



TD Economics

Special Report

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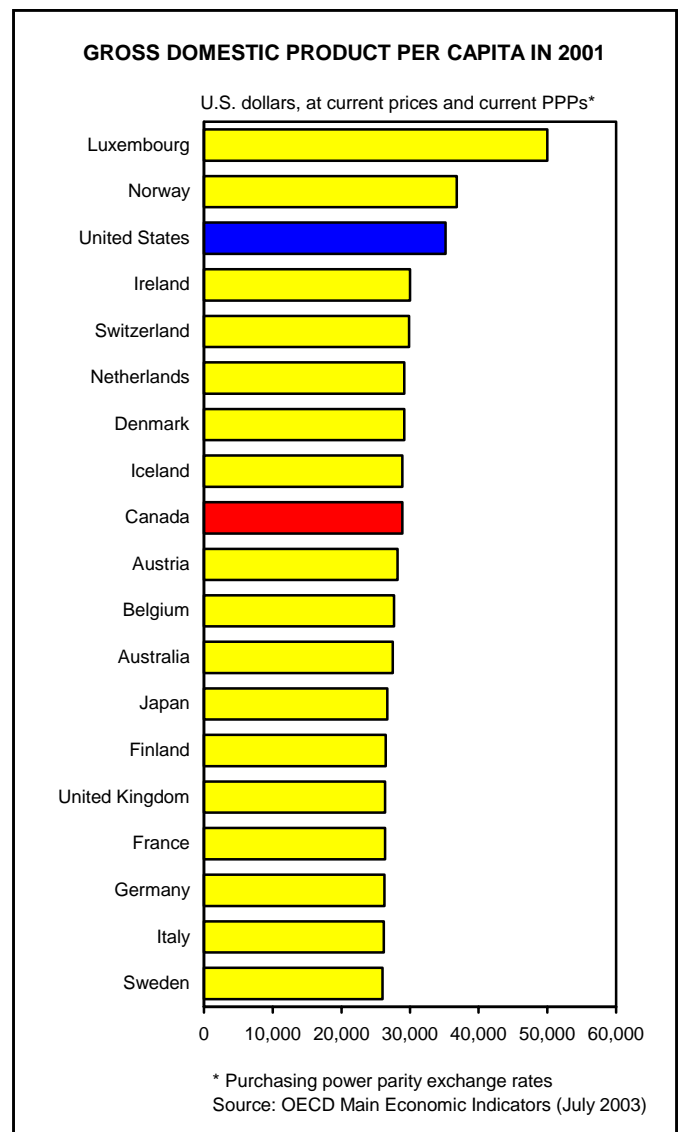
TIME TO WISE UP ON POST-SECONDARY EDUCATION IN CANADA

Post-secondary education is at the heart of Canada's economy and society. Knowledge has become the most valuable resource and the prime determinant of the wealth of nations. And, education has always been the greatest social equalizer. We are fortunate that a generation ago our leaders had the foresight to build a strong post-secondary education system. It still serves us well, but years of under-funding have left it creaking. We must address the deficiencies now, because our need for world-class universities and colleges has never been greater.

A comprehensive debate needed on the path forward

The TD Bank Financial Group has long been a strong advocate that Canadians should enjoy the highest standard of living in the world. Yet, we have slipped into a tie for 8th place in terms of income per capita amongst the major industrialized nations (see chart). By this measure, Canada's standard of living stands 15 per cent below that in the United States – which translates into an annual income roughly C\$7,560 lower for every man, woman and child. Our weakness is in productivity and that, in turn, speaks to shortcomings on innovation.

Canadians are growing concerned that developed economies, such as the United States, are not our only competitors, and rightly so. There is no denying that jobs are being shifted to emerging economies, such as China and India. The only effective response is for Canada to move further up the value-added economic chain. We must compete by being smarter, not by being cheaper through lower wages. However, shifting the competitiveness battle to a higher plain isn't easy. Indeed, the world is not static. Other countries are ramping up their innovation at lightning speed, in good part by making substantial investments in their education systems. To use a poker analogy, we must not only



see their advances, but raise them. That means training more qualified workers and investing more in research and development.

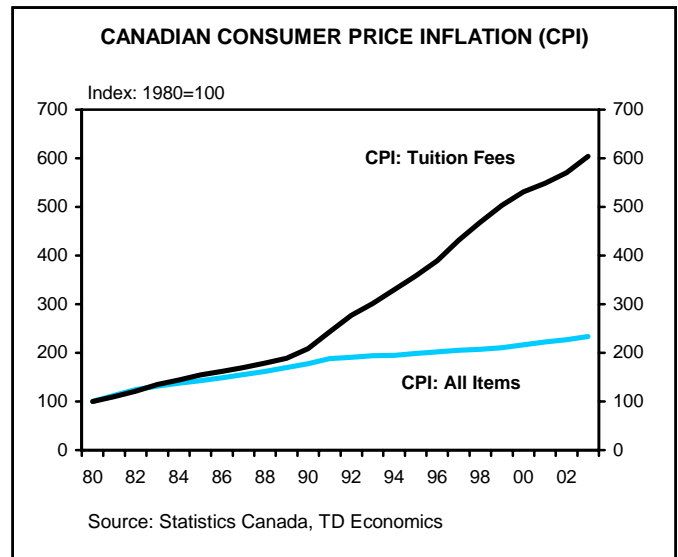
The connection between universities and colleges and the quality of the labour force is clear. What is likely less well understood is the importance of universities to research and development. And, the latter is particularly critical, as Canada relies more on universities as a source of innovation than other G7 countries – a point that will be elaborated upon later in this report.

