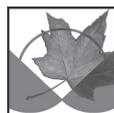


Out of the Shadows

Shining a light on Canada's unequal
distribution of federal tax expenditures

David Macdonald





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ISBN 978-1-77125-319-2

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ACKNOWLEDGMENTS

The author would like to thank Maggie FitzGerald Murphy and Robin Anne Shaban for their extensive research assistance. The author would also like to thank Toby Sanger, Dennis Howlett and Brian Murphy for their helpful comments.

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Executive Summary

THE FEDERAL GOVERNMENT'S decision this year to cancel family income splitting and lower the annual contribution limit for tax-free savings accounts was driven largely by concerns about income inequality. Research by the Canadian Centre for Policy Alternatives, Parliamentary Budget Officer and others had shown that these high-profile tax expenditures, or loopholes, were not only expensive for the government, but their benefits were enjoyed mostly by rich Canadians.

The findings of these researchers raised the possibility that other tax expenditures might be similarly skewed toward higher-income earners and therefore prime candidates for closure. Unfortunately, while the federal government has a fairly complete costing of its various personal tax expenditures (loopholes) there is woefully little comprehensive data on the distributional impact of the benefits they offer.

This report endeavours to fill this data gap to inform the federal government's current review of tax expenditures. It examines the distribution of benefits from Canada's 64 personal income tax expenditures where data is available, ranking them from least to most progressive. A tax measure can be said to be relatively progressive if more than half its benefits go to the lower half of income earners. Likewise, a tax measure is regressive if most benefits go to Canada's higher-income earners.

Of those 64 tax expenditures, only five — the working income tax benefit, non-taxation of the guaranteed income supplement, non-taxation of social assistance, the refundable medical expense deduction, and the disabil-

ity tax credit — can be described as relatively progressive, with a maximum benefit of \$1,100 or less. The remaining 59 regressive tax expenditures cost the federal government \$100.5 billion in 2011 while providing more benefit to those above the median individual income level.

The situation looks even worse when we isolate the five most regressive tax expenditures, which provide 99% or more of their benefit to the upper half of income earners. These tax expenditures — pension income splitting, the dividend gross-up, the stock option deduction, credit for partial inclusion of capital gains, and the foreign tax credit — cost the government between \$740 million and \$4.1 billion each per year, totalling \$10.4 billion in 2011. Four of these five tax expenditures have no maximum individual value, while pension income splitting — where 83% of the benefit goes to the top income decile — maxes out at \$11,700 per person. That is 10 times the maximum benefit to Canada's poorest from the five progressive tax expenditures.

The five most expensive tax expenditures are mixed on the progressivity scale. At a cost of \$29 billion a year, the basic personal amount deduction is Canada's most expensive tax expenditure, but it is also the least regressive in this grouping. Registered pension plans and RRSPs have a net cost of \$16 billion and \$10 billion respectively. The capital gains exclusion on principal residences costs the government \$5 billion a year and the dividend gross-up, already mentioned as one of the most regressive expenditures, costs \$4 billion.

As with all tax expenditures, these amounts reflect real money that is being spent based on fiscal choices made by the federal government. For example, the government spends \$26 billion on RRSPs and registered pension plan tax preferences, but 60% of the benefits go to the richest decile (those making more than \$84,000 per year). To put this expenditure into perspective, with a third of that money the federal government could eliminate poverty among seniors by doubling the guaranteed income supplement. Similarly, the money Canada spends on tax breaks on dividends (for which 91% of the benefit goes to the top decile) could instead make university tuition free for all students or halve the cost of long-term care spaces.

In total, personal income tax expenditures cost \$103 billion in 2011, which is roughly as much as all income taxes collected that year (\$121 billion). It is also not much less than what the federal government spends annually to pay for the Canada Pension Plan, employment insurance, the GST credit, the universal child care benefit, the Canada child tax benefit and the national child benefit supplement combined (\$113 billion).

In other words, if the federal government got rid of all tax expenditures it would roughly double the amount of income tax collected. Existing tax expenditures, on the other hand, provide on average a \$15,000-per-person benefit to the richest Canadians. By comparison Canada's poorest Canadians receive only \$130 from tax expenditures and \$1,130 from all federal income transfers.

In essence there are two federal transfers systems in Canada: one for the poor and middle class, and another shadow transfer system for the rich. Each system transfers roughly the same amount of money.

The following recommendations would begin to address both the paucity of data on the income inequality effects of Canada's tax expenditures, while taking modest steps toward eliminating some of Canada's most regressive and expensive tax expenditures:

1. The annual tax expenditures report from Finance Canada should include the distribution of tax expenditures across the income spectrum
2. Tax expenditures should be included explicitly as costs in federal government financial reporting, including the main estimates, federal budget and fiscal updates.
3. The federal government should target annual savings in tax expenditures of 5% (worth \$5.1 billion a year) through the closure, capping or phasing-out of the most regressive loopholes.
4. Policy-makers should continue to examine tax expenditures through a broad income inequality or vertical equity lens, and to consider the totality of these expenditures as a grossly unfair shadow transfer system for Canada's richest tax filers.

Introduction

THE 2016 FEDERAL budget included several measures focused on limiting or closing regressive tax expenditures such as tax-free savings accounts and family income splitting. Concerns about equity played a key role in this decision, since the benefits of both tax policies went mostly to high-income earners.¹ Ending or restricting these and other costly tax expenditures has the added benefit of simplifying the tax system and expanding government revenues.

In recognition of these benefits, the government also pledged in the budget it would perform a comprehensive review of federal tax expenditures with input from outside experts.² This report is a contribution to that review. It examines Canada's 64 personal income taxes expenditures through an equity lens and finds the vast majority to be regressive in that, by benefiting largely higher-income individuals, they tend to increase income inequality.

A tax system has three functions: raise revenues for government spending;³ influence behaviour (for social, economic or environmental reasons); and equitably redistribute national income. Tax systems can be evaluated based on their efficiency, simplicity, and equity or fairness.⁴ This report focuses on the vertical equity of Canada's tax expenditures — the extent to which those *with more income* pay more tax and at a higher rate — versus horizontal equity, which is concerned that those *in similar circumstances* pay the same taxes.⁵

The benefit of applying a *vertical* equity lens is that it can be extended to the broader issue of income inequality. The tax system plays an important

role in offsetting inequality, with high tax rates themselves reducing pre-tax (as well as after-tax) income disparities.⁶ Moreover, the reduction of income inequality is not only good in its own right, from an equity perspective, but is likely an important driver of economic growth.⁷

The distribution of effective tax rates will vary based on what is being taxed, affecting the equity of the measure. The personal income tax system in Canada, for example, applies the highest effective tax rates on high-income groups and is therefore progressive (vertically equitable), while commodity and property taxes are relatively higher for lower income groups and therefore regressive (vertically inequitable).⁸

Tax expenditures are preferential tax rates, exemptions, deductions, deferrals, loopholes and tax credits that allow those who use them to avoid paying the base tax rate. Often these expenditures are a means for the government to achieve one public policy objective or another (e.g., to influence behaviour).⁹ The term “expenditure” is used because real money is spent on these programs in the form of taxes not collected.¹⁰

These expenditures are sometimes fairly described as loopholes, but we should distinguish between the legal tax measures reviewed below and illegal tax evasion or aggressive tax planning of the variety exposed recently in the Panama Papers.¹¹ Estimates of illegal personal income tax evasion are not currently calculated by the Canada Revenue Agency, not considered tax expenditures and therefore not included in this report.¹²

Despite having a good deal more information on the individual cost of legal tax expenditures, outside of two studies there has been little examination of their distributional impact.¹³ Brian Murphy et al found that the benefits from Canada’s tax expenditures can often be concentrated among the very richest.¹⁴ This report comes to a similar conclusion, but offers a more detailed distributional impact that allows us to rank each measure by how progressive or regressive it is (i.e., by vertical equity) although with less detail for the highest earners. Such a comparison allows us to target the costliest regressive tax expenditures for elimination, thus freeing up billions of dollars that could be redistributed to lower income inequality in Canada.

Moreover, while the cost of tax expenditures are individually estimated, they are not evaluated in the aggregate or compared to other large federal expenditures like federal income transfers. The latter are updated regularly and incorporated into public documents like the federal budget, main estimates and fiscal updates. Tax expenditures, on the other hand, are relegated to federal tax expenditure and evaluation reports that are published separately and frequently overlooked.

The progressivity or regressivity of tax expenditures

MANY OF CANADA'S federal tax expenditures are designed to encourage certain behaviours in individuals (e.g., sending your children to arts school or making a charitable donation) or relieve the burden of life's routine costs (e.g., union dues and post-secondary education). Others are more targeted to wealthy investors, such as Canada's mineral exploration deduction and capital gains allowance.

While it may be tempting to think of one set as progressive and the other regressive based on the types of activities they target, this is not how tax systems are generally judged. Assessing Canada's tax expenditures through a vertical equity lens allows us to precisely determine what income groups benefit the most.

If the value of the expenditure going to the bottom half of tax filers (making less than \$29,900) is higher than the value going to the top half, the tax measure can be called progressive, since it is more vertically equitable and therefore tends to reduce income inequality. If the opposite is true — most of the benefit goes to the top half of tax filers — the tax measure can be seen as regressive or vertically inequitable — as contributing, in other words, to income inequality.

Table 1 ranks Canada's 64 federal personal tax expenditures from the most regressive (vertically inequitable) to the most progressive (vertically equitable). Descriptions of each tax expenditure are available in Appendix III. At the top of the list are those tax measures that benefit mostly the top income deciles in Canada, while at the bottom we find those few tax expenditures that largely benefit those in lower income deciles.¹⁵ As we move down the list, the poorer half of income earners receive more of the total benefit from the tax expenditure.

