training. The underlying theme was that academic education has received most of the attention in previous decades and now it was the time to rectify this unevenness. Through a series of reports and legislation, successive governments increased both economic and institutional resources for non-academic and applied education. Similarly, we can observe a distinct shift in emphasis in Ontario's higher education system away from liberal education towards a vocational, technical education. The change in funding mechanisms toward tied and matched private sector funding has moved the system towards the market and has placed a greater emphasis on vocational training as a means of meeting labour market demands. In Québec the commitment to this policy theme while unequivocal, has been much more sporadic than in the other two provinces. At the same time, for those who promote this vision in Québec, technicians, professionals and management should all learn more about internationalization, to the extent that they will have to deal with people in other countries, or even work abroad.

Translation

The roadmap in BC for the NDP's skills agenda was set by a series of reports during the early 1990s. The grand aim was to dramatically reduce structural unemployment. To achieve this aim the government adopted an integrated plan to increase the amount of vocational education in the higher education system. What followed was a massive expansion in the number of vocational spaces as the new funding mechanisms took effect. Courses, apprenticeship programs and new agencies all contributed to the grand design that was given form in the major policy paper Charting a New Course – A Strategic Plan for the Future of British Columbia's College, Institute and Agency System (Ministry of Skills, Training and Labour, 1996). As noted in the section on accountability, this theme was for the NDP administrations a key to serving the larger public interest. The Liberal government took a different approach. The “New Model for Industry Training” removed the government from its direct involvement with apprentices, give business a dominant role in the governance of the training system, and introduce a system of ‘flexible’, modular training courses that could be adapted to suit the needs of specific employers and delivered by private trainers (British Columbia Ministry of Advanced Education, 2002).

The challenges facing the Ontario economy were and are very different to those facing BC. The technologically-dominated economy pushed governments to look for ways to increase the links between industry, colleges and universities. The Progressive Conservatives (1995-2003) favoured market principles in achieving these objectives. This government's post-secondary policy emphasized serving labour market needs – that is educational training was linked to the labour market to build industry infrastructure and to sustain industrial competitiveness. This was accomplished through vocationally-oriented programs and through market-oriented research. For example, the first new university created in 40 years in Ontario under the new degree granting legislation is an amalgamation of Durham College and the new Ontario University Institute of

Technology. This is a publicly-funded university but its mission is explicitly to serve the needs of the surrounding labour market, the automotive and power industry in the neighbouring region. Since 2000, the government has used targeted funding mechanisms and matching funding programs to emphasize its vocationalism and skill development, and thereby induce the post secondary institutions to embrace its priorities.¹⁹

In general, successive governments have re-affirmed the foundational role of Cégeps in career training. Further, while pushing educational institutions toward industry and to the needs of the marketplace, governments have also been clear about the need for institutions not to be diverted from its primary education missions and for them to protect their institutional autonomy. According to the policy on universities, quality training must also be relevant. In other words, it must enable students to acquire the competencies, skills and tools they need to develop as individuals and to play their part in society. Training program content must be adapted to the needs of the people who will be entering the job market and to society's requirements: general and cross-disciplinary needs as well as specific and occasional needs. Program content should be adapted with the help of partners. Training should stand up to the test of time. It should be comprehensive, so that people can evolve in their professional lives. It should include basic knowledge, specialized knowledge and technical skills, but also generic knowledge that equips students to take up the challenges of a constantly evolving working life. At the college level, this policy is actualized through a vocational and career education committee composed of representatives from MEQ and public agencies; employers; and union and association representatives. The continuing mandate has been to examine issues concerning the three education levels from the angle of education-employment relationships; to coordinate programs and place them in a continuum; and to avoid duplication. Through short vocational training programs designed to rapidly meet regional requirements for customized career training. Through Co-op (work-study) programs and most recently through one of the 2005 'ministerial orientations', dealing with the alignment of training programs with training requirements.

At the university level, several committees and commissions have been charged with the task of evaluating programs from the point of view of their relevance. According to CRÉPUQ's program evaluation policy, every university must develop its own policy for periodic evaluation of all its programs in keeping with scientific opportunity (recent progress in the discipline or field of study), social and economic (labour market requirements), systemic (comparable programs in Québec) and institutional (the institution's objectives, priorities, programs and resources) criteria.