Britain has just conducted a highly controversial, but comprehensive, debate on how to finance its universities and how its students should be financially assisted. In contrast, while there has been some discussion of the issue in Canada, the current domestic debate about the state of post-secondary education cannot be characterized as holistic. Most of the public attention of late has been focused on just one issue – soaring tuition fees. Yet tuition fees, student financial assistance, government core funding, and the role of universities in research are all interrelated subjects. There has been a series of initiatives in the post-secondary education domain, particularly on the research funding front, but many of the actions score higher on their good intentions than on their positive results. The main fault is due to the fact that the initiatives have been piecemeal steps when comprehensive reform is required.

There are worrying signs that the bit-by-bit approach will continue. Some provinces are considering important changes in tuition fee policies (e.g., Ontario may freeze fees for two years, while Quebec is considering raising fees) without an explicit link to the question of government funding. The federal Speech from the Throne referred to

SPECIFIC REFERENCES TO PSE IN THE FEBRUARY 2004 SPEECH FROM THE THRONE

- Everyone in Canada should “have the opportunity for post-secondary education regardless of geography or means”
- To increase awareness of the Registered Education Savings Plan (RESP) a new “learning bond” will be developed for every child born to low-income families
- There will be an overhaul of the student loan and grant program to “increase access to PSE for middle- and low-income families and better reflect the higher cost of education”, as well as:
 - “help those who earn while they learn”
 - “better address student debt”
 - “help low-income students get in the door with a first-year education grant”



imminent actions on the student financial assistance front (see box), but largely within the confines of the current, flawed system.

This paper makes the case for study and debate on a holistic approach to reshaping our post-secondary education system in such a way that it can best support the economic and social goals of Canadians. However, the call for an informed debate should in no way be used as an excuse for inaction. What it does suggest is that, in contrast to hints in the Speech from the Throne, the March 23, 2004 Budget should not throw buckets of new money at more random acts of good intention. Post-secondary education in Canada is at a fork in the road. Let us make sure that we take the right path forward.

The federal government cannot determine the right path by itself, never mind deliver all the supporting policy components. Federal authorities must work with the provinces, stepping adroitly around prickly constitutional issues, to achieve a common good. Students, the private sector and, of course, post-secondary education institutions must also be involved. One would never wish a Royal Commission on any issue – at least not one where near-term action was hoped for. Nevertheless, a White Paper, as in Britain, would be a good vehicle to make recommendations. Alternatively, given the complexities of multi-jurisdictional responsibilities, positions could initially be made for open debate, as per the tradition of Green Papers. The TD Bank Financial Group is, of course, partial to that colour.

The remainder of this paper sets some context for a more comprehensive debate on the future of post-secondary education in Canada.

What do we want from our post-secondary education system?

In the context of an increasingly knowledge-based world economy, Canadians need the best post-secondary education system in the world if we aspire to have the highest standard of living. At the same time, it is important to be mindful that increased education is one of the most powerful social policies available. For example, it has the potential to significantly narrow income inequalities.

The federal government's Innovation Strategy of 2002 set out some worthwhile objectives:

- Over the next decade, the percentage of the population aged 25-64 with a post-secondary credential should rise from 39 to 50 per cent.
- Admissions of Masters and PhD students should increase by an annual average of 5 per cent per year through 2010.
- Universities and colleges must play an important role in encouraging Canadians to embrace the practice of life-long learning more wholeheartedly.

With regard to equity, the Throne Speech said that everyone in Canada should, "have the opportunity for post-secondary education regardless of geography or means." Some have gone further and suggested that nobody with the appropriate academic credentials should be denied access to the program of their choice for financial reasons.

The Innovation Strategy also set an objective of moving Canada from 14th to 5th place in the OECD on research intensity. As 29.5 per cent of Canada's R&D is conducted by universities (compared to only 13.9 per cent in the U.S.), it is evident that this sector will be critical in achieving the overall objective.

Current post-secondary education system is falling short of these objectives

Relative to other countries, a high percentage of the Canadian population has some post-secondary credentials. However, as the OECD noted in its 2003 Canada Survey, "an unusually large proportion goes to community colleges or trade schools that usually provide shorter duration courses." In 1998, approximately 19 per cent of 18-21-year-olds participated in university education, which was in the middle of the OECD rankings, but well behind the leading OECD nations where participation is around 25 per cent. And, relative to the United States, a smaller por-

PERCENTAGE OF TOTAL R&D CONDUCTED BY POST-SECONDARY SECTOR Canada and Jurisdictions, G-7, 2000	
Canada	29.5
Newfoundland & Labrador	61.1
Prince Edward Island	41.7
Nova Scotia	55.5
New Brunswick	57.5
Quebec	31.3
Ontario	24.9
Manitoba	46.8
Saskatchewan	61.8
Alberta	42.6
British Columbia	33.1
Yukon, Northwest Territories and Nunavut	0.0
G-7	
Canada	29.5
France	18.8
Germany	16.1
Italy	31.0
Japan	14.5
United Kingdom	20.8
United States	13.9
Source: Statistics Canada, Education Indicators in Canada, 2003	

tion of Canadian students enroll in advanced programs. For example, graduate school enrolment in Ontario would need to double by 2013 to reach the U.S. advanced degree achievement rates of the late 1990s. Yet, the OECD finds that despite what it refers to as a "middling performance, Canada's (post-secondary education) system is one of the most expensive in the world, possibly because it has to pay high North American salaries to attract good staff."

