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ON THE BRINK

How the Recession of 2009 Will Affect Post-Secondary Education

Alex Usher & Ryan Dunn

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Executive Summary

With the global recession in full effect, post-secondary education in Canada is about to face some very significant challenges. The purpose of this report is to outline the likely main effects of this global recession on the Canadian post-secondary education (PSE) sector, as well as suggest a series of measures that governments can take to help institutions survive the worst of the crisis.

The most immediate challenges facing the system over the coming years include:

- **Decreasing Institutional Revenues –** In the short-term, with global markets in decline, university endowments will produce lower levels of revenues in the foreseeable future. The lack of endowment revenue will impact discretionary income at institutions and force institutions to allocate resources more strategically. In the medium-term, as governments inevitably try to bring their budgets back into balance, PSE institutions will be hard-pressed to maintain their current funding levels to post-secondary institutions. Cuts – possibly quite significant ones – are highly likely starting in 2011.
- **Increasing Institutional Costs –** Institutional defined-benefit pension plans have also been greatly affected by the financial crisis; PSE institutions will have to spend more to cover their deficits. Faculty and staff who have seen significant losses in their RRSPs will also be less likely to retire; this means that institutions will have to pay more for older, more expensive staff instead of replacing them (as they do on a regular cycle) with younger, less expensive labour.
- **Increasing Enrolments in Colleges and Master's Programs; Declining Apprenticeship Registrations –** Historically, recessions produce jumps in the enrolment of short-course programs. Enrolment jumps are therefore likeliest in two-year college programs and university graduate programs. Without additional funding, institutions offering these programs may be negatively impacted. Meanwhile, apprenticeships in Canada are going to dramatically decrease due to the drop in available employment. Without an abundance of work in the construction and manufacturing industries, employers will be shy to take on new, unskilled employees.
- **Increasing Student Aid Costs and Institutional Need-Based Award Problems –** Based on data from previous recessions, this recession will likely cost federal student aid programs an additional $400 million due to more students accessing student aid and the increased generosity of grant programs. Endowment decreases may deal a blow to students given that a significant portion of institutional need-based aid originates from endowments; if these funds are

underwater, then institutions will either need to supplement the funding from other income or temporarily suspend some need-based awards.

These are a daunting set of challenges. Undoubtedly, institutions will be forced into some belt-tightening. The likeliest consequences of these actions are:

- **Hiring freezes for full-time staff and an increased use of part-time and sessional staff.** This certainly can reduce costs in the short-term, but as the recent strike at York University showed, is not a cost-free strategy.
- **Reductions in Graduate Scholarships.** In part, recent increases in graduate scholarships have been driven by a need to stay competitive with a hot labour market. With the job market cooling down, this may not be quite as necessary.
- **Cuts in library spending.** In brief: shorter hours, fewer journals, fewer staff.
- **Deferring maintenance.** True, the Government of Canada is offering a lot of money to clean up old maintenance problems. But with so much money in the maintenance pot, institutions may not see the harm in reducing their own expenditures in this area, particularly once the federal money runs out in 2011.
- **Larger class sizes.** Not necessarily at the undergraduate level, where class sizes may already have run up against the space constraints set by the size of the campus' largest lecture theatres, but at the increasingly crowded master's degree level. Expect fewer seminars and more lectures in an attempt to bring down per-student costs at this level.

Governments can help institutions face these challenges as long as they act now and implement solutions that will help, not hinder in the short and long-term. These actions include:

Pay for a salary-restructuring – One-time pay outs to older staff will allow institutions to bring in younger, less expensive labour.

Don't let enrolment formulas constrain institutions from meeting the shifting demand – Ensure funding formulas reflect the immediate change in capacity at college and university.

Allow tuition increases – Institutions need more income and institutions and governments do not have immediate money to fund the gap.

Protect and improve the student aid programs that matter; chop the ones that don't – There will be the temptation to cut; governments need to make sure money gets into the hands of those who need it most.

Fund brains, not buildings – Classrooms cannot come at the expense of research and researchers.

Measure what matters, ignore what doesn't – concentrate on measures that are indicative of the system and system demands.

The Long Term

While it is possible that post-secondary education will be able to weather the storm and return to "normal" in four or five years' time, there is a possibility that by that time demographic realities will have changed sufficiently that the sector may not regain previous funding levels. By 2014, large numbers of baby boomers will be moving into retirement, thus increasing the dependency ratio and straining public finances still further. If this is the case, we may have already hit "Peak Post-Secondary" and institutions may be facing an era of permanently declining per-student revenues.

There are no easy answers for institutions facing Peak Post-Secondary. Issues of institutional "productivity" – hitherto a dirty word in academia – will come to the forefront. The institutions that will prosper will be ones that can fundamentally restructure their costs and develop major new revenue streams, such as overseas education (that is, not just bringing students to Canada, but the much tougher job of bringing Canadian education abroad). The challenges of such an environment are great, and institutions need to consider their responses to it as soon as possible.

1. Introduction

It has been a very good few years for post-secondary education (PSE) in Canada. Since 2004, public funding for higher education has increased faster than student growth, faster than government expenditures as a whole, faster than spending on K-12 education, and faster than expenditures on health. In provinces like Alberta and Newfoundland, where tax revenues have been especially bountiful thanks to royalties from natural resources, annual increases in funding have been in the order of ten percent per year.

Granted, not all of this bounty has been used as productively as it might have been. Some of the increase in public funding has been at the expense of private funding – money to cover the cost of tuition freezes in several provinces, for instance. Inflation and growth in student numbers (particularly at the graduate level, where per-student costs are higher) have dulled the impact of these new dollars. And, of course, not all provinces have been spending with quite the same zeal: British Columbia and Manitoba, for instance, have lagged behind the national average over the past few years. Still, the fact remains that for the past four years, real public dollars per student across Canada have been increasing in a sustained way, in a way that they have not since the late 1980s.

That is now over.

The recession that began in 2008 will have profound effects on both revenues and expenditures in post-secondary education. We are about to head back towards conditions last seen in the mid-1990s, when resources were so squeezed that at some universities, science students would not see the inside of a laboratory until third year. This is unfamiliar territory for many in Canadian post-secondary institutions. Of the group of university presidents that will be in charge of major institutions next year, only David Johnston at Waterloo and Tom Traves at Dalhousie have any direct experience of university leadership during a period of declining revenues. At the level of deans and department heads, leaders who remember the mid-90s are also scarce. For a generation of institutional leaders who have known nothing but growing revenues, the next few years are going to come as a nasty shock.