¹⁹ As previously mentioned examples of targeted funding initiatives include:

- the **Access to Opportunity Program (ATOP)** intended to increase the number of new spaces in computer science and high demand engineering programs by almost 40 percent between 1998/99 and 2000/01 (see above)
- the **Fair Funding Grant** to redress inequities of the current funding formula, for professional development and supplement hiring new faculty

A number of clearly targeted funding initiatives also embody this priority. At the college level, these initiatives fall into three categories: those concerning institution and business promotion and support for co-op programs; refundable tax credits for training, applicable to internships; and support for entrepreneurship, designed to promote the development of an entrepreneurial culture. At the university level, specific funding with regard to student services provides that part of the funding may be used to manage co-op programs. A budgetary allowance makes it possible to offer more internships as well as career guidance and placement services.

4.5. Research and Development

Through a series of commissions and reports from the 1970s onwards, the federal government has put in place a science and technology policy. In turn this policy has emphasized the link between scientific research and economic development and the need to house the national knowledge production effort in the commercial marketplace. Since the mid-1980s, federal governments have increasingly emphasized the importance of the natural, applied and health sciences in their research funding efforts. By the mid-1990s, the accountability agenda and science and technology policy imperatives overlapped as the federal government decreased the amount of the non-accountable transfers for higher education going to the provinces and began to re-direct this funding into research.

During the last decade successive liberal governments have through a concerted effort involving research councils, new funding agencies and programs (Chairs, indirect costs) increased dramatically the research funding going to universities which in turn has had a profound impact on the structure of PSE in Canada. This emphasis on research has accelerated the emergence of 10-15 self-defined research intensive universities which account for approximately 80 per cent of the total research income going to universities. Further, the concentration on the natural, applied and health sciences produces a multiplier effect with regard to funding and thereby skews internal university policy in this direction. Between 1997/98 and 2004/5, the federal government added a total of approximately \$11 billion in university research spending. Approximately, 70 percent of the funding was received in the last 4 years (see Momentum, AUCC, 2005, p. 22). We estimate that of this total only \$1.4 billion or 12 percent funded research in the humanities and social sciences.

The federal government's responsibility for economic development has lead them to support university-based research. Through national research councils and institutes as well as various intermediary bodies like the Canadian Foundation for Innovation (CFI), the federal government has become the largest source of support for university-based research. Industry Canada is the federal ministry that oversees all the national research funding bodies except for those involved in the fields of medicine and health. Consequently the federal government wields considerable influence over this aspect of PSE.

Alongside the decline in transfers for PSE we can observe a phenomenal increase in the resources allocated to research and development. This has occurred primarily through

two mechanisms: grants directly to faculty members for research projects; and, capital funding on a shared-cost basis for infrastructure projects. Both types of funding are disbursed by federal granting agencies on a competitive basis and awarded in accordance with federal criteria, which includes merit and national interests. Furthermore, these policy decisions are set within a science and technology policy that emerged from competing definitions of science, utility, and the 'public good'. At the policy level, the interests of capital are privileged under the guise of serving the national interest. By promoting industry access to publicly funded research, the science and technology policy recognizes that scientific research is simultaneously fundamental and useful. But the policy also skews the balance in favour of private interests and commercial science.

Until 1977 the federal government's research grants for university scholars were scattered across a range of institutions and programs, starting with the NRC and progressing through the CC and the MRC. With the creation of SSHRC and NSERC, the Government of Canada made a clear commitment to fund all research disciplines represented in Canadian universities. This major policy shift was housed in the continuing interest in science and technology symbolized by the creation of the Science Secretariat in 1964, the Science Council in 1966 and MOSST in 1971. Furthermore, this shift was prompted by the MacDonald Report (1969) and the four volumes of the Lamontagne Report (1970-1977).

Overtaking a fragmented science-policy history, both the Conservative and Liberal administrations crafted a climate of commercialization by applying a multitude of mutually reinforcing policy instruments. Available data indicate their efforts to drive science to the market have been successful. The 'matching funding' policy between government and industry and the focus on the production of intellectual property has resulted in an increase in the proportion of research being funded by non-government sources. The proportion of 'Sponsored Research' being funded by the federal government in constant dollars (2002/03), decreased from 63 percent (\$722 million) in 1981/82, to 51 percent (\$1,006 million) in 1991/82, and to 45 percent (\$1,734 million) in 2001/02. This is a drop of almost 20 percent in 20 years. Even though the federal proportion is decreasing, real funding increase (after discounting inflation) from the 1971/72 level is 28 per cent in 1981/82, 39 per cent in 1991/92 and 71 per cent in 2001/02.

Yet it must be noted that between 1988/89 and 2003/04, the increase in spending in federal spending on the four councils (SSHRC, NSERC, Canada Council and MRC/CIHR) was substantial. In 1988 constant dollars, the amount increased from \$720.5 million to \$1.21 billion or 68 percent. While we observed a dip in funding during the restraint years of the middle 1990s, the funding began to increase in 1997/98. The most dramatic change occurred for MRC at the point it was transformed into the CIHR. Between 1999/00 and 2003/04, the yearly funding for MRC/CIHR in 1988 dollars increased from \$233 million to \$474 million, an increase of approximately 100 percent. During the same time period, the comparable increases to NSERC and SSHRC were much less at 18.25 percent and 34.38 percent respectively.