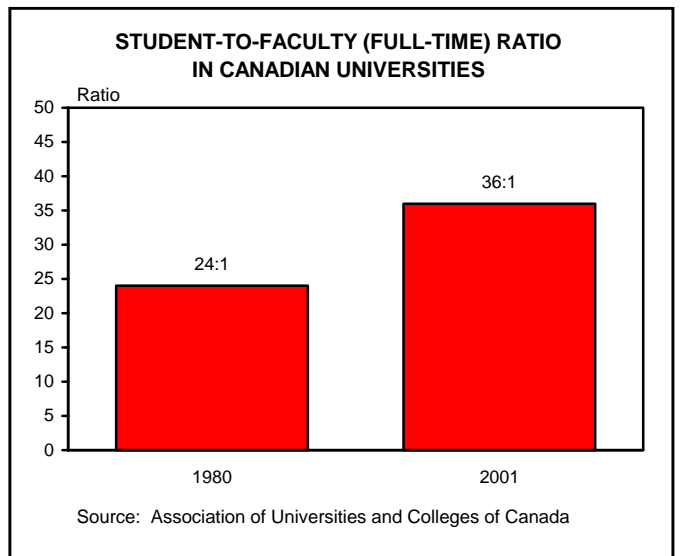
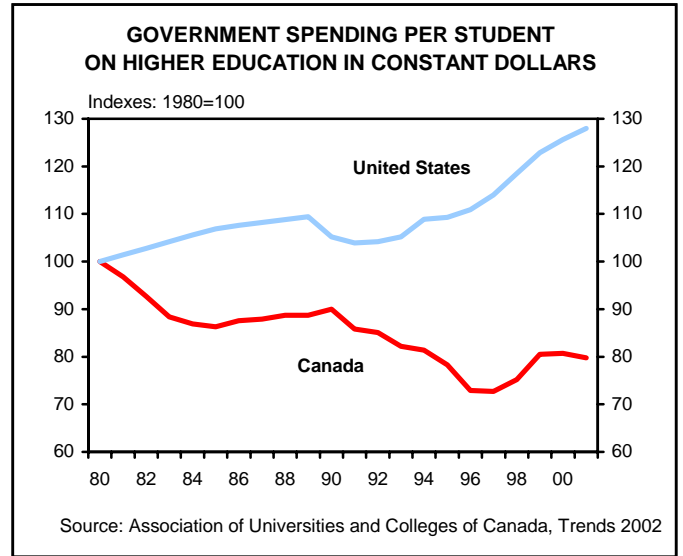
While Canada still allocates a relatively large portion of its resources to post-secondary education, public funding has been dramatically squeezed over the past two decades. Indeed, the contrast between Canada and the United States in the trends of public funding for post-secondary education has been dramatic. Over the past twenty years, Canada has cut real public funding per student by 30 per cent, while the U.S. has increased its funding by 20 per cent. In order to fill some of the gap, tuition fees in Canada have soared, leaving overall funds quite stagnant on a real, per student basis.

Among the symptoms of the funding squeeze are deteriorating infrastructure and rising student-to-professor ratios. The Canadian Association of University Business Officers estimated that in 1999 universities had deferred

maintenance costs totalling \$3.6 billion, with \$1.2 billion of that being needed on an urgent basis. Many studies have concluded that faculty-student interaction is the most important determinant of the quality of the learning experience. Yet, from 1980 to 2001, the ratio of full-time students to full-time faculty has gone from 24:1 to 36:1. The Council of Ontario Universities estimates that in 1998 the student-to-faculty ratio in that province stood 36 per cent higher than that of 170 reference group institutions in the U.S.

Average annual tuition fees for university in Canada have risen from \$1,806 in 1990-1991 to \$4,025 for 2003-2004 (see table) and the all-inclusive cost per year now exceeds \$11,000, with the cost of a college year not far behind. With these soaring private costs, there are understandably concerns that access is being compromised for children of lower-income families.

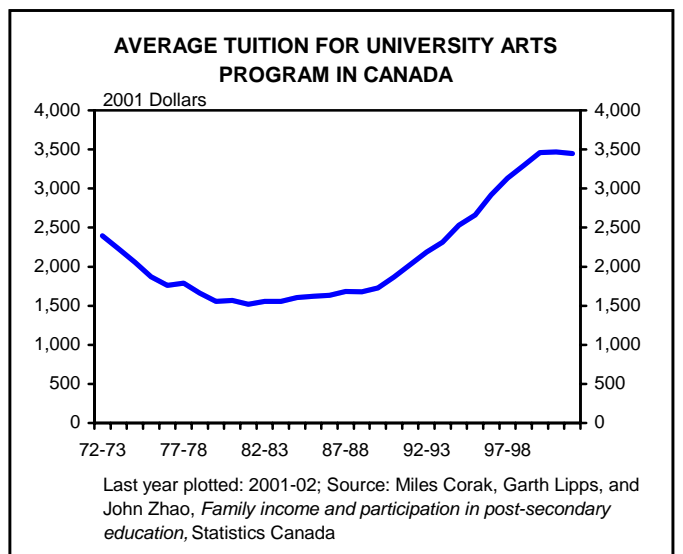
The good news is that a Statistics Canada study found that the gap in post-secondary education participation across income groups has not widened in the face of higher tuition fees. The bad news is that there is still a very sizeable gap between participation rates of children from families with high incomes and those from families with low incomes. Of course, there is more to this than income differences. The education experience of parents is also, for example, an important influence. Somewhat consistent with these national results, a study by Norma Kozhaya in a note for the Montreal Economic Institute found that while Quebec has much lower tuition fees than other provinces, its



