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TAX EXPENDITURES VS. BUDGETARY EXPENDITURES FOR CANADIAN POST-SECONDARY EDUCATION

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Tax expenditures vs. budgetary expenditures for Canadian post-secondary education[1]

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Abstract

Tax measures that reduce the tax burden on post-secondary students are a large part of total spending on post-secondary education in Canada. These tax expenditures are, however, often forgotten when it comes to discussions of the cost of post-secondary education, may have some undesirable distributional consequences, and likely have little effect on individuals' enrolment decisions. On most dimensions they seem to be inferior to equivalent spending programs. Also of concern is that the interactions between the tax and spending programs and their different reporting standards further reduce the transparency and effectiveness of government funding to post-secondary education. Eliminating the tax credits and using the 'savings' to boost direct spending on assistance to students would improve the effectiveness of programs at a lower cost and with better distributional consequences. Unfortunately, Canadian governments at the federal and provincial level have been doing precisely the opposite, and significantly expanded these tax credits in recent years.

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1. Introduction

Surrey (1969) argued that tax expenditures were typically inferior to similar spending programs, due to a lack of transparency, 'upside down equity' effects, and inferior design and administration. In this paper, we examine how each of these criticisms applies in the case of Canada's education-related tax measures. We argue that Surrey's criticisms apply here, and that eliminating most of the education-related credits would free up funds that could be put to use in more effective spending programs for post-secondary education. Before turning to those, however, we first briefly summarise some economic theory related to the tax treatment of education, and describe the existing tax credits, with special reference to the tuition and education tax credits.

2. What is the role for government in funding post-secondary education, and where do taxes fit in?

2.1 Reasons for tax expenditures for post-secondary education

A tax expenditure is typically defined as a measure that reduces taxes of some group relative to a benchmark 'neutral' tax system. Since education is most often considered a type of investment, it is simplest to use the definition of neutral that is typically applied to investments – typically, that has been that a neutral tax system is one that neither encourages nor discourages investment, or equivalently, that the tax system should neither subsidise nor tax investments in education.

A neutral tax treatment of education as an investment is fairly well understood, and roughly mimics that for investment in physical capital. It is easiest to demonstrate in the case of a system with a uniform marginal tax rate (Gunderson and Thursk, 1996), where investments in education would be neither encouraged nor discouraged from an individual's perspective if the tax system

incorporated cash flow taxation with unlimited loss offsets. This would mean allowing full tax deductibility (with a refund if required) of all spending, and taxing any income received from the investment on a full cash-flow basis.

Allowing full and immediate writeoff of direct costs would mean ensuring that any direct expenditures would attract a refund on taxes equal to the (uniform) marginal tax rate times the actual spending. For tuition fees, Canada's tuition tax credit provides just such an exemption.[3] The other key component of individual costs of education is foregone earnings, which represent the value of time put into studying. Under a system with a uniform marginal tax rate, non-taxation of such costs is built into the system – it simply requires that foregone income not be taxed, which is precisely its treatment if marginal tax rates are constant.

The reason for assuming a uniform marginal tax rate here is clear: it ensures that any spending on education is deducted from taxable income and reduces taxes owed at the same rate as any subsequent income is taxed, ensuring that the tax system places no distortion on the rate of return to an investment in education. With a marginal tax rate that increases with income, however, both foregone income and any direct spending on education will reduce taxes at a marginal rate that is lower than the marginal tax rate applied to future income earned as a result of the investment.[4] This would reduce the financial gains to individuals from investment in education,

[3] It should be noted that this only applies strictly given a fixed marginal tax rate. Since marginal tax rates paid by the typical university graduate are higher than the marginal tax rate of the lowest tax bracket (the tax credit rate), this does not hold in the actual Canadian tax system.

[4] Note that this also suggests that a system using (refundable) tax credits for education is likely preferable to one that is based on deductions. This is particularly the case if parents are allowed to claim on behalf of spending on their post-secondary aged children – the concern in that case would be that the effective tax rate would depend heavily on parent's incomes, with children of high income parents facing a considerably lower effective tax rate on education than would children of low income parents – a poor policy from an efficiency point of view unless there is some

and could therefore lead to a lower than optimal number of individuals undertaking post-secondary education.

It could therefore be construed as reasonable to provide tax incentives to education over and above the exemption of the direct costs of education in order to offset the disincentives to invest in education arising from the progressivity of the tax system.

However, the only reason we should really want to achieve neutrality in the tax treatment of education is if (1) there is no economic or social reason why we might want to encourage or discourage education per se; or (2) any such encouragement (or discouragement) already takes place on the expenditure side of the budget; and (3) that neutrality is better achieved via tax measures than by spending measures. In reality, there are very significant subsidies to education investments provided via the spending side of government budgets. These subsidies are typically justified by reference to social benefits from education. The next section discusses these externalities and under what circumstances they justify a subsidy to PSE.

2.2 Externalities from education and direct spending

There is an argument in favour of government subsidies to education because of the existence of positive externalities – that is, that an individual's investment in post-secondary education benefits other members of society in ways that are not passed on to the individual. For instance, increasing the education of an individual may decrease his or her likelihood of engaging in criminal activity. This reduces the social costs of crime, but the individual himself does not receive a direct benefit from this. More recently, there have been arguments that more education

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reason to believe that educating children of low income parents has lower positive externalities than educating children of higher income parents.

of one individual raises the productivity of others working with her, which is another type of positive externality.[5]

This is not the place to review the evidence on the externalities to education in general or to post-secondary education in particular. But such externalities can potentially justify a better-than-neutral tax treatment of investments in education. The argument can be oversold, however. Collins and Davies (2005) suggest that at best such externalities would add 2 to 4 percentage points to the total rate of return on a university degree. They argue that current subsidies are substantially higher than this.

It is also worth keeping in mind that the argument for subsidising post-secondary education based on externalities hinges on the idea that such subsidies will have the desired effect of increasing educational attainment. There is no case for subsidising an activity even if it has significant externalities if it does not lead to increased participation. Recent studies of the Canadian post-secondary system suggest that for at least some individuals – those from higher socioeconomic backgrounds – there is little or no effect of increasing tuition fees on post-secondary attendance rates (Coelli, 2009; Neill, 2009). Both argue that there is a greater degree of responsiveness to tuition fees among lower income (Coelli) or middle class (Neill) students under the present system of post-secondary finance.

Given those results, there is little justification for broad-based subsidies to university attendance. They would mostly benefit individuals who would have attended post-secondary education

[5] If education leads to higher productivity of the individual and therefore higher GDP, but the individual's wages increase by as much as the increase in productivity, this is not an external benefit. GDP increases, but all the benefits of that increase in GDP go to the individual concerned.

without the subsidy, and those would be predominantly individuals from the upper end of the (family) income distribution. Table 1 shows an illustrative example. The figures in the table are consistent with actual enrolment rates and empirical evidence, but should not be taken as precise. The pattern is of (1) higher university enrolment rates with higher family income; and (2) a larger response of overall enrolment rates to tuition fee changes among youth from lower income families. The overall degree of responsiveness is also consistent with empirical evidence. We show the estimated enrolment effects and costs of two different policies: (1) a $1000 reduction in tuition fees to all university students; and (2) a $2000 tuition fee reduction targeted at students from families with below median incomes. The two have roughly comparable costs given current enrolment rates – the untargeted policy would cost on average $305 per 18-24 year old, and the targeted policy by around $315 per 18-24 year old. But because the enrolment rate response is greater for youth from below-median income families, the targeted policy would increase enrolment rates by almost 45% more than the untargeted policy. This also means that the degree to which the funds subsidise students who would have attended university anyway is considerably lower under the targeted than the non-targeted program – around 65% of the funds in the case of the targeted program, compared to 90% of the funds in the untargeted program.