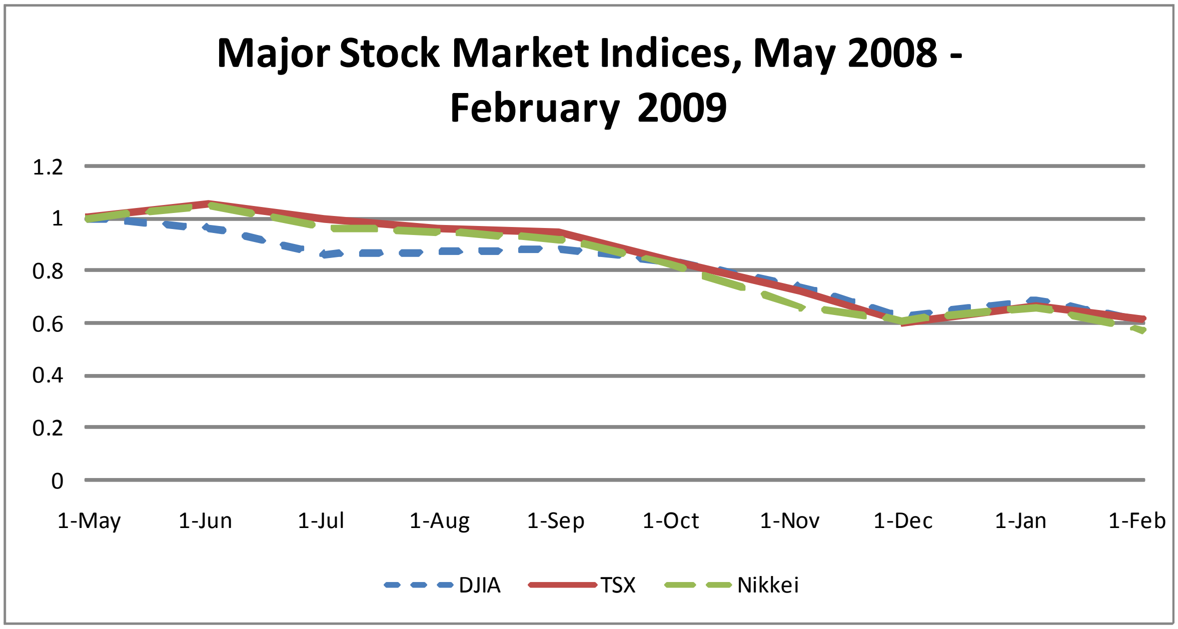
The purpose of this paper is to outline the nature of the challenges facing post-secondary education over the next few years and to suggest ways that some of the worst effects can be mitigated. The current recession, which is described briefly in section two of this report, has four major sets of effects that need to be considered. First, the changing of economic prospects will have an effect on the demand for PSE (both in the aggregate, and in terms of its composition), which will be discussed in section three. Second, it will have an effect on institutional incomes, both via the effects of the stock-market decline and through changes in government expenditure; these issues will be examined in section four of the report. These two sets of changes will spark a set of second-order changes in the pattern of institutional expenditures, which will be the subject of section five. Another important set of changes will occur in student aid programs, which will be affected both by worsening economic conditions; these will be examined in section six. A final summary of the effects will be offered in section seven, along with a set of recommendations about what governments can do to mitigate some of the worst effects of the crisis.

2. What to Expect From the Recession

Economic forecasting is always an inexact science, and given the speed with which economists have been revising their forecasts of late, predicting what will happen over the next couple of years is inevitably fraught with danger. But, based on what has already occurred and the pattern of previous recessions, it is possible to draw some inferences about the path that this recession will take and the effect it will have on the post-secondary sector in Canada.

The first thing to note is that this recession is primarily (but not solely) the result of a crisis of confidence in financial markets which led to a serious contraction in the availability of credit. This occurred at a time when the economies of America and Europe were already contracting due to a decline in the housing market. The credit squeeze exacerbated the downturn and led to a significant decline in the demand for goods, both domestic and imported. The decline in demand in developed countries had a massive knock-on effect in other parts of the world: China and Taiwan, for instance, found themselves with massive declines in export orders. This in turn has led to massive declines in commodity prices, including the price of oil, which has had a major impact on the Canadian economy.

As of the time of writing (late January 2009), the financial portion of the crisis appears to be more or less over, but its effects are in many ways only beginning to felt. Most importantly, it has had a massive effect on the value of equities: between the beginning of June and the end of November 2008, most of the world's major indices fell by 30% or more.



This decline in equities matters to institutions of higher education because of their reliance on equities as a means of investment. This reliance comes in two forms: first, in terms of endowments and second, in terms of pension funds. We will return to the implications of this in section four of this paper.

Beyond a simple crisis in finance, the present crisis has serious, real-world economic consequences. Economic output has been contracting for over a year in the United States, and for about four months in Canada. Unemployment is on the rise in both countries, as it is through nearly all of the OECD. These trends have serious implications for government finances as economic contractions both decrease tax revenue and increase expenditures on things like Employment Insurance and social assistance. How significant an effect these trends will have on government revenues depend to a great extent on both the depth and length of the contraction, neither of which is clear yet.

The Bank of Canada recently stated that the recession will be harsh but short, projecting that the economy will begin to recover at the start of 2010 and be back at full capacity in mid-2011. The major Canadian banks and the parliamentary budget officer are gloomier, suggesting that real growth may not return until 2013. Early projections regarding unemployment suggest that the rate could go to 8% in 2009. However, given that January alone saw an increase of 0.6%, this projection could prove to be too optimistic; the Toronto-Dominion bank is now projecting that unemployment will reach 9% in relatively short order. In absolute terms, this is still better than the 10-11% rates seen in the early 1990s or the 12-13% of the early 1980s, but relative to pre-recession levels of employment, the jump will be just as steep.