First the federal Conservatives in 1989 and then the federal Liberals since 1997/98 embarked on the task of fundamentally reforming the federal/provincial relationship with regard to PSE. For the most part, the initiatives were taken in a unilateral manner at the federal level. The NCE was the centerpiece of the federal government's Innovation science policy. The NCE aimed to enlist academic scientists into a national system of innovation that would translate university research into marketable technologies which in turn would enhance Canada's competitiveness in a global, knowledge economy. By 2000/2001 a total of 29 networks had been funded through this program.

In the early and mid-1990s, other concepts like 'prosperity', 'healthy, wealthy and wise' were added to the lexicon used to legitimate the science and technology policy. In 1996, as one element of the new federal integrated policy, NABST was replaced by ACST, a body of 12 experts representing the scientific community and industry. In 1997, the liberals created CFI as a public foundation to fund research infrastructure through partnerships with private and voluntary sectors, and provincial governments, aimed at universities, colleges, hospitals and other not-for-profit institutions involved in science and technology development and targeting health, environment science and engineering needs in Canada. Between 1997/98 and November 2005, the federal government transferred a total of \$3.65 billion to CFI (Source, CFI Annual Reports). With matching grants this investment levered a total of \$ 9 billion.

In 1999, the federal government announced the CRC program and once again created a precedent in the federal/provincial PSE relationship. A one-time investment of \$900 million was set aside to fund 2,000 chairs over the five year period, 2000-2005. The chairs were to be divided equally between Tier 1 Senior Chairs worth \$200,000 a year and Tier 2 Junior Chairs worth \$100,000 a year. Just as with the CFI program, the Health, Natural and Applied sciences were given preference taking up 80 percent of the chairs. Of the 1,348 chairs awarded since the program began four years ago, 270 chairs or 20 percent have gone to women, and the first set of renewals do not reverse this trend (Tamburri, 2005). For the first time under the CRC federal funds are being used directly to pay for university positions by institution and the universities have to submit research plans to a federal committee for approval as they apply for their quota of chairs. These changes are a clear threat to provincial juridical autonomy and to the academic autonomy of the university.

Against the background of policy papers referring to the knowledge economy, the federal government in 2001 took another unprecedented step when it decided to begin grants to the universities to alleviate the direct and indirect costs of research. This policy initiative has since become a permanent program distributing over \$200 million a year directly to the universities without any interference from the provinces. Overall, when these programs along with others dealing with student assistance are taken into account one becomes aware of just how much the federal level of government has taken the initiative with PSE policy. We can see the balancing impact of the research and development agenda when we examine the total federal program spending on PSE and research. Between 1988/89 and 2003/04, this amount in 1988 dollars, increased from \$2,727.1 billion to \$3,130.6 billion, for a total of \$403.5 million or 14.8 percent. At the same time

we recognize the imbalance within the research and development budget between groups of disciplines. As noted earlier, of the new research funding by the federal government between 1997/98 and 2004/5, only \$1.4 billion or 12 percent funded research in the humanities and social sciences.

4.6. Internationalization

The Department of Foreign Affairs and International Trade (DFAIT) provides education and technical assistance to other countries and funds education exchange and work-abroad programs. This work is often coordinated through direct relations with the Association of Universities and Colleges of Canada (AUCC). Since 1994, DFAIT along with Industry Canada has provided funding for the Canadian Education Network (CEN). Their mandate is to assist international students in their search for higher education in Canada. Similarly, with some funding from the Canadian International Development Agency (CIDA), the Canadian Bureau for International Education (CBIE) manages services for foreign students in Canada. In the Yukon (Senkpeil, 1997), the Northwest Territories (Hilyer, 1997) and Nunavut, education is, in part, a federal responsibility because departments of education in these territories are funded largely by the federal government.

