# Registered Education Savings Plans: A Tax Incentive Response to Higher Education Access

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**PRÉCIS**

La législation de décembre 1998 promet de rendre les régimes enregistrés d'épargne-études (REEE) plus intéressants pour les contribuables qui épargnent en prévision des études de leurs enfants. Le début de l'article est consacré à une discussion sur le rôle de l'État dans le financement des études supérieures et à l'évaluation de divers outils politiques qu'il a à sa disposition à cette fin, notamment les dépenses fiscales. La partie suivante porte sur l'évolution des dispositions relatives aux REEE depuis 1974 et met plus particulièrement l'accent sur les changements survenus au cours des trois dernières années. La dernière partie comporte des exemples qui illustrent l'application de la Subvention canadienne pour l'épargne-études, la modification la plus importante de 1998. Des exemples additionnels présentent des stratégies d'épargne en vertu des nouvelles règles. En conclusion, les auteurs laissent entendre que même si le REEE représente un engagement important de la part de l'État et constitue un mécanisme permettant le financement du coût futur d'études supérieures avec des dollars à l'abri de l'impôt, il ne règle pas le problème des Canadiens pour qui l'accès aux études supérieures représente une réelle difficulté.

**ABSTRACT**

Legislation introduced in December 1998 promises to make registered education savings plans (RESPs) more attractive to taxpayers saving for their children's education. The article begins by discussing the role of government in higher education financing and examines the various policy instruments available to government—in particular, the use of tax expenditures. The next section reviews the RESP provisions as they have evolved since 1974, with particular emphasis on the changes made in the last three years. The final section provides examples illustrating the application of the Canada education savings grant, the most significant of the 1998 changes, and additional examples suggest strategies for saving under the new rules. The conclusion suggests that, although the RESP

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represents a significant commitment by the government and provides a mechanism whereby the future costs of higher education could be paid with tax-sheltered dollars, the RESP tax incentive will fail to provide the path to higher education for those Canadians for whom access is a real problem.

## EDUCATION PUBLIC POLICY AND THE RESP

The main focus of this article is the registered education savings plan (RESP)—in particular, as recently enhanced by legislation introduced in December 1998. However, before reviewing the history of the RESP and the details of the government's recent decision to raise its status to that of a major tax expenditure, and presenting examples of education savings strategy inside and outside the tax-sheltered plan, we must begin by addressing what is arguably the most basic question: why does government invest in higher education financing at all? Only after addressing that question and establishing an understanding of the context in which the increased investment in RESPs has been introduced will we be equipped to evaluate the nature and validity of the federal government's higher education financing policy as that policy is reflected in the RESP initiative.

The latest Statistics Canada data on university enrolment rates indicate that despite two decades of dramatic cost increases and reduced government funding, university enrolment in Canada has continued to rise. In 1975, 8.3 percent of Canadians aged 19 to 24 were enrolled in university; 20 years later, the rate was more than double that, at 18.6 percent.[1] This suggests that more Canadians than ever are finding the means to finance their higher education regardless of its rising cost. Why then is the government offering additional tax incentives and committing additional public resources in the name of increased access? Can access really be a concern when more and more Canadians are finding the means to educate themselves beyond high school?

### Investing in Higher Education: Public and Private Returns

One explanation for ever-increasing enrolment rates lies in the theory of human capital and the large body of evidence that the decision to pursue higher education is likely the best investment decision an individual will ever make. Under the theory of human capital,

> the personal decision to spend scarce, private resources on education is an investment decision. Individuals choose from among alternative investments, selecting education when the expected stream of resulting lifetime earnings exceeds the stream of anticipated education costs by a margin sufficient to yield a rate of return greater than anticipated returns from alternatives.[2]

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[1] Alanna Mitchell, "Tuition Squeeze Not Stopping Students," *The Globe and Mail*, September 30, 1997.

[2] Larry L. Leslie and Paul T. Brinkman, *The Economic Value of Higher Education* (New York: Macmillan, 1988), 6. Leslie and Brinkman trace the history of the development

As the above definition suggests, the major element in terms of the private return to the individual takes the form of increased lifetime earnings. Other benefits, often omitted from the calculations owing to their unquantifiable nature, include increased social status, enhanced job satisfaction and lifelong learning, better health and family life, more efficient budgeting, and higher returns on investments, as well as "the ability to adjust to disequilibria in the economy."[3]

In a series of articles that appeared in *Canadian Public Policy*,[4] estimates of private rates of return (using only male data) ranged from 6 to 14 percent. More recently, Kitchen and Auld estimated the private return for females at 15.2 percent and males at 14.0 percent.[5] Evidence of significant private returns, which almost always compare favourably with other investments, has been used to support higher tuition fees, lower public subsidy, differentiated fees for those programs with higher earning potential, and student aid in the form of income-contingent loans. Perhaps the most extreme suggestion using this "bottom-line approach" to education has been to deny all aid to areas of study with limited earnings potential and to charge universities a penalty when they admit "high-default-risk students . . . unlikely to benefit sufficiently from the education."[6] In this "Darwinian" view of education, "education is economics. It benefits the student; the student should pay."[7]

The weakness in this argument is that it ignores the equally large body of evidence of the significant positive effects of higher education on

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[2] Continued . . .

of the human capital idea and its application to education. See also Howard R. Bowen, with the collaboration of Peter Clecak, Jaqueline Powers Doud, and Gordon K. Douglass, *Investment in Learning: The Individual and Social Value of American Higher Education* (San Francisco: Jossey-Bass, 1977). Bowen concludes that higher education, taken as a whole, is enormously effective.

[3] Harry Kitchen and Douglas Auld, *Financing Education and Training in Canada*, Canadian Tax Paper no. 99 (Toronto: Canadian Tax Foundation, 1995), 88. See also Gordon K. Douglass, "Economic Returns on Investments in Higher Education," in Bowen, supra footnote 2, 359-87, at 377.

[4] François Vaillancourt and Irene Henriques, "The Returns to University Schooling in Canada" (September 1986), 12 *Canadian Public Policy* 449-58; Michael Krashinsky, "The Returns to University Schooling in Canada: A Comment" (June 1987), 13 *Canadian Public Policy* 218-21; François Vaillancourt, Josee Carpentier, and Irene Henriques, "The Returns to University Schooling in Canada: A Rejoinder" (September 1987), 13 *Canadian Public Policy* 389-90; and Christos Constantatos and Edwin G. West, "Measuring Returns from Education: Some Neglected Factors" (June 1991), 17 *Canadian Public Policy* 127-38.

[5] Kitchen and Auld, supra footnote 3, at 88-89.

[6] Barbara Miles and Dennis Zimmerman, "Reducing Costs and Improving Efficiency in the Student Loan Program" (September 1997), *National Tax Journal* 541-56, at 547. Miles and Zimmerman are quick to dismiss evidence of the external benefits of higher education, describing it as "nonquantitative and mixed" (ibid., at 555, footnote 5).

[7] "Debt and Tuition—All That's Certain," editorial in *The Toronto Star*, June 1, 1998, describing the view of education held by the current government of Ontario under Premier Mike Harris.

society overall. Many of the effects that benefit the individual have public and social impacts as well. Again, the easiest to measure is labour market returns—that is, the increased tax revenue collected from the higher-educated and therefore higher-earning citizen. Other non-market benefits cited have included lower welfare costs, greater community health, adaptability to change, tolerance, enhancement of democratic institutions, reduced crime, better parenting, lower incidence of gambling, higher participation in volunteer activities, and a more sophisticated class of leaders in society.[8] Conservative estimates of social rates of return fall normally in the 6 to 10 percent range and are probably understated.[9] Thus, even after accounting for the welfare costs of raising taxes to finance education,[10] rates of return continue to compare favourably with those for other investments.

We see the implications of the capital theory approach in the reasons cited by previous federal governments for continued investment in the country's post-secondary education system. For example:

> A major aim . . . is to ensure that Canadians are able to acquire the high-level skills and knowledge needed for our social and economic development. A second . . . interest . . . is related to the role of our universities in research and the development of knowledge. . . . A third fundamental reason . . . concerns the social and cultural development of Canada.[11]

The view of education as an investment for a payoff, whether to society or to its individual members, strikes a chord with those theorists who engage in efficiency analysis, asking whether government policies promote or inhibit "the efficient allocation of resources."[12] Underinvestment by the government will drive the individual's cost up, reducing the rate of return and thereby leading to underinvestment by individuals. The opposite is also true. Overinvestment by government produces overinvestment by individuals. Both distort the individual's decision as to whether to spend time and money on more education, and both result in economic inefficiency.

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[8] Kitchen and Auld, supra footnote 3, at 88, and Douglass, supra footnote 3, at 377. See also Vaillancourt and Henriques, supra footnote 4, at 455.

[9] Vaillancourt and Henriques, supra footnote 4, at 455.

[10] See Constantatos and West, supra footnote 4. These authors calculate a social return of 7.32 percent after introducing this previously neglected factor and assuming that raising an extra dollar of revenue costs $1.50.

[11] Canada, Department of the Secretary of State, *Federal and Provincial Support to Post-Secondary Education in Canada: A Report to Parliament, 1989-90* (Ottawa: the department, 1991), 61.