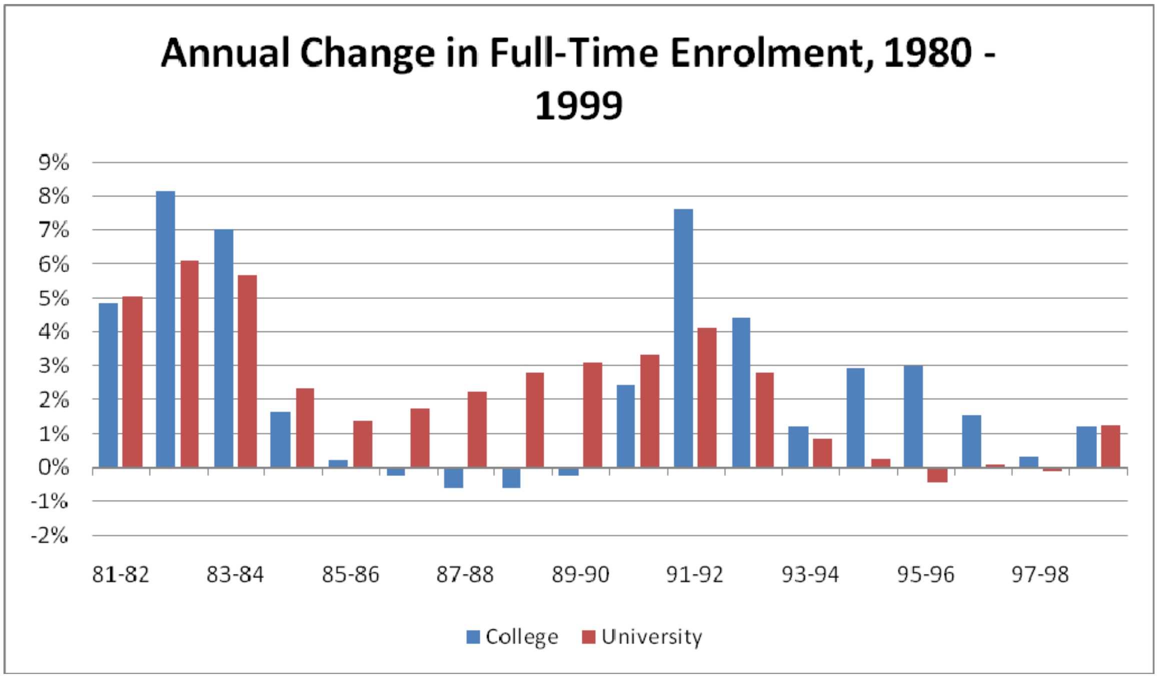
In most recessions since the Great Depression of the 1930s, governments across the developed world have tried to spend "counter-cyclically"; that is, to increase public expenditure in times of recession so as to counteract the effects of a decrease in private demand. This time out is no exception – in fact, the scale of the proposed "stimulus" spending in most countries is quite massive. Collective commitments for increased spending across the OECD already total well over a trillion dollars, and even this, as the economist Paul Krugman has noted, is likely to only reduce the recession's severity rather than eliminate it outright. By consensus, we are in for many years of deficit spending. Some of this short-term spending may end up in the hands of higher education institutions, but equally, when the bills come due for this spending three or four years hence, post-secondary education will likely experience some significant cut-backs. The path of spending is not in serious doubt – all that is in question is the timing.

3. Impacts of a Recession on Educational Demand

Recessions tend to have effects in terms of the aggregate size and composition of demand for education. Assuming that systems try to match their offerings to demand, this can have some impact on educational systems' cost structures as well.

Generally speaking, enrolment in 4-year undergraduate programs is not much affected by fluctuations in the economy. The vast majority of enrolments in this sector are people simply moving at age 18 from secondary to post-secondary education, regardless of the state of the economy; the main driver of enrolments is thus demographic rather than economic. In Canada, this means continuing gains in enrolment in southern Ontario, British Columbia and Alberta and level or declining enrolments elsewhere. Alberta may in addition see an extra surge in enrolment from young people who had been avoiding PSE in the past three years so as to take advantage of the red-hot labour market.

Where the economy does affect enrolment is in shorter-course programs which can be finished in time for the hiring surge that accompanies an economic recovery. This includes two-year programs at community colleges and master's degrees at universities; both of these sectors are likely to see a spike in demand. In the previous two recessions, Canadian colleges had larger increases in full-time enrolment than universities.



Perhaps the most serious change in direction is likely to occur in apprenticeships. Here, enrolments (or, more accurately, registrations) are likely to fall precipitously. This is not because there will be a fall in the desire of Canadians to gain skills in the trades; rather, it will be because in a recession, industry is unlikely to want to hire new employees with low levels of productivity. This will affect not only new enrolments, but also continuations among existing students; many currently-enrolled apprentices can expect to lose their jobs over the coming months, and it is not clear how many of them will stay in their trade and complete their apprenticeship thereafter.

For better or for worse, Canada's apprenticeship system – the system that provides us with nearly all of our skilled tradespeople – leaves the decision about the level of student intake with the private sector. If companies are doing badly and do not wish to hire apprentices, it is the future supply of skilled tradespeople that is most affected. One of the unacknowledged causes of the recent panic about labour shortages in the skilled trades was the very long period of weak growth in the construction industry between 1982 and 1997. This depressed the demand for labour and had a very negative effect on the demand for apprentices. Unlike, say, the Netherlands, Canada has no system to induce employers to keep hiring apprentices during a recession. The result is that the cycle of boom and bust in the trades also creates problematic demographic bulges. This is not because Canada systemically devalues trades education, as some apprenticeship advocates have occasionally argued; rather it is simply an inevitable outcome of the pro-cyclical fashion in which Canada has chosen to organize training in the skilled trades.

4. The Impacts of the Recession on Institutional Income

One of the key differences between this recession and previous ones is that most institutions have very different revenue structures than they used to. Twenty years ago, on the eve of the previous major recession, universities and colleges relied much more heavily than now on public funding. As a result, when public finances were squeezed, so too were institutions. Part of the rationale behind increasing tuition fees and fundraising activities over the past two decades has been to diversify revenues so as to avoid over-reliance on government and hopefully ride out future recessions more easily.

If the recession of 2008 had been a more run-of-the-mill recession, the strategy of offsetting reductions in public funding through income from endowments invested in equities might have worked. The problem is that this recession began with a financial crisis which has seriously damaged equity prices. Thus, institutions' stabilizer of first resort was destroyed even before the public cut-backs started.

What this means is the effects of this recession in post-secondary education will be quite different from previous ones. In the 1990s, for instance, universities and colleges were largely insulated from the early effects of the recession because governments did not wish to cut funding as economies headed into the downturn of 1990-93. It was only in the period 1993-1996, as Canada slowly began to pull out of recession and governments began to turn their attention to stabilizing public finances that institutional budgets began to really feel the squeeze. This recession, on the other hand, is more of a double-whammy, and will hit institutional income in two phases. We are currently in the first phase, where the effects are primarily due to losses in endowment income. In the second phase, which will begin in 2011 or 2012, we will see the more traditional pattern of government cutbacks. The likely path of each phase is described briefly, below.

Phase I: The Effect on Endowment Income

In 2007, Canadian universities collectively reported having just over $10 billion in assets under management. Nearly a quarter of this figure was at one institution – the University of Toronto, and the top four institutions (which also include the University of British Columbia McGill University and the University of Alberta) account for just over half of the entire country's endowment value.

How much these endowments have fallen in value due to the global bear markets in equities is unknown. However, with global markets falling to the tune of 30%, a good guess would be somewhere between 15-30%. At the mid-range of this estimate, that suggests that institutions have collectively seen something in the neighbourhood of $2 billion wiped off their balance sheets. That is money that universities can no longer count on to buttress operating budgets or provide scholarships and financial aid to students.