The federal government is involved in educational areas that contribute to the national interest. In the 1970s and 1980s, this resulted in federal resources being allocated to the Canada Studies Program for educational programs and curricula that focus on elevating student awareness of Canada at home and abroad. This work is currently handled by the academic relations unit within DFAIT and is mostly directed toward Canadian studies programs in other countries. Similarly the Official Languages in Education Program focuses on educating official minority language students in their mother tongue and promoting bilingualism.²⁰

A related issue concerns international students. All provinces have set fees for international students at a higher level than for domestic students. Yet while some provinces have created intermediate bodies to coordinate and market international education, there is no such body at the national level. Policies on internationalization are undeveloped at both levels of government and at the federal level there is a complete lack of any integration of policy on international students, immigration or visa-processing. Green and Knight (2003) and Evans (2005), characterize decisions in this area as ad hoc and lacking principles or strategy. The absence of a national strategy creates inconsistencies between provinces and between the two levels of government. Also one might infer that the dearth of policy in this area is detrimental to Canadian students as it inhibits the type of learning that would allow them to compete effectively in the global economy.

²⁰ This program saw the federal government enter into bilateral agreements with the provinces to provide money for support of minority languages programs including immersion programs and also protected other minority language responsibilities (Young and Levin, 2002).

The Association of Universities and Colleges in Canada (AUCC) addressed the motivations of degree granting institutions involved in internationalization activities in research conducted, first in 1993, and then again in 1999. In both studies, economic factors, such as revenue generation for the institution, ranked in two out of nine most important rationales. Other factors such as international opportunities for faculty and students, developing intercultural awareness and skills and strengthening international understanding and perspective on global issues internationalization ranked higher. From 1980 to 2001, the number of international students increased from 36, 751 to 133,022. In fact, there are greater numbers of international students coming to Canada to study, than Canadian students studying abroad. For example, in 1999, 28,477 Canadian students were studying abroad compared to 107,961 international students studying in Canada (p.20, Green and Knight, 2003). In British Columbia, the number of international students increased from 3,000 in the mid-1990s to between 30 to 35,000 in 2004. Currently, the public share of the total international student market is between 10,000 to 15,000 students.

5. Performance Trends

When we attempt to place Canada in an international context, we find the results are quite mixed. During the decade 1983 to 1993, federal cash transfers for PSE as a percentage of GDP decreased from 0.56 percent to 0.4 percent. By 1998/99 this figure had dropped to 0.25 percent and to 0.19 percent in 2005/05 (CAUT, 2006, Figure 1.1., p. 1). As transfer payments have been decreasing Canada has strengthened its commitment to funding Research and Development (R&D) in higher education institutions. When compared to other Organization for Economic Cooperation and Development (OECD) countries, between 1998 and 2002, Canada ranks among the top five on higher education R&D expenditures as a percentage of total Domestic R&D expenditures. Of the 13 countries reporting in 2003, Canada was at the top with 35.7 percent and the average was 18.7 percent (CAUT, 2006, Figure 8.4, p. 53). Yet when we examine GERD as a percentage of GDP, Canada does not have a high ranking. As a response to the 1997 bottom ranking (15th) on the OECD table, the Liberal government made a commitment in 1998 to invest in R&D and bring Canada into the top five rankings. The latest ranking (2000-2003) places Canada 13th (OECD, Main Science and Technology Indicators, 2003). In ‘Global Higher Education Rankings,’ Canada does reasonably well on accessibility but less well on affordability (Usher and Cervenan, 2005). When compared to 15 other countries, Canada ranked 5th on accessibility, but a lowly 11th on affordability.²¹

At the provincial level the decline in government transfers for PSE is clear and dramatic when we focus on this revenue as a percentage of all provincial revenues (Figure 1, Appendix 1). Using 1988/89 as the starting point, we can observe that the decline is most pronounced for Ontario and much less so for both BC and Québec.

²¹ This conclusion is somewhat misleading because Usher and Cervenan used the OECD/UNESCO definitions of tertiary education, which means that in Canada they excluded the most accessible and affordable part of the PSE, namely the non-university sector (for example, college transfer program, community colleges, CEGEPS and CAATS).

A whole series of indicators serve to confirm this decline in expenditures at the provincial level. As Table 1 (Appendix 2) illustrates, between 1992/93 and 2004/05 the provincial expenditure on PSE in 2003 dollars declined for Ontario and Québec by 14.8 and 9.6 percent respectively. Expenditure in BC rose by a massive 28.4 percent. The Canadian average over this period was -5.0 percent. When we examine provincial expenditures on post-secondary education as a share of total provincial expenditures the gap between the three provinces is less pronounced (see Table 2). BC still shows an increase from 5.9 to 6.1 percent, while the decrease in share is larger for Québec than for Ontario. Québec decreased from 7.6 to 6.0 percent while Ontario decreased from 5.8 to 4.7 percent. The overall decrease for Canada was from 6.3 to 5.5 percent.