From a cost-effectiveness point of view, then, we would like to target subsidies to groups who are more likely to respond by undertaking more education. How government tax and expenditure measures are distributed across individuals matters not only for equity reasons, but also for efficiency reasons.

Table 1. Hypothetical fiscal and enrolment effects of targeted vs untargeted university fee reductions

	Income group				
	Lowest quartile	Quartile 2	Quartile 3	Top quartile	All groups
Enrolment rate	18	23	29	40	27.5
Effect of fee increase of $1000 on enrolment rate	-7	-4	-1	0	
Enrolment rate after:					
$1000 untargeted fee reduction	25	27	30	40	30.5
$2000 fee reduction to below median incomes	32	31	29	40	33
Average $ spent per youth					
$1000 untargeted fee reduction	$250	$270	$300	$400	$305
$2000 fee reduction to below median incomes	$640	$620	$0	$0	$315
% of dollars spent on inframarginal youth*					
$1000 untargeted fee reduction	72%	85%	97%	100%	90%
$2000 fee reduction to below median incomes	56%	74%	0	0	65%

Note: Calculations are for illustration only. Data on FT university enrolment rates are for all 18-24 year olds by family income quartile and are from the Longitudinal Administrative Data Bank (LAD), 2004. Responsiveness to fee decreases are illustrative, based on Coelli (2009), who finds that a $1000 increase in tuition fees reduces the probability of ever attending university by age 24 by more than 7 percentage points for youth from the lowest third of the family income distribution, by around 1-2 percentage points for the middle income group, and may slightly increase the enrolment rate for students at the top of the income distribution (not statistically significantly different from zero). Note that 'inframarginal' here is taken to mean relative to the current status quo enrolment (the top row).

3. Canada's tax measures related to individual participation in post-secondary education

On the definition of a tax expenditure used by Canada's Department of Finance, there are six key tax expenditure programs in Canada directed at individual participation in post-secondary education.[6] These are, in order of magnitude:

1. the tuition tax credit, a non-refundable tax credit on eligible tuition fees;
2. the education (and textbook) tax credit, a non-refundable tax credit equal to number of months in study multiplied by a monthly rate (with different rates for full-time and part-time students);

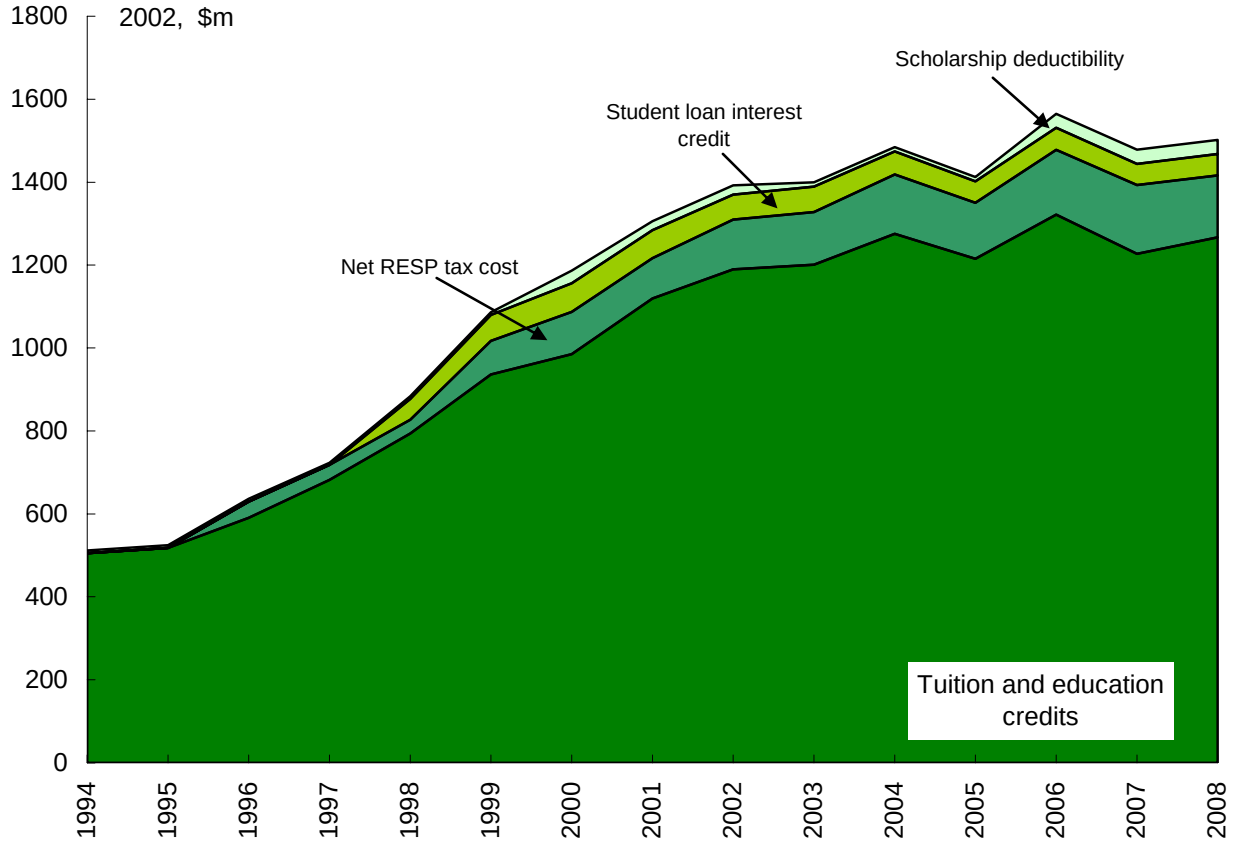
[6] There are two others listed in Department of Finance (2009): the adult basic education tax deduction ($5 million in 2009) and the apprentice vehicle mechanics' tool deduction (not costed). In addition, we do not consider tax measures related specifically to post-secondary institutions, such as exemptions from GST or property taxes, which apply in some areas, or the tax credits to support employment of co-op students.

3. the favourable income tax treatment of accumulations in RESPs (the associated Canada Education Savings Grants and Canada Learning Bonds are technically expenditure programs);
4. graduate retention tax credits which operate in four provinces to provide rebates on tuition fees to individuals who have graduated from a post-secondary institution;
5. the student loan interest credit; and
6. the deductibility of scholarship income from taxation.

The tuition and education tax credits together are expected to have cost the federal government alone about $1.5 billion in the 2009 tax year. This compares with the deductibility of scholarship income at $38 million, the student loan interest credit of $60 million, and the RESP at $230 million (the Canada Education Savings Grants add another $400 million to the cost of the RESP program, but these are counted as expenditure side measures). Altogether, these tax-related programs will provide about $2 billion dollars in federal aid to post-secondary education in Canada in 2009.