Most universities and colleges do not have large enough endowments to transfer significant revenues annually to the operating budget – by some estimates, only about 20% of endowment income is available for spending on an unrestricted basis. However, for larger, more research-intensive institutions, such as the University of Toronto, the University of British Colombia and McGill, this 20% is a substantial amount of money and the decrease in endowment revenue will have an impact on the annual operating budget.

With respect to more restricted endowment funds – that is, funds whose purposes are tightly specified under the terms of the donation or bequest – the problem is slightly different. Revenue Canada regulations require all charities with endowments to pay out 3.5% of the average value of assets or "enduring property" over the previous 24 months. In practice, given the fall in asset values over the past two years, this means that institutions will need to pull close to 4.5% of *current* values out this coming year in order to stay within Revenue Canada regulations. Usually payment comes from endowment interest; however given the fall in equity process, some of this expenditure is also going to have to come from endowment principals, which of course simply compounds the longer-term challenge of getting institutional finances back on track. And, of course, a 4.5% withdrawal from a much-reduced endowment base may not be enough to cover some of the programs currently funded; certain scholarships and endowed chairs may as a result either have less money than usual or money will need to be found elsewhere in the operating budget to cover the difference. This issue will be taken up again in Section five.

Phase II: The Effect on Government Revenues

When it comes to higher education finance, Canada has one major advantage over the United States; namely, that provinces – unlike states - have no constitutional requirements to present balanced budgets. In the US, a recession generally means immediate cuts to institutional budgets; in Canada, governments tend to delay cutbacks until after a recession is done and they can concentrate on balancing budgets once again.

Given the general appetite in Canada for fiscal "stimulus", it seems unlikely that many provinces – or the federal government – will be cutting PSE funding this year or next, though clearly the 6-9% annual *increases* in public funding to which institutions have become accustomed in the past few years are not on the cards (this, admittedly, may *feel* like a cut to many inside institutions). The bigger threat to Canadian institutions therefore lies in the budget cycles for 2011, 2012 and beyond: as recovery takes hold and the economy improves, budgets will be pared back and cuts to institutional funding will be hard to avoid.

A complicating factor lies in whether or not funding gets re-distributed within the post-secondary sector. As noted above, educational demand is likely to change somewhat with more people seeking short-course college or graduate school programs. This *should* imply more money for colleges and research-intensive universities; however, some provincial systems take time to react to enrolment changes because money often gets distributed based on multi-year historical averages. It can therefore take two, three or even four years for short-term shifts in enrolment to get translated into changes in funding by which time it is quite possible that the recession will be over and historical patterns of enrolment will have re-asserted themselves. The danger here is that government funding formulae, because of over-reliance on historical enrolment data, may punish precisely those institutions most successful at adapting to new circumstances. If this happens, then not all provinces will be able to respond to the changes in demand. British Columbia, which has been converting colleges to undergraduate universities at a furious pace these past few years, may come to regret its recent policy decisions over the course of this recession.

The recession may also have some adverse effects on the availability of funds for scientific research. There is no inherent reason why public funding for research should be treated different from operating grants, but early indications from this recession seem to be that the Government of Canada has deemed the area expendable. It has ordered the elimination of funds to Genome Canada and some cuts to research granting council funds (though these would appear to have more or less re-invested in graduate scholarships). More vulnerable still is research funding from private sources. For those involved in university research, the situation does not look very good for the next few years, and there is a real possibility that many talented researchers could leave Canada if other countries, despite the downturn, are able to provide better funding for research. On the other hand, a pause in the relentless decade-long expansion of research funding might also provide the rest of the higher education community with a welcome chance to re-think the relationship between teaching and research in academia.

Capital funding appears – somewhat counter-intuitively – as actually being a big winner from the recession. Already, up to $2.7 billion in federal funds have been earmarked for infrastructure projects at Canadian universities and colleges over the next two years; however, because of federal requirements for matching funding, the coming round of provincial budgets may push this figure closer to $5 billion. Seven hundred million dollars of the federal funding is earmarked for construction of research facilities, to be managed through the Canada Foundation for Innovation; however, since granting council funds are being cut, this appears to be at least as much about providing Japanese-style support to the construction industry as it is about developing a new approach to research. The remaining $2 billion (or, potentially $4 billion with matching funding) is to be split 70-30 between universities and colleges and is to be devoted to renovations and deferred maintenance.

While this money is undoubtedly good news for institutions, it is not the panacea that some in government might imagine. For one thing, it is far from clear that money targeted for deferred maintenance will in fact end up as *additional* money for infrastructure; it seems likely that some will displace normal maintenance activities and hence get absorbed into the general operating budget. This will be good news for institutions, but bad news for fans of strict accountability. For another, it is far from clear that PSE institutions actually prefer renovations over new constructions. Renovation money is highly welcome in places which have older physical plant and stable or declining enrolment (e.g. universities in Atlantic Canada). Where physical capital is newer and space constraints exist (e.g. colleges and universities in Western Canada), money for new construction would have been preferable.

The Effect on Tuition Fees

The final source of funding for institutions is, of course, tuition fees. With cuts in the pipeline to the other two sources of funding, institutions will strive to get more from students in the form of tuition in order to compensate. It is not, however, as simple as institutions just raising their prices. Decisions about fees in Canada are not for the most part market-driven; instead, they are intensely political. In previous times of economic trouble, governments and institutions have tried to push costs onto students and families so as to spare institutions from the worst effects of drops in public revenue. Certainly, that was the case in the 1990s but it's not clear how well that strategy will work in this recession.

In the United States, where tuition has been rising much faster than aid of late and where household expenditures are already falling (due both to a weak economy and to rising household savings rates), it is hard to see how families have much room to contribute more for the next couple of years. In Canada, where average family incomes have been rising for most of the decade, and net tuition fees have been essentially stable (thanks to the generous application of tuition fee freezes and tax credits), the situation is different. Families, on average, are spending a lower percentage of their incomes on PSE than they were a decade ago.

So the question in Canada is not whether families can contribute more: on average, they can. The question is whether governments are going to *want* to abandon tuition freezes since they appear to be reasonably popular. Premiers Danny Williams of Newfoundland and Gary Doer of Manitoba (to take two prominent examples) have both identified their governments quite strongly with tuition roll-backs and freezes; backing out of those commitments after long terms in office might be quite difficult. That is why the Levin report in Manitoba, due out this spring, is likely to be highly influential across Canada; if Manitoba, with its long-standing tuition fee freeze policy decides to increase tuition substantially, then it may cause a knock-on effect in other provinces, and we may see tuition increases on the order of 25% in the next couple of years, in line with the kinds of increases seen during the last recession. Across Canada, increases of this magnitude could bring in between $1 - $2 billion in new revenue annually to colleges and universities.