[12] For a discussion of the efficiency versus equity theories, see Boris I. Bittker, "Equity, Efficiency, and Income Tax Theory: Do Misallocations Drive Out Inequities?" in Henry J. Aaron and Michael J. Boskin, eds., *The Economics of Taxation* (Washington, DC: Brookings Institution, 1980), 19-31.

In the l998 budget speech, Finance Minister Paul Martin alluded to the economic implications of public investment in education; however, his words suggest a higher concern for issues of equity in addition to efficiency:

> There is no better way to reduce the gap between rich and poor, no surer way to widen the mainstream, no more meaningful way to reduce the numbers of those left behind, and no better way to provide a higher quality of life for Canadians, than to facilitate the path to greater education.[13]

Expressed in these terms, the approach is more reminiscent of what David Stager refers to as the "pool of ability" approach to educational planning, the need to "search out the competent from all social classes."

> The implied wastage of potential resources, if able students did not continue their education, was based not only on a collective concern for the potential welfare of individual members of society, but also on the development of human resources as a fundamental requirement for high rates of economic growth that would benefit society in general.[14]

It is this aspect of the problem that is missed when statistics of ever-rising enrolment rates lead us to the conclusion that reduced funding, which results in higher tuition, has had no adverse effects on access to post-secondary education in Canada.

In "[facilitating] the path to greater education," government possesses three basic instruments with which to deliver higher education financing policy. These are institutional subsidies, student aid, and tax expenditures. The proposals announced in the 1998 budget continue a shift away from the first two and a greater reliance on the tax system. The following discussion will examine the changing role of each of these policy instruments and offer an evaluation of how Canadians' path to greater education will be affected by the most recent expansion of tax preferences and incentives.

## Institutional Subsidy and Student Aid

In 1975, for each dollar of tuition expended by a Canadian student in a post-secondary institution, the government spent $5.02. By 1996, that same student dollar of tuition attracted only $2.97 in government funding.[15] Since 1984, average tuition in Canada has risen, after accounting for inflation, by 86 percent; 62 percent of that rise has occurred since 1990.[16] In 1998-99, the average annual tuition fee in Ontario for an undergraduate arts degree is $3,564; the fee for 1999-2000 is projected at $3,900.[17]

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[13] Canada, Department of Finance, 1998 Budget, Budget Speech, February 24, 1998, 11.

[14] David A.A. Stager, *Focus on Fees: Alternative Policies for University Tuition Fees* (Toronto: Council of Ontario Universities, July 1989), 46.

[15] Supra footnote 1.

[16] Ibid.

[17] Ontario Confederation of University Faculty Associations, *Briefing Note: Tuition Fees* (Toronto: OCUFA, November 12, 1997).

Canada now has the distinction of having the third highest tuition of all OECD countries.[18] It is estimated that the average Harvard University student carries a current debt-load equivalent to Cdn.$16,500,[19] while the debt-load in 1998 of a student in Ontario is $25,000 (compared to $6,700 in 1990), an amount some say is unparalleled in the world. If recent trends continue, it is estimated that a child born in 1998 will pay $75,000 for a four-year undergraduate arts degree;[20] during the five years preceding that child's birth, the federal government has cut $2.3 billion from post-secondary education in Canada.[21] We remain one of only two industrialized countries with no large-scale national grants program based solely on need.[22]

Much empirical evidence tends to support the position expressed by Stager in his 1989 report, *Focus on Fees*:

> The most common observation in the extensive literature on accessibility to higher education is that for the great majority of potential students financial conditions are not a significant barrier.[23]

In addition, Stager noted a second major observation:

> [D]espite the enormous expansion in numbers and types of postsecondary institutions and in student assistance programs, there has been relatively little change in the composition of university enrolment.[24]

These conclusions seem consistent with the statistic already noted, that Canadian university enrolment rates have more than doubled since 1975 despite dramatic tuition cost increases—a fact that prompted *The Globe and Mail*'s headline "Tuition Squeeze Not Stopping Students."[25]

Significant amounts of research conducted on student price-response behaviour can be cited to support this perhaps counter-intuitive conclusion that low tuition policy does not enhance accessibility. In fact, a policy of

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[18] "Renewing Student Assistance in Canada," in *Report of the National Roundtable on Student Financial Assistance*. http://www.caut.ca/english/lobby/studentaid/renew.htm.

[19] Ibid.

[20] John Schofield, "Saving for School," *Macleans*, June 15, 1998, 54-55, at 55. Refer also to our table 2 below, which projects tuition and living expenses 18 years from now under various growth rate assumptions. The $75,000 figure would be compatible with an assumed tuition growth rate of 5 percent and growth in living expenses of 2 percent. This seems to be, if anything, a modest projection.

[21] Canadian Centre for Policy Alternatives, *The Time Is Now: Alternative Federal Budget 1998* (Ottawa: CCPA, 1998), 23.

[22] The other is Japan. The $2.5 billion Millennium Scholarship fund proposed in the February 1998 budget will be administered by a private institution and provide awards to low- and middle-income students based on merit, despite critics' appeals to have it purely needs-based.

[23] Supra footnote 14, at 63.

[24] Ibid.

[25] Supra footnote 1.

low tuition is regarded by many as socially regressive on the basis that higher-income families, whose children are overrepresented in the post-secondary student body, are receiving most of the benefit of the public financing required to keep tuition down.[26] Levin, for example, presents the two traditional, "tremendously powerful" arguments for low tuition policy, which he describes as "an article of faith" in the western world:

> The first is that higher education is a public good; the public ought to provide support for it. The second, more commonly advanced in Canada, is that substantial tuition fees would exclude deserving students who lacked the money to pay.[27]

He is driven to conclude, however, that "an examination of the evidence does not support these beliefs."[28] Countries with low and even zero tuition have reported no significant impact on university attendance. Research to identify which sociological variables most significantly affect enrolment rates typically fails to place financial considerations at the top of the list. Levin, for example, lists it fourth, after academic achievement and confidence in one's own ability; education and income of parents; and intentions of friends and siblings.[29] Stager based his conclusion that financial conditions are not a significant barrier for "the great majority of . . . students" on a review of the literature, which showed that, in most studies, the price elasticity demand is "much less than −1.0"—that is, a 10 percent increase in tuition can be expected to produce a decrease in enrolment significantly less than 10 percent.[30]

In 1988, Leslie and Brinkman surveyed and summarized the US "student demand studies" literature and concluded that, although elasticity is much less than −1, "every study examining the effect of higher education prices on enrollments has concluded that enrollments decline as prices rise and enrollments rise as prices decline."[31] By framing the accessibility question somewhat differently and asking not simply whether anyone is sent

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[26] See, for example, Benjamin Levin, "Tuition Fees and University Accessibility" (March 1990), 16 *Canadian Public Policy* 51-59; and Clément Lemelin, "Short-Term Redistributive Effects of Public Financing of University Education in Quebec" (June 1992), 18 *Canadian Public Policy* 176-88. Stager reported continuing regressivity in university financing, although he described the evidence to be scant in terms of redistribution both across generations and among and within income classes (supra footnote 14, at 10). Leslie and Brinkman, on the other hand, found that generally, higher education in the United States acts to redistribute wealth from richer to poorer (supra footnote 2, at 14).

[27] Levin, supra footnote 26, at 51.

[28] Ibid.

[29] Ibid., at 55-56. See also Larry L. Leslie and Paul T. Brinkman, "Student Price Response in Higher Education: The Student Demand Studies" (March-April 1987), 58 *Journal of Higher Education* 181-204; and David A.A. Stager, *Focus on Fees: Evolution, Rationale, and Alternative Directions for University Fees—Interim Report* (Toronto: Council of Ontario Universities, March 1989).

[30] Stager, supra footnote 29, at 7.

[31] Leslie and Brinkman, supra footnote 2, at 15.

away when tuition costs rise, but also *who* is sent away, they found evidence of high price sensitivity only for the lowest income quartile.[32] Although in the United States low-income students still attend at considerably lower rates than do high-income students despite the availability of substantial amounts of aid,[33] on the issue of rising tuition, "student response to price seems to decline with [increasing] family wealth"[34]—that is, response is greatest among low-income students and least among the wealthier.

In Canada, the most dramatic tuition increases have occurred since 1990, and student aid has failed to keep pace.[35] Calls for a national needs-based grant program have been frustrated. Recall that the average Ontario student debt-load has more than tripled in the past eight years. When Levin reported his recommendations against low tuition policy, on the basis that it would not enhance accessibility, he was looking at data from a period when tuition had increased at about the same rate as inflation. Evidence of rising enrolment rates can be deceiving. For example, New York state's public universities have reported rising enrolments for the 1995-1998 period, despite tuition hikes precipitated by constrained government budgets.[36] However, when examined more closely, the data show that enrolment has fallen 20 percent for students from low- and middle-income families, while the proportion of first-year students from the highest income cohort (whose families earn more than $105,000) has risen by 14 percent.[37] Evidence is now beginning to emerge which suggests that real impairment in accessibility for low-income Canadians will inevitably flow from a higher education financing policy that fails to address their needs. A recent study at York University showed that in 1991, 17 percent of York's undergraduate population came from families whose income was

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[32] Leslie and Brinkman, supra footnote 29, at 197.