AVERAGE UNDERGRADUATE TUITION FEES*		
	1990-1991	2003-2004
Canada	1,806	4,025
N. & L.	1,657	2,606
P.E.I.	2,310	4,133
N.S.	2,393	5,557
N.B.	2,373	4,457
Quebec*	1,115	1,862
Ontario	2,072	4,923
Manitoba	1,864	3,155
Saskatchewan	1,905	4,644
Alberta	1,586	4,487
B.C.	2,230	4,140

* Both in and out-of-province students are included in the weighted average calculations.

Source: Statistics Canada

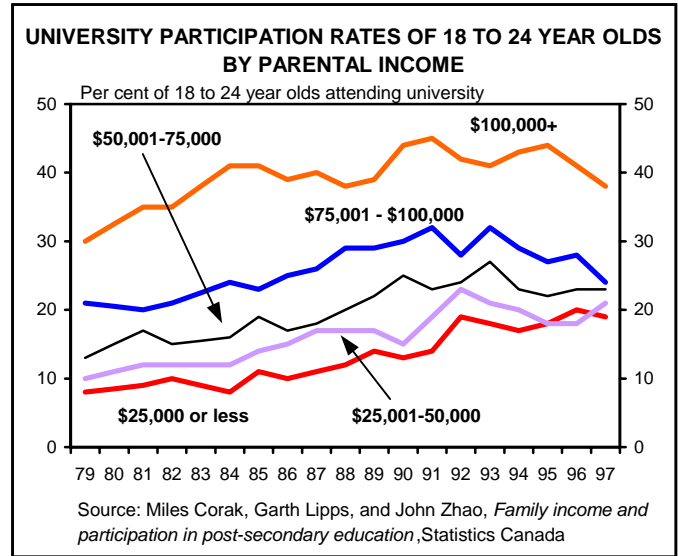


enrolment rates remain among the lowest in Canada.

In particular, the Statistics Canada study concludes that for students who lived at home, “post-secondary education at the end of the 1990s was no more the domain of the relatively better off than it was during the 1980s”. It is certainly the case that children from higher income families are more likely to attend university, but this has not changed dramatically during the 1990s with the introduction of higher tuition fees (Corak et al., *Family income and participation in post-secondary education*).

Nevertheless, the rising tuition fees have not been without consequences. They have led to much higher student debt loads, have required students to work more hours during academic semesters, and have caused a shift, particularly for males, from university to college. The ever-rising academic standings for university entrance, clearly a reflection of the financial squeeze, have also played a role in this trend. It has no doubt struck thousands of parents that they would not have been accepted to university had the same entrance standards been in place when they were applying (although parents can take some comfort that there has been some grade inflation in the education system).

Moreover, the findings that soaring tuition fees have not radically altered participation rates in post-secondary education across income groups should not breed complacency, as the pressure is far from over. The Association of Universities & Colleges of Canada (AUCC) estimates that there will be a 30 per cent increase (200,000 students) in university enrolment by 2011. In light of this prospect and in order to roll back the student:faculty ratio to where it stood a decade ago, roughly 40,000 professors will need



to be hired. The new faculty positions are required to accommodate the increase in enrolment, but also to replace the future wave of retirees, given that one-third of faculty members are now age 55 or older. In order to accommodate the increase in enrolment and the hiring of professors, an extra \$6.2 billion will be needed in annual operating revenues by 2011. As large as these numbers are, they likely understate the situation, as enrolment has increased more rapidly than expected since the estimates were made. And, the 30 per cent rise in enrolment would not even bring Canada to the current participation rate of leading OECD nations. Moreover, there is little doubt that participation rates abroad will continue to rise, implying that Canada will continue to be left behind.

Who should foot the bill?

Theory suggests that post-secondary education should be funded by a mix of public and private money. There are substantial returns to society from higher education – more income to pay for services, less crime, et cetera. As

FINANCIAL NEEDS OF UNIVERSITIES

- \$6.2 billion more annually in operating revenue
 - expecting a 30% increase in enrolment by 2011
 - need to hire 35,000 - 40,000 new faculty (34,500 full-time faculty now)
- \$1.9 billion in additional annual capital costs to address deferred maintenance, on-going maintenance and needed expansion
- \$6.4 billion more annually in research funds
 - for universities to play their role in achieving the research goals set out by the federal government in the Innovation Strategy of 2002