Money on that scale could go a long way to plugging the holes that will inevitably be created by the declines in endowment and public funding over the next four years but fee hikes of this magnitude will undoubtedly be resented by the middle class. At least some governments will surely prefer, as Quebec's has done over the past forty years, to require their institutions to cut programs and services rather than ask students to pay for them. In such provinces, post-secondary institutions are going to require some fairly radical budget restructuring.

5. The Impacts of the Recession on Institutional Expenditures

While there has been considerable speculation on how the recession might affect institutional revenues, this is only part of the story. Less well understood, though equally important, is how the recession will affect institutional expenditures. Institutions face a host of higher costs in terms of pensions, salaries, covering lost endowment income, and the cost of meeting higher demand.

The pensions and salaries issues are both related to the broad downturn in equities. Since a majority of universities[1] operate some kind of defined benefit scheme, the drop in pension fund values means that greater expenditures from current sources will be required in order to meet pension obligations. This is part of a general problem bedeviling all providers of defined-benefit pensions at the moment. The drop in equity values is also having an effect on the workforce: since most professors supplement their institutional pension plans with private pensions (such as RRSPs), the fall in value of these pensions is increasing their inclination to delay retirement and remain at work. This has a major impact on expenditures because veteran staff are more expensive to employ; as turnover declines, so academic staff costs increase. And since academic staff costs typically make up just over half of institutional budgets, this is a very serious problem.

There is even a self-reinforcing trap here: in the previous downturn, rising equity prices allowed many institutions to reduce payments into pension funds and use this money to fund buy-out packages for senior staff that permitted a significant reduction of the cost base. If equity prices start to recover sharply in 2011, when public funding cuts start to bite, this option may still be on the table. But prospects for this are at best uncertain; suffice to say that labour costs are going to be a major challenge for the next four years.

The downturn in equities is also likely to have a significant effect on short-term expenditures because of its effects on endowments. As noted earlier in section 4, roughly 80% of all institutional endowments are “tied” in the sense that income from the endowment goes to a specific activity – say, a bursary or a research chair. But in many cases over the coming years, the fact that many of these endowments are now “underwater” (i.e. the current value of the endowment is less than the initial amount invested) means that revenue may no longer be sufficient to continue to support the

[1] Since colleges have less autonomy than universities and their employees tend to be public servants, college pensions tend to come under general government expenditures and so are not examined here.

specified activities. In these cases, institutions will need to make decisions about whether to cut back on activities or increase spending from the operating budget in order to cover the difference.

To take a specific example, let us look at institutional student aid. Merit-based aid tends to be funded through current operating budgets – roughly 70% of this form of institutional aid comes from this source. Since operating budgets are not immediately under threat from this recession, these expenditures are mostly safe for the next couple of years. However, need-based aid tends to come through endowments – 75% of all institutional need-based aid in Canada is funded by endowment income. Currently, institutions spend roughly equivalent amounts of money on need- and merit-based aid. But with the downturn in equities, this equilibrium could be damaged, and need-based funds could be in short supply at exactly the moment institutions are looking to increase tuition fees. Politically, it is unlikely that institutions will find this outcome feasible – so we can probably expect a significant increase in operational expenditures on need-based aid to compensate. This increased expenditure probably will not mean extra money for students, but it will ensure that they are not net losers from the situation, either.

The final possible source of cost increases lies in whatever attempts institutions make to respond to changes in the composition of demand for education. As noted in section 3, educational demand is likely to stay more or less constant at the university undergraduate level, increase in short-course college and graduate school programs, and decrease in apprenticeships (though in the latter case this is due not to the fall in demand, but a fall in the number of places likely to be offered by the private-sector partners to whom provincial governments have effectively outsourced enrolment-management in trades).

Meeting this new demand will be costly. In colleges, it seems likely that much of the demand will be for technical skills training that will be temporarily unavailable through apprenticeships – it is unclear that existing workshop facilities in many colleges will be able to meet the demand as is – they will require some significant capital upgrades. In universities, even a small growth in graduate studies will put an enormous strain on teaching loads because of the continued expectation that graduate classes are taught by experienced faculty in small seminar groups. In both cases, significant amounts of money will be required to meet the new demand.

There are three possibilities for how this can be dealt with. The first, that governments assume the costs from the switch-over, will no doubt be institutions' first preference, but the likelihood that governments will have the fiscal flexibility to do so is low. The second is that institutions can re-allocate money from other activities; quite possible, but also painful to achieve. The third possibility is that institutions find ways to lower unit costs in the new areas so that more students can be accommodated, but at lower costs. With respect to graduate students, this almost certainly means larger classes. We will return to this possibility in section 7.

6. The Impact of the Recession on Student Aid

The recession is likely to have some extremely large impacts on student aid; to some extent this will fall on institutions, but the primary impact will be felt at the government level, especially the Government of Canada.

Expenditures on government student aid are effectively conditioned by five measures:

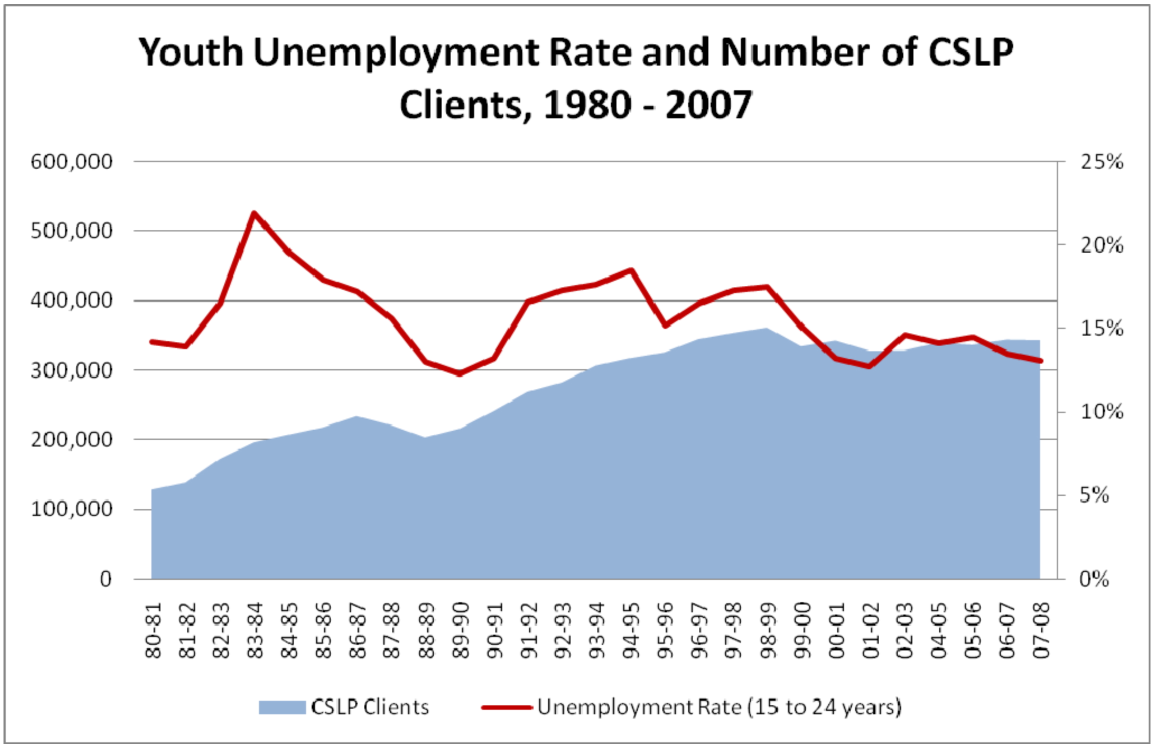
- the number of clients served
- the amount of aid needed per client
- the generosity of the student aid system (grants vs. loans)
- loan default rates
- interest rates