[33] In 1988, Leslie and Brinkman estimated that 20 to 40 percent of US low-income enrolment was the result of grant aid (supra footnote 2, at 16). Efficiency arguments, on the other hand, suggest that financial aid is a deterrent to savings. Proponents argue that US taxpayers who accumulate financial assets, whether as education savings or not, and then have their children's applications for aid either turned down or reduced as a result, are paying implicit taxes on savings, and these taxes may be as high as 50 percent. See, for example, Thomas J. Kane, "Beyond Tax Relief: Long-Term Challenges in Financing Higher Education" (June 1997), 50 *National Tax Journal* 335-49; and Martin Feldstein, "College Scholarship Rules and Private Saving" (June 1995), 85 *The American Economic Review* 552-66.

[34] Leslie and Brinkman, supra footnote 2, at 15. The same study also found that student response declines with rising institutional prices and increased selectivity—that is, response is greatest among low-income students in public community colleges and least among the wealthier students who enrol in private colleges.

[35] Statistics Canada data show that, after considering the effects of inflation, the average loan under the Canada student loan plan rose 55 percent from 1984 to 1995, during which time average tuition rose by 75 percent. Don Little, "Financing Universities: Why Are Students Paying More?" (Summer 1997), 4 *Education Quarterly Review*, Statistics Canada catalogue no. 81-003-XPB.

[36] Statistics obtained from the staff of the Ontario Confederation of University Faculty Associations and attributed to Ali Zaida.

[37] Ibid.

under $20,000; by 1994, that proportion had dropped to 10 percent.[38] The next section will illustrate how the government's preference for intervention in the form of tax incentives, and in particular, the growing tax preference found in RESPs, will likely add to the problem for Canada's less privileged and fail to expand their access to higher education.

## Using Tax Expenditures To Finance Post-Secondary Education

Lemelin's 1992 article looked at the redistributive effects of the public financing of university education in Quebec.[39] Using 1984 data, he considered how the benefits represented by the cost of three forms of public intervention—public subsidies to universities, student aid, and tax expenditure—related to the socioeconomic status of the beneficiaries of those interventions. He concluded that the total value of public intervention is positively correlated with socioeconomic status—that is, that public financing of universities benefits higher-income families at the expense of others. The calculations of the private value for families of the three forms of financing led him to conclude that, while the redistributive effects of student aid are "indisputably progressive," direct subsidies to universities and tax expenditures are regressive. On the basis of his research results, he recommended "a change in emphasis in public financing of university education, away from public subsidies to universities and tax expenditure, and towards student aid."[40] It is true that with tax reform of 1988 and the conversion of many tax deductions into credits, including those for tuition and education, the significance of Lemelin's results may have been weakened; however, the emphasis of the 1998 budget on tax expenditures as the primary vehicle to fund higher education will no doubt continue to erode any progressivity gains, especially when the bulk of the forgone revenue is attributable to RESPs.

As a result of changes proposed in the 1998 budget, the federal government is expected to spend $540 million, $840 million, and $955 million in the next three fiscal periods, respectively, on post-secondary education financing initiatives.[41] More than one-half of every dollar spent during the

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[38] Supra footnote 17, at 3-4.

[39] Lemelin, supra footnote 26.

[40] Ibid., at 186. Lemelin considers seven tax expenditures: federal and provincial deductions of tuition fees, federal and provincial exemptions for a dependent child, federal and provincial exonerations of the first $500 of a scholarship, and the federal education deduction. Parents with income under $14,000 received 6.4 percent of the benefit of these expenditures, while parents with income over $56,000 enjoyed 23 percent.

[41] Canada, Department of Finance, 1998 Budget, The Canadian Opportunities Strategy, February 24, 1998, 19. These totals include, for each of the three years, the Canada study grants for students who have children and are in financial need, increased funding for granting councils, improvements to the Canada student loans program, tax relief for interest on student loans, tax-free RRSP withdrawals for lifelong learning, tax relief for part-time students, and the Canada education savings grant.

three years will be delivered through the tax system.[42] The single largest expenditure will be the Canada education savings grant (CESG) to RESP contributors.[43]

The Income Tax Act is, of course, often used to encourage taxpayers to participate in or invest in activities that are seen as socially and/or economically desirable. The taxpayer who responds to the incentive receives a preference in the form of a deduction, a credit, an exclusion, an exemption, or a rate reduction. Economically, the incentive is equivalent to the government's collection of forgone revenue and simultaneous disbursement of it in a direct outlay to the preferred set of taxpayers. This instrument, called a "tax expenditure," has been used extensively in the area of education, as discussed above. Despite evidence of their generally regressive nature and lack of effectiveness in targeting those most in need, tax expenditures dominate the education items in the 1998 budget. The most costly of them takes the form of a savings incentive and will favour the otherwise well-off taxpayers, that small group of Canadians who are already able to make private arrangements for their children's education.

According to the 1997 report of the National Roundtable on Student Assistance, only 1.6 percent of all post-secondary students were making use of funds from RESPs to finance their education.[44] Across Canada, there were 750,000 RESP accounts in 1997.[45] The rationale behind expanding the RESP through higher contribution limits, more flexible arrangements, and government grants is that this is now something all Canadians can and will make use of. In fact, in the budget language, it is something we dare not live without, for the government believes that "RESPs will soon come to be considered as *essential* for future planning as registered retirement savings plans are now [emphasis added]."[46]

This belief reflects the government's definition of accessibility as "what is legally possible without regard to what is economically feasible."[47] According to Statistics Canada data for 1997, Canadians saved only 1.8 percent of their personal disposable income in 1997, and only one-third of those eligible to put money into a registered retirement savings plan

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[42] As projected, tax measures will represent $270 million of the $540 million in 1998-99, $460 million of the $840 million in 1999-2000, and $444 million of the $955 million in 2000-01.

[43] The government expects to spend $150 million, $200 million, and $275 million on the CESG in each of the next three years, respectively. Note that this is in addition to the revenue already forgone on the deferral of investment income earned in RESPs.

[44] Supra footnote 18.

[45] Schofield, supra footnote 20, at 54.

[46] 1998 Budget Speech, supra footnote 13, at 19.

[47] Mary Jane Mossman and Morag MacLean, "Family Law and Social Welfare: Toward a New Equality" (Summer 1986), 5 *Canadian Journal of Family Law* 79-110, at 95.

(RRSP) made any contribution.[48] While the finance minister would attribute this lack of savings to the previous absence of appropriate tax incentives, others might note that real incomes in Canada have been declining since 1993, average household debt is currently 99.9 percent of after-tax income,[49] and private savings for future consumption do depend upon income being in excess of current needs.

**The Effectiveness of Tax Incentives To Encourage Savings**

The argument is commonly made that taxation on the basis of income encourages immediate consumption in the earnings period and penalizes saving, so that tax measures to provoke savings remove the inherent savings penalty and allow for more rational life-cycle planning. On the other hand, empirical evidence has always been mixed on the question whether tax incentives work to increase savings; economists disagree as to whether savings should be encouraged; and equity seekers decry further redirection of government support to focus on that small number of affluent Canadian households with access to private arrangements for their financial security.

The opinions of experts have been decidedly mixed as to whether any additional net savings are produced by tax incentives. On the subject of other, earlier savings incentives in the Canadian tax system, Richard Bird concluded that

> while they do succeed in channelling savings in specific directions, they are unlikely to increase aggregate savings much and are probably not very socially useful overall.[50]

Feldstein's study for the National Bureau of Economic Research, as well as his own study of factors affecting saving and investment in the United States, revealed that saving to finance children's post-secondary education is an important component of total saving for a "small number of relatively affluent households."[51] More recently, the same conclusion has been reached on the subject of the tax assistance offered to retirement savers in the United States in the form of individual retirement accounts (IRAs). In response to the question "Do IRAs increase savings or are they merely a windfall for otherwise well-off taxpayers?" Gravelle[52] found no

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[48] Supra footnote 1.

[49] Ibid.

[50] Richard M. Bird, *Tax Incentives for Investment: The State of the Art*, Canadian Tax Paper no. 64 (Toronto: Canadian Tax Foundation, 1980), 13. Here Bird was talking about registered pension plans, RRSPs, registered home ownership savings plans, and the $1,000 interest and dividend deduction. His conclusions were based on Canadian tax incentives as well as evidence from other countries; for the latter, he referred to William J. Byrne, "Fiscal Incentives for Household Saving" (July 1976), 23 *International Monetary Fund Staff Papers* 455-89.

[51] Feldstein, supra footnote 33, at 552. See also NBER Working Paper no. 432 (February 1992).