RETURN TO A POST-SECONDARY EDUCATION IN THE 1990s

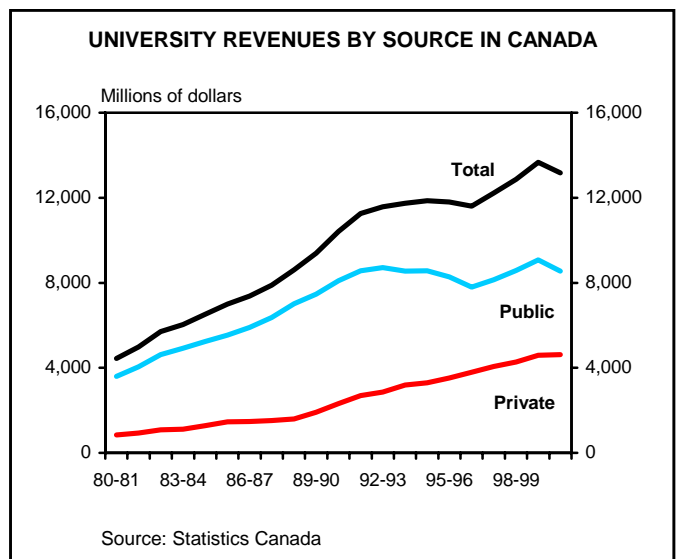
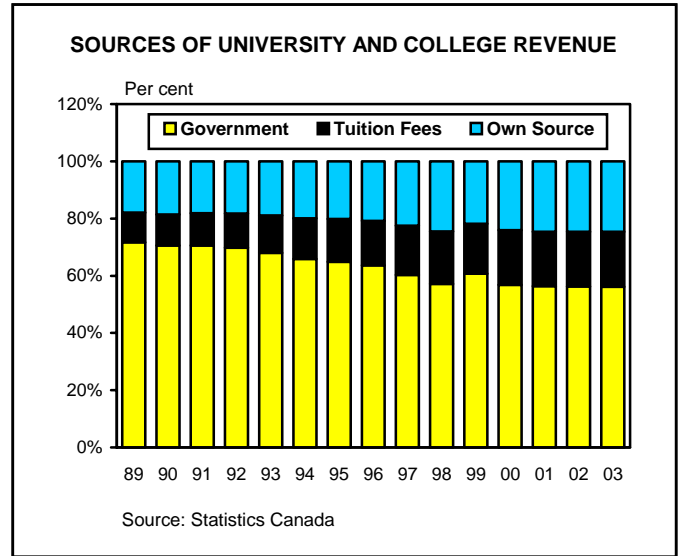
University	12-20%
Men	12-17%
Women	16-20%
College	15-28%
Men	15-28%
Women	18-26%

Source: Boothby & Rowe (2002), Vaillancourt et al. (1997, 2002)

these externalities are enjoyed by society as a whole, there is a solid case for public subsidization of students. Yet, studies indicate that the private rates of return are even higher (see table at bottom of prior page). Therefore, there is a legitimate case for students to bear some of the cost.

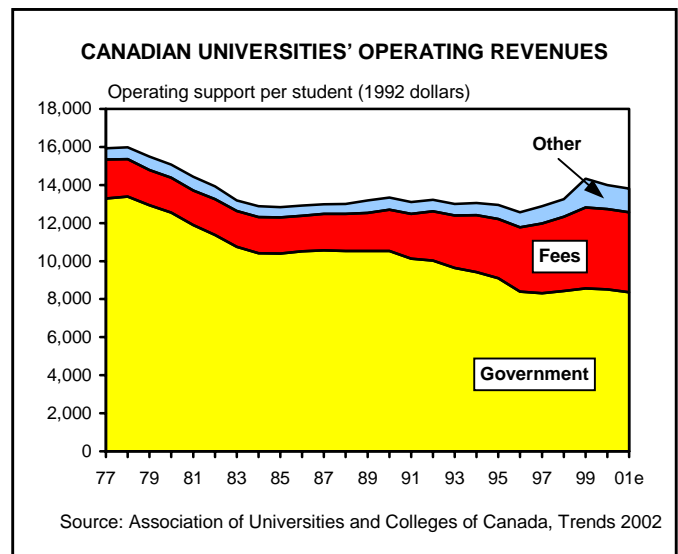
Canada's mix of public and private funding is heavier on the private side than in most other OECD nations and we are progressively moving further in that direction. Based on OECD data, public money in Canada accounts for just under two-thirds of revenues for the Canadian total post-secondary education system. On average in the OECD, public money covers 77 per cent of the total bill.

For 2002-2003, according to Statistics Canada, government funding made up 56.2 per cent of university and college revenue, tuition fees accounted for 19.2 per cent and other own source revenues (private donations, sales of goods and services, royalties, investment income, et cetera) the remaining 24.6 per cent. A Statistics Canada study of 55 universities found that for 2000-2001, tuition fees accounted for 19.7 per cent of total revenues, up from 13 per cent a decade earlier. It is worth noting that the importance of tuition as a source of funding is somewhat understated when comparing the fees to total revenue, as none of the tuition money goes toward research. As a result, many education studies focus on tuition fees as a percentage of operating revenues, which stands at a higher one-third share. Relative to 1986-1987, total operating revenues for the universities have risen 28 per cent, with gov-



SPENDING ON POST-SECONDARY EDUCATION					
Expenditure in 1999, adjusted using economy-wide PPPs					
	Spending per student on:			Proportion publicly funded	Spending as a share of GDP
	Teaching & related services	Research	Total		
	Canadian dollars per student			%	%
U.S.	20,384	2,507	22,891	48	2.3
Canada	14,993	3,123	18,116	64	2.5
Germany	7,668	4,710	12,378	91	1.1
Japan	---	---	12,241	50	1.0
U.K.	7,289	4,090	11,379	73	1.1
France	7,905	1,466	9,371	91	1.1
Italy	8,994	---	8,994	88	0.8
OECD	8,027	2,696	10,969	77	1.3

Source: OECD, Economic Surveys, Canada, 2003



ernment support falling 4.5 per cent, while revenue from private sources rose 167 per cent. Statistics Canada concluded that “students contributed the lion’s share of the jump in private funding through their tuition and miscellaneous fees”.