Figure 1 shows the estimated federal tax expenditures associated with these measures, in 2002 dollar terms.

Figure 1. Tax expenditures on education



Source: Department of Finance (2006). The tuition and education credits amount aggregates the lines identified as tuition credits, education credits, textbook credits, carry-forwards of tuition and education credits and transfers of tuition and education credits. Figures for 2007 and beyond are projections.

These subsidies via the tax system are large compared with federal direct spending on post-secondary education. The total cost of the Canada Student Loan Program (not including the student loan interest credit) ranged between $0.8 billion and $0.55 billion between 2004-05 and 2007-08 (HRSDC, 2008),[7] while federal transfers direct to post-secondary institutions were around $3.4 billion in 2008-09. Ignoring these tax credits when analysing government involvement in post-secondary education, or in estimating the incentives to post-secondary

[7] This cost is not the same as disbursements. In 2006-07, disbursements were $1.9 billion, but since these were loans, their cost to the government must be calculated net of expected repayments. Key expenses in 2006/07 were the in-study interest borrowing expense ($186m), an in-repayment interest borrowing expense ($145m) bad debt expense ($260m), and administration expenses ($100m). Lower interest rates are a key reason for the lower program cost of the CSLP in recent years.

education in Canada, can lead to substantial errors. For instance, Usher and Duncan (2008) show that despite the belief that the cost of an undergraduate university education has increased dramatically in recent years, once the effect of the tax credits is taken into account this is not the case. While tuition fees rose in real terms by 26% between 1997-98 and 2007-08, once the basic tuition and education credits are taken into account, net tuition has risen by only 19%. For many provinces, the real direct cost of a university education has *fallen*, even before taking into account the recently introduced or expanded graduate retention programs mentioned above.

3.1 Tuition and Education (and Textbook) Tax Credits

The tuition and education tax credits are by far the largest of the PSE-related tax expenditures. The tuition credit applies at the federal and provincial levels, and allows a reduction in taxes equal to the value of tuition fees paid multiplied by the tax credit rate. At the federal level and for most provinces, this rate is equal to the tax rate for the lowest income bracket. The recent decreases in this rate – from 17% in 1998 to 15% in 2008 – would themselves have reduced the total estimated tax expenditure by twelve per cent. Although the credit is not refundable, any amounts that cannot be used in the year they were credited is transferable to a spouse, parent or grandparent, and since 1997 is also able to be carried forward to reduce tax liabilities in later years.

The education tax credit, on the other hand, is not tied directly to spending on post-secondary education, although its aim is to "help with their non-tuition costs such as books and living expenses" (Budget, 1998). It provides a credit on taxes equal to a fixed monthly dollar value multiplied by the number of months an individual has spent in post-secondary education, multiplied by the tax credit rate. The monthly credit rate depends on whether a student is

studying part time or full time. The monthly credit rate at the federal level in 2008 is $400 for a full-time student and $120 for a part-time student. Unlike the tuition credit, the equivalent provincial tax credits are not always of the same value — currently, Alberta has the highest monthly credit amount ($628 per month for a full-time student), while Quebec does not have an explicitly equivalent credit.[8]

In 2006, the federal government announced that as part of its election platform it was introducing a new textbook tax credit. This credit operates in exactly the same way as the education tax credit – it provides a monthly allowance for books, which varies depending on whether a student is studying part time or full time. It does not require that a student actually spend anything on textbooks. This was an odd innovation, since, as noted above, the education credit was intended to cover costs of post-secondary education *including* textbooks. We treat this here as simply an increase in the value of the federal education tax credit, which is how it is treated in the tax forms. Presumably its separate identification in the tax expenditures statement represents a primarily political decision.

As with the tuition credit, the education/textbook tax credit can be transferred or carried forward. Since the education/textbook credit is not tied to actual investments in post-secondary education, these measures should rightly be considered a tax expenditure, and simply as a direct subsidy to post-secondary education.

[8] Although it does have other tax measures related to post-secondary students that mimic it to some extent. See Neill (2007) for more detail.

The tuition and education tax credits combined have a very large effect on the net financial costs of post-secondary education faced by individuals. Table 2 shows the total effect of these credits at the federal and provincial levels on taxes owed by province for the 2008 tax year. In order to isolate the effects of the tax system alone, the Table shows the effects of studying full time for 8 months in an institution with tuition and other compulsory fees equal to $5000. This is roughly comparable to an average university student in 2008.[9] We use this comparison rather than using the average tuition fee paid in each province because this allows us to isolate the effects of the tax credits themselves. Usher and Duncan (2008) show figures for what they call "Everybody's Net Tuition" (ENT), which show the average tuition fee in each province less available tax credits in that province from 1997-98 to 2007-08, which assumes that students (or their parents) pay taxes in the same province in which they study.

In most provinces, these credits would reduce the taxes paid by this hypothetical university student by around $2000 per year of study, compared with the baseline tax system. The variation across provinces is caused by differences (1) differences in the provincial education amounts; and (2) differences in the provincial tax credit rate. The least generous tax credit is in British Columbia, where a low monthly credit rate ($200, rather than $465 at the federal level) combines with a low tax credit rate to keep the taxes saved for a taxpayer paying $5000 in tuition fees and studying full-time to $1642. At the opposite end of the spectrum, the tax credits would save $2300 in taxes for a student paying tuition fees of $5000 and paying taxes in Quebec or Alberta. Quebec has no monthly education amount, but at 20% its tax credit rate for the tuition credit is

[9] The average tuition fee in Canada for an undergraduate arts/science program in 2008-09 was $4724 and compulsory ancillary fees averaged $695, totalling $5419.

higher than in any other province, while Alberta has a moderate tax credit rate and a very high monthly credit amount.

Table 2. Effects of tuition and education credits on cost of education, 2008 tax year

	Tuition amount	Education amount	Total credit value	Tax credit rate	Tax savings	Total tax savings (inc federal)	Net direct cost
Federal	$5,000	$3,720	$8,720	15.00%	$1,308		
Newfoundland	$5,000	$1,600	$6,600	8.20%	$541	$1,849	$3,151
Prince Edward Island	$5,000	$3,200	$8,200	9.80%	$804	$2,112	$2,888
Nova Scotia	$5,000	$1,600	$6,600	8.79%	$580	$1,888	$3,112
New Brunswick	$5,000	$3,200	$8,200	10.12%	$830	$2,138	$2,862
Quebec	$5,000	$0	$5,000	20.00%	$1,000	$2,308	$2,692
Ontario	$5,000	$3,744	$8,744	6.05%	$529	$1,837	$3,163
Manitoba	$5,000	$3,200	$8,200	10.90%	$894	$2,202	$2,798
Saskatchewan	$5,000	$3,200	$8,200	11.00%	$902	$2,210	$2,790
Alberta	$5,000	$5,024	$10,024	10.00%	$1,002	$2,310	$2,690
British Columbia	$5,000	$1,600	$6,600	5.06%	$334	$1,642	$3,358

Source: own calculations based on 2008 tax forms.
Note: assumes tuition fees of $5000 (roughly the 2008-09 Canadian average fee), and full time study, in order to compare the value of the tax credits across provinces for individuals paying the same tuition fee. Total tax savings are equal to amount by which federal and provincial taxes combined would be reduced. Since the credits are non-refundable, to claim the full amount in one year, taxes owed would have to be greater than this amount. Unused credits can, however, be transferred or carried forward to reduce tax liabilities in future years.