[52] Jane G. Gravelle, "Do Individual Retirement Accounts Increase Savings?" (Spring 1991), 5 *The Journal of Economic Perspectives* 133-48.

evidence of increased aggregate savings. Any increase in IRA savings was explained by offsetting reductions in other forms of savings, by increased borrowing, or by shifting from existing assets. IRA contributors continued to save more in all forms than non-contributors even when the tax advantages were significantly reduced, because, suggests Gravelle, they are simply "disposed to save."[53] Bernheim's recent review of the academic work on the relation between tax incentives (principally, the IRA) and personal saving led him to describe the literature as "inconclusive."[54] It seems that the only indisputable conclusions he could reach were that benefits do accrue to the vendors of tax-favoured investment products and that savings behaviour might be more of a response to the advertising campaigns of the financial services industry than to changes in tax treatments.

The evidence then is inconclusive as to the economic validity of savings incentives. At the same time, in the case of the augmented RESP incentive, the fact that the government is contributing too—both directly in the form of the CESG and indirectly by way of sheltering the investment income—may well lead some taxpayers who contribute to commit less than they otherwise would. Finally, if the efficiency approach is flawed, the equity arguments are infinitely more so.

## Savings Incentives and the Equity of the "Economically Feasible"

Theoretically, "a taxpayer who chooses to consume in the present should be treated the same as one who chooses to save and consume or make bequests in the future, as long as they have the same ability to pay."[55] Realistically, however, whether one has the ability to make that choice to set aside income or wealth in excess of current needs is determined by the same basic factor as ability to pay—that is, the amount of one's income and wealth. With a tax measure such as the 1998 RESP, the government's commitment to "investing alongside those who seek to save for their children's education"[56] seems to assume that choice exists and that failure to save is simply the result of exercising a personal preference for consumption rather than the inevitable result of having no choice at all. The 1998 RESP reflects the same ideology that we saw under pension reform—the ideology of private initiative, which enlarges tax preferences extended to private investment arrangements, helps (like God in the Christian adage) only those who help themselves, and thereby perpetuates the

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[53] Ibid., at 146.

[54] B. Douglas Bernheim, "Rethinking Savings Incentives," in Alan J. Auerbach, ed., *Fiscal Policy: Lessons from Economic Research* (Cambridge, Mass.: MIT Press, 1997), 259-311, at 260.

[55] Neil Bruce, "Ability To Pay and Comprehensive Income Taxation: Annual or Lifetime Basis?" in W. Neil Brooks, ed., *The Quest for Tax Reform: The Royal Commission on Taxation Twenty Years Later* (Toronto: Carswell, 1988), 157-65, at 161.

[56] 1998 Budget Speech, supra footnote 13, at 18.

marginalization of those whose access to such arrangements is curtailed by their economic reality.

Financial planning advisers can easily "run some numbers" to illustrate the best strategy for maximizing the newly sweetened RESP. One such example follows.

A couple, age 35, has one child, a 25-year mortgage of $200,000 at 6.5 percent, and the higher-income earner with a marginal tax rate of 40 percent (meaning they earn between $29,000 and $59,000 a year).

If the couple contributes $5,000 each a year to an RRSP and receives a total tax refund of $4,000, they can put half the money on the mortgage and half into an RESP for the maximum allowable period of 18 years, applying for the $400 grant each year.

(Both RRSP and RESP are assumed to earn eight percent a year.)[57]

The couple in the example end up with a mortgage that is discharged 5.4 years early, an RRSP of $477,620, and an RESP of $116,888, more than enough to meet even the most dire predictions of future education costs.[58] What is not clear to the unsophisticated reader is that the couple in the example, whose joint pre-tax income is at most $87,000, are saving $10,000 after they pay their taxes, their mortgage, and child care expenses. Certainly it is legally possible; it is, however, in no way close to the economic reality of the average Canadian family, either in terms of family income or in terms of savings rates.

## The US Experience

Canada's increased use of the tax system to deliver education assistance reflects the recent US experience under the Taxpayer Relief Act of 1997.[59] As part of a package representing approximately $45 billion of government expenditures over the next five years, federal grants to low-income students were increased by $9 billion. The remaining $36 billion of projected cost comes as forgone revenues resulting from a variety of tax expenditures.[60]

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[57] Tony Wanless, "RESPs Now Better Bet for Many," *Hamilton Spectator*, March 10, 1998. The example is credited to Gordon Gibson, of Partners in Planning, a Vancouver financial planning firm.

[58] See our table 2, below, which calculates the present value of tuition and living expenses 18 years from now. Our most expensive scenario assumes a tuition growth rate of 9 percent and projects total expenses of $114,212. The figure most commonly cited for the cost of university education for a child just now being born seems to be in the $75,000 range.

[59] Taxpayer Relief Act of 1997, Pub. L. no. 105-34, enacted on August 5, 1997.

[60] The non-refundable Hope Scholarship tax credit (section 210 of the Taxpayer Relief Act, supra footnote 59) provides, for the first two years of college, a 100 percent tax credit on the first $1,000 of tuition expenses and a 50 percent credit on the second $1,000. Instead, the taxpayer may choose the new tax deduction for up to $10,000 in tuition costs. For 1998, students in the United States can now deduct up to $1,000 of interest cost on education loans; this amount will rise by $500 per year until 2001. In addition, the new

The context is a familiar one. US tuition is being driven up[61] by constrained government budgets and by declining labour market prospects for those without post-secondary education. Federal student aid programs have failed to keep pace,[62] and federal loans to students have increased relative to grants. Enrolment of low-income students has fallen behind as enrolment rates have increased overall. Economist Thomas Kane, who found evidence of a widening gap in US enrolment rates between youths in high- and low-income families, expressed concern over what he called the disturbing implications for future intergenerational mobility.[63]

US President Clinton has stated proudly that, as a result of educational reforms under his administration, anyone who wants to go to college can now go: "If you know a child from a poor family, tell her not to give up. She can go to college."[64] Many commentators remain unconvinced. McPherson's and Schapiro's work on pricing, aid, access, and choice in US higher education[65] found that real increases in net tuition have impaired access and choice principally for students from low-income families. Their evaluation of the Clinton administration's proposals led them to the conclusion that the net effect of these provisions is to ensure that low-income students at low-cost institutions are unlikely to receive any benefit from the new tax provisions.[66] Their greatest reservation about tax subsidies for higher education is that dollars headed for the tax side will grow over time, and the traditional student aid programs, which they see as much better vehicles for providing access and choice, will gradually wither.[67]

Evelyn Brody contrasts the US tax treatment of education after the Taxpayer Relief Act of 1997 with the tax treatment that education expenditures should receive and is struck by what she calls the nearly complete discordance between the two:

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[60] Continued . . .

education IRA allows a parent to contribute up to $500 per child per year to an education IRA, which can be withdrawn tax-free to pay for the child's college costs. The education IRA preference is not available to a taxpayer claiming the tax credit and is phased out for high-income taxpayers (joint filers over $150,000, single filers over $95,000). In addition, the 10 percent tax on early withdrawals from an IRA does not apply to distributions used to pay the expenses of higher education.

[61] According to Kane, supra footnote 33, at 336, tuition in a public four-year US college rose, after adjusting for inflation, by 91 percent from 1980 to 1995.

[62] The real value of the US federal grant program declined by an estimated 35 percent between 1980 and 1995. Ibid., at 337.

[63] Ibid.

[64] "Clinton, in Speech to Congress, Seeks 50% Increase in NIH Budget over 5 Years," *Academe Today*, January 8, 1998. http://chronicle.com.

[65] Michael S. McPherson and Morton Owen Schapiro, "Financing Undergraduate Education: Designing National Policies" (September 1997), 50 *National Tax Journal* 557-71.

[66] Ibid., at 563.

[67] Ibid., at 565.

Little evidence appears to exist that these educational provisions will actually increase enrollments, as opposed to reward those who were going to college anyway. It appears that the administration considered the $40 billion tax cost of these revenue provisions to satisfy its campaign promise of a middle-class tax cut. However, an expenditure is wasted if it subsidizes activity that was going to occur in the absence of the tax benefit.[68]

In the next section of the article, we examine the RESP, its history, and its most recent role as the flagship tax initiative of the Canadian opportunities strategy. Although the form and substance of the Canadian approach differ from that taken in the United States, the same fundamental problem remains. What, if anything, do these programs do to bring into our institutions of higher education those who would otherwise lack the resources to enter?

## THE RESP LEGISLATION AND ITS APPLICATION
### Historical Background

The basic scheme of RESPs remains as enacted in 1974.[69] It provides for a subscriber to enter into a trust agreement with a promoter and to contribute funds to the trust for the post-secondary education costs of a named beneficiary.[70] The funds contributed by the subscriber are not deductible, nor are they included in the subscriber's income when they are returned as a refund of payments (ROP).[71] The distribution of the trust's accumulated income as educational assistance payments (EAPs)[72] is included in the named beneficiary's income in the year received. The principal benefit of an RESP is the sheltering from tax of the trust's accumulated income until it is distributed.

Notwithstanding the ability to shelter income from tax, RESPs have historically proven to be an unattractive means for saving for post-secondary education. Parents were dissuaded from investing in RESPs because of the possibility of having to forfeit the accumulated income if the named beneficiary did not pursue a post-secondary education. The last three federal budgets have introduced measures to make investments in RESPs more attractive.

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68 Evelyn Brody, "The Tax Treatment of Education After the Taxpayer Relief Act of 1997" (March 23, 1998), 78 *Tax Notes* 1549-58, at 1555.