Whatever the split between public and private funding, the issue should not be viewed in isolation from the overall financial requirements of the post-secondary education system. That danger is precisely the concern in some provinces now.

The new Ontario government promised a two-year tuition fee freeze effective September 2004 in its election platform. However, it is not clear whether grants to the institutions will fully offset the revenue consequences. Given the 24 per cent decline in operating grants per student for Ontario universities between 1993-94 and 2003-04 in constant dollars, the concern is certainly understandable. The Ontario Task Force on Competitiveness, Productivity and Economic Progress calculates that Ontario currently spends only half as much on university education as a group of peer U.S. states. Furthermore, this underinvestment, particularly at the graduate level, is a leading contributor to the 10 per cent productivity gap between Ontario and these peer states. While a respite from rising tuition fees will be welcomed by students, nobody will be a winner if lower overall funding results in a further deterioration in the quality of education. Beyond the two-year freeze, a new mechanism must be established for setting fees.

In Quebec there are signs that the government is considering lifting its long-standing tuition freeze. Many are legitimately concerned that this will be a catalyst to reduce provincial grants.

Private sector donations, and individual and company-sponsored scholarship funds (such as those provided by TD Canada Trust), fill part of the funding hole. However, Canadian university endowments are a mere pittance relative to those enjoyed by many U.S. universities. The largest university endowments in Canada are the University of Toronto at C\$1.06 billion as of April 30, 2003 and McGill University at C\$672 million. In McGill’s case, this works out to C\$27,000 per full-time student. In contrast, Harvard has an endowment of US\$18.8 billion, Yale US\$11.0 billion and Princeton, the University of Texas and Stanford each just under US\$7 billion. In the case of Princeton that works

out to US\$1.3 million per student, and even that pales relative to the leader – Rockefeller University with an endowment per student of US\$7.5 million. And, it isn’t just a select group of U.S. universities that have large endowments – the average value of the 717 endowments in a recent survey was US\$320 million. Bearing in mind that the largest endowment in Canada is just over C\$1 billion and was accumulated over the history of the university, it is startling to realize that 21 post-secondary education institutions in the United States are involved in campaigns in most cases for just the current year with donor targets in excess of US\$1 billion. A good part of the endowments come from foundations. Getting a 27.6 per cent share of all grants, education is the largest recipient from Canadian foundations. But, foundation assets in Canada only total C\$11 billion, whereas they amount to US\$450 billion in the United States.

In part, the distinction between endowments in Canada and the United States reflects the disproportionate number of very wealthy people in the United States. However, there is a more prominent culture of contributing to universities regardless of income in the United States. Given the squeeze from public funding and the desire to moderate tuition fee increases, Canadian universities have increased their efforts in recent years to attract donations. They no doubt feel that there is a cohort of graduates from the 1960s through 1980s who should feel a desire to contribute back some of the handsome income gains they have realized from their almost-free education.

The estimates from universities and colleges on the amount of funding required to put them at the head of the international class is very useful for planning purposes. But, as with any other spending pressure, post-secondary education institutions should not be offered a blank cheque. A hard look is required at where efficiencies could be realized. For example, it has been suggested that a greater degree of specialization among universities (as opposed to each offering virtually every program) and continued progress in the co-operation between universities and colleges (which might lead to more students taking their first two years at the lower-cost colleges) could generate savings gains.

While private sector contributions will undoubtedly grow in importance, and while universities and colleges could realize efficiency gains, the pressure on government fund-

ing and tuition fees will persist. In every jurisdiction, the overall funding requirement should be determined and then a decision should be made on the appropriate public-private split. The decision on the division of funding must also be considered in the context of the student financial assistance regime, especially in light of the serious flaws in the present Canadian system. There are obstacles to many students and their parents in terms of borrowing the required funds. These obstacles are particularly serious at the lower income levels.

In Britain, it was clearly recognized that tuition fees could not be substantially increased without a complete overhaul of the financial assistance programs. In the new system, the full cost of an education can be borrowed, and the repayment timetable after graduation is dependent upon income earned. There is also a sizeable grant for students from low-income families, which in many cases will completely cover tuition costs.

Student financial assistance needs to be radically reformed

In Canada, the student financial assistance regime is a bewildering hodgepodge of federal and provincial programs, featuring loans, grants and tax incentives. In 2000-2001, it carried an annual price tag in the neighbourhood of \$4.7 billion. But, it does not effectively target funding at lower-income groups. And, despite considerable money being added in recent years, the situation has not improved much.