The total tax savings are large relative to Canadian average tuition fees – around 40% of the cost of tuition fees for a year of university education with tuition fees at around the Canadian average for 2008/09. Since the education tax credit is simply a function of the number of months of study, the tuition and education tax credits combined pay for a considerably larger proportion of the tuition fees for programs with lower fees, and for students studying full time rather than part time. Table 3 shows the value of the tax credits in terms of dollar values and percentage of fees for four hypothetical cases, roughly corresponding to a full-time college student, a full-time university student, a part-time college student and a part-time university student. The credits pay for around 60% of fees for a full-time college student paying roughly Canadian average tuition fees, compared with 40% for a full-time university student paying Canadian average tuition fees. The credits are worth less for part time students, covering around 45% of tuition costs for a part-time college student and around 35% of costs for a part-time university student.

Table 3. Hypothetical tax savings from tuition and education tax credits by province, fee, and program status (in dollar terms and as a percentage of fees paid)

	Full-time				Part-time			
	Fee = $2500		Fee = $5000		Fee = $2500/2		Fee = $5000/2	
	$	% of fees	$	% of fees	$	% of fees	$	% of fees
Newfoundland	$1,269	51%	$1,849	37%	$497	40%	$787	31%
Prince Edward Island	$1,492	60%	$2,112	42%	$557	45%	$867	35%
Nova Scotia	$1,293	52%	$1,888	38%	$544	44%	$841	34%
New Brunswick	$1,510	60%	$2,138	43%	$521	42%	$835	33%
Quebec	$1,433	57%	$2,308	46%	$606	48%	$1,043	42%
Ontario	$1,311	52%	$1,837	37%	$523	42%	$786	31%
Manitoba	$1,554	62%	$2,202	44%	$570	46%	$894	36%
Saskatchewan	$1,560	62%	$2,210	44%	$572	46%	$897	36%
Alberta	$1,685	67%	$2,310	46%	$604	48%	$916	37%
British Columbia	$1,140	46%	$1,642	33%	$458	37%	$709	28%

Source: own calculations based on 2008 tax forms.
Note: shows value of tuition and education tax credits as a percentage of fees paid for a hypothetical student paying fees of either $5000 (corresponding to an average Canadian full-time university program) or $2500 (roughly corresponding to an average full-time college program). Part-time fees are assumed to be exactly half of full-time fees. The table shows the taxes saved in dollar terms and as a percentage of tuition fees paid.

3.2 Registered Education Savings Plans (RESPs)

The RESP system is the second-largest federal tax credit for education. Contributions to RESPs are made by contributors out of their own post-tax income. Any interest income or capital gains earned on investment in the RESP accumulate tax free, but tax must be paid on any such accumulations on withdrawal. Since withdrawals are (generally) treated as income for the student beneficiary, the withdrawals, though technically taxable, tend to fall under the tax-free threshold, so that de facto the tax paid on earnings accumulated within an RESP is zero. Along with the preferential tax treatment of savings in an RESP compared with other forms, the RESP system is accompanied by the Canada Education Savings Grant (CESG), which provides matching funds to a limit of $400 per year on RESP contributions, and since 2004 the Canada Learning Bond, which is a grant of up to $500 on opening and $100 per year thereafter by the government to RESPs opened by low income families regardless of whether the family itself makes a contribution to the RESP. The RESP system is in itself something of a microcosm that

highlights Surrey's concerns about semantic nature of the distinction between spending and tax programs. As noted by other writers (Milligan, 2002, 2005; Drummond, 2006), the tax advantages in the RESP system are not truly separable from the Canada Education Savings Grant and the Canada Learning Bond, which are government-provided grants, and thus considered direct expenditure programs. So although the direct spending cost of this program is included in the budget papers, the cost via the tax system is only provided in the tax expenditures statement. When these elements are included, the total cost of the RESP system increases from $185m in 2007 to roughly $800m.[10]

Analysts who have examined the RESP system have been firm in their position that the program is inequitable, ineffective in increasing enrolments in post-secondary education, and likely does little to stimulate saving. High income families are much more likely to open an RESP for their children than are low income families, but these are precisely the types of families who have less need to save for their children's education, and whose children are likely to continue on to post-secondary education in any case. It therefore is a subsidy to inframarginal students, and has little effect on attendance. While there may be a case for the tax preferred treatment of savings income in RESPs, Milligan (2002) argues that if saving needs to be encouraged, there is little reason to do so using programs targeted to increasing saving for specific purposes. He argued instead that a program like the recently introduced TFSAs would better serve any need for tax preferred savings vehicles.

[10] The estimated tax expenditure associated with the education savings plan system was $185m in 2007. The expenditure on the CESG and CLB combined were $615m in financial year 2007-08.

Far from seeing these programs decline following this heavy criticism, however, the federal RESP program has been expanded in recent years. Further, as of 2007, Quebec has initiated its own tax incentives for RESPs, providing a refundable tax credit that is paid directly into the RESP, equal to 10% of the net contributions in that year (with a supplement for low income families), up to a maximum of $250 per year. This is expected to cost the Quebec government around $45 million in 2009 (Gouvernement du Quebec, 2009).

3.3 Student loan interest credit and the scholarship exemption

The other two tax expenditures related to post-secondary education are much smaller in value. These are the student loan interest deduction and the scholarship exemption.

The student loan interest credit provides a non-refundable credit for interest paid in the past 5 years on government student loans. Amounts can only be claimed once. Interest paid on loans to fund education that were obtained through private sources are not eligible for the credit. As noted earlier, so long as spending on education investments is deducted from taxable income – which is largely the case given the tuition and education tax credits – a neutral tax system would not require an interest tax credit or deduction. This provision, therefore, simply provides another benefit to individuals who have received a student loan to help pay for their education, with that benefit likely coming well after the individual most needs a boost in money income. In addition, since the benefit is a non-refundable tax credit (though unused credits can be carried forward for up to five years), its benefits are the least to graduates earning the lowest incomes – it is therefore unlikely to be of particular assistance to graduates who are the most likely to be struggling

financially or having difficulty paying off their student loans.[11] Finally, it is a provision that is likely not well known in advance of undertaking post-secondary education. Even were it well known, it would be rather difficult for any individual contemplating post-secondary education to determine its likely value. This credit, then, fails on any criterion of efficiency, equity or transparency. It is, however, quite small in value – the most recent tax expenditures statement reports 700,000 filers claimed $400 million in student loan interest in 2005-06, which would have meant the average saving on federal taxes among filers was $96.

The scholarship exemption has also become increasingly generous in recent years. Before 2000, only $500 in scholarship income was exempted from taxation. But when the Canada Millennium Scholarship Foundation (CMSF) began delivering bursaries to students, it was realised that this income would be subject to taxation, and that taxation would occur at the end of the school year when students may well have spent the entire amount of their bursary. Funds delivered as loans are not taxable, while bursaries are taxable. Since the CMSF program largely converted loans to bursaries, this could have led to a decline in dollars available to students while they were studying.[12] Consequently, the exemption was raised to $3000, approximately the value of the CMSF bursaries. More recently, the entire amount of scholarship or bursary income has been exempted from taxation. It is hard to see either an efficiency or an equity argument for this exemption. On the efficiency front, it would not be desirable to tax earnings from paid

[11] Such students are, though, typically eligible for interest or debt relief programs, which are directly targeted at graduates in more severe financial need. Debt relief programs are, however, not automatic, and there has been some concern that take-up rates among the targeted group have been too low.