69 Section 146.1 of the Income Tax Act, RSC 1985, c. 1 (5th Supp.), as amended (herein referred to as "the Act"). Unless otherwise stated, statutory references in this article are to the Act. The enactment of section 146.1 in 1974 codified the decision in *R v. J.H. Quinn*, [1973] CTC 258 (FCTD), by permitting the registration of education savings plans. Quinn was one of 39,000 participants under an agreement with the Canadian Scholarship Trust Fund, which attempted to provide a tax deferral opportunity for education savings. Quinn was reassessed to have his portion of the annual income accruing in the trust taxed in his hands.

70 "Subscriber," "promoter," and "beneficiary" are defined in subsection 146.1(1).

71 As defined in subsection 146.1(1).

72 As defined in subsection 146.1(1).

## Changes in the Budgets of 1996 and 1997

In recognition of the rising costs of post-secondary education, changes proposed in the budget of March 6, 1996 increased the annual limit on RESP contributions to $2,000 and the lifetime limit to $42,000 for each beneficiary.

The RESP rules underwent more extensive amendment in the February 18, 1997 budget.[73] Taxpayers were provided with greater flexibility and saw their risk reduced. To reflect increasing tuition costs and to allow subscribers to make contributions when financially able, the RESP annual limit was doubled to $4,000. Since total contributions for each beneficiary remain capped at $42,000, the doubling of the annual limit cuts in half the time required for the lifetime limit to be reached. This benefits not only those subscribers wishing to catch up as their children approach post-secondary education, but also those with the financial means to contribute the maximum each year during the child's earliest years.[74]

Changes in 1997 also provided subscriber parents with greater ability to reallocate plan funds among beneficiaries when one child fails to pursue a post-secondary education. This change results from granting group plans greater parity with family plans. A family plan (that is, a plan in which each of the beneficiaries is related to the subscriber by either blood or adoption)[75] was usually established to provide for the post-secondary costs of several siblings. Before 1997, a family plan allowed for EAPs to be made without regard to each sibling's share of contributions, allowing, for example, a subscriber to a plan with three beneficiaries to direct EAPs to the remaining two children where the first child becomes ineligible. On the other hand, a parent whose children were in a group plan (usually along with thousands of unrelated beneficiaries) could not redirect EAPs among siblings because of the anti-avoidance rule contained in part X.4. Paragraph 204.9(4)(b), introduced in the 1997 budget, now allows a brother or sister under the age of 21 to replace an existing beneficiary without penalty tax implications.[76]

Before 1998, funds could exit an RESP in only one of two ways. Either the plan subscriber received a tax-free return of principal—that is, an ROP—or plan funds were distributed to the plan's named beneficiary (that is, the student) as EAPs. As a result of the changes proposed in the February 1997 budget, subscribers can now receive accumulated income

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[73] The February 18, 1997 budget proposals enacted as Bill C-28 received royal assent on June 18, 1998 as SC 1998, c. 19.

[74] The flexibility feature of the increased annual limit could have been enhanced if the amendment had gone further and allowed for a carryforward of unused annual RESP contributions.

[75] Paragraph 146.1(2)(j). Administratively, family plans are managed in much the same manner as self-directed RRSPs.

[76] Contributions made on behalf of the former beneficiary are not taken into consideration in the determination of the excess amount for the purposes of the part X.4 tax.

payments (AIPs), which are defined as payments that are neither ROPs nor EAPs. Under paragraph 146.1(2)(d.1), AIPs are available only when the subscriber is resident in Canada, each beneficiary is at least 21 years old and is not a student eligible to receive EAPs, and the plan has been in existence for at least 10 years. AIPs are subject to part I tax by virtue of their inclusion in the subscriber's income under subsection 146.1(7.1); at the same time, they are subject to an additional 20 percent tax under part X.5. Taxpayers with sufficient RRSP contribution room may transfer AIPs into their own or their spouse's RRSP without paying tax under part X.5. Once the trustee has paid out an AIP in a taxation year, the RESP must be terminated by March of the following year.[77]

Consider the following fact situation.

A subscriber to an RESP that permits AIPs was informed in September 1998 by the named beneficiary that she would not be pursuing a post-secondary education. The accumulated income of the RESP at that time was $17,500. The subscriber has always contributed the maximum to his RRSP in prior years and has a $10,000 RRSP deduction limit for 1998. It is estimated that the same RRSP deduction limit will be available in 1999.

In 1998, the subscriber will notify the plan's trustee to make an AIP in the amount of $17,500. This full amount will be included in the subscriber's income under part I by virtue of subsection 146.1(7.1). Assuming that the conditions of paragraph 146.1(2)(d.1) are met, $10,000 of the amount can be transferred to his RRSP and deducted under paragraph 60(i), leaving $7,500 taxed under part I. The $7,500 will also be subject to the 20 percent tax under part X.5.

It appears that the rules would allow the subscriber in this example to shelter the entire $17,500 from both parts I and X.5 tax by simply instructing the trustee to make a first AIP payment of $10,000 in 1998 and a second payment of $7,500 in 1999 before the end of February.

## The February 24, 1998 Budget

The February 24, 1998 budget continued to remove the perceived barriers to RESP investment. Changes introduced include the following:[78]

• The opportunity for siblings under 21 to replace one another under group plans is extended to include beneficiaries under 21 who are connected to the subscriber by blood relationship or adoption.[79]

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[77] Paragraph 146.1(2)(i.1).

[78] Legislation to implement these changes was introduced on December 10, 1998. See Canada, Department of Finance, Notice of Ways and Means Motion To Amend the Income Tax Act, To Implement Measures That Are Consequential on Changes to the Canada-U.S. Tax Convention (1980) and To Amend the Income Tax Conventions Interpretation Act, the Old Age Security Act, the War Veterans Allowance Act and Certain Acts Related to the Income Tax Act, December 10, 1998.

[79] Subparagraph 204.9(4)(b)(ii).

• The lifetime limit of $40,000 of AIPs eligible for rollover to an RRSP of the subscriber or the subscriber's spouse will be increased to $50,000 for the 1999 and subsequent taxation years.[80]

• A limit is set on the amount of EAPs that can be paid to a beneficiary in the first 13 weeks of a qualifying educational program.[81] The amount is limited to the greater of $5,000 and an amount approved for the individual by the minister of human resources.

By far the most important change in terms of enhancing the RESP as the vehicle for education savings is the proposed CESG program.[82] The CESG will, subject to certain limitations, supplement the subscriber's annual contributions by 20 percent. CESGs will be paid directly into the RESP and will be paid out as EAPs.

As of the 1998 taxation year, each child under 18 will be eligible to receive a maximum annual CESG of $400. The $400 annual limit is based on the child's CESG contribution room, which accumulates at the rate of $2,000 per year up to, but not including, the year the child turns 18.[83] A child born after 1997 is therefore eligible to receive CESGs totalling $7,200.[84]

Where the annual contribution paid into an RESP on behalf of an eligible child is less than the CESG contribution room of $2,000, the unused room is not lost but can be carried forward; however, the maximum CESG that will be paid in any carryforward year will be $800.[85] (If RESP contributions over $2,000 are made in a year, the taxpayer cannot carry forward any additional grant entitlement.)

The application of the CESG is illustrated in the examples that follow.[86]

*Example 1*

The first example illustrates the importance of planning both the timing and the amount of contributions in order to maximize CESG benefits.

In case A, a subscriber deposits $3,500 on December 31, 1998 and $500 on January 1, 1999 into an RESP for her daughter. The CESG paid into the

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[80] Subsection 204.94(2), the definition of C in paragraph (b).

[81] Paragraph 146.1(2)(g.1).

[82] Part III.1 of the Department of Human Resources Development Act, SC 1996, c. 11, as amended, sets out the rules relating to the CESG program.

[83] The age restriction is imposed because the child is assumed to have begun post-secondary education in his/her 18th year, and the presumption is that funds are being spent on current needs as opposed to saving for the future.

[84] 20 percent × ($2,000 × 18 years).

[85] This is calculated as the lesser of the current RESP annual limit of $4,000 and the total of the unused plus the current year's CESG contribution room. As a result, a subscriber who fails to deposit at least $2,000 each year for two years will lose the opportunity to maximize the amount of CESG dollars available.

[86] These examples were derived from Canada, Department of Finance, 1998 Budget, The Budget Plan 1998, Tax Measures: Supplementary Information and Notices of Ways and Means Motions, February 24, 1998.