This ranking scheme focuses on vertical, not horizontal, equity. In other words, it is concerned with income inequality, not whether similar people are taxed similarly. This scheme is by no means the only way to evaluate the progressivity of tax expenditures. You could, for example, apply the GINI index, or the top-end progressive approach used by Murphy et al.¹⁶ As a final note, this ranking scheme focuses exclusively on current annual income and ignores other potential measures of progressivity that one might consider, such as measures based on wealth or lifetime earnings.

What becomes immediately clear upon examining the table data is that Canada's tax expenditures are overwhelmingly benefiting those in the top half of income earners. In fact, this is the case with 59 of the 64 personal tax expenditures where there is distributional data. Only five tax expenditures provide more support for the bottom 50% of income earners, as discussed in more detail below, and only one — the Working Income Tax Benefit — supports exclusively Canada's working poor.

TABLE 1 2011 Tax Expenditures Cost, Distribution and Progressivity

Tax Expenditure Name	Cost (\$mil)	% Benefit by Income Decile										% of Benefits to Bottom Half
		1	2	3	4	5	6	7	8	9	10	
Non-Taxation of Income Earned by Military and Police Deployed to High and Moderate risk international missions	\$35	0%	0%	0%	0%	0%	0%	2%	21%	45%	31%	0%
Adoption Expense Tax Credit	\$3	0%	0%	0%	0%	0%	0%	14%	16%	25%	45%	0%
Pension Income Splitting	\$975	0%	0%	-1%	-4%	-8%	-17%	-10%	29%	28%	83%	0%
Tax Treatment of Alimony and Maintenance Payments	\$60	0%	0%	-3%	-7%	-13%	-27%	-26%	-30%	-17%	223%	0%
<i>RPP Deductions for contributions (Ranked by Net)</i>	\$12,465	0%	0%	0%	0%	1%	2%	6%	13%	27%	51%	1%
<i>Non-taxation of RPP investment income (Ranked by Net)</i>	\$11,290	0%	0%	0%	0%	2%	4%	8%	17%	25%	43%	2%
<i>Taxation of RPP withdrawals (Ranked by Net)</i>	-\$7,670	0%	0%	0%	1%	4%	10%	16%	18%	24%	27%	5%
Net Registered Pension Plan Expenditure	\$16,085	0%	0%	0%	0%	0%	0%	3%	13%	27%	57%	0%
Employee Stock Option Deduction	\$740	0%	0%	0%	0%	0%	0%	0%	0%	0%	99%	0%
Flow-through Share Deductions & Mineral Exploration Tax Credit	\$445	0%	0%	0%	0%	0%	1%	1%	2%	3%	94%	0%
Dividend Gross-Up and Tax Credit	\$4,145	0%	0%	0%	0%	0%	0%	1%	2%	6%	91%	0%
Overseas Employment Tax Credit	\$75	0%	0%	0%	0%	0%	0%	1%	3%	6%	91%	0%
Foreign Tax Credit for Individuals	\$740	0%	0%	0%	0%	0%	1%	2%	4%	7%	86%	0%
Deduction of Allowable Business Investment Losses	\$30	0%	0%	0%	0%	0%	5%	12%	4%	9%	70%	1%
Investment Tax Credits	\$14	0%	0%	0%	0%	0%	1%	1%	3%	5%	89%	1%
Partial Inclusion of Capital Gains	\$3,800	0%	0%	0%	0%	1%	1%	1%	2%	4%	92%	1%
Donations of ecologically sensitive land, donations of cultural property	\$12	0%	0%	0%	0%	1%	1%	3%	6%	6%	84%	1%
Capital Loss Carry-Overs	\$345	0%	0%	0%	1%	0%	1%	3%	6%	8%	80%	1%
Labour-Sponsored Venture Capital Corporations Credit	\$140	0%	0%	0%	0%	2%	3%	11%	24%	29%	31%	2%
Deduction of Union and Professional Dues	\$825	0%	0%	0%	1%	2%	4%	9%	18%	30%	36%	3%
Deduction for Other Employment Expenses	\$985	0%	0%	0%	1%	2%	4%	7%	12%	19%	55%	3%
Charitable Donation Tax Credit	\$2,365	0%	0%	0%	1%	2%	6%	8%	11%	16%	56%	3%
Non-Capital Loss Carry-Overs	\$65	0%	0%	0%	1%	3%	2%	6%	23%	13%	54%	3%
Registered Education Savings Plans	\$170	0%	0%	0%	1%	3%	4%	6%	12%	17%	56%	4%
Moving Expense Deduction	\$100	0%	0%	0%	1%	3%	5%	7%	14%	23%	47%	4%
Quebec Abatement	\$3,885	0%	0%	0%	1%	3%	6%	10%	14%	19%	46%	5%
Northern Residents Deductions	\$170	0%	0%	0%	1%	3%	5%	7%	12%	20%	52%	5%
<i>RRSP Deductions for Contributions (Ranked by Net)</i>	\$7,480	1%	0%	1%	1%	2%	4%	6%	11%	16%	57%	6%

TABLE 1 (CONTINUED) 2011 Tax Expenditures Cost, Distribution and Progressivity

Tax Expenditure Name	Cost (\$mil)	% Benefit by Income Decile										% of Benefits to Bottom Half
		1	2	3	4	5	6	7	8	9	10	
<i>Non-taxation of RRSP investment income (Ranked by Net)</i>	\$7,805	0%	0%	1%	2%	3%	6%	9%	14%	18%	47%	6%
<i>Taxation of RRSP Withdrawals (Ranked by Net)</i>	-\$5,330	0%	0%	0%	1%	4%	9%	13%	16%	24%	31%	6%
Net RRSP expenditure	\$9,955	1%	0%	1%	2%	2%	3%	5%	10%	13%	63%	6%
Farm and Fishing Loss Carry-Overs	\$15	0%	0%	0%	2%	2%	7%	8%	12%	14%	55%	6%
Lifetime Capital Gains Exemption for Small Business Shares & Farm and Fishing	\$990	0%	0%	1%	1%	4%	4%	8%	13%	16%	54%	6%
Political Contribution Tax Credit	\$25	0%	0%	0%	2%	4%	5%	6%	13%	24%	46%	6%
Deduction of Carrying Charges Incurred to Earn Income	\$1,085	0%	0%	1%	3%	3%	3%	4%	7%	12%	67%	7%
Child Tax Credit	\$1,510	0%	0%	1%	2%	5%	9%	13%	16%	23%	32%	7%
Child Care Expense Deduction	\$900	0%	0%	1%	2%	6%	10%	16%	21%	23%	22%	8%
Children's Arts Tax Credit	\$30	1%	1%	1%	2%	4%	6%	8%	12%	21%	43%	10%
Children's Fitness Tax Credit (before 2015)	\$110	1%	1%	1%	2%	4%	7%	10%	14%	22%	39%	10%
Non-taxation of Capital Gains on Principal Residences	\$4,700	0%	0%	1%	3%	5%	8%	11%	16%	20%	35%	10%
Caregiver Credit	\$110	0%	0%	1%	3%	8%	10%	19%	19%	24%	18%	11%
Tax Treatment of Canada Pension Plan and Quebec Pension Plan Contributions and Benefits: Employee Paid Contributions	\$3,070	0%	0%	2%	3%	6%	10%	15%	20%	21%	23%	11%
Spouse or Common -Law Partner Credit	\$1,425	0%	0%	1%	3%	7%	11%	14%	17%	20%	27%	11%
Tax Treatment of Employment Insurance and Quebec Parental Insurance Plan Premiums and Benefits: Employee Paid Contributions	\$1,065	0%	0%	1%	3%	7%	11%	16%	19%	20%	22%	11%
Tax Free Savings Account (TFSA)	\$160	0%	0%	1%	3%	5%	10%	13%	17%	17%	34%	12%
First-Time Home Buyer's Tax Credit	\$110	1%	1%	2%	3%	8%	13%	18%	21%	21%	13%	14%
Eligible Dependant Credit	\$770	0%	0%	0%	3%	12%	17%	18%	16%	18%	14%	16%
Public Transit Tax Credit	\$160	0%	0%	2%	5%	9%	14%	17%	17%	14%	22%	16%
Non-Taxation of Workers' Compensation Benefits	\$625	0%	0%	1%	3%	14%	18%	20%	16%	18%	10%	18%
Medical Expense Tax Credit	\$1,135	0%	0%	2%	5%	13%	18%	19%	17%	12%	15%	20%
Infirm Dependant Credit	\$5	0%	0%	2%	4%	14%	27%	5%	15%	22%	10%	20%
Volunteer Firefighters Tax Credit	\$15	2%	3%	4%	4%	8%	12%	16%	18%	20%	14%	21%
Canada Employment Credit	\$1,995	0%	0%	5%	7%	10%	13%	15%	16%	17%	18%	22%
Student Loans Interest Credit	\$40	0%	0%	2%	5%	15%	13%	20%	16%	18%	12%	23%
Tuition Tax Credit, Textbook Credit, Education Tax Credit (Current, Transfer and Carry-forward)	\$1,695	0%	0%	5%	10%	11%	11%	10%	14%	16%	24%	25%
Pension Income Credit	\$1,035	0%	0%	2%	8%	16%	19%	18%	14%	13%	11%	26%