[12] A quick example shows this. Suppose prior to the CMSF bursaries being introduced a student received a $10,000 loan. After the CMSF bursaries were introduced, the student would in effect receive a $7000 loan and a $3000 bursary. But if the student's income were enough that she would pay taxes on the bursary, then with a $500 scholarship exemption and a 17% marginal tax rate (the lowest marginal tax rate in 2000), she would have to pay taxes of $425. Thus, the funds available to her in that year would have been $9575. While she would benefit in future years by having less debt to repay, this would reduce the funds available to her during her studies, a concern for a student facing a borrowing constraint.

employment differently than earnings from scholarships, for instance. And on the equity front, students who receive scholarships are not likely to be disadvantaged relative to students who do not receive scholarships. It is possible that the measure could be justified as an attempt to encourage graduate relative to undergraduate education, since scholarships above $3000 are more common in graduate than in undergraduate programs, but again if that were the purpose of the program it is difficult to see why it would not be better implemented through a direct spending measure than a tax measure.

3.4 Provincial graduate retention tax credits

Graduate retention tax credits are a recent innovation in the world of post-secondary tax expenditures. They are currently in place in Saskatchewan (as of 2000), Manitoba (2007), New Brunswick (2006) and Nova Scotia (2006).[13] These are credits available to anyone who has recently graduated from a post-secondary program. These credits may have two effects. First, they increase the returns from education for anyone intending to work in the provinces where they are offered. Given their magnitudes, these add up to a very large increase in the returns to post-secondary education. This may increase the number of post-secondary graduates overall in Canada. But the stated aim of these credits is rather to increase the numbers of post-secondary graduates *in the provinces where they are offered.* This is only a possible outcome because these credits are not offered consistently across Canada. In this sense, then, the credits are something of a beggar-thy-neighbour policy.

As with the general tuition and education tax credits, neither of these credits requires that the claimant have studied in the same province in which the tax credit is claimed. That is, the New

[13] More detail on these tax credits is in Appendix 1.

Brunswick credit is available to students who studied in Ontario, and claimed the regular tuition and education amounts in Ontario, but after graduation went to work in New Brunswick.

The graduate retention payments are very valuable relative to the tuition fee costs of a university degree or a college diploma. Table 4 shows the effects of the graduate retention program based on two hypothetical programs with tuition fees of $5000 a year for a four year undergraduate degree and $2000 a year for a two year college diploma.

Table 4. Effects of graduate tax credits on direct costs of post-secondary education

	Maximum	Credit rate	Fees paid	Graduate retention credits	Cumulative tuition and education credits	Net direct cost
Nova Scotia	$15,000	100%				
4 year degree			$20,000	$15,000	$7,553	-$2,553
2 year diploma			$5,000	$7,500	$2,587	-$5,087
New Brunswick	$40,000	50%				
4 year degree			$20,000	$10,000	$8,551	$1,449
2 year diploma			$5,000	$2,500	$3,020	-$520
Manitoba	$25,000	60%				
4 year degree			$20,000	$12,000	$8,807	-$807
2 year diploma			$5,000	$3,000	$3,109	-$1,109
Saskatchewan	$20,000	100%				
4 year degree			$20,000	$20,000	$8,840	-$8,840
2 year diploma			$5,000	$5,000	$3,120	-$3,120

Note: See Appendix 1 for details of programs. We use the value of the Saskatchewan credit once fully phased in. Cumulative tuition and education credits are based on the credits available in the same province for 2008-09. Therefore, the net direct cost calculation assumes that graduates work in the same provinces as the one in which they paid taxes during their studies, and that credit values and rates do not change. Here, we use the Canadian average tuition fees used in earlier tables for college and university. A table showing the effects of the credits using average provincial university tuition and compulsory ancillary fees in 2008-09 is in Appendix 1. The most notable difference is that because tuition fees are than the Canadian average in Nova Scotia and New Brunswick, students who both work and study in those provinces end up do contribute a small positive amount to the cost of their post-secondary education, though the amount would be under $1000 per year.

When combined with the tax credits provided on an annual basis, they mean the out of pocket costs of a four year degree program with tuition fees of $5000 per year ranges from $1,450 in

New Brunswick to *negative* $8,840 in Saskatchewan. There are no net direct costs of a post-secondary education for anyone graduating from a full-time two-year college program with Canadian average tuition fees and going to work in any of these provinces, or to anyone graduating from a four-year university program charging Canadian average fees and going to work in any of the four provinces but New Brunswick.[14]

These credits are targeted towards keeping post-secondary graduates in the provinces concerned, rather than with subsidising the acquisition of human capital (though they could have that effect also). They make sense if the key aim of subsidies to post-secondary education is to increase the relative supply of post-secondary graduates in workforces in a province. As yet, there has been no formal evaluation of whether these programs have indeed led to a poaching of university-educated individuals in the provinces that have adopted them relative to others.

4. Education-related tax expenditures lack transparency

One of Surrey's key concerns over the use of tax expenditures (rather than direct spending programs) was that they lacked transparency. He appears to have been most concerned that government decision makers (and perhaps the public at large) would not be aware of the amounts of government resources going to particular programs, or their distribution, and that this would result in tax expenditures potentially being a preferred policy option even when a spending program would have been more effective. Consequently, he argued that consistent reporting of tax and expenditure measures designed to achieve the same ends was necessary.

[14] At the university level, the 'cheapest' financial combination would be for a student from Quebec who did their undergraduate university education in Quebec (receiving the in-province tuition rate, and receiving the tuition and education amounts under the Quebec rate), who then went to work in Nova Scotia. Such an individual would receive tax credits worth $3,300 more *per year* than the direct cost of tuition and other compulsory fees in Quebec. The student would have to remain in Nova Scotia for 6 years following graduation.

A key question, though, is transparency for what ends. There are perhaps three key questions we may want to ask: (1) how much overall are governments spending on post-secondary education in Canada; (2) how is the spending distributed across individuals; and (3) how does this alter an individual's incentives to undertake post-secondary education. The tax expenditures approach helps illuminate the first and second of these questions to some extent, but, as Boadway and Flatters (1988) argue, it is largely unhelpful in regards to the third.

4.1 The total value of government resources devoted to post-secondary education?

Surrey's influence has arguably been most felt in the area of improved reporting of tax expenditures. Many governments, including the Canadian federal government and the Quebec government, now produce regular tax expenditure reports. But simply reporting of tax expenditures is not really enough. It is also important that tax expenditures be reported on a consistent basis with direct expenditures. Without that, it is difficult to identify total spending on a particular government goal or functional area.

Despite several decades of publishing of tax expenditure statements in Canada, they are rarely put side by side with the direct expenditure accounts to provide a complete picture of spending on a particular functional area. In relation to post-secondary education, this makes it very difficult to identify the share of total costs borne by government (or taxpayers more broadly) compared to the share of costs borne by individuals who actually use the PSE system.