Of these, interest rates are the only factor heading in the right direction as far as restraining government expenditure is concerned. Lower interest rates will help to reduce the cost of the in-school interest subsidy which costs hundreds of millions of dollars per year. Three of the five factors – loan defaults, the amount of aid needed per client, and the number of clients served – are to a very large degree dependent on the state of the labour market, and here the story looks quite depressing.

As the labour market slows, youth unemployment rises much faster than unemployment in the general labour market. Historically, over the past 20 years, youth unemployment has been about 1.8 times the overall rate of unemployment; youth have little in the way of job experience and so are inherently more likely to have difficulty finding steady employment. On current form, it looks as though this recession will raise the general unemployment from just over six percent to around nine percent. A three percentage point rise in overall unemployment should therefore be expected to trigger a rise of between five and six percentage points in youth unemployment.

With less work available, students tend to turn to student aid programs for assistance. As figure 2 shows, in the recessions of 1982 and 1990, sudden jumps in unemployment to 20.4% and 16.6% were the catalyst for quite large jumps in the number of recipients. In the first three years after the start of these recessions, the number of clients jumped by 51% and 31%, respectively. Intriguingly, even after the labour market began to improve, in both previous recessions, client numbers continued to rise: five years after the start of the each recession, client numbers were up by 70% and 35%.

But perhaps more important is the fact that in both cases, the increase in clientele was *permanent;* client numbers effectively plateaued at these new higher levels (the slight decline in numbers around 2000 is probably a function of more stringent credit-checks and increased scrutiny of private vocational institutes – measures that were implemented in most provinces around 1999). In effect, each recession has pushed a particular student demographic onto loans; once there, and once students recognize what they are eligible for in terms of public assistance, aid becomes the "new normal" and numbers do not decline.



This, to put it mildly, is not something student aid systems are prepared for. Client numbers have for most of this decade remained stable or decreased slightly – even a massive loosening in the criteria for parental contributions between 2005 and 2007 has barely changed the number of students borrowing. In universities, the percentage of full-time students borrowing is at a long-term low because the while student aid numbers have been stable, overall enrolment has increased sharply this decade. The reason for this appears to have been a healthy job market. Independent students have found jobs to be relatively plentiful and have been able to substitute work for borrowing; younger students have had less need to borrow because family incomes have been on the rise and parents themselves appear to have had more resources to contribute.

This lowering of student borrowing ratios has been a key driver in the improvement of federal student aid programs over the last decade. Despite significant increases in the generosity of grant and debt management programs and a higher volume of dollars borrowed, Canada Student Loan Program (CSLP) expenditures in 2008 are not appreciably different than they were in the mid-90s. Lower interest rates combined with declining borrowing ratios are what has permitted these program improvements, not increased government largesse.

But all of this could change in a hurry. Based on previous recessions, an increase of each 1% in the rate of youth unemployment appears to lead to an increase of just over 6% in the number of student loan borrowers. Assuming a scenario where youth unemployment rises by 5% to about 17%, that implies a 31% rise in the number of CSLP borrowers in the next three years – or just over 105,000 new borrowers by 2011; and this may be even higher if a lot of middle-class families who did not need loan assistance in good times suddenly need it and take advantage of their new-found eligibility under the regulation changes of 2004 and 2006.

All of this, of course, comes at a time when the Government of Canada has just made student aid considerably more generous. In the 2008 budget, the government decided to replace the Canada Millennium Scholarship Foundation and its two bursary programs (a $285M/year need-based program and a $50M/year income-based program), as well as its own suite of need-based grants with a single income-based grant program. Crucially, this new pot of money is statutory. The Foundation had a limited pot of money to give out each year and would adjust eligibility criteria annually to avoid overspending; this new federal grant is open to whoever meets the criteria. That leaves the government liable for an awful lot of money if these students who meet the criteria and who do not currently apply for aid suddenly start applying for it.

And a *lot* of students do meet the criteria. All of the government's budgeting around the new, more generous grants appears to assume no major increase in take-up rates. But we already know that more than half of all students from families with under $50,000 in income choose not to apply for student aid, even though they would be eligible for substantial sums of cash. Among independent students, too, there is a strong preference for working over borrowing. However, if work becomes scarce and pushes tens or hundreds of thousands of students onto student aid, there is a strong likelihood that nearly all of the independent students and many of the dependent ones will be eligible not just for loans, but for the new grants as well. If program uptake patterns from previous recessions hold, and the current 70-30 split of independent and dependent students holds true, then the likely increase in costs for the grants program *alone* will be in the neighbourhood of $165 million. Add in the costs of borrowing they incur (roughly $1500 per year in subsidies for interest and provision for defaults) and the cost of providing alternative payments to Quebec and the increase in total CSLP costs due to the recession quite quickly start adding up to $400 million per year, on a program budget of roughly $1.2 billion. And that's before any effects of higher youth unemployment on default rates is calculated, or the possibility of more dependent students joining the program due to looser eligibility requirements is taken into account.

It might be thought that rising tuition – should it in fact take place – would have a major independent effect on the cost of government student aid. Since roughly half of all borrowers are already borrowing at or very near the student aid maximum, increases in tuition will not result in higher outlays of either loans or grants to these students. Therefore increases in tuition will have only a marginal effect, and then only on those students who are borrowing less than the maximum.

Conservatively, then, we can expect to see increases of roughly 40% in the Canada Student Loans Program budget to 2011, with growth continuing at a slower pace in the period to 2013. The increase in provincial student aid costs is not likely to be quite as brutal, if only because none has been quite as expansionist as the Government of Canada in recent years. However, provinces with programs that provide grants or debt reduction automatically once borrowing reaches a certain level will tend to see faster cost increases than provinces that do not, and provinces where the increase in unemployment grows faster than the national average will also take a disproportionate share of the new costs. Ontario and Quebec, in this respect, seem likeliest to face the biggest cost increases over the coming years. New Brunswick, which abolished parental contributions several years ago but saw little uptake in student loans because it never bothered to advertise the program change is another candidate for major expenditure increases, as penny-pinching parents become savvier about the options available to them.