TABLE 1 (CONTINUED) 2011 Tax Expenditures Cost, Distribution and Progressivity

Tax Expenditure Name	Cost (\$mil)	% Benefit by Income Decile										% of Benefits to Bottom Half
		1	2	3	4	5	6	7	8	9	10	
Deduction for Clergy Residence	\$85	14%	12%	0%	1%	2%	6%	14%	24%	20%	7%	30%
Credit For The Basic Personal Amount	\$29,020	1%	5%	7%	10%	12%	13%	13%	13%	13%	14%	34%
Age Credit	\$2,530	0%	0%	4%	21%	23%	21%	16%	10%	4%	1%	48%
Disability Tax Credit	\$675	4%	10%	11%	12%	13%	12%	11%	10%	9%	8%	50%
Refundable Medical Expense Supplement	\$135	1%	9%	13%	26%	29%	17%	5%	1%	0%	0%	78%
Non-Taxation of Social Assistance Benefits	\$160	0%	8%	24%	21%	26%	12%	6%	3%	1%	0%	78%
Non-taxation of Guaranteed Income Supplement and Allowance Benefits	\$115	0%	0%	10%	65%	14%	9%	2%	0%	1%	0%	89%
Working Income Tax Benefit	\$1,080	3%	25%	38%	17%	12%	4%	1%	0%	0%	0%	94%
Total	\$102,744	0%	2%	3%	5%	6%	7%	9%	12%	16%	39%	

Source SPSPD/M 22.1, Longitudinal Administrative Database and Canada Revenue Agency. The total excludes the "Net RRSP expenditure" and "Net Registered Pension Plan Expenditure" to avoid double counting, but does include the constituent parts of each. See the methodology in Appendix I.

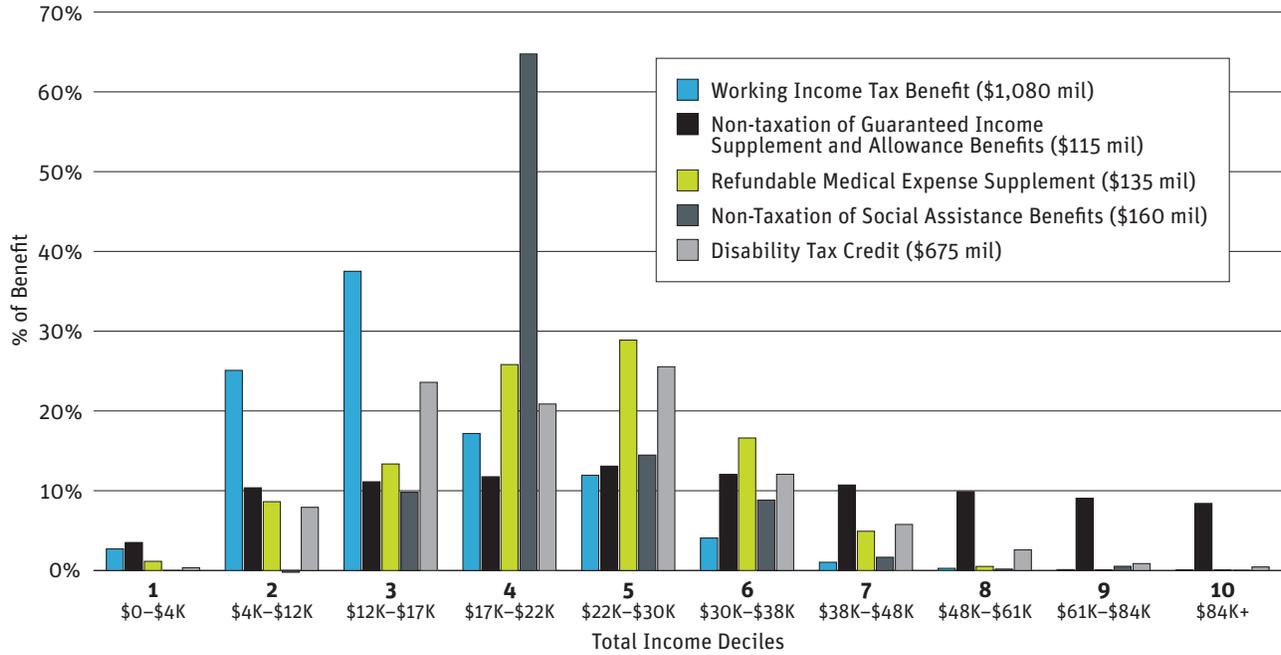
Five most progressive (vertically equitable) tax expenditures

BASED ON OUR criteria of what makes a tax expenditure progressive or not, only five of Canada's 64 expenditures are more beneficial for lower-income earners and therefore more positive in terms of correcting income inequalities. *Figure 1* plots these tax expenditures, just barely leaving out the Age Credit, where 48% of the benefit goes to the bottom half of income earners.

The most progressive federal tax expenditure is the working income tax benefit (WITB), since 95% of its benefit was paid to the bottom half of Canadians. The WITB costs just over \$1 billion a year making it the most expensive of this grouping. It is constructed so that as Canadians receive more from the program as their income increases to a limit of \$10,700 per year, at which point the WITB decreases and eventually phases out. The maximum value one could make from the WITB in 2011 was \$944. Most of the benefit is paid to earners in the middle of the income spectrum (\$12,000 to \$17,000 a year).

In some ways, the WITB has more in common with other income transfer programs like the guaranteed income supplement (GIS) than it does with other tax expenditures. Being a refundable tax credit, the WITB functions similarly to other income transfer programs like the Canada child benefit, with a maximum value and clawbacks related to income. This goes a long way to explaining its progressive nature. Tax expenditures and income trans-

FIGURE 1 Five most progressive tax expenditures



Source: SPSPD/M 22.1, Longitudinal Administrative Database and Canada Revenue Agency. See Appendix I.

fer programs are not exclusive categories and sometimes overlap as examined in more detail below.

The second most progressive tax expenditure is the non-taxation of the GIS and spousal allowance. The GIS is an income transfer program for low-income seniors, with a maximum payout of \$8,038 to a single senior with no other income. The spousal allowance is paid to the spouses (under age 65) of GIS recipients, providing an additional benefit to families living in poverty. The GIS itself is considered income; the tax expenditure listed here calculates the value of the GIS not being taxed as other income would be.

The GIS-linked tax expenditure benefit is focused squarely in the fourth income decile (\$17,000 to \$22,000 per year), which is roughly the minimum amount that low-income seniors in Canada can make from combined federal/provincial basic income programs.¹⁷ Social assistance benefits are also not taxed, but this tax expenditure is slightly less progressive than the GIS expenditure based on our scale, since a good part (nearly half) of the benefits go to those earning between \$17,000 and \$30,000 a year.

The refundable medical expenses supplement, available to those who have medical expenses but who also earn income, falls into this same cat-

egory within the progressive tax expenditures. As it's a refundable amount, the supplement does not require that one have taxes owing to be of use. Its peak value is \$1,089 a person, but similar to the WITB it phases out as income rises. It is of broad benefit to those in the third through sixth deciles whose incomes are between \$12,000 and \$38,000 a year.

Our fifth and final progressive tax expenditure, the disability tax credit, barely squeaks into the category. It is also the second most expensive tax expenditure in this group, with a cost to the government of \$675 million annually. The benefits of this tax expenditure are split roughly equally across all deciles but the first, where it provides little benefit. The credit is a flat amount of \$1,100 (after tax) available to all eligible recipients who pay taxes. As a non-refundable benefit it is of no use to those that would not otherwise pay taxes.

These five most progressive tax expenditures have a few things in common. First, there is either an explicit maximum individual benefit or the value is based on another program that itself is capped. The non-taxation of social assistance and GIS benefits both fall into the latter camp, the other three into the former camp. Second, the maximum benefit is paid out in the lower half of the income spectrum and tapers out afterwards. (This is true for the top four most progressive tax expenditures.) Finally, three of the five tax expenditures are related to seniors, including the non-taxation of GIS benefits, the disability tax credit and the refundable medical expenses supplement.

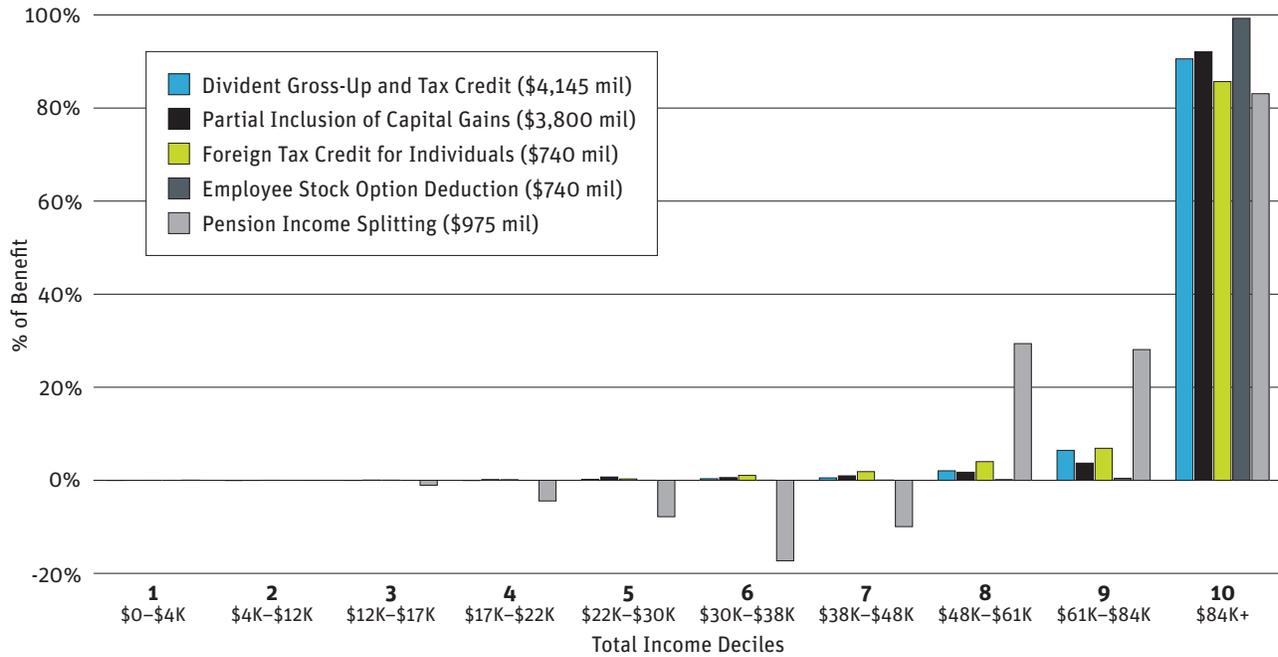
Five most regressive (vertically inequitable) tax expenditures