The federal-provincial student loan program is an important component of student financial assistance. Yet, loan limits have not been raised in years and they now fall short of providing for the full cost of an education. Other

TOTAL GOVERNMENT SPENDING ON POST-SECONDARY STUDENT FINANCIAL AID 2000-2001		
	Millions of dollars	Share of total
Subsidy on Student Loans	943.4	20.2
Debt Remission	541.0	11.6
Grants to Students	1,453.7	31.1
Tax Expenditures	1,730.9	37.1
Total	4,669.0	100.0

Source: Ross Finnie, Saul Schwartz, and Eric Lascelles, How Ottawa Spends 2003-2004, "Smart Money? Government Spending on Student Financial Aid in Canada"

INCOME DISTRIBUTION OF TAXFILERS CLAIMING CREDITS FOR TUITION FEES AND EDUCATION AMOUNT	
Income	Per Cent of Total Credits Claimed
Less than \$20,000	34.1
\$20,000-30,000	19.2
\$30,000-50,000	21.4
More than \$50,000	25.3
	100.0

Source: Taxation Statistics, Canada Customs and Revenue Agency, 2003 Edition (2001 Taxation Year)

costs, such as soaring ancillary fees, are not fully taken into account, and students can be disqualified from a loan if their parents do not provide the funding assumed in the formulas. A comprehensive overhaul of the student loan program was considered in the 1990s. It was to be based upon income-contingent loans, whereby payment after graduation would be dependent upon earnings. As the OECD notes in its latest Canada Survey, there are elements of such a system in the current regime. However, they conclude that, "it may be worth taking the extra step and making repayments fully income-contingent". The proposal was given a rough reception and withdrawn, likely for the wrong reasons. It seemed to get hung up in the controversy of rising tuition fees. Regardless, tuition fees have continued rising and are likely to remain on an upward path in the future. Accordingly, instead of desirable comprehensive reform, we have seen piecemeal action.

For example, the federal government put \$2.5 billion in the Canada Millennium Scholarship Fund, but designed the program largely as a bursary that replicated existing provincial programs. This enabled many provinces to reduce their own spending on student support. An ex-post arrangement was made so that the provinces would keep their displaced dollars in the education field, but there is no way of tracing compliance.

Tax credits for post-secondary education costs have also increased in recent years. Finance Canada estimates that the tax support for post-secondary education will cost the federal government \$1.3 billion in 2004 (provincial costs would be an incremental \$750 million). Almost 50 per cent of the tuition and education credits are claimed by taxfilers with incomes above \$30,000 (roughly the median income

for individuals), while more than 25 per cent are claimed by individuals with incomes exceeding \$50,000. This income distribution pattern arises because the credit can be transferred to the parent if the student does not have sufficient income to apply the whole amount (almost as much is claimed through the transfer as by the students). The structure of the tax credits may be appropriate if the objective is to recognize the education costs of all taxpayers. However, the targeting is very poor from the perspective of enhancing accessibility for children from lower-income families.

Saving for education needs to take on the same priority as saving for retirement

Saving for post-secondary education is going to have to become every bit as much a concern for parents as putting money aside for their own retirement. TD Economics estimates that in today's dollars, a 4-year university program, assuming the student does not live at home, will cost almost \$90,000 by 2020. In a scenario where a 30-year old has a young child, and in the extreme case where the parent bears all the cost, almost \$90,000 would have to be set aside over the next 16 or so years. Assuming use of a Registered Education Savings Plan (RESP) and a 7 per cent rate of return on investment, almost \$3,000 must be saved each year to meet the objective. If that 30-year old earned the median income of around \$30,000 per year and wanted to replace two-thirds of that in retirement after age 60, then TD Economics calculates \$222,000 in today's dollars would be needed within 30 years' time. Assuming the same 7 per cent annual rate of return and the use of a Registered Retirement Saving Plan (RRSP), this would require annual savings of around \$3,200. In this case, the savings requirement for post-secondary education is on a par with savings needed for retirement. Of course, the reality is that many parents would need to save for more than one child. And, it may also be the case that a principal earner will need to provide for 2 people during the golden years. In these cases, the savings requirement noted above would need to be doubled. However, the education financing burden can be reduced if children live at home during their university or college years.

Canadians are beginning to understand that more savings will be required for their children's education. As of October 2002, children up to the age of 18 had an estimated \$32 billion already set aside by their parents for future post-secondary schooling. That was nearly double

EXPECTATIONS AND REALITIES OF SAVING FOR POST-SECONDARY EDUCATION

Reality

- As of October 2002, children up to the age of 18 had \$32 billion set aside by parents for future PSE
 - this was double the amount in 1999
 - \$11 billion is in RESPs
- 19% – or 1.4 million children – will not have access to any parental saving
- 26% of children in households with income under \$25,000 have PSE savings – median value of \$2,400
- 70% of children in households with income above \$85,000 have PSE savings – median value of \$7,000

Expectation

- Parents of children in lower income groups expect to set aside \$10,000 for PSE

Reality

- That would not cover the average all-inclusive cost (tuition and living expenses) of one year of university and would just exceed the one-year cost of college

Expectation

- Parents of children in high income groups expect to set aside \$20,000 to \$25,000 for PSE

Reality

- That would cover the cost (tuition and living expenses) for two to two-and-one-half years of university

Expectation

- 29% of parents expect their child will receive non-repayable grants based on financial need

Reality

- 15% now receive them

Expectation

- 4 in 10 children have parents expecting them to receive scholarships

Reality

- 15% now receive them

Expectation

- 11% of children have parents expecting them to take out repayable loans from family members or financial institutions

Reality

- 27% now have such loans

Source: Statistics Canada

what was available in 1999. The 2002 total includes \$11 billion in registered education savings plans and about \$20 billion in other types of savings. Yet, the amounts set aside are still woefully inadequate to cover even current costs. The median amount saved for families earning less than \$25,000 is only \$2,400. This would not even cover tuition for one year in most provinces. Even families earning more than \$85,000 have median savings of only \$7,000. This is well short of the \$11,200 actual all-inclusive price (tuition and living expenses) for one year of university. Furthermore, 19 per cent of children – some 1.4 million – will not have access to any parental savings when they become eligible for post-secondary enrolment.