7. Reacting to the Recession: Some Possible Policy Responses

Short-Term Institutional Reactions

Our *tour d'horizon* has painted a fairly bleak picture for the higher education sector over the next couple of years. The worst-case scenario looks something like this: there is no early rebound either in the economy or in the stock market. This leads to significant cost increases in the short-term and robs institutions of the ability to reduce their cost base by offering staff buy-outs. The recession, followed by slow growth and the prospect of serious demographic challenges, robs governments of the ability to raise institutional funding. Meanwhile the student lobby, combined with a desire to curry favour with middle-class voters, makes governments equally reluctant to allow tuition to rise. At the same time, demand for post-secondary education continues to rise. The result: rising costs, more students, and declining revenue.

It need not look this bleak, of course. It is possible that tuition will be allowed to rise, that equities will make a quick comeback, and that government revenue will rebound quickly enough to make cut-backs a temporary expedient. As a result of this possibility, there may be an instinct on the part of politicians and post-secondary administrators to simply hunker down over the next four years in the expectation that things will "return to normal" by 2013 or so.

What does a hunkering-down strategy look like? Well, it looks a lot like what Canadian institutions did in the 1990s, and can be summarized simply with the words "cost containment". This means, in practice:

- ***Hiring freezes for full-time staff and an increased use of part-time and sessional staff.*** This certainly can reduce costs in the short-term, but as the recent strike at York University showed, is not a cost-free strategy.
- ***Reductions in graduate scholarships*****.** In part, recent increases in graduate scholarships have been driven by a need to stay competitive with a hot labour market. With the job market cooling down, this may not be quite as necessary.
- ***Cuts in library spending*****.** In brief: shorter hours, fewer journals, fewer staff.
- ***Deferring maintenance*****.** True, the Government of Canada is offering a lot of money to clean up old maintenance problems. But with so much money in the

maintenance pot, institutions may not see the harm in reducing their own expenditures in this area, particularly once the federal money runs out in 2011.

- ***Larger class sizes*.** Not necessarily at the undergraduate level, where class sizes may already have run up against the space constraints set by the size of the campus' largest lecture theatres, but at the increasingly crowded master's degree level. Expect fewer seminars and more lectures in an attempt to bring down per-student costs at this level.

None of these measures will be pleasant, to be sure, and some may be quite detrimental to the quality of education on Canadian campuses. But they do not represent an abandonment of the current model of program delivery. Collectively, measures such as these represent a bit of a necessary haircut rather than a radical remodeling. It will be enough to get through the bad times until things return to "normal".

Short-Term Government Initiatives

What can governments do to alleviate the stress on institutions in the short-term? Spending massive amounts of money is of course an obvious answer, but given that governments have problems of their own, it is one that seems unlikely to be taken up seriously.

Start from the assumption that total provincial expenditures in budget 2009 and 2010 will be pretty close to what they were in 2008; the heady days of eight percent annual increases will be over, but no cutbacks are yet in store. Assume also that cut-backs designed to put public finances back in balance are likely to start in 2011 or 2012.

However, even within these constraints, there are seven major roles that governments can and should play:

- ***Pay for salary-restructuring*.** Institutions with aging workforces need to get their cost-base under control. That means buy-outs so that older and more expensive staff can be replaced by younger, cheaper staff. In the last recession, institutions could do this on their own because of pension-fund surpluses. The crash in equities has cut off this option. Governments could do much to improve the long-term stability of institutions by assisting them in making one-time pay-outs to staff. Spending a little bit of extra money in this way in the 2009 and 2010 budget cycles could save a tremendous amount of money later on.

- ***Don't let enrolment formulas constrain institutions from meeting the shifting demand*.** Many provinces have funding formulae that allocate money based on some variant of "weighted historical averages" – meaning that shifts in enrolment either up or down take several years to be reflected in funding formulae. The increases in enrolment in colleges and graduate programs is predictable and institutions that strive to accommodate this growth should not have to wait four years to see their efforts reflected in their public funding allocation.

- ***Give institutions more freedom on endowment pay-outs*.** For some institutions, meeting Revenue Canada's 3.5% pay-out rule is going to be a significant challenge and one that could significantly impair their ability to retrieve certain funds from an underwater position. A temporary suspension of that rule would not make institutions' short-term funding challenges any easier, but it would give institutions a greater range of choices in balancing current needs with future ones.
- ***Allow tuition increases*.** Undoubtedly, provincial governments will face significant pressure to maintain the tuition controls that were imposed in most provinces when times were good. But with institutional income likely to decrease from equities and government funding, the difference needs to be made up somewhere. And given the break Canadian families have had on tuition for most of the last decade, this is the most obvious place to start.
- ***Protect and improve the student aid programs that matter; chop the ones that don't*.** Canada has a very good record on student aid; the plethora of studies remarking on how little income seems to play in terms of access decisions are testament to this. However, student aid budgets are about to explode, and governments are going to want to cut back on this. As far as possible, this temptation should be resisted: we need to keep putting money in the hands of those who need it to attend school, especially if tuition is to increase. However, some recent innovations could easily be jettisoned without affecting access. Many of the tax credits introduced in recent years would fall into this category. Tightening up grant eligibility criteria so as to focus on younger, low-income dependent students instead of older students who get aid simply for not working would also be a good place to start.
- ***Fund brains, not buildings*.** The message from higher education groups around the 2009 federal budget was pretty simple: new infrastructure is useful, but not if it comes at the expense of the base research funding which keeps researchers in the country in the first place. This is a message all governments need to heed.
- ***Measure what matters, ignore what doesn't*.** In bad times, there is always a rush by governments to start measuring outcomes to ensure that the public is getting "value for money". But recent history has shown that governments who do this often end up measuring the wrong things: some of the Key Performance Indicators adopted in Ontario for instance, were truly asinine (student loan default measures being the most obvious). Substantial work has been done on recent years on performance measurement. For everyone's sake, it is worth developing this work and thinking about how it can be linked to accountability structures in a productive way. British Columbia's system (at least the way it

worked prior to the 2008 provincial budget) is about as good a model as any in North America.

The Longer-term: Peak Post-Secondary and the Re-making of Post-Secondary Education

The foregoing analysis is probably enough to see institutions through this particular recession, assuming this recession ends like all the other recent ones have. However, there is a substantial possibility that this recession will end in a manner quite *un*like the others and it is merely the beginning of several decades of hard times in the sector.