IT IS HARDER to fairly determine the most regressive tax expenditures, but it's clear from our ranked list that the vast majority provide more benefit to the richest half of Canadians. To narrow it down to five, those tax expenditures providing 99% of their benefit to the highest-earning Canadians are isolated (14 of 64 expenditures) then sorted by cost. By this method we exclude items like the Adoption Expense Tax Credit, which costs a modest \$3 million a year even if its benefits are heavily skewed to the richest Canadians.

The first thing that stands out in *Figure 2* is the marked difference in distributional impact of Canada's regressive and progressive tax expenditures. The benefits of the former (regressive) are clearly concentrated in the richest decile, with little or no benefit leaking down even to Canada's middle-income earners and absolutely nothing for the poorest Canadians. In the latter (progressive) category, benefits generally peaked in the third or fourth deciles, but they also spread beyond this zone, frequently also into the upper deciles.

The most regressive tax expenditure, which comes with a cost to government of \$975 million annually, is pension income splitting. This tax measure allows a couple to shift up to half the pension income of the higher-earning spouse to the lower earner at tax time. The lower-earning spouse

FIGURE 2 Five most regressive tax expenditures



Source: SPSP/M 22.1, Longitudinal Administrative Database and Canada Revenue Agency. See Appendix I.

would still pay tax on the amount transferred, but at a lower marginal rate. This transfer effect is why the distribution shows negative bars in deciles four through seven: lower earners will pay higher taxes as pension income is transferred, but presumably net family taxes will be lower.

Benefits from pension income splitting are concentrated at the very top, with 83% of the value of the expenditure going to the richest decile. In contrast with the other most regressive tax expenditures, there is maximum benefit to this tax expenditure of \$11,675¹⁸ when \$128,800¹⁹ of pension income is transferred from a higher earner to a spouse with no income. While capped, this maximum benefit is 10 times more generous than any of the five most progressive tax expenditures.

The second most regressive tax expenditure is the employee stock option deduction, which costs the government \$740 million a year. About 99% of that money is disbursed to income earners in the top decile, and 100% of that goes to the richest 1% of Canadians.²⁰ In essence, there is no benefit from this tax expenditure to anyone making less than \$215,000 a year.²¹

The stock option deduction is an offshoot of the capital gains inclusion rate. It is for employees who, as part of their compensation, are given the option to buy company stock at a set price (e.g., today's price). If the stock rises in the future, an employee can still buy the stock at their set price, but sell it at the going price and generate a capital gain equal to the difference between the two prices. As with capital gains, only 50% of the price difference from a stock option transaction of this sort is taxable, and there is no cap above which the government taxes 100% of the capital gain.

The third most regressive tax expenditure is the dividend gross-up and tax credit. With an annual cost to government of \$4.1 billion a year, it is also the most expensive in this group. This tax expenditure is incredibly concentrated, with 91% of the benefit going to income earners in the richest decile. But, again, the decile analysis actually understates the concentration, as Murphy et al. estimate half of all benefits actually go to the top 1%.²² Corporations pay corporate income tax on their profits, which can be paid out as a dividend to shareholders. This tax expenditure gives shareholders of Canadian firms receiving a dividend a credit for what the corporation already paid on its profits, so that those profits are not “double taxed.”

If that sounds reasonable, consider that double taxation is actually quite common — for everyone. When purchasing goods or services in Canada we all pay up front a combination of GST and HST. But that purchase is made with money that has already been taxed as personal income. If you buy gasoline, you're triple taxed by paying a gas tax and GST using income that is also taxed. Seen in this light, Canada's tax expenditure for corporate dividends looks very much like special treatment for the already very wealthy. The dividend gross-up has no maximum value, as it is related to the amount of Canadian eligible dividends paid to any individual.

The fourth most regressive tax expenditure is the foreign tax credit, which is worth \$740 million a year. If a person makes money in another country, and pays tax on that money to a foreign government, they get a credit toward their income taxes paid in Canada. This tax expenditure, which is similar in intent to the dividend gross-up credit, also does not have a maximum value, but amount claimed cannot exceed what that person would have paid in Canadian taxes on the same income.

The fifth most regressive tax expenditure is for partial inclusion of capital gains and it costs the government \$3.8 billion a year. With 92% of the benefits going to the richest decile — and virtually nothing for anyone earning less than \$84,000 — the concentration of benefits is similar to that for the dividend gross-up. However, additional analysis by Murphy et al. shows the

concentration of this tax expenditure is much worse than a decile analysis reveals. In fact, the very richest 1% of tax filers reap 87% of the benefits.²³

The tax expenditure for partial inclusion of capital gains applies to an individual who buy a stock or real estate at one price and subsequently sell it for more, realizing a “capital gain” in the amount of the difference between the two prices. It is only the capital gain, and not the entire sale price, that is eligible for taxation. And thanks to this tax expenditure, only 50% of the value of that capital gain is considered taxable income.

In other words, if a janitor made \$30,000 on the job last year and a real estate speculator sold a house for \$30,000 more than they paid for it, the real estate speculator would only pay taxes on \$15,000, whereas the janitor would owe tax on their entire income. This tax expenditure does not have a maximum value, as it is related to realized capital gains in a given year.

Like the five most progressive tax expenditures, there are commonalities among these regressive loopholes whose benefit is most concentrated among the richest half of Canadians. For one thing, three of the five regressive expenditures are related to capital ownership; that is to say, to the ownership, purchase and sale of stocks, real estate, businesses and the like. This is not an activity most Canadians take part in, let alone have to worry about at tax time. Second, four of the five tax expenditures have no maximum value and the fifth has a very high maximum. This also has the effect of concentrating benefits among those with more money to spend.

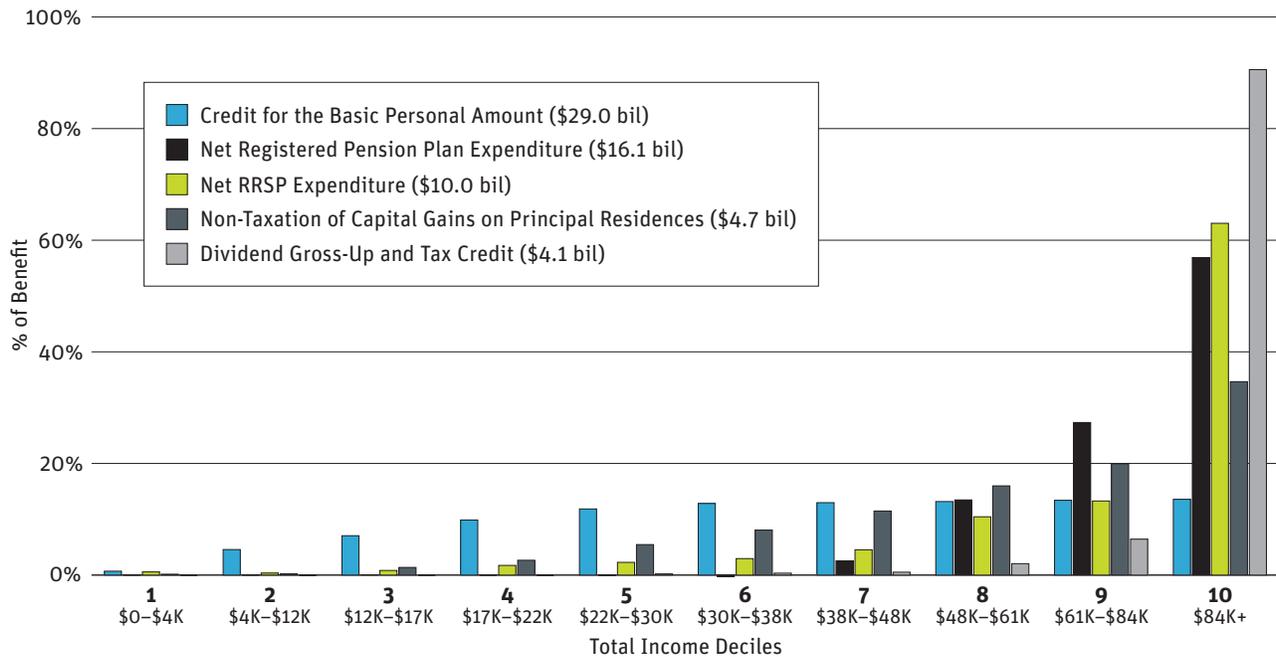
Five costliest tax expenditures

THOUGH THEY MAY not be the most regressive, based on the criteria established above, it is worth commenting on how all five of the *most costly* personal tax expenditures still provide far higher benefits to those in the upper income deciles than those in the lower half of Canadian income earners (see *Figure 3*).