RESP will be $400 for 1998 and $100 for 1999. In other words, the subscriber cannot access the extra $1,500 (that is, the contribution over and above the $2,000 amount at which the CESG is maximized) in the following year. If instead the subscriber deposits $2,000 on each of the above dates, she will be entitled to CESG payments of $400 in both years (case B). In either case, she has made $4,000 in total contributions over the same period of time, but in case A she will have only $4,500 in the RESP as compared to $4,800 in case B.

| **Case A** | Dec. 31/98 | Jan. 1/99 | Amt. in RESP |
| --- | --- | --- | --- |
| Subscriber contributions  .... | $3,500 | $  500 | $4,000 |
| CESG .................... | 400 | 100 | 500 |
| Total  .................... | $3,900 | $  600 | $4,500 |

| **Case B** | Dec. 31/98 | Jan. 1/99 | Amt. in RESP |
| --- | --- | --- | --- |
| Subscriber contributions  .... | $2,000 | $2,000 | $4,000 |
| CESG .................... | 400 | 400 | 800 |
| Total  .................... | $2,400 | $2,400 | $4,800 |

*Example 2*

The annual CESG contribution room of $2,000 is not available to a child in the year after he/she turns 15 unless the total RESP contributions to date on behalf of that child are at least $2,000 or unless annual contributions of at least $100 per year have been made for any four years.[87] The provision exists to encourage systematic savings over the long term.[88]

Consider a taxpayer with no existing RESP and a 15-year-old child in 1998. This taxpayer responds to the savings incentive and opens an RESP for his child in 1998 when CESGs become available for the first time. He will have to contribute $2,000 in 1998 to receive *any* CESG for years 1999 and 2000. If he contributes $2,000 in each of 1999 and 2000, the plan will receive the maximum CESG entitlement of $1,200 ($400 × 3 years).

*Example 3*

EAPs from an RESP that has received CESGs will be made up of both the RESP's accumulated income and the CESGs. The portion of the EAP attributable to the CESG will be the ratio of the total CESGs to the total accumulated income. CESGs not paid out as EAPs must be repaid to the government.[89] The following example illustrates the operation of these rules

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[87] Canada, Department of Finance, *Release*, no. 98-082, August 24, 1998. These amounts were originally proposed at $4,000 and $300, respectively.

[88] See the Supplementary Information, supra footnote 86, at 183.

[89] An RESP trustee will also be required to repay CESGs in the following situations: when the plan is terminated or revoked; when a payment of RESP income is made for non-educational purposes; when a beneficiary under the plan is replaced, except where the new beneficiary is under 21 years of age and either the new beneficiary is a brother or sister of the former beneficiary or both beneficiaries are related to the subscriber by blood or adoption; and when there is a transfer from the plan to another RESP involving either a change of beneficiaries or a partial transfer of funds.

in a situation where the child's post-secondary attendance does not use up the plan balance.

In 1998, a parent opens an RESP for an eight-year-old child and makes $2,000 in annual contributions in 1998 and each of the next 9 years. Each year for 10 years, a CESG of $400 is paid into this RESP. Assuming an annual rate of return of 5 percent, the value of this RESP will be $30,192 at the end of 2007—$20,000 in subscriber contributors, $4,000 in CESGs, and $6,192 in investment earnings. The child enters university at the beginning of 2008, draws $4,200 in EAPs for 2008 and again in 2009, and then drops out of university at the beginning of 2010.

| Year | Opening value of plan | EAP | Plan value after EAP | EAP drawdown of CESG | EAP drawdown of accum. inc. | Closing value of plan |
|------|------|------|------|------|------|------|
| 2008 ... | $30,192 | $4,200 | $25,992[a] | $2,713 | $1,487 | $27,292[b] |
| 2009 ... | $27,292 | $4,200 | $23,092 | $900[c] | $3,300 | $24,246[d] |

[a] The $4,200 EAP is apportioned between CESG and accumulated income. The CESG portion is based on the ratio of CESG payments to the plan ($4,000) over the total investment earnings of the plan ($6,192). Therefore, the $4,200 EAP in 2008 draws down the CESG amount by $2,713 ($4,200 × $4,000/$6,192), leaving $1,287 in CESGs ($4,000 − $2,713). The rest of the EAP, which is $1,487 ($4,200 − $2,713), represents a reduction in the accumulated income to its new balance of $4,705 ($6,192 − $1,487). [b] 1.05 ($30,192 − $4,200). Interest earned in the plan in 2008 is therefore $1,300 ($27,292 − $25,992). [c] The $4,200 EAP in 2009 draws from the CESG amount by $900 ($4,200 × $1,287/($4,705 + $1,300)). The rest of the EAP, which is $3,300 ($4,200 − $900), represents a reduction in the accumulated income. [d] 1.05 ($27,292 − $4,200).

After $20,000 is returned to the parent subscriber as an ROP, the remaining $4,246 will represent $387 of unused CESGs ($4,000 − ($2,713 + $900)), which must be repaid to the government, and $3,859 ($4,246 − $387) in AIP, which will be subject to part X.5 tax unless sheltered by transfer to an RRSP of the subscriber or spouse.

*Example 4*

The next example illustrates how the liability to repay CESGs when a beneficiary fails to pursue a post-secondary education can be reduced by enlarging the share of the plan attributed to other eligible beneficiaries.

A taxpayer with three children, aged 8, 9, and 10, opens an RESP in 1998 naming all three children as beneficiaries. For 1998 and each of the next eight years, he deposits $6,000 ($2,000 for each child) and $1,200 in CESGs ($400 per child) is paid into the plan. In 2006, when the eldest child begins to attend university, the taxpayer deposits $4,000 ($2,000 for each of the other two children) and $800 in CESGs is paid into the plan. In 2007, when the middle child turns 18 and is no longer eligible for the CESG, the taxpayer deposits $2,000 for his youngest child, now aged 17. At this point, the RESP has received $10,800 in CESGs. Assume that the two younger children do not pursue a post-secondary education.

The RESP subscriber in this example has deposited funds on behalf of all three children. Those deposits have attracted CESGs for all three children, only $3,200 of which ($400 for eight years) is attributable to the child who is actually pursuing a post-secondary education. However, it

appears that the definition of the CESG lifetime limit will allow that one child to benefit from $7,200 in CESGs. The parent will repay only $3,600 ($10,800 in total CESGs received minus the $7,200 CESG lifetime limit for the one child). Effectively, that child benefits from $4,000 worth of CESGs earned on behalf of his two siblings. He will also benefit from the accumulated income associated with the contributions made on behalf of those siblings as long as it can be withdrawn as EAPs for the expenses of his education.

*Example 5*

The proposed anti-avoidance provision accompanying the introduction of the CESG prevents the subscriber from converting existing unassisted contributions into contributions that will be CESG-assisted. The following example illustrates the application of this rule.

A father has been a subscriber to his daughter's RESP for a number of years before 1998. The child's mother opens a new RESP on her behalf in 1998. If, in 1998, the father were to transfer funds from the existing RESP in order to contribute to the second plan and thereby attract CESG payments, the proposed anti-avoidance rule would apply to deny CESG eligibility for not only 1998 but also the next two years. Further, the beneficiary would earn no new CESG room in those next two years.

## IMPLICATIONS AND STRATEGY FOR SAVING IN AN RESP

The increases in university tuition, from approximately $600 a year in the early 1970s to nearly $4,000 in the late 1990s, represent an average annual growth rate of nearly 8 percent over the last quarter of a century. This part of the article first examines two scenarios to illustrate the adequacy of the RESP as a vehicle for saving for university. In these scenarios, an RESP beneficiary starts university 18 years from now, taking advantage of CESGs. The results are compared with those of an equivalent non-tax-sheltered savings plan.[90] The difference between the two RESP scenarios illustrates the effect of using the minimum contributions required to maximize CESGs ($7,200) as compared to simply maximizing contributions as early as possible. We next calculate the expected cost in 18 years of four years' tuition and living expenses for various tuition growth rates in order to evaluate the ability of current RESP provisions to cover projected costs. The equations used in these scenarios are contained in the appendix.

### The First Scenario: Maximum RESP Contributions

In the first example, as shown in table 1, an RESP that has only one beneficiary is used to save for 18 years, at which point the child starts university and begins to withdraw funds from the plan. The savings deposits are $4,000 per year for the first 10 years and $2,000 for the 11th

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[90] The examples also assume that there will be no RRSP room available for an RESP rollover if no children qualify for post-secondary education. Essentially, a contributor who does not have enough savings to maximize contributions to both an RRSP and an RESP should always give the RRSP priority because those contributions are tax-deductible, while contributions to an RESP are not.

**Table 1   Future Value of Education Savings Plans in 18 Years—
Maximum Contributions to RESP in Years 1 to 11**

| Interest rate (%) | RESP (no tax) | | After-tax value of equivalent plan[a] |
|---|---|---|---|
| | Total value | Grant value | |
| 3 ........................ | $ 68,854 | $ 6,489 | $51,000 |
| 5 ........................ | 89,401 | 8,396 | 58,020 |
| 7 ........................ | 115,888 | 10,848 | 65,980 |
| 9 ........................ | 149,971 | 13,996 | 75,003 |

[a] Assumed tax rate of 51%.

year, payable in advance (at the beginning of each year). These are the maximum annual and total contribution ($42,000) amounts allowed but will attract annual CESGs of only $400 (received in advance) for a total of $4,400 in grants.

The first column of table 1 gives the accumulated value of the savings after 18 years for various interest rates. If the plan earns interest at 3 percent per annum for 18 years, its future value is $68,854, including grants and interest earned on the grants of $6,489. At 7 percent interest, the plan is valued at $115,888, including $10,848 of grant value.