So far, we have only looked at a time horizon about four years out; however, one could paint a much bleaker picture by pushing the analysis out a few more years to 2014 and beyond. It is in that year when the main cohort of the baby boomers – those born after 1949 - will begin to retire. Once that happens, there will be a significant re-ordering of public policy priorities. As the costs of the health system and elder care rise and the ratio of the working to non-working population decreases, public budgets – already strained because of the deficits currently being incurred - will be under very severe pressure. In this case, the “recovery” of 2013 may not mean much to the post-secondary sector and it is possible that we are now entering a state of *permanently* declining per-student revenues. “Peak Post-Secondary”, if you will.

This “Peak Post-Secondary” scenario is perhaps not the likeliest, but neither is it completely out of the realm of possibility. Policy makers and institutional managers need to be aware that scenarios this bad could unfold, and to make contingency plans accordingly.

For institutions, finding new sources of revenue which are not based on equities and are not under the control of governments will be of key importance. There are not many of these. Increasing income from commercialization of activities is clearly one of them and institutions do need to pay more attention to this. However, as a source of revenue this is unlikely to be especially large; by far the more lucrative pot to chase is international students.

Institutions that wish to seriously diversify revenues will need to be very active in cross-border education. This is an area in which Canada is lamentably weak; despite our highly multicultural society, strong ability to deliver courses in English (the international student’s language of choice), quality of life, and proximity to the US, our performance in attracting these students has been only slightly better than abject. We have thrown away these advantages partly because institutions do not seem to understand the value of a “national brand” in education and choose not to co-operate with one another in recruitment efforts and partly because the Government of Canada (which should be spending much more time on this form of services export than it does) feels inhibited about selling Canada as a place to study in English. This, simply, has to change, and fast.

But cross-border education is not solely about picking up bodies overseas and shipping them here; that might have been an adequate description of the game twenty years ago, but things have moved on since then. The establishment of a broad middle-class in many developing countries has vastly increased the demand for post-secondary education. In particular, demand has boomed for education branded (if not provided) by large, established, Western universities is very strong in much of the world. Large public universities from North America, England and the UK have a good name in Asia and Africa – much better in many cases than the local university. The growth market in education for major Western universities lies not in attracting ever-greater numbers of students but rather in modularizing knowledge, delivering it in locally-appropriate forms through international educational partnerships, and certifying students at the end of a course or period of studies.

Canadian institutions have been slower than others to wake up to this market, but its logic is absolutely ineluctable. Realistically, the number of additional foreign students Canadian institutions could reasonably be expected to attract over the next decade are measurable in the tens of thousands. But overseas, tens of *millions* of new students will enter higher education. Canadian institutions are fully capable of competing in these markets. The country has a deep reservoir of talent in distance delivery of education; it also has a deep reservoir of linguistic talents that can help translate content into precisely the languages needed to meet growth in China and South Asia. All we need is the will to do this and do it well; a long-term decline in revenues may well prove to be the spur.

But revenue generation is only part of the story. Institutions are also going to need to tackle their cost base. Canada has, according to a recent study from Boston College, the highest-paid academic workforce in the world. Not the highest-paid *academics* – that honour goes to the United States, where private universities can afford the mega-bucks required to attract the top members of the profession. But *on average*, Canada had the highest salaries, because Canadian institutions have very flat pay progression scales (young staff are brought in at very high levels of pay compared to other countries). There is also, compared to other countries, much less salary disparity across fields of study. This egalitarian approach has been useful in keeping labour peace on campuses; it is not clear whether it is affordable in the long or even medium term.

The fact of the matter is that post-secondary education has become nearly universal – over 70% of Canadians attend a PSE institution some time before their 19^{th} birthday. Yet the expectations in terms of teaching – especially in undergraduate education – too often remain in the days of *The Paper Chase*. Higher education has become commoditized. The expectation that all faculty can be employed and paid on the same basis that they were in the 1970s is probably not realistic in a “Peak Post-Secondary” era. One might reasonably expect, therefore, that Peak Post-Secondary will lead to a re-engineering of tasks and costs, and in particular the creation of a two-tier faculty. This will see some faculty paid to concentrate more on research and teaching graduate students, while others will be paid primarily to teach – and in some cases teach an increasingly standardized curriculum.

One (though by no means the only) reason that standardized curricula exist in secondary schools is to prevent the needless duplication of effort in every teacher coming up with his or her own curriculum. As post-secondary education becomes more universal, there will presumably be an increased incentive – financial, if nothing else - to begin standardizing some courses at the undergraduate level. Institutions could band together to create common curricula in certain courses, or even simply adopt one of the many curricula that the Massachusetts Institute of Technology and other providers of free OpenCourseWare products now post for free on the World Wide Web. By adopting common curricula, many hours of instructor time could be saved – time which could be used to increase student/instructor contact and assist students in developing mastery over freely-available subject matter courses.

Some might see the standardization of post-secondary education as a threat to traditional undergraduate education, but this is to miss the point almost entirely. Traditional undergraduate education was indeed a more elitist, hands-on and intimate form of education. This type of educational experience will continue to exist in the future – at the graduate level, where students will be taught by a different type of faculty who are paid to both teach and perform research. The undergraduate experience, precisely because it has been democratized and made available to almost anyone, will look increasingly like secondary school. Many professors, when speaking honestly and off the record, will tell you that it already is. We just haven't started paying for it that way yet.

8. Summary and Conclusion

The post-secondary education recession will likely be shorter and more painful in the US than in Canada but on both sides of the border, the problems are large and inevitable. And there remains on both sides of the border the possibility that the economic recovery will coincide with a demographic shift which will permanently damage the education sector's claim on the public purse.

Given this, institutions need to find ways to re-organize themselves not only for a short-term drop in revenues, but possibly a long-term one as well. There are also some short-term measures that governments can take while they still have money that will help institutions lower their costs in the medium-term; these should be undertaken as soon as possible.

Student aid costs are likely to rise very sharply, and there are likely to be moves to cut costs in some of these programs. It is critical that those parts of the system that actually matter (i.e. grants to low-income students) are protected over those that do not (tax credits or general fee rebates).

Traditionally, there has been a tendency to assume that as far as PSE is concerned, more money equals more quality. In the era of Peak Post-Secondary, this is a practice we will do well to abandon. Governments and institutions need to ensure that the coming round of cost-cutting is not done at the expense of quality – but to do this requires better definitions of quality and means of measurement than we currently possess. This is a task of some urgency.

In the end, it comes down to this: the sector is going to be asked to do more with less. That means that institutions will have to pay attention to productivity. This is not a concept that sits easily in most educational settings, but it is inescapable nonetheless. If institutions do not think about how to be more productive, then the current downturn in the economy and the accompanying financial squeeze on PSE will, almost by definition, reduce the quality of the education students receive. Only those institutions and governments that re-think the delivery of education itself, by measuring inputs and outputs and deciding based on evidence where dollars can best be spent, can hope to come out of this recession in better shape than they came in.

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