Income constraints may be a major factor explaining the inadequacy of saving, particularly for lower-income groups. However, parents have some disturbing misperceptions (see box on prior page) about the cost of financing post-secondary education. This is not surprising, given the dearth of information available on the subject relative to retirement savings needs. The fact that the cost of university education was almost trivial for many of these parents may also explain why they have been slow to come to grips with modern and future realities.

WHAT ELSE COULD BE BOUGHT WITH CANADA EDUCATION SAVINGS GRANTS (CESG)

Facts:

- CESG pay-outs are expected to be \$385 million in 2004-05
- Roughly 600,000 full-time university students are paying average tuition a bit above \$4,000 per year – so, about \$2.5 billion of revenue
- CESG pay-outs will be 15% of tuition revenue from full-time students

Illustrative Possibilities:

- Tuition fees could be lowered 15% (about \$600 per year for everyone)
- 15% of low-income students could receive grants making university education tuition-free
- 30% of students (low and modest income) could receive grants halving the cost of tuition

REGISTERED EDUCATION SAVINGS PLAN (RESP) Participation by Income Group	
Annual Household Income	Children Who Are Beneficiaries of RESPs (Per cent)
Less than \$30,000	6.3
\$30,000-49,999	12.7
\$50,000-59,999	16.1
\$60,000-79,999	21.7
More than \$80,000	29.9
All	16.4
Source: Kevin Milligan, "Tax Preferences for Education Savings: Are RESPs Effective?", C.D. Howe Institute Commentary, November 2002	

The RESP provides an incentive to save for post-secondary education because the investment income is only taxed when withdrawn and because students effectively pay little or no tax on the funds, reflecting the fact that they typically have little other income. To bolster participation in the plan, the federal government added the Canada Education Savings Grant (CESG) in 1998, a 20 per cent top-up to contributions with a specified limit. While the program was billed as improving access to post-secondary education, the fact that families with incomes above \$85,000 are four times more likely to contribute to a RESP – and hence benefit from the CESG – than those with incomes under \$25,000, reveals that the program is primarily being used by higher-income families (see table at top of page).

The Speech from the Throne refers, in general terms, to further measures to help lower-income families save. However, the vast unused RRSP savings room accumulated by lower-income Canadians suggests that this is a tough challenge, due to income constraints. Clearly, broader thinking should be applied. Perhaps there are better ways of applying the almost \$400 million per year allocated to the CESG (see box left), particularly in light of the fact that it amounts to about 15 per cent of the total tuition fee income universities receive from full time students.

In this context, it is understandable why the February 2004 Speech from the Throne addressed the need for better financial information about the costs of post-secondary education and why it spoke of further enhancing savings incentives. Yet, more than good intentions are required. Some past initiatives have been costly without achieving much in terms of increasing accessibility. We need com-

prehensive reform, not more piecemeal actions.

Research budgets have increased greatly

Through a variety of initiatives, the federal government and many provinces have greatly increased funding for research from post-secondary education institutions in recent years. From 1991 to 2001, R&D done by universities across Canada rose from \$3.8 to \$6.8 billion. A thorough assessment of what is being accomplished with this funding is in order. Indeed, the AUCC is preparing one from their perspective. A key issue will be the commercialization of research. According to the Association of University Technology Managers (AUTM), member universities in the United States do 14 times as much research as Canadian members, but receive 49 times as much licensing income. This may be a reflection of the fact that the increase in Canadian research funding is relatively recent, so many of the projects have yet to come to the commercialization phase. Another possibility is the more limited “receptor capacity” in small- and medium-sized firms, meaning that existing firms are not capable of taking advantage of the new research discoveries. This may explain a growing tendency for university research in Canada to become commercialized through a spin-off company from the university lab, as opposed to the more prevalent route in the U.S. of a licensing arrangement with an existing company.

On the surface, the shortfalls in commercialization may suggest weak links between universities and businesses in Canada. However, this characterization is at odds with current statistics. Canadian firms contract out over 6 per cent of their R&D to universities – well above levels in

other G7 countries, particularly the U.S. and Japan, where the respective figures are 1 and 0.5 per cent. Moreover, Canadian businesses finance 12 per cent of university research, whereas in the U.S. and Japan, the respective figures are only 5.5 and 2.3 per cent.

The AUCC estimates that if Canadian universities are to play their role in taking Canada from 14th to 5th place in the OECD on research intensity, \$6.4 billion in additional research funds would be needed annually by 2011. Much of that funding would have to be provided by governments, although the universities should be able to generate some of the financing internally and should be able to attract additional private sector funding.

Conclusion: Let us be wise and choose the right path forward

Canadians are blessed with a good post-secondary education system. Enormous benefits have flowed to the country as a whole and to many individuals. And, that may be precisely the problem at the moment. We take the quality of the system for granted and that is clouding our focus on the future. The system is no longer well placed to serve the future needs of Canadians.

A collection of further random acts of good intention will not reform Canada’s post-secondary education system in an effective way. We need a comprehensive plan, formulated together by the federal and provincial governments, students, the private sector and the education institutions. The importance of getting the education system right cannot be minimized. Indeed, the future standard of living for Canadians depends upon it.

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