Identifying total direct spending of universities and colleges on PSE is relatively simple – the Financial Management System provides that information – but identifying an aggregate amount paid by students is not so simple. Total tuition fees paid in 2006-07 (year ending March 2007) in

Canada are estimated at $6.8 billion, out of total post-secondary education spending by universities and colleges of $27.1 billion.[15] However, universities and colleges then rebated $1.2 billion in spending on support to students. Thus, spending on post-secondary education by those who actually attended was at most $5.6 billion, or 20.6% of the total. But this does not include spending by governments on direct support to students. In 2006, the CMSF distributed about $0.34 billion in grants. The other major student support program is the Canada Student Loan Program and other associated programs. It is difficult to identify actual spending through the Canada student loans program or provincial loan programs (as opposed to disbursements) on current university students (as opposed to spending on current and past students) using publicly-available documents. Total loan disbursements, including both loans and grants, under the CSLP alone were $1.2 billion. Quebec's Aide Financiere aux Etudes (the equivalent of the CSL) disbursed $0.8 billion, mostly in grants.[16] Estimated federal 'spending' via the tuition and education tax credits plus the student loan interest credit that year totalled around $1.5 billion.[17] Quebec's tax expenditures were reported at $168 million, and Ontario's were reported at $290 million. Not counting any other provincial loans, grants and tax expenditures, or the effects of the federal education savings programs, then, the total out of pocket cost to students was only

[15] The total expenditure figure is from the FMS and is equal to total expenditure ($33 billion) less expenditure on support to students ($1.2 billion) and other sales of goods and services ($4.7 billion). We take the latter to mostly include revenue from board and food services, neither of which are technically a part of the education provided to students, and which are likely to approximately offset spending on those services. (Data from CANSIM table 385-0007)

[16] 2006-07 loan year. Note that this includes both loans and grants. Amounts from provincial programs (other than Quebec) are not included.

[17] This is the figure for the 2006 tax year. The scholarship tax exemption should not be included here, since that is simply a 'churning' of money currently provided to students via scholarships, most of which are provided by the government sector. We do not include the RESP related spending or deductions, since the cohort affected by those is very different from the cohort currently paying tuition fees.

around $1.3 billion, or about 4.8% of spending by universities and colleges on post-secondary education.[18]

Provincial loans programs and tax expenditures – particularly the graduate retention credits – would take the figure lower still, but since not all provinces provide public financial statements on their student financial aid programs, and fewer produce tax expenditure statements a precise figure is not available. While it is possible to estimate these figures (as for instance in Junor and Usher, 2004), the point is that this information is not readily available using published government documentation. Surrey's concerns that tax expenditures make it difficult to identify total government resources devoted to a particular functional area is clearly a concern here.

There would also be substantial differences by province. In Quebec, for instance, tuition fee revenue in 2006/07 was $656 million, support to students spending by universities and colleges was $187 million, and the AFE program provided grants of $352m. Estimated tax expenditures (excluding the scholarship exemption) were $132m. So, the Quebec government in effect spent $15m more on support to students than was received in revenue as tuition fees. And this is before accounting for the benefits of student loans ($480m in disbursements), the effect of the CMSF bursaries, or the federal tuition and education amounts. In addition, the revenue from tuition fees includes out-of-province fees, which are substantially above in-province fees in Quebec. Overall, then, the net direct cost of post-secondary education for most – perhaps all –

[18] Note this includes the research function of universities, so it is not the same as saying that students paid only 5% of the costs of their own education. As well, it includes loans, which are repayable after graduation, which is why we use the term 'out of pocket' costs. Using a rough guideline that around 30% of the value of student loans is a direct grant equivalent increases the cost to students by around $0.8 billion, and takes the calculation of the percentage of costs covered by students themselves to 7.6% from 4.5%.

students from Quebec studying in Quebec must be negative. The Quebec government alone is bearing all the direct costs of post-secondary education for Quebec students.

If this were widely understood, it may throw a rather different light on the recent debate over increasing tuition fees in Quebec, in particular, but in the rest of Canada as well. That producing it remains so difficult despite the availability of information on tax expenditures suggests that there remains some way to go before Surrey's goal of having a clear picture of the size of government intervention in particular areas is achieved, despite regular production of tax expenditure accounts. Tax expenditure statements by themselves are simply not sufficient in the face of the obscurity of information on the spending side, inconsistency in reporting standards across tax and spending programs, and a lack of reports to show tax and direct spending measures side by side on a comparable basis.

4.2 Who gets the money?

Boadway and Flatters (1988) noted that one advantage of the norms in reporting on taxation measures relative to the norms of reporting on spending measures is that the former often break statistics down by how they affect particular groups. This is relatively rare in spending programs, even where the information is available. Thus, the tax expenditures statement includes information on the income of individuals who claim the credits, and the values of claims by income group. There is no such information provided publicly by the Canada Student Loan Program, despite the fact that all individual and family income is collected in order to identify payments to be made. This is particularly odd given that it is a key aim of the CSLP to encourage participation by youth from lower income families in post-secondary education, while the tax credit system has no such goal.

Once again, it is important then to ensure that we know why we want transparency in order to determine how to achieve it. If we are concerned with distributional matters – and we would argue that in the case of post-secondary education, both equity and efficiency arguments dictate that we need to be – then this is a clearly critical piece of information to have. It would be helpful for governments to provide data for spending programs that mimic the tax expenditures data in this regard.

4.3 The tax expenditures make it harder for individuals to understand the costs and benefits of post-secondary education

Surrey's original complaint about lack of transparency was related to the lack of symmetry of treatment of taxation and expenditure programs for government decision makers. There is another possible way of considering the relative transparency of spending and tax programs, however – from the perspective of the affected individual. This aspect of transparency is highly related to the effectiveness of a program.

A key justification for the education and tuition tax credits is to increase participation in post-secondary education. But, as Dynarski and Scott-Clayton (2007: 6) put it, "we have to know about a price discount in order to respond to it." Increasingly, analysts examining the reasons for low participation in post-secondary education, particularly among children from lower socio-economic backgrounds or minority groups, are looking to informational barriers rather than purely financial barriers for an explanation. Usher (2005: 7) finds that "Canadians - particularly those from low-income families - actually have a very poor sense of the costs and benefits of education." Similarly, Avery and Kane (2004) show that confusion about college aid in the US is greatest among low income students.

As noted earlier, the tax credits alone reduce the direct costs of one year of education for a 'typical' university student by around $2000 or 40%. The total value of tuition and education tax credits in terms of the effective reduction in taxes paid for any individual is simple to calculate – simply add tuition and education amounts and multiply by the sum of the provincial and federal tax credit rates. But this calculation is not done at any point when filling out the tax forms. It is not mentioned on websites of universities that describe the costs of attending university, or of the financial aid and scholarships available. It is not mentioned on the CanLearn website. The only public mention of the value of the tuition and education tax credits as an offset to tuition costs in places likely frequented by potential or current students is on the calculator for student financial aid in Ontario.[19]

The value of the other tax expenditures – the scholarship exemption, the non-taxation of accumulated RESP interest, and the student loan interest tax credit – are almost entirely hidden. What is perhaps more important, the multiplicity of programs and the differential eligibility for each makes it extremely difficult for an individual to calculate either the out-of-pocket or the eventual net cost of a post-secondary program in advance of attending PSE. Usher (2005) has shown that there is a remarkable degree of confusion among young people about the level of tuition fees. There appears also to be confusion about eligibility for the student loan program. It would be almost impossible to expect that students (or indeed their parents) who show such a lack of knowledge of the simplest element of the direct costs – the tuition fee – would in addition be able to piece together information on the value of the RESP system as a whole (including the expenditure programs), the tuition and education tax credits, the multiple student loan and grant

[19] This is a relatively new and welcome innovation – it was not a part of that website in 2006.

programs, university-level financial assistance, and perhaps graduate retention credits, such that they could come to a reasonable estimate of their own individual costs of post-secondary education.