At the top of this list is the basic personal amount all Canadians can claim as tax-free income on their tax forms (\$10,527 in 2011). This tax expenditure costs an incredible \$29 billion a year. To put that number in perspective, roughly a quarter of every tax dollar collected in 2011 was returned through the basic personal amount.²⁴

This tax expenditure is roughly equivalent to having an additional tax bracket under \$10,527 at 0%, despite the fact that the other tax brackets are not considered tax expenditures. That being said, changing the basic personal exemption would have major implications. Besides being the most expensive, this tax expenditure is the most evenly distributed, at least in this category, with a third of the benefit going to the bottom half of Canadians. The maximum benefit in 2011 was \$1,579, accessible to everyone who paid income tax, and received by virtually everyone in the fifth decile and above. The universal application of this tax expenditure to all taxpayers, particularly in the top half of the income distribution, is the reason it is so expensive.

FIGURE 3 Five Most costly tax expenditures



Source: SPSPD/M 22.1, Longitudinal Administrative Database and Canada Revenue Agency. See Appendix I.

The second and third most expensive tax expenditures are the registered pension plans (RPP) and the registered retirement savings plans (RRSP), which cost the government \$16 billion and \$9 billion a year respectively. The benefits of these tax expenditures are slightly more concentrated among Canada's highest-income earners, who receive 57% of the benefit from RPPs and 63% of the benefit from RRSPs, and in both cases there is little benefit outside of the top three deciles. Given the complicated deduction and withdrawal relationship in retirement savings plans, these numbers need more explanation.

The federal government loses money on retirement savings contributions as it rebates any taxes that have or would otherwise have been paid. It also loses money by not taxing any increases in the value of investments. However, the federal government gains money by taxing the inevitable withdrawals in retirement. The cost estimates above (and plotted in *Figure 4*) are the sum of all three, which is to say the net cost of the expenditure.

It is important to point out these estimates are on a cash-flow basis and represent a snapshot in time. If the average age of Canadians were younger, there would be higher contribution costs than withdrawal recoveries. If that average age were older one would expect higher withdrawal recoveries than contribution costs for the federal government. The lifetime gain per income decile is due to Canadians contributing in their working lives (when they make the most income and are in the highest tax brackets), but then withdrawing in retirement (when they make less), shifting tax money over time from higher to lower tax brackets.

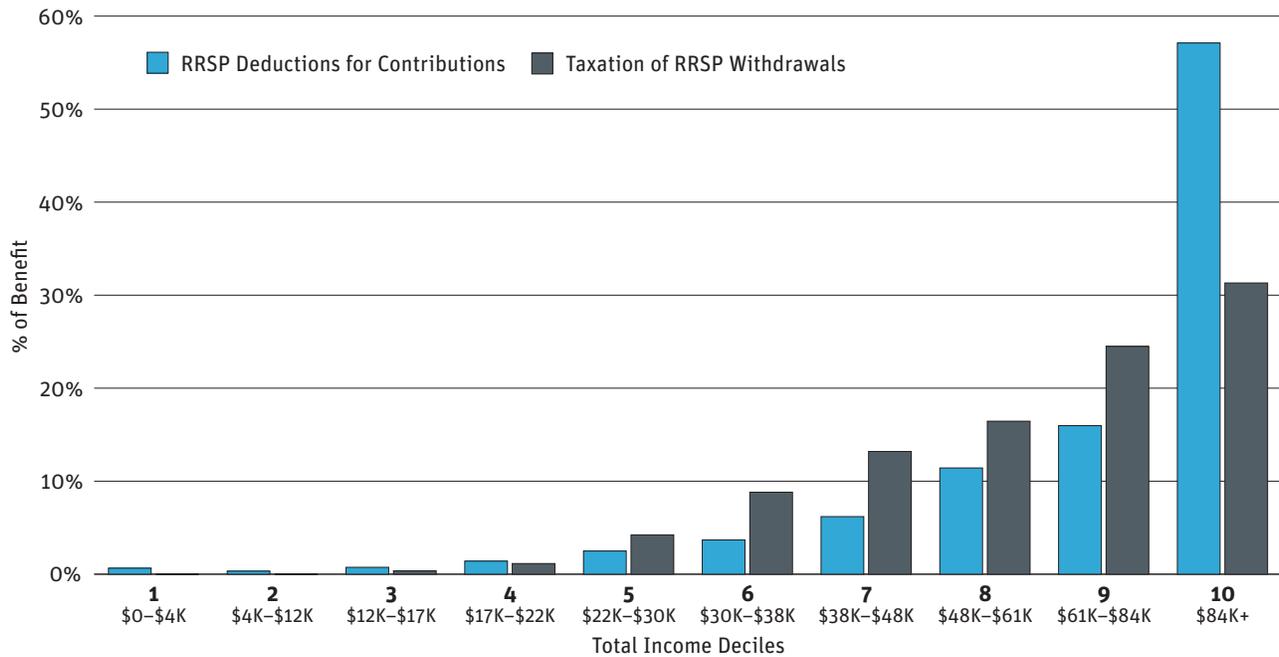
To evaluate the effectiveness of this tax-shifting strategy, *Figure 4* shows the distribution of benefits for contributors compared to the distribution of RRSP withdrawals. Assuming that contribution and withdrawal trends continue in terms of percentage benefit, and not in terms of aggregate amounts, it is clear the richest decile will benefit the most. The richest decile sees 57% of the benefits from contributions, but only pays back 31% of the tax on withdrawals. RPPs have a slightly worse distribution, with the top two deciles seeing a net lifetime benefit. Even on a lifetime basis, instead of a cash-flow basis, the top decile sees the most benefit given current trends.

The fourth most expensive tax expenditure, non-taxation of capital gains on a principle residence, cost the government \$4.7 billion in 2011. This tax expenditure is of very little use to the bottom half of the population, which sees 10% of the benefits. When someone sells a house, a capital gain is created in the amount of the sale price minus the purchase price (if this amount is positive). If that house is also the seller's primary residence, that capital gain is completely tax free, and there is no cap above which earnings are taxed. The only limitation is that a seller can only claim the capital gain exemption on the sale of one house per year.

The fifth most expensive tax expenditure is the dividend gross-up and tax credit, which cost \$4.1 billion in 2011. As discussed above, the credit is also among the top five most regressive expenditures, with 92% of the benefits going to the richest decile.

It is often difficult to contextualize the opportunity costs of spending billions of dollars on a tax expenditure. For comparison's sake, the combined net loss from the RRSP and RPP tax preferences is \$26 billion a year. This is three times the \$9 billion spent on the GIS and spousal allowance, which are dedicated to reducing poverty among low-income seniors.²⁵ By spending only a third of the government revenues lost to RRSP and RPPs every year we could eliminate seniors' poverty in Canada.²⁶

FIGURE 4 Contribution and withdrawal distribution



Source: SPSPD/M 22.1, Longitudinal Administrative Database and Canada Revenue Agency. See Appendix I.

In another comparison, recovering three-quarters of what is lost to the dividend gross-up each year could eliminate tuition for undergraduate university students, or it could halve the cost of long-term care for aging Canadians.²⁷ Tax expenditures are the same as any other real government spending: they are a fiscal choice governments make and can unmake if they want to. The money that today goes to padding the incomes of Canada's rich could tomorrow go to eliminating poverty and reducing income inequality.

Tax expenditures in the aggregate

BEYOND COMPARING CANADA'S individual tax expenditures for their progressivity or regressivity, we should be treating these tax expenditures as a system, as we might federal income transfers. In that case, we can apply the same equity lens to the tax expenditure system in the aggregate to determine if the totality of these measures increase or decrease income inequality in Canada.

Based on the analysis above, the answer should be clear: if 59 of Canada's 64 tax expenditures are regressive (i.e., they benefit the upper half of income earners more than the lower half), we should expect the system as a whole to fail the equity test. In fact, the total cost of these regressive measures is astonishing. Before getting to this cost, it's important to recognize three potential complications in adding up the individual impacts of Canada's tax expenditures: behavioural reaction, increased taxable incomes, and tax expenditure interaction. These three factors push in opposite directions.

First, as tax expenditures are closed, tax filers may seek out similar tax expenditures to lower their taxes. Depending on the availability of alternatives, this behavioural reaction would tend to reduce the value of closing or restricting expensive and/or regressive tax expenditures. Second, as multiple personal income tax expenditures are closed, more of a person's income may climb into new tax brackets and be taxed at a higher rate.

TABLE 2 Cost comparison of tax/transfer system components (2011)

Personal Income Taxes Collected	Cost of Personal Tax Expenditures	Value of all Federal Transfers including: CPP, GIS/OAS, EI, GST credit, UCCB, NCBS/CCTB
\$121 billion ²⁸	\$103 billion	\$113 Billion ²⁹

Source SPSD/M 22.1, 2013 Federal Budget and Table 1

Third, changing one loophole can affect the value of others as they interact. If the capital gains inclusion rate were changed, for example, the cost of other tax expenditures like tax-free savings accounts, which are used to make investments that benefit from the preferential tax rate, would also be affected. This particular interaction would tend to increase the value to government of closing the capital gains inclusion rate tax expenditure.