The right-hand column shows the value of an equivalent plan that does not qualify for CESGs and is not sheltered from tax. In this case, deposits to the plan are limited to contributions of $4,000 per year for 10 years and $2,000 in the 11th year. A combined federal-provincial tax rate of 51 percent is assumed.[91] Thus, at an interest rate of 3 percent, the future after-tax value of an equivalent non-tax-sheltered plan is $51,000; at 7 percent interest, the value is $65,980.[92]

Table 1 shows that the value of an RESP earning 5 percent is $31,381 more than the value of the equivalent taxed plan ($89,401 − $58,020). This difference increases in favour of the RESP as the interest rate increases. Essentially, at higher rates, more compound interest is earned in the RESP, which pays no tax.[93] The portion of the $89,401 due to the

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[91] The 51 percent rate is a generic rate to reflect a typical top marginal rate in Canada including surtaxes. For example, in 1999, this taxpayer in British Columbia will pay $(0.29)(1.08)(1 + 0.495 (1.3)) = 51.5$ percent, while in New Brunswick, the comparable rate is $(0.29)(1.08)(1 + 0.575(1.08)) = 50.8$ percent.

[92] Plan earnings accumulate at an after-tax interest rate of $r(1 − t)$ where $r$ is the interest rate and $t$ is the tax rate of 51 percent. (A lower tax rate does improve the after-tax value by a small amount. For example, reducing the tax rate by approximately 10 percent implies a future value of $61,795 for a before-tax interest rate of 5 percent, as compared to $58,020 at 51 percent tax.)

[93] It is assumed that an RESP will not attract tax upon the withdrawal of funds by a qualifying student who is attending a post-secondary institution. We acknowledge that this assumption may be inaccurate for RESPs with larger earnings rates because the plan's value is so large (even when spread over four years) that it will increase the marginal tax rate of the student above zero.

grants ($4,400) is $8,396. This leaves $22,985 (that is, $31,381 − $8,396) in higher income for the RESP (as compared to the non-tax-sheltered plan) that is strictly due to the absence of taxes.

**The Effect of Part X.5 Tax**

If the beneficiary does not pursue a post-secondary education and the subscriber pays the extra 20 percent federal tax (combined with 51 percent combined federal-provincial taxes), this represents a 71 percent marginal tax rate on RESP income. At that rate, for the RESP worth $89,401 at the end of 18 years, the subscriber would receive the contributions of $42,000 plus $12,470[94] for a total of $54,470. Note that this is less than the value of an equivalent unsheltered plan paying taxes at 51 percent (on earnings of 5 percent per annum), which accumulates to $58,020.

It is useful to calculate the breakeven probability that the beneficiary will pursue a post-secondary education—the point at which the subscriber is indifferent to saving in an RESP as compared to a taxable plan. We have seen that, after 18 years with earnings at 5 percent, the RESP value with post-secondary attendance is $89,401; the RESP value without attendance and at a 51 percent tax rate is $54,470; and the non-tax-sheltered value at a 51 percent tax rate is $58,020. The indifference probability, $p$, solves $(\$89,401)p + \$54,470(1 - p) = \$58,020$ and is 10.2 percent. In other words, if the probability that the beneficiary will pursue a post-secondary education exceeds 10.2 percent, the RESP is preferred.[95]

Interestingly, it is to the subscriber's advantage to leave the RESP open for the maximum 26 years if the beneficiary does not pursue a post-secondary education, because the funds will accumulate to a slightly larger amount than if they are withdrawn and reinvested outside the RESP. Assume, for example, a continued earning rate of 5 percent per annum (and a tax rate of 51 percent) for the next eight years (years 19 to 26). The before-tax value of the RESP at the end of year 26 would be $89,401(1.05)^8$ or $132,086, which after 71 percent tax is reduced to $66,849.[96] This is $741 more than the $66,108 that would be produced by investing $54,470 (the after-tax value of the RESP after 18 years) at $5(1 - 0.51)$ percent for the next eight years. Thus, once an RESP is opened, it is better to leave it open. This also allows the student to reconsider before the 26 years has expired.

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[94] $(\$89,401 - \$42,000 - \$4,400)(1 - 0.71) = \$12,470$.

[95] It is interesting to note that the breakeven probability is inversely related to the annual earnings rate; for example, at an interest rate of 7 percent, it is about 7.1 percent. This is due to the compounding effect at a higher before-tax rate in the RESP, which substantially increases the income portion of the plan. Hence, a lower probability is required to equate the RESP to the non-tax-sheltered plan. The indifference probability can be misleading in the decision to use an RESP since it seems to encourage riskier investments in the plan.

[96] $(\$132,086 - \$42,000 - \$4,400)(0.29) + \$42,000 = \$66,849$.

By comparison, at the end of year 26, the equivalent taxable plan taxed at 51 percent is worth $70,416.[97] The subscriber is ahead by $3,567 after tax ($70,416 − $66,849). Hence, the better alternative—if the beneficiary does not attend a post-secondary institution—is the taxable plan. However, there will again be some breakeven probability of attendance above which the contributor will prefer the RESP. Nevertheless, for today's investment decision, it makes more sense to use the indifference probability calculated after 18 years, rather than 26; it would be the exceptional case where post-secondary education was postponed for eight years after the completion of high school.

## Comparing RESP Values to Expected Future Costs

How will our estimated education savings match up to the costs of a four-year university degree? Table 2 shows various figures for future tuition and living expenses to be paid to a child born in 1998. Living expenses are held constant at 2 percent annual growth and are assumed to be payable in advance, as would normally be the case for a student living in residence on campus. In an effort to reflect the uncertainty of future increases in post-secondary tuition, various tuition growth rates are presented.

If we assume that the tuition cost in 1998-99 is $3,800 for the year and that this grows at 5 percent per year for 18 years, then tuition for the student's first year will be $3,800(1.05)$^{18}$ or $9,145 (payable in advance). Similarly, if living expenses in 1998-99 are assumed to be $7,000 for the year and a 2 percent per year rate of growth is assumed, after 18 years, these expenses will be $7,000(1.02)$^{18}$ or $9,998 in the first year. For example, the present value (at 5 percent as of the end of year 18) of 4 years' tuition (growing at 5 percent annually) and living expenses (growing at 2 percent annually) is $74,890 (the 0 percent tax-saving column in table 2).

Tuition, however, is eligible for a tax credit, and the current $200 per month education credit helps offset living expenses. If we assume that the education credit would increase to $285 per month in 18 years[98] and would be available for eight months of the year, and that the tax saving is 25 percent,[99] the after-tax present value of $74,890 is reduced to $64,159.

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[97] [$58,020(1 + 0.05(1 − 0.51))$^{8}$].

[98] $285 represents a 2 percent annual growth rate for 18 years over the current credit of $200 per month. The education and tuition tax credits are assumed to be claimed at year-end, whereas tuition and living expenses are assumed to be payable in advance. In fact, tax credits are claimed on a calendar-year basis so that only the portion allocable to the current calendar year can be claimed against this year's taxes. The data in table 2 do not reflect the resultant delay for fees paid in advance.

[99] The 25 percent tax saving represents a 17 percent federal tax credit combined with a generic 47 percent provincial tax rate. No surtaxes are likely to be applicable if credits are claimed by the student. Note that even a large surtax has a small effect on net costs.

**Table 2   Four Years of Tuition and Living Expenses in 18 Years**

| Tuition growth rate (%) | Tax rate | |
|---|---|---|
| | 0% | 25% |
| 0 | $ 52,458 | $47,068 |
| 3 | 63,456 | 55,448 |
| 5 | 74,890 | 64,159 |
| 7 | 91,171 | 76,564 |
| 8 | 101,702 | 84,587 |
| 9 | 114,212 | 94,119 |

These net costs of $64,159 are about $6,139 more than the future value of the taxable savings plan at interest of 5 percent in table 1 ($58,020). It is clear that non-tax-sheltered plans are unlikely to cover future expenses, particularly if the tuition growth rate exceeds 5 percent—as it has since the early 1970s.

RESPs appear to be more realistically tailored to future costs. For example, if the growth rate in tuition is 8 percent annually (as it has been over the past 25 years), and net costs are $84,587 (table 2), an RESP with interest at 5 percent ($89,401 in table 1) would cover these costs, whereas savings in an unsheltered plan at 9 percent would still be insufficient ($75,003 in table 1).

Since an RESP earning 5 percent tax-free would cover costs associated with an 8 percent tuition growth rate, it appears that the current RESP contribution limits would cover the expected costs of university in 18 years under most scenarios. If we thus accept the premise that the government has adequately provided for future needs, for purposes of this article, we can assume that there will be no future changes to the RESP legislation.

**The Second Scenario: Minimum Contributions To Maximize CESGs**

Table 3 presents the second scenario, which also assumes that post-secondary education will begin in 18 years, but the annual amount contributed to education savings is only $2,000. This plan, which has only one beneficiary, will receive total contributions of $36,000, which is $6,000 less than the allowed maximum and may be as much as many households can manage. This plan will nevertheless attract the maximum CESG entitlement of $7,200 ($400 per year, received in advance, for 18 years).