In other words, the concern over the transparency of the tuition and education tax credits from an individual perspective is not so much that they are in themselves difficult to understand. The problem is that they are in practice an often disregarded part of a complex system. It is the complexity of the system as a whole that makes it difficult to determine the costs of education.

The flip side of identifying the costs of a year of post-secondary education is being able to identify the benefits. Usher (2005) also finds evidence that students tend to underestimate the effects of post-secondary education on incomes, and that this underestimate is greatest among youth from lower socio-economic backgrounds. Taxes are also an important component of expected benefits. Collins and Davies (2003) show that the key feature of the tax system's effects on the incentive to invest in education is through the overall progressivity of the tax system. Typically, though, changes in progressivity of tax systems are not considered part of tax expenditures. In some ways this feature of the concept of tax expenditures makes it particularly difficult to determine neutrality.

This rather matters if we are worried about the incentive to invest in a university education. The recent changes to marginal tax rates (MTRs) on personal income, for instance, led to a decline in the tax credit rate for direct educational expenditures, from 17% in 1998 to 15% currently. This leads to a 12% reduction in estimated education tax credit expenditures, if compared to a base of

the existing MTRs. While this move alone would have discouraged investment in education, it was combined with a larger decrease in MTR at higher incomes. The federal MTR on amounts between around $32,000 and $60,000 fell from 26% to 22%, for amounts between $60,000 and $64,000 from 29% to 22%, and for amounts between $64,000 and $104,000 from 29% to 26%. Collins and Davies (2005) show that this constituted a very substantial *increase* in incentives to invest in education. Yet the tax expenditures approach would have suggested the opposite.

The appropriate way of reporting of tax expenditures, then, depends a great deal on the purpose of providing information on tax expenditures in the first place. From an individual perspective, there are two pieces of information that are critical: (1) what can I expect to pay in direct costs for an education?; and (2) what is the net return on my investment? For the purposes of the first, the tax expenditures based on a benchmark tax system incorporating current marginal tax rates is appropriate. For the second, the importance of the progressivity of the tax system in determining returns to education makes the usual tax expenditures approach useless.

This is the case where Bruce (1988) would argue that we are most interested in determining the effects of the tax expenditures and direct expenditures system on relative prices, the case where he considers the most useful information to be from reporting both direct expenditures and tax expenditures using tax-side norms rather than expenditure side norms – Boadway and Flatters' (1988) 'expenditure taxes' approach. In this case, the key information that we would like would be an effective tax rate for education, incorporating both tax and expenditure side programs. Collins and Davies (2003, 2005) provide the only analysis of which we are aware that attempts this, for the case of an undergraduate university program. The reason they do this only for one

case is that the calculations are quite cumbersome, and depend on so many different assumptions, including in relation to eligibility for student loans, income earned after graduation (which affects the effective tax rate via progressively increasing marginal tax rates), and use of RESPs, among others. Province of residence following a post-secondary program could now be added, since the generous graduate retention programs now applying in several provinces were not a prominent feature when Collins and Davies wrote.

4.2 A lack of transparency at the individual level reduces the effectiveness of policy

As noted above, a key concern with a lack of transparency in programs designed to encourage post-secondary education is that it also likely reduces their effectiveness. A move to decrease the sticker price of education and make the net cost clearer would also likely improve the effectiveness of the program. In discussing the US student financial aid system, Dynarski and Scott-Clayton (2007: 30) argue of the US programs providing federal financial aid to students that:

> There is no doubt that the federal aid system gets grants and loans to many families who would be worse off without it. There is little evidence that this aid gets more young people into college, however.
>
> …
>
> The U.S. system for subsidizing college students hides information about the affordability of college behind a thicket of paperwork. It delays sharing information about the affordability of college until it is too late. It is time for the federal aid system to uncouple itself from the needs of elite schools such as Harvard and Princeton, and concentrate on the needs of young people unnecessarily dissuaded from college by the impression that it is not affordable.

In other words, reducing the complexity in funding post-secondary education by removing multiple overlapping programs would likely be a significant improvement in itself, as would be

making certain that programs that provide assistance to post-secondary students are well-known, and providing clear and certain guidance for youth and their parents about the assistance levels that are likely to be available to them well before the time comes to apply to post-secondary institutions. The tax-side measures Canada currently has in place do not satisfy any of these conditions in themselves, and when combined with the other programs are downright confusing.

Along with Collins and Davies (2003, 2005), Finnie, Usher and Vossensteyn (2004), Milligan (2002, 2005), and Drummond (2008) we would argue that removing most of the current tax incentives to invest in education and using the 'tax expenditures' saved to enhance and improve the existing direct spending programs aimed at the same task would be a clear improvement in terms of both equity and efficiency. Providing targeted assistance to groups with lower post-secondary participation rates is likely to be a more cost effective way of increasing post-secondary participation than blanket subsidies, the vast majority of which likely go to inframarginal students.

But attempts to target can themselves be taken too far. Some simplification on the spending side of the student aid system is desirable, even to the extent that it means a little less than perfect targeting. Dynarski and Scott-Clayton (2007: 10) argue that "This is a worthwhile tradeoff. Both economic theory and empirical evidence suggest that reducing complexity and uncertainty in the aid system will increase its efficacy. This will allow aid to serve its intended goal: opening the doors of college to those with the ability but not the means to pursue higher education." It certainly seems a reasonable tradeoff if the funds for an improvement in the financial aid program

come from the elimination of an extremely poorly targeted tax-side program – indeed, in that case, it is no tradeoff at all.

5. Conclusion: Spending or (Not) Taxing or Both?

Surrey's key insight was that except for revenue raising purposes, spending measures and tax measures are two sides of the same coin. They can both be used to achieve redistributive or efficiency goals. Despite improved reporting of tax expenditures, however, they are rarely reported side by side with their direct expenditure equivalents. This makes it very difficult to identify the total share of post-secondary expenditures paid for by governments rather than students.

Perhaps more importantly, the very different rules for spending vs tax expenditure programs mean that it can be very difficult to identify the net effect of the two types of measure on one individual. This undermines the key rationale for government assistance to post-secondary education: that it should encourage participation to mitigate the effects of possible credit constraints, and to ensure that the value of any positive externalities to education are considered by individuals making education decisions. If individuals find it difficult to determine the costs of attending PSE due to multiple overlapping programs, some not well publicised, this reduces the effectiveness of programs designed to increase participation in PSE. This is particularly true when, as now, one part of costs of attending PSE are well documented – as, for instance, on universities' websites – while the financial assistance programs available are less well documented.