The following analysis does not attempt to adjust for these complications. As such, only broad conclusions are drawn from the aggregation of tax expenditures. From a policy perspective, if raising money from closing tax expenditures is the goal, a piecemeal approach is unlikely to provide as much benefit as a more comprehensive tax policy reassessment. (From the perspective of redistribution and upping the progressivity of Canada's tax system, however, eliminating certain tax expenditures would be a welcome first step, as discussed below.)

The standout conclusion we come to from aggregating all personal tax expenditures is that that system is very expensive, costing the government \$103 billion a year. As shown in *Table 2*, this is only slightly less than the \$121 billion collected in federal personal income taxes in 2011. Think about that: almost every dollar collected in personal income taxes is immediately given back through tax expenditures. Put another way, if revenues currently forgone through personal income tax expenditures were collected, the federal government would roughly double the amount of money at its disposal for other priorities.

Table 2 also compares the scale of Canada's tax expenditures to the total cost spent annually (\$113 billion) on the Canada Pension Plan, the guaranteed income supplement, old age security, employment insurance, the GST credit, the universal child care benefit, the Canada child tax benefit and the national child benefit supplement.³⁰ Both tax expenditures and traditional transfer programs like old age security result in effective transfers — the latter through cheques in the mail and the former through refund cheques after tax filing, or not paying taxes in the first place.

Tax expenditures and income transfer programs are not exclusive categories and sometimes overlap. In fact, the overlap can change depending on the year of the tax expenditures report. In the 2011 report, for example, the WITB is considered a tax expenditure, while in 2016 the government treats it as an income transfer.³¹ In both years, the measure is considered a refundable tax credit, further complicating the issue.

The WITB functions very much like other income transfer programs. Broadly, though, income transfers like OAS or the Canada child tax benefit are considered transfers to persons in federal budget reporting whereas tax expenditures are not. This report uses the list of tax expenditures in the 2011 CRA report and treats them as such; all other programs not contained in *Table 1* (above) that transfer money to individuals and families (e.g., OAS and the child tax benefit) are considered income transfers.³²

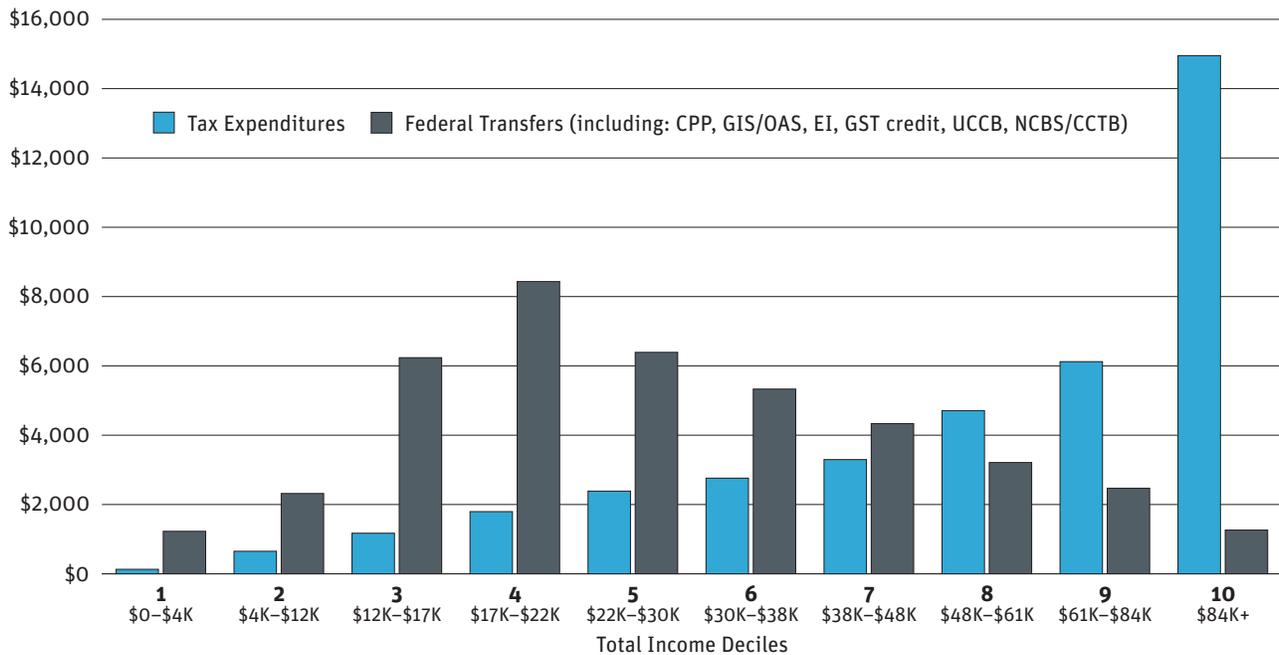
While both tax expenditures and traditional income transfers result in effective transfers and are of roughly the same aggregate cost, their distribution differs dramatically, as shown in *Figure 5*. Federal transfers peak in the fourth decile for those with incomes between \$17,000 and \$22,000. The average combined federal transfer is \$8,400 a person, which is mostly made up of transfers from CPP and GIS/OAS.

Federal transfers are surprisingly small for the poorest deciles when you consider that most programs target the poorest and clawback transfer payments as incomes rise. There are two reasons for this. The first is that the distribution is based on individual and not family incomes (see Appendix I for more on this). So someone earning no income would fit in the poorest decile even if their spouse made a million dollars a year.

The second, more worrying reason is that many of those in the poorest deciles are either single parents or single adults. Almost all of the federal transfer money paid to the poorest two deciles is for child-related benefits and goes mostly to single-parent families where the parent is almost always a woman. For single adults, or adult couples without children who are not seniors, the only available federal transfer is the GST credit, which maxed out at \$253 per person in 2011.

Federal transfers peak in the fourth decile, but they are slightly skewed to richer Canadians as they provide benefits all the way to the top of the income spectrum. In fact, those in the richest decile, with incomes over \$84,000 a year, receive slightly more on average from federal transfers (\$1,300) than the average person in the poorest decile (\$1,200). This is entirely due to higher CPP payments to the top deciles. Those in the ninth decile, where incomes

FIGURE 5 Per person benefit of tax expenditures vs federal transfers



Source SPSD/M 22.1, Longitudinal Administrative Database and Canada Revenue Agency. See Appendix I. Federal transfers are from SPSD/M 22.1. Federal transfers in this figure are pre-tax although post-clawback where applicable. Many of these transfers are not taxable in any event. UCCB and CPP in particular are taxable but are displayed as gross transfers, not net of taxes. Tax expenditures are by definition displayed on a pre-tax basis.

sit between \$61,000 and \$84,000 a year, receive on average \$2,500 a person — twice as much as those in the poorest decile.

Tax expenditures, on the other hand, have a dramatically different distribution, with benefits highly concentrated (39%) in the richest decile, where the average transfer is \$15,000 a year. That amount is double the \$8,400 those in the fourth decile receive in government transfers (largely to support low-income seniors). Put another way, tax expenditures provide 11 times more benefit to the richest people in Canada than government transfers do for the poorest (those making under \$4,000 a year).

From an aggregate perspective, therefore, the \$103 billion lost annually to tax expenditures is an embarrassing failure of Canadian tax policy. With the same amount of money the government could send an annual cheque of at least \$21,800 to all Canadians, completely eliminating poverty.³³ The money spent on tax expenditures also has an opportunity cost: it means funds are not available for physical infrastructure or to improve social program, both of which have a much higher economic multiplier in driving economic growth.

In essence, we have in Canada two federal support programs of roughly equal value: income transfers for the poor and middle class, and tax expenditures for the rich. The first benefits the lower-middle class the most, but spreads widely from the very poorest to the very richest. The second benefits mainly those at the top — a shadow transfer system for Canada's rich.

Conclusion and recommendations

THE UNEQUAL DISTRIBUTION of tax expenditures remains a critically under-examined problem in Canada, particularly given their enormous cost — on par with both personal income taxes collected and total federal government transfers — and contribution to income inequality. Given the sheer size of these tax expenditures, it is amazing they are not listed as government spending in federal budgets and fiscal updates.

For every dollar moved into one of Canada’s individual tax expenditures, an equivalent amount is foregone in federal revenues. Since there is no cap on many of the most expensive and most regressive tax expenditures, this arrangement skews benefits toward Canada’s richest, who are more likely to have extra money to put aside (for retirement, investments, etc.). Lifetime caps, as exist for the small business capital gains exemption, would help smooth out the distributional inequities in these expenditures and lower costs for government.

Tax expenditures individually are not purposeless. Sometimes they are meant to encourage behaviour, such as saving for retirement. Sometimes, as with the dividend gross-up, they are driven by concerns about equity (the “double taxation” of dividend income in this case), though almost always in the horizontal sense of treating similar people equally under the tax code. The vertical inequity of this measure, 91% of whose benefits go to the richest 10% of Canadians, is totally ignored.

The following recommendations would begin to address both the paucity of data on the income inequality effects of Canada's tax expenditures, while taking modest steps toward eliminating some of Canada's most regressive and expensive tax expenditures:

1. The annual tax expenditures report from Finance Canada should include the distribution of tax expenditures across the income spectrum
2. Tax expenditures should be included explicitly as costs in federal government financial reporting, including the main estimates, federal budget and fiscal updates.
3. The federal government should target annual savings in tax expenditures of 5% (worth \$5.1 billion a year) through the closure, capping or phasing-out of the most regressive loopholes.
4. Policy-makers should continue to examine tax expenditures through a broad income inequality or vertical equity lens, and to consider the totality of these expenditures as a grossly unfair shadow transfer system for Canada's wealthiest tax filers.