When we examine provincial transfers to Colleges and Universities per FTE student enrollments between 1993/94 and 2004/05 (2004 dollars), we can see a somewhat different picture (see Table 3). Québec and BC register increases from of 6.1 and 2.3 percent respectively. Ontario registers a massive decrease -31.6 percent. Alongside the decline in federal transfers for PSE we can observe a phenomenal increase in the resources allocated to research and development. This has occurred primarily through three mechanisms: grants directly to faculty members for research projects; grants directly to universities for 'indirect costs'; and, capital funding on a shared-cost basis for infrastructure projects. This funding are disbursed by federal granting agencies on a competitive basis and awarded in accordance with federal criteria, which includes merit and national interests. Furthermore, these policy decisions are set within a science and technology policy that emerged from competing definitions of science, utility, and the 'public good'. At the policy level, the interests of capital are privileged under the guise of serving the national interest. By promoting industry access to publicly funded research, the science and technology policy recognizes that scientific research is simultaneously fundamental and useful. But the policy also skews the balance in favour of private interests and commercial science.

As one might expect, Ontario, Québec and BC account for a very large proportion of the federal research funding through the granting councils (CAUT, 2006, Table and Map 5.4, p. 44). In 2003/2004, these three provinces accounted for 78 percent of the total funding (Ontario 37 percent, Québec 30 percent and BC 11 percent). If we add Alberta then the total increases to 89 percent. We can observe a similar distribution when we examine the share of the total sponsored research funding. In 2003/2004, Ontario accounted for 36.9 percent of this total, while Québec and BC accounted for 31.2 and 9.8 percent respectively (CAUT, 2006, Table 5.5, p. 46). The same differential can be observed by focusing on the CFI. Between 1998 and November 2005, Ontario received 37.5 percent of CFI awards, while Québec and BC received 29.1 and 11.6 percent respectively (CAUT, 2006, Table 5.2, p. 44). Québec and BC were 'winners' when it came to the allocation of CRC chairs taking into account faculty and student numbers. Between 2000 and 2004, Québec accounted for 26.9 percent of the total number of chairs, and BC accounted for 12.5 percent. Alberta was declared the other 'winner' with Ontario trailing just under the winning ratio. The other six provinces were declared 'losers' by the CAUT (2006, Table 5.4, p. 45).

In response to the shortfall in transfer payments, the provinces have reduced provincial grants to post secondary institutions setting the stage for the search for alternative sources of revenue for the post secondary system. Total government expenditures on Post-Secondary Education (PSE) and on university education declined in dramatic fashion during the 1990s. For PSE, we can see a continuous decline in government funding through the 1990s from a high of approximately \$32 billion in 1990 to \$21.8 billion in 1998. Similarly, government funding for university education declined over the same period from a high \$17.5 billion to a low of \$9.8 billion. Over the same period Ontario's spending on PSE and university education went from \$8.7 to \$5.8 billion and \$6.2 to \$3.4 billion respectively.²² Québec declined from \$5.5 to \$3.3 billion for PSE and from \$4.7 to \$2.6 billion on university education. The changes in BC were the least dramatic. Spending on PSE despite a dip in 1995 and 1996, actually increased marginally from \$1.639 in 1990 to \$1.641 billion in 1998. Since 1998, funding for PSE and university education has begun to slowly increase yet by 2003 the funding in Canada as a whole and in Ontario and Québec was still substantially below the 1990 levels.

The differences in provincial expenditure on PSE become particularly apparent when we plot the changes through time using 1988/89 as the starting point (Figure 2). Once again we can observe the dip in spending in the mid-1990s, but this is most pronounced for Ontario and least apparent in BC. Here we can see the contrast between the commitment of the BC NDP government to maintain the level of spending and the lack of commitment on the part of the Ontario Progressive Conservative to do the same. These commitments are carried through the period. BC is consistently above the starting point, recording the highest gain in the amount spent on PSE. Québec maintains a relatively stable level of spending, while Ontario has since 1992/93 been consistently below the starting level.

Using Statistics Canada and CAUBO sources, the CAUT (2006, figure 1.4, p. 3) show that total government spending as a share of university operating revenue between 1994 and 2004 declined in all provinces. The decrease was most pronounced in Ontario where the share went from 73 to 48.5 percent. In Québec and BC, the share decreased by about the same amount, from 80 to 72.3 percent, and 73 to 60.1 percent respectively. Over the same time period, tuition as a share of university operating revenue increased for all provinces (CAUT 2006, Figure 1.2, p. 2). Ontario had by far the largest increase from 22 to 38 percent, followed by BC with an increase from 18 to 29.6 percent. Québec registered by far the smallest increase from 14 to 16 percent.