Recall that the plan presented in table 1 has the maximum contributions allowed but does not reach the maximum CESG limit and therefore does not receive as much government support. When comparing tables 1 and 3, it is clear that the table 1 scenario yields higher RESP values. The difference in grants of $2,800 ($7,200 − $4,400) does not compensate for the $6,000 difference in contributions, which also earn more income in table 1 because they are deposited earlier. Similarly, the taxable plan in table 1 is worth more in 18 years than its counterpart in table 3, again

**Table 3   Future Value of Education Savings Plans in 18 Years—
Minimum Contributions to RESP That Attract Maximum Grants**

| | RESP (no tax) | | After-tax value of |
|---|---|---|---|
| Interest rate (%) | Total value | Grant value | equivalent plan[a] |
| 3 ........................ | $ 57,880 | $ 9,646 | $41,472 |
| 5 ........................ | 70,894 | 11,816 | 45,665 |
| 7 ........................ | 87,310 | 14,552 | 50,358 |
| 9 ........................ | 108,044 | 18,077 | 55,614 |

[a] Assumed tax rate of 51%.

because the larger, earlier contributions earn more compound interest. In addition, the difference in value between the RESP and its taxable counterpart is greater in table 1 as compared to table 3.

The grant value is a much larger component of the total RESP value in table 3 than in table 1. For example, a 5 percent interest rate produces a grant value of $11,816 in table 3 as compared to $8,396 in table 1. These figures represent 16.7 percent and 9.4 percent, respectively, of the total RESP values. As a result, the CESG partially offsets the smaller (and later) contributions of table 3. Essentially, the government contributes a greater relative share in the second scenario.

A review of the data in table 2 indicates that the RESP values in table 3 may still be adequate to cover expected costs in 18 years. For example, at 5 percent interest, the RESP is worth $70,894 (table 3) and sufficient to cover net costs of $64,159 (table 2, at an annual tuition growth rate of 5 percent). However, at a higher tuition growth rate, such as 7 percent, the RESP in the second scenario would fall short of the student's financial needs.[100]

Although the first scenario provides greater assurance of meeting costs through investment in an RESP, it is important to remember that the second scenario requires contributions in the first 10 years that are only one-half of those in the first scenario, and at the same time attracts a larger amount of CESG funding.

## Factors in Comparing the First and Second Scenarios

In our comparison thus far, we have implicitly assumed two independent taxpayer scenarios. The first taxpayer has the ability to maximize contributions and saves a total of $42,000 over the first 11 years of her child's life. The second taxpayer can contribute only $2,000 a year and takes the full 18 years to save a total of $36,000. A more direct comparison between these two scenarios is relevant to the taxpayer who can choose between them.

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[100] At 7 percent tuition growth, the RESP value of $70,894 falls $5,670 short of covering expected costs of $76,564.

For the family with $4,000 to contribute in each of the early years, it may be more advantageous to contribute $2,000 to the RESP and to use the other $2,000 elsewhere—for example, to make additional principal payments on personal debt. Let us assume that the other $2,000 is used to reduce debt for each of the first 10 years and then, for each of years 11 to 17, $2,000 is used to reduce the benefit calculated over the first 10 years. In essence, $2,000 is borrowed in each of years 11 through 17, which increases the amount of debt outstanding. Alternatively, this $2,000 of annual borrowing represents an opportunity cost to the second scenario. The net benefit of this plan at 5 percent is $21,927.[101]

This amount of savings exceeds the difference between RESP values at 5 percent as shown in tables 1 and 3 (that is, $89,401 − $70,894 = $18,507). Of course, if the debt is at a higher rate, the savings increase substantially; for example, at 7 percent, the amount saved increases to $32,282. Also, note that the net benefit of reducing personal debt (for example, by $21,927) is independent of the RESP beneficiary's attendance at a post-secondary institution, while the RESP advantage in the first scenario ($18,507) is dependent on such attendance. This is an additional benefit of investing only $2,000 in the RESP while using the other $2,000 elsewhere. The advisability of this course of action for any particular taxpayer will depend on the interest rates affecting the difference in contributions over the 18 years.[102]

The breakeven probability in table 3 for an interest rate of 5 percent is 6.1 percent,[103] as compared to 10.2 percent in table 1. This, of course, does not mean that using this approach increases the probability that the child will pursue a post-secondary education. It does imply that there is a lower indifference probability because of the smaller difference between the taxable plan and the value of the RESP when the beneficiary forgoes a post-secondary education. As noted with regard to table 1, the indifference probability is inversely related to the interest rate. However, the probability of the child's attending a post-secondary institution must be independent of the RESP's earnings rate; in other words, riskier investment decisions are not a rational way to reduce the indifference probability.

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[101] $2,000[(1 + r)^{10} − 1](1 + r)^9/r − $2,000[(1 + r)^7 − 1](1 + r)/r.

[102] For example, a taxable investment earning $5(1 − 0.51)\%$ annually after tax is worth only $12,355 (as compared to $21,927 above). However, this $12,355 does not depend on attendance at a post-secondary institution and so cannot be directly compared to the difference of $18,507 between RESPs ($89,401 − $70,894 at 5%). In the example where the taxpayer pays down a mortgage, the net benefit depends on the interest rate, repayment schedule, and amortization period. Calculations show that, for reasonable assumptions, the $2,000 repayment of principal in the first decade allows a 20-year mortgage to be paid off before year 18 (even when the $2,000 per year is borrowed for years 11 to 17) and hence the mortgage payments (after the mortgage is discharged) can be used to augment the RESP in the second scenario.

[103] $70,894 p + $44,302(1 − p) = $47,798 where $44,302 = ($70,874 − $36,000 − $7,200)(0.3) + $36,000.

In summary, the largest RESP value is achieved by maximizing annual contributions as early as possible; however, if the subscriber does not have $4,000 available each year in the early years, annual contributions of $2,000 will likely cover most of the expected costs of post-secondary education 18 years from now. Even if $4,000 per year is available, there are circumstances when annual contributions of $2,000 may have a greater value to the contributor if the return on alternative investments is sufficiently large. Even when it is known that a beneficiary will not pursue a post-secondary education, it is better to keep the plan open for the full 26 years. Not only does this allow the child to reconsider, but also the after-tax value is slightly greater than that of a plan collapsed before year 26 whose proceeds are then reinvested and generate taxable income. An equivalent unsheltered savings plan has greater future value than an RESP when the beneficiary does not attend a post-secondary institution and the additional 20 percent federal tax has to be paid on the accumulated income in the RESP. However, if there is a greater than 10 percent probability that the beneficiary will pursue a post-secondary education, the RESP is the preferred savings plan.

The introduction of CESGs is the major factor that will induce RESP participation by parents who were not previously interested. The choice between annual contributions of $4,000 and $2,000 depends on family income, debt structure, and alternative investment preferences.

## CONCLUSION

The most recent US package of educational assistance provisions relied heavily on the use of tax expenditures in the form of credits and deductions for taxpayer dollars already spent on tuition and related costs. The US critics repeatedly cite two flaws in this approach. First, the new measures fail to ensure that taxpayers will use the tax dollars saved to invest in higher education. The Canadian RESP cannot be criticized on that point. However, the second most frequently repeated criticism of the US reforms can be applied equally to Canada's: that is, the new tax schemes fail to ask such basic questions as where additional education spending is most likely to produce the highest social rate of return.[104] Costs for the most recent enhancements to the RESP are projected into the hundreds of millions of dollars. The government acknowledges that education is one of society's most powerful tools in closing the ever-widening gap between rich and poor. This article has demonstrated the workings of the RESP and its value as a financial planning instrument. For those in a position to avail themselves of it, it will surely make higher education more affordable. What remains unclear is the answer to the most basic question of accessibility. For which Canadians will the RESP make the difference? Who will go to college or university, as a result of this measure, who could not otherwise have gone?

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[104] C. Eugene Steuerle, "A Principled Approach to Educational Policy" (June 1997), 50 *National Tax Journal* 351-65, at 351.

## APPENDIX  THE EQUATIONS USED TO CALCULATE TABLES 1, 2, AND 3

### Table 1

RESP future value is

$$\$4,400[(1 + r)^{10} - 1](1 + r)^9/r + \$2,400(1 + r)^8$$

where $r$ is the before-tax interest rate.

Note: For the taxable equivalent plan, replace $r$ with $r(1 - t)$ and subtract \$400 from the yearly contributions ($t$ is the tax rate).

### Table 2

Future after-tax costs of tuition and living expenses are

$$\$3,800(1 + g)^{18}\left[1 - \left(\frac{1 + g}{1 + r}\right)^4\right](1 + r - t) +$$

$$\$7,000(1 + G)^{18}\left[1 - \left(\frac{1 + G}{1 + r}\right)^4\right](1 + r)/(r - G) - \$285(8)(t)[1 - (1 + r)^{-4}]/r$$

where $g$ is the growth rate in tuition and $G$ is the growth rate in living expenses.

### Table 3

RESP future value is

$$\$2,400[(1 + r)^{18} - 1](1 + r)/r$$

Note: For the taxable equivalent plan, replace $r$ with $r(1 - t)$ and reduce the yearly contribution by \$400 to \$2,000 (as above, $t$ is the tax rate).