Appendix I: Methodology

ALL VALUES IN this report are in 2011 dollars. All tax rates, tax expenditure values, transfers and any other values are as they were in 2011 unless otherwise stated. That year was chosen as it reduces potential discrepancies between data sources. In particular, Statistics Canada's Social Policy Simulation Database and Model (SPSD/M) 22.1 is based on the 2010 survey of labour and income dynamics, with projections for future years. 2011 is also the year of reference for the two other examinations of the distribution of tax expenditures: Murphy et al., in 2015, and Part 2 of the federal government's 2011 tax expenditures and evaluation report.

All distributional analyses in this paper are conducted for individuals 18 and over based on total income before taxes but after transfers. Examining individual distribution may overstate the concentration of people in the bottom deciles, as it will split up families where one spouse earns an income and the other does not. In a situation where the former takes home, say, \$1 million annually, they would end up in the top decile while the latter is in the lowest decile in this distribution. This may tend to overstate the destitution of those in the lowest income deciles on an individual basis. However, taxes are evaluated on an individual basis and Canada Revenue Agency data, in particular, is only available on an individual basis. Future research could better examine the distribution of tax expenditures across the family income distribution in Canada

Four primary data sources were used for this report. In descending order of preference they are: SPSD/M 22.1,³⁴ a custom tabulation of the longitudinal administrative database (LAD), Canada Revenue Agency's T1 final income statistics 2013 (2011 tax year),³⁵ and the 2012 survey of financial security (SFS) custom tabulation.³⁶ One of these four sources is used for the distribution of each tax expenditure in terms of percentage benefit per decile. However the value of each tax expenditure always comes from either the 2011 tax expenditures and evaluation report³⁷ or the 2016 report on federal tax expenditures,³⁸ although in both cases the 2011 tax year is used. When tax expenditures are evaluated in the aggregate, the decile dollar amounts used are the percentage estimates multiplied by the values in the tax expenditure and evaluations report.

SPSD/M is the preferred distributional approach, as its foundations are in microdata: it will better reflect interactions between the cancellation of tax expenditures and other elements of the tax system. SPSD/M can also directly report the changes in federal taxes collected at the individual level without additional estimation. Glass-box changes were often necessary to obtain SPSD/M estimates.

LAD aggregates the amounts claimed across most of the tax expenditures by decile. As the LAD results are amounts claimed, and not the actual value of those amounts after tax, additional assumptions must be made to convert amounts. Given that microdata was not directly accessible, those conversions are performed on already aggregated data. This paper utilizes the methodology adopted by Murphy et al. (2015) to move from amounts claimed to tax expenditure value.³⁹ Broadly speaking tax credits are adjusted by the lowest tax rate of 15% and taxable income reductions are adjusted for the average top marginal tax rate and proportion with taxes owing by decile.

The CRA data is used primarily when values are unavailable in LAD. CRA data is also reported in amounts claimed (not after-tax value) and, as such, the same approach used in LAD for conversion is used for the CRA data. One additional limitation of the CRA data is that it is not presented in exact deciles. Instead, deciles must be constructed using pre-existing income ranges. This results in deciles being slightly more or slightly less than 10% in size.

Finally, the 2012 SFS is used to estimate the distribution of tax expenditures related to wealth specifically, which includes the principal residence exemption, RRSP, RPP, RESP and small business and farm lifetime capital gains exemptions. The distribution of holding of these assets as a proxy for benefit may be inadequate if rates of return differ across the income spectrum or the frequency of benefit differs; for instance, if the sale of the prin-

principal residence is more likely for certain incomes. No attempt is made to adjust for these possible drawbacks. Excluding RPPs, the data on asset values required by this report is held at the economic family level. Further assumptions on the distribution of these family assets among individuals were necessary and are outlined in footnotes to *Table 3*. Also, the removal of the principal residence or small business capital gains exemption could result in individuals moving up brackets upon the realization of capital gains and therefore paying a higher marginal rate. That specific case is not accounted for.

Each tax expenditure is examined individually. The cost of each expenditure is generally taken from the 2016 report on federal tax expenditures, although for the 2011 tax year. It is assumed that this retrospective view of 2011 will provide the best estimate of the expenditure. In some cases the value from the 2011 tax expenditures and evaluations report is used if the 2016 report value is not available. These choices are outlined in *Table 3* under the column titled “Expenditure Value Used.”

Given that the cost of each tax expenditure and its distribution comes from two different sources, it is important to check one against the other. For each tax expenditure the distributional source chosen produces an estimate of the total after-tax value of the expenditure, presented as the “Distribution Estimate of Expenditure Cost” in *Table 3*. This is compared to the “actual” value as reported through the tax expenditures reports in the column “Tax E&E cost used.” A percentage difference between these two is presented in the “Error” column, which in most cases is under 20%, representing a reasonable matchup between the two data sources. Where the error is larger, an explanation is provided in footnotes. This check is not possible for distributions that rely on the SFS.

Despite difference in the estimation of the cost of any tax expenditure, the dollar value of each is always from the “Tax E&E Cost Used” column, although using the “Distribution Source” to distribute benefits across the income deciles.

Evaluating the aggregate cost of tax expenditures presents several methodological problems. Adding up the expenditures on individual tax expenditures, as this report does, can be imprecise for three key reasons: expenditure interaction, increased taxable incomes, and behavioural reactions. Expenditure costs are presented as one-off changes leaving all other tax expenditures as they were. However, if several tax expenditures were targeted for change, they can interact. For instance, if the inclusion rate on capital gains were altered and tax-free savings accounts (TFSA) were capped in some way, these two items would interact. The cost of non-taxation of mon-

neys in TFSAs assumes the inclusion rate of capital gains remains the same. However, if the latter rises it would increase the amount lost through TFSAs as more of the sheltered capital gains would be liable for taxation. The interaction between tax expenditures would tend to increase their overall cost as tax expenditures were closed. This report does not attempt to account for these interactions.

Second, if the tax expenditures targeted for closure would have otherwise decreased taxable income they may interact to push filers into new marginal tax brackets. As the cost of tax expenditures are only evaluated individually, several in combination may push filers into new brackets, paying a higher marginal rate than only one would have individually. This effect would tend to increase the value of tax expenditures as more are closed, although this cumulative effect is not included in this report.

Third, economists are particularly concerned about richer tax filers attempting to avoid any tax changes, whether from marginal bracket rate increases or changes in tax expenditures. There is particular concern that wealthy Canadians will migrate, for instance to the U.S., in a “brain drain” response to higher Canadian tax rates. Natural experiments have shown a surprising lack of migration in response to higher top marginal tax rates.⁴⁰ In addition, the top marginal rates in California and New York, a likely destination for the “brain drain,” are actually higher than in any Canadian province.⁴¹

A more likely reaction to the closure of certain tax expenditures might be an increased use of related alternatives. For instance, if RRSP contributions were no longer tax deductible, wealthy Canadians might switch those contributions to TFSAs, where a tax preference still exists. This switching of moneys between tax expenditures may mean the total cost would not be recovered even if that tax expenditure were completely closed. The more tax expenditures that exist, the more choice there is as any one tax expenditure is closed. However, as fewer tax expenditures exist, the more likely it is that the closure of any additional tax expenditure will lead to the full cost of the tax expenditure being recovered. Behavioural reaction will tend to decrease the overall cost of tax expenditures. Neither the Finance Canada reporting on tax expenditures nor this report attempts to estimate the behavioural reaction to the closure of tax expenditures.

The final possibility for avoiding taxes, besides moving and switching tax expenditures, is simply to avoid them illegally. The solution here is more straightforward: hire more tax auditors to provide better enforcement of the rules that already exist. More disclosure and international co-operation of tax agencies is also critical in closing the potential for abuse in tax havens.

TABLE 3 Tax expenditure data sources, methodology and error check (\$mil)

Tax Expenditure Name	2011 Tax E&E (2011 year)	2016 Tax E&E (2011 year)	Tax E&E Cost used	Distribution Source	Distribution Estimate of Expenditure Cost	Error	Methodological notes
Charitable Donations and Political Contributions							
Charitable Donation Tax Credit	\$2,280	\$2,365	\$2,365	SPSD/M	\$2,102	-11%	
Donations of ecologically sensitive land, donations of cultural property	\$33	\$12	\$12	LAD	\$9	-25%	This error is high but the other methodologies do not provide a closer match
Political Contribution Tax Credit	\$32	\$25	\$25	SPSD/M	\$19	-22%	This error is high but the other methodologies do not provide a closer match
Culture							
Children's Arts Tax Credit	\$100	\$30	\$30	LAD	\$36	18%	
Education							
Tuition Tax Credit, Textbook Credit, Education Tax Credit (Current, Transfer and Carry-forward)	\$1,576	\$1,695	\$1,695	SPSD/M	\$1,419	-16%	Due to data SPSP/M data constraints, three tax credits are aggregated into this one line which includes the current, transfer and carry-forward values of the Tuition Tax, Textbook and Education tax credits
Registered Education Savings Plans	\$185	\$170	\$170	SFS			RESPs asset value are recorded at the family level in the SFS. To move to the individual level, RESP asset value is split evenly among the primary earner and their spouse with benefits distributed according to RESP value after adjusting for average marginal tax rates and the proportion of filers with taxable income.
Student Loans Interest Credit	\$68	\$40	\$40	SPSD/M	\$39	-3%	
Employment							
Canada Employment Credit	\$2,025	\$1,995	\$1,995	SPSD/M	\$2,067	4%	
Child Care Expense Deduction	\$810	\$900	\$900	LAD	\$721	-20%	
Non-Taxation of Income Earned by Military and Police Deployed to High and Moderate risk international missions	\$38	\$35	\$35	LAD	\$36	2%	
Deduction for Other Employment Expenses	\$1,055	\$985	\$985	SPSD/M	\$836	-15%	
Deduction of Union and Professional Dues	\$795	\$825	\$825	LAD	\$761	-8%	
Employee Stock Option Deduction	\$725	\$740	\$740	LAD	\$752	2%	
Moving Expense Deduction	\$135	\$100	\$100	LAD	\$74	-26%	While it is possible to accomplish this in SPSP/M, the total match up is better with LAD despite an error of over 20%
Northern Residents Deductions	\$165	\$170	\$170	LAD	\$162	-4%	
Overseas Employment Tax Credit	\$75	NA	\$75	CRA	\$77	3%	
Volunteer Firefighters Tax Credit	\$15	\$15	\$15	LAD	\$17	14%	
Working Income Tax Benefit	\$1,030	\$1,080	\$1,080	LAD	\$1,107	2%	SPSD/M can provide this value, but the LAD estimate is closer to the Tax E&E cost