As a result, the direct costs of post-secondary education depend on a large number of factors which may or may not be easy for the student to estimate in advance, making it extremely difficult to determine the net costs and benefits of a post-secondary education. The task is difficult even for researchers. Collins and Davies (2004) for instance, provide an effective tax and subsidy rate only for a few selected individual types and choices. Usher and Duncan (2008) give up the attempt to determine the direct cost of education net of grants because information on grants is not readily available from a single reliable source. Even for those whose full-time job is studying the post-secondary education system, it is extremely difficult to calculate either rates of return or net subsidy rates.

But even if all we were to do was to consider Surrey's narrower question of whether the current share of government resources going to post-secondary education were appropriate, we may have something to learn. Are the social benefits to education are large enough to justify governments not merely subsidising post-secondary education, but in some instances paying all of the direct costs of education and more for all youth? That is currently the case for anyone planning to study and work in Saskatchewan, Manitoba or New Brunswick. Admittedly students will still bear the costs of foregoing income during their time as students. But given the evidence of large and increasing private returns to post-secondary education, and the lack of evidence that a price increase of even several thousand dollars would lead to lower enrolments of children from high income families, this would seem to dramatically over-subsidise post-secondary education.

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Appendix 1. Graduate retention programs: details

Graduate retention tax credits have been introduced in Saskatchewan (2000), New Brunswick (2005), Manitoba (2006), and Nova Scotia (2006), and have increased in generosity in more recent years. Of these, only the Nova Scotia and Manitoba credits have been included on the standard tax forms. Others require a separate application, making them closer to a spending program. Since these credits are typically able to be claimed over multiple years, though, low income in a single year after graduation does not necessarily prevent individuals benefiting from the programs. Table A1 below shows the effects of the retention programs along with provincial tax credits on the total cost of a university degree for students who studied and paid taxes (during and/or after their studies) in the same province, taking into account provincial average tuition fees. Note that this means that students who study in Saskatchewan and Manitoba, and work in those provinces after graduation, in essence receive a

Table A1. Effect of Graduate Retention Programs on net cost of a four university program, given tuition fees equal to 2008/09 provincial average

	Maximum	Credit rate	Fees paid	Graduate retention credits	Total tuition & education credits	Total net direct cost	Net direct cost per year
Nova Scotia		100%	$27,036	$15,000	$8,171	$3,865	$966
New Brunswick	$40,000	50%	$24,052	$12,026	$8,961	$3,065	$766
Manitoba	$25,000	60%	$15,264	$9,158	$8,291	-$2,185	-$546
Saskatchewan	$20,000	100%	$22,456	$20,000	$9,110	-$6,654	-$1,664

Note: We use the value of the Saskatchewan credit once fully phased in. Cumulative tuition and education credits are based on the credits available in the same province. Therefore, the net direct cost calculation assumes that graduates work in the same provinces as the one in which they paid taxes during their studies **and** paid (provincial average) tuition fees for 2008/09.

Details on each of the provincial programs is below.

Saskatchewan:
In 2000, Saskatchewan introduced the post-secondary graduate tax credit. This was a non-refundable credit of $350 for qualifying graduates who start work in Saskatchewan. Individuals needed to apply for a certificate from the Saskatchewan government in order to claim the credit. While it was non-refundable, it could be carried forward for up to four years. It was increased to $500 in 2004 and then to $675 in 2005. It increased to $850 in 2006, when it was replaced by a refundable tax credit under the graduate retention program.

The Graduate Retention Program provides a rebate of 100% of tuition fees paid, up to a maximum of $15,000 for four-year university graduates who graduated in 2009, increasing to $20,000 for four year university graduates who graduated in 2010. The rebate is spread out over 7 years, with payments of 10% of tuition fees in the first 4 years, increasing to 20% of tuition fees paid in the last 3 years. The rebate is refundable. Combined with the fact that applications for the rebate are not made through the tax system, this makes it technically an expenditure rather than a taxation program, although eligibility is restricted to those who filed a Saskatchewan tax return (presumably in order to ensure they meet the location requirements).

Oddly, the maximum claimable under the Saskatchewan credit increases from $15,000 for 2009 graduates of four year degree programs to $20,000 for 2010 graduates. Putting off graduation by 6 months therefore nets anyone planning to work in Saskatchewan an extra $5000. This seems worthwhile, if it means simply finishing the last course or two part-time.

(See: http://www.aeel.gov.sk.ca/grp)

Manitoba:
In 2007, Manitoba introduced the Manitoba Tuition Fee Income Tax Rebate. This provides a tax rebate of 60% of eligible tuition fees up to a maximum of $25,000. The annual tax rebate is equal to the lesser of 10% of the total tuition fee claimed, $2,500, or total Manitoba taxes paid. It is therefore a non-refundable credit, but unused amounts in one year can be carried forward to reduce tax liability in future years, subject to some time limits. Initial claims must be made within 10 years of graduating, and the benefits will be claimable for 6-20 years after that time. The credit is not claimed on the standard Manitoba income tax return, but is assessed at the same time.

The Manitoba Department of Finance indicates that tax credits for students currently cost Manitoba about $25 million per year, while the graduate tuition rebate is estimated to cost up to $90 million per year when fully implemented (Levin, 2009).

(See: http://www.manitoba.ca/tuitionrebate/faq.html)

New Brunswick:
The New Brunswick Tuition Tax Cash Back was announced in the 2005 Budget, with legislation receiving assent in June 2006. The credit allows students to recover 50 per cent of eligible tuition fees paid after January 2005, up to a lifetime maximum of $10,000 in credits ($20,000 in tuition fees). There was a limit of $2,000 on the amount of tax reduction that can be claimed in any one year, and the credit can be carried forward for up to 20 years but not transferred. In the 2009-2010 budget, the lifetime maximum grant has been increased to $40,000, with a limit of $4000 on annual rebates. The credit is claimed through a separate application after the tax assessment for the year is complete. The credit is not refundable (so in any one year is limited to the total amount of New Brunswick taxes paid), but can be carried forward for 20 years.

(See: http://www.gnb.ca/0162/tax/nbtr/NBTR_Q&A-e.pdf)

Nova Scotia:

In 2006, Nova Scotia introduced the Post-secondary Graduate Tax Credit, which was a credit of $1000 in 2006, rising to $2000 in 2007 for recent graduates working in Nova Scotia. The usual tax credit rate applies to this measure, so that the value in terms of taxes saved at the time was $176, rather minor in comparison to the other graduate retention credits.

This changed in 2010, the incoming New Democrat government replaced the Graduate Tax Credit with the Graduate Retention Rebate which provides a rebate on taxes of $2500 per year for

university graduates and $1250 for college graduates over each of the six years following graduation. The rebate does not depend on actual tuition fees paid or on the length of the program. The rebate is, however, non-refundable, meaning that its full benefit is felt only by those paying at least $2500 in taxes in Nova Scotia in the year of graduation and each of the next five years. The total value is therefore up to $15,000 for university graduates and up to $7,500 for community college graduates over the full six years, if the graduate would otherwise owe at least $2500 in taxes to the Nova Scotia government in each of the first six years after graduation. This amount is not dependent on tuition fees actually paid by the graduate.

(See: http://www.gov.ns.ca/finance/en/home/taxation/personalincometax/grr.aspx)