²² This table only tells part of the story because Ontario's cutbacks in university funding have exceeded any other province. Operating grants per capita for universities in Ontario are now the lowest of any province in the country. Moreover, between 1995/96 and 1999/2000, in term of four-year relative change in provincial or state funding operating expenses in Canada and the United States, Ontario ranked 59th out of 60 provinces and states. See *Missing Pieces III* (2002) for more information.

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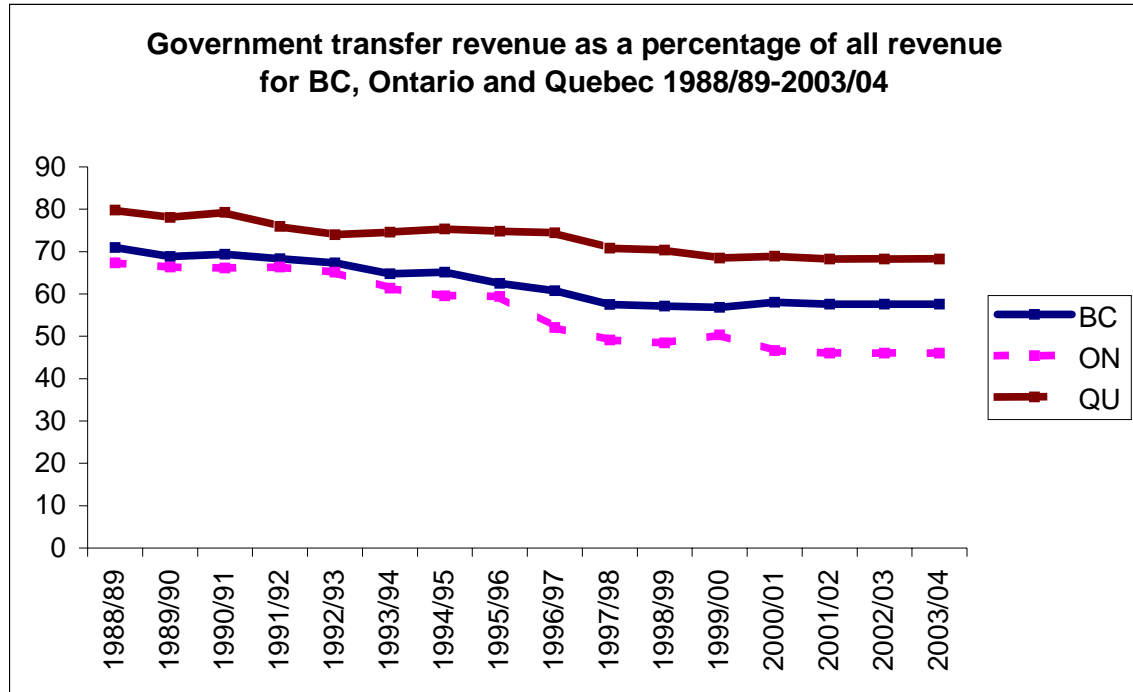
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Appendix 1

Figure 1:

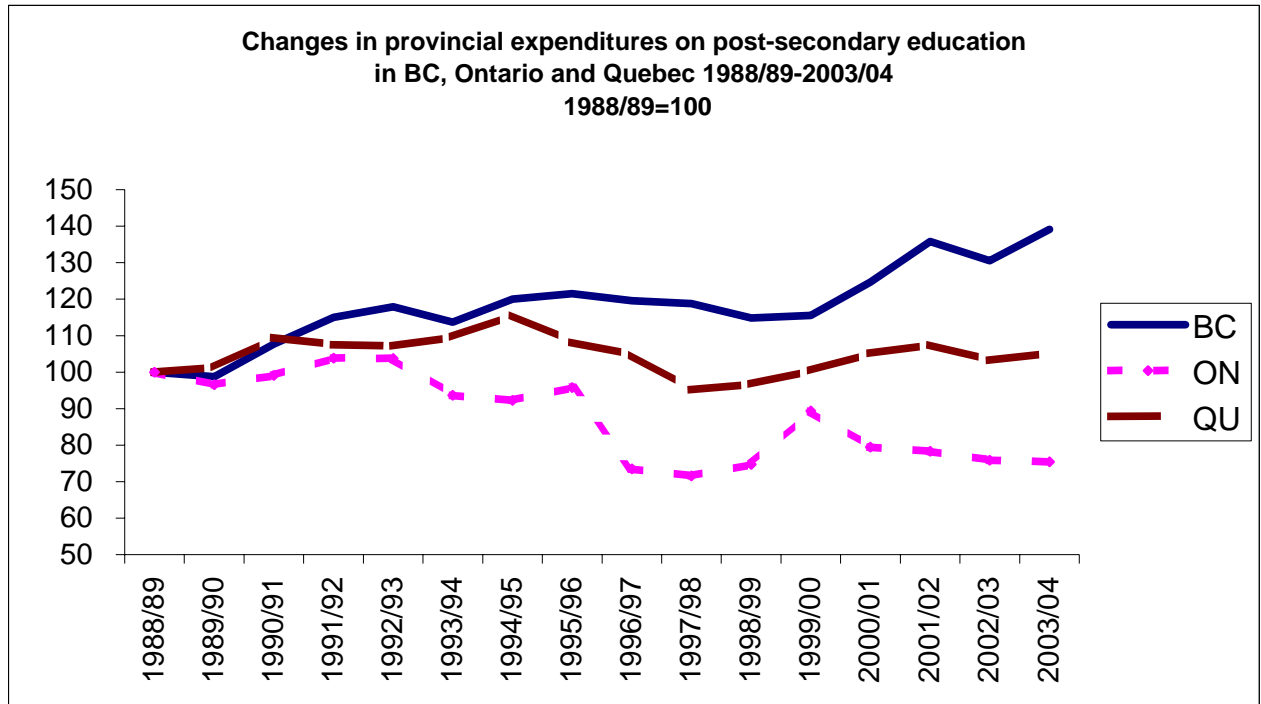


Source: Statistics Canada, Table 385-0007, University and college revenue and expenditures, annual (Dollars x 1,000).

Notes: Revenue from provinces, adjusted using provincial CPI, Annual Average, 1986=100; index 1988=100

Data File: excel workbook "R&E_Aug2005.xls"; worksheet "revenue_BC_ON_QU_CAN"

Figure 2

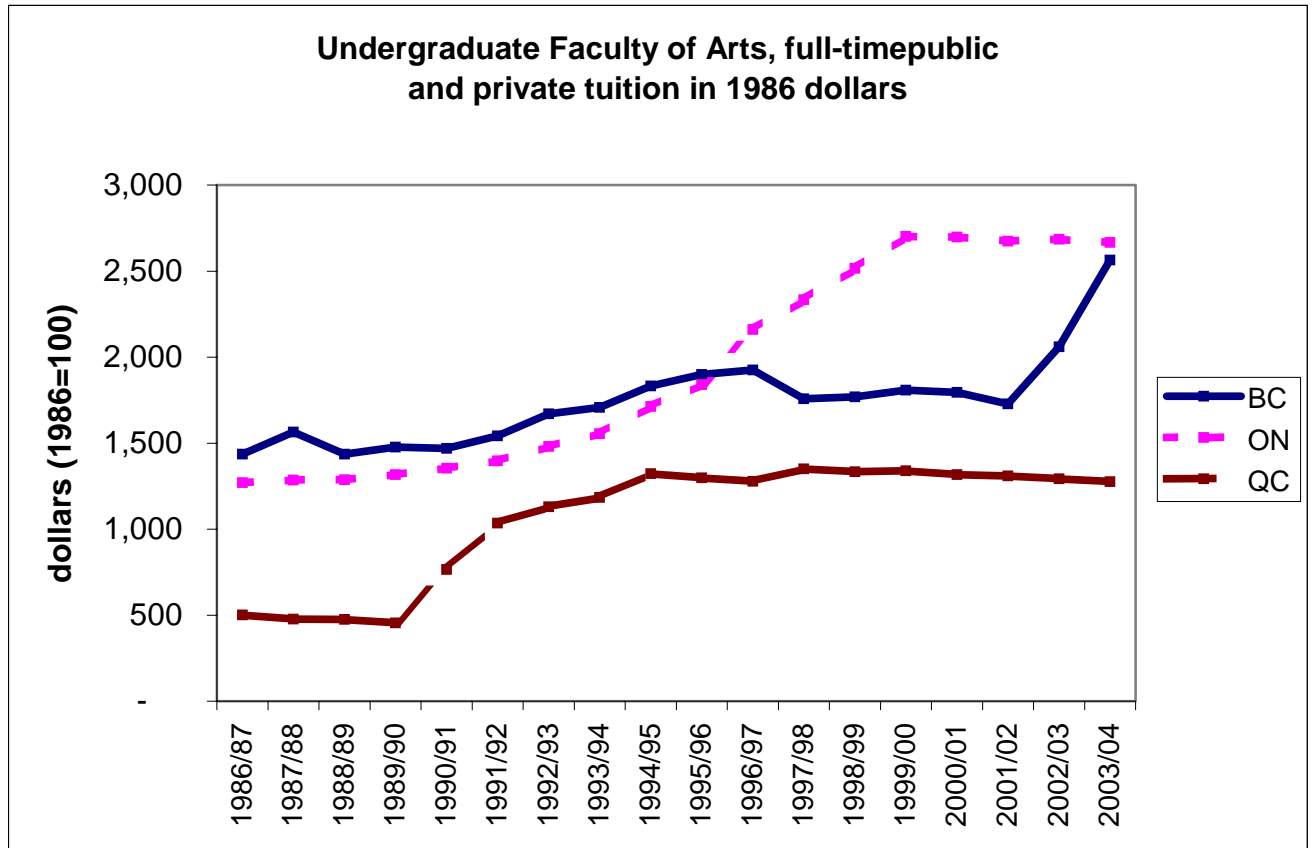


Source: Statistics Canada, Table 385-0007, University and college revenue and expenditures, annual (Dollars x 1,000).

Notes: Revenue from provinces, adjusted using provincial CPI, Annual Average, 1986=100; index 1988=100; 1999 adjusted for the one-time 1.8 billion dollar increase for BC.

Data File: excel workbook "R&E_Aug2005.xls"; worksheet "revenue_BC_ON_QU_CAN"

Figure 3



Source: Statistics Canada, annual tuition survey number 3123, weighted average domestic arts tuition fees by province.

Notes: tuition adjusted using provincial CPI, Annual Average, 1986=100;

Data File: excel workbook "tuition_Aug2005.xls"; worksheet "tuition"

Appendix 2

Table 1.
Provincial Expenditures on Post-Secondary Education (\$2004)-millions

	1992/93	2004/05	percent
Change			
British Columbia	1,470.6	1,888.0	28.4
Québec	4,159.4	3,761.0	-9.6
Ontario	4,307.4	3,671.0	-14.8

Source: CAUT Almanac of Post-Secondary Education, 2006, Figure 1.1, p. 2

Table 2.
Provincial Expenditures on Post-Secondary Education as a Share of Total Provincial Expenditures

	1992/93	2004/05	Percent
Change			
British Columbia	5.9	6.1	0.2
Québec	7.6	6.0	-1.6
Ontario	5.8	4.7	-1.1

Source: CAUT Almanac of Post-Secondary Education, 2006, Figure 1.2, p. 1

Table 3.
Provincial Government Transfers to Colleges and Universities per FTE Student Enrollments, 1993/94 to 2004/05(\$2004)

	1992/93	2003/04	Percent
Change			
British Columbia	14,356	14,689	2.3
Québec	10,913	11,584	6.1
Ontario	10,346	7,080	-31.6

Source: CAUT Almanac of Post-Secondary Education, 2006, Figure 1.4, p. 2

Table 6.
Average undergraduate tuition fees for full-time students*

	1991/92	1995/96	2001/02	2005/06
Québec	\$1,308	\$1,772	\$1,842	\$2,003
Ontario	\$1,785	\$2,579	\$4,492	\$4,269
B.C.	\$1,911	\$2,636	\$2,527	\$4,613
Canada	\$1,714	\$2,486	\$3,577	\$4,028

Table 7.
Maximum provincial student loan (full-time, with no dependent, single, based on 34 weeks of study) and total maximum assistance for 2001.

	Maximum Loan	Total Maximum Assistance Including Grants
British Columbia	\$8840 / year	\$8840 / year (\$260 / week)
Ontario	\$9350 / year	\$9350 / year (\$275 / week)
Québec		
College students	\$2005/year	\$14152/year (\$416/week)
Undergraduate students	\$2460/year	\$16619/year (\$489/week)
Graduate students	\$3255/year	\$17414/year (\$512/week)

Source : Statistics Canada

Table 9.
PSE participation rates by age (18-24 and 25-29)

	1976	1990	1997	2000
B.C.				
Age 18-24	18.8	29.3	36.8	38.7
Age 25-29	7.7	7.2	14.4	14.6
O.N.				
Age 18-24	23.3	31.8	36.8	37.8
Age 25-29	8.5	9.8	11.5	11.9
Q.U.				
Age 18-24	21.1	35.2	45.2	43.0
Age 25-29	6.7	10.6	11.5	13.0

Source:

BC Stats, Labour Force Statistics, October 1998, (release Nov 6, 1998; issue 98-10) Figure 2: PSE Participation Rates by Age, Canada and Provinces, p. 3.

BC Stats, Labour Force Statistics, August, 2001, (release Sept 7, 2001; issue 01-08) Figure 2: PSE Participation Rate, Selected Age Groups, Canada and Provinces, 1990 and 2000, p. 4.

Table 10.
Literacy and Numeracy Scores

	Literacy Scores	Numeracy Scores
B.C.	281	272
Ontario	270	261
Québec	266	259
Canadian Average	272	263