Tax Expenditure Name	2011 Tax E&E (2011 year)	2016 Tax E&E (2011 year)	Tax E&E Cost used	Distribution Source	Distribution Estimate of Expenditure Cost	Error	Methodological notes
Family							
Adoption Expense Tax Credit	\$	\$3	\$3	LAD	\$2	-24%	The small size of the cost itself exaggerates the error for this credit
Caregiver Credit	\$110	\$110	\$110	SPSD/M	\$101	-8%	
Child Tax Credit	\$1,525	\$1,510	\$1,510	SPSD/M	\$1,608	7%	
Infirm Dependant Credit	\$6	\$5	\$5	SPSD/M	\$5	7%	
Spouse or Common -Law Partner Credit	\$1,400	\$1,425	\$1,425	SPSD/M	\$1,427	0%	
Eligible Dependant Credit	\$805	\$770	\$770	SPSD/M	\$598	-22%	While the error is slightly over 20%, SPSP/M provides the best match up as compared to the Tax E&E cost
Federal-Provincial Financing Arrangements							
Quebec Abatement	\$3,810	\$3,885	\$3,885	SPSD/M	\$3,841	-1%	
General Business and Investment							
Deduction of Carrying Charges Incurred to Earn Income	\$1,020	\$1,085	\$1,085	SPSD/M	\$974	-10%	
Investment Tax Credits	\$16	\$14	\$14	LAD	\$27	94%	While this is possible in SPSP/M, the LAD provides a closer estimate, although in both cases the errors remain higher than most expenditures.
Flow-through Share Deductions & Mineral Exploration Tax Credit	\$405	\$445	\$445	SPSD/M	\$410	-8%	
Partial Inclusion of Capital Gains	\$3,605	\$3,800	\$3,800	SPSD/M	\$3,540	-7%	
Tax Free Savings Account (TFSA)	\$220	\$160	\$160	CRA	\$149	-7%	
Small Business							
Lifetime Capital Gains Exemption for Small Business Shares & Farm and Fishing	\$895	\$990	\$990	SFS			This combines the Small business and Farm and fishing exemptions. These assets in the SFS are held at the family level. For this tax expenditure small business and farm and fishing equity value are distributed evenly among all adults 25 or older.
Deduction of Allowable Business Investment Losses	\$30	\$30	\$30	SPSD/M	\$26	-14%	
Labour-Sponsored Venture Capital Corporations Credit	\$130	\$140	\$140	SPSD/M	\$123	-12%	
Health							
Children's Fitness Tax Credit (before 2015)	\$115	\$110	\$110	LAD	\$126	15%	
Disability Tax Credit	\$665	\$675	\$675	LAD	\$932	38%	While this is possible in SPSP/M, the LAD provides a closer estimate, although in both cases the errors remain higher than most expenditures.
Medical Expense Tax Credit	\$1,090	\$1,135	\$1,135	SPSD/M	\$904	-20%	
Refundable Medical Expense Supplement	\$140	\$135	\$135	SPSD/M	\$157	16%	

Tax Expenditure Name	2011 Tax E&E (2011 year)	2016 Tax E&E (2011 year)	Tax E&E Cost used	Distribution Source	Distribution Estimate of Expenditure Cost	Error	Methodological notes
Income Maintenance and Retirement							
Age Credit	\$2,260	\$2,530	\$2,530	SPSD/M	\$2,520	0%	
Non-taxation of Guaranteed Income Supplement and Allowance Benefits	\$105	\$115	\$115	SPSD/M	\$90	-22%	While the error is slightly over 20%, SPSP/M provides the closest match.
Non-Taxation of Social Assistance Benefits	\$145	\$160	\$160	LAD	\$475	197%	It was difficult to match the Tax E&E cost. SPSP/M produced an odd distribution and as such the LAD Social Assistance Income adjusted for the top average marginal rate and taxable income by decile was used.
Non-Taxation of Workers' Compensation Benefits	\$645	\$625	\$625	SPSD/M	\$726	16%	
Pension Income Credit	\$975	\$1,035	\$1,035	SPSD/M	\$1,119	8%	
Pension Income Splitting	\$925	\$975	\$975	SPSD/M	\$1,013	4%	
Registered Pension Plans							
RPP Deductions for contributions	\$11,860	\$12,465	\$12,465	LAD	\$8,033	-36%	SPSD/M does not include the employer contribution in its definition of contributions. LAD's "Pension Adjustment" contains both employer and employee portions. However, the value of defined benefit plans from this LAD line is not reported on a cash flow basis but rather on an accrued benefits basis meaning that a close match between the Tax E&E costing should not be expected
Non-taxation of RPP investment income	\$11,155	\$11,290	\$11,290	SFS			Pension plan value on a termination basis is recorded in the SFS on an individual basis. The total holdings are used as the distributional proxy.
Taxation of RPP withdrawals	-\$7,390	-\$7,670	-\$7,670	SPSD/M	-\$7,454	-3%	SPSD/M lumps together pension income from RPP and RRSP/RRIF withdrawals post-retirement together as "pension income". It isn't possible to separate out the distribution of only RPP withdrawals in SPSP/M. The distribution used is the combined withdrawals post-retirement of RPP and RRSP/RRIF withdrawals. The SPSP/M cost estimate makes up 70% of the total "pension income" with the difference allocated to RRSP withdrawals below
Net Registered Pension Plan Expenditure	\$15,625	\$16,085	\$16,085	SPSD/M	\$16,085	0%	
RRSPs							
RRSP Deductions for Contributions	\$7,390	\$7,480	\$7,480	SPSD/M	\$7,214	-4%	
Non-taxation of RRSP investment income	\$7,645	\$7,805	\$7,805	SFS			RRSP and RRIF holdings are recorded in the SFS at the family level. For the purposes of this distribution, those family holdings are split evenly between all adults over age 25 in the family.
Taxation of RRSP Withdrawals	-\$5,125	-\$5,330	-\$5,330	SPSD/M	-\$5,120	-4%	In the Tax E&E this line includes both RRSP withdrawals prior to retirement and RRSP/RRIF withdrawals post retirement. SPSP/M lumps pension income and RRSP/RRIF withdrawals post-retirement together as "pension income" but retains a separate variable for RRSP withdrawals prior to retirement. A third of "pension income" taxation is allocated RRSP withdrawals to match the Tax E&E definition
Net RRSP expenditure	\$9,910	\$9,955	\$9,955	SPSD/M	\$9,955	0%	
Tax Treatment of Alimony and Maintenance Payments	\$100	\$60	\$60	CRA	\$56	-6%	

Tax Expenditure Name	2011 Tax E&E (2011 year)	2016 Tax E&E (2011 year)	Tax E&E Cost used	Distribution Source	Distribution Estimate of Expenditure Cost	Error	Methodological notes
Other Items							
Deduction for Clergy Residence	\$85	\$85	\$85	SPSD/M	\$79	-7%	
First-Time Home Buyer's Tax Credit	\$115	\$110	\$110	LAD	\$123	12%	
Non-taxation of Capital Gains on Principal Residences	\$4,235	\$4,700	\$4,700	SFS			The non-realized primary residence capital gain between purchase and current home value is available in the SFS only at a family level. For the purposes of distribution those unrealized capital gains are evenly shared among the primary earner and their spouse (if applicable)
Public Transit Tax Credit	\$150	\$160	\$160	SPSD/M	\$138	-14%	
Memorandum Items							
Avoidance of Double Taxation							
Dividend Gross-Up and Tax Credit	\$3,745	\$4,145	\$4,145	SPSD/M	\$4,422	7%	
Foreign Tax Credit for Individuals	\$785	\$740	\$740	SPSD/M	\$851	15%	
Loss Offset Provisions							
Capital Loss Carry-Overs	\$405	\$345	\$345	SPSD/M	\$282	-18%	
Farm and Fishing Loss Carry-Overs	\$15	\$15	\$15	CRA	\$27	77%	The small size of the cost itself exaggerates the error for this credit
Non-Capital Loss Carry-Overs	\$55	\$65	\$65	SPSD/M	\$57	-12%	
Social and Employment Insurance Programs							
Tax Treatment of Canada Pension Plan and Quebec Pension Plan Contributions and Benefits: Employee Paid Contributions	\$3,130	\$3,070	\$3,070	SPSD/M	\$3,514	14%	
Tax Treatment of Employment Insurance and Quebec Parental Insurance Plan Premiums and Benefits: Employee Paid Contributions	\$1,075	\$1,065	\$1,065	SPSD/M	\$1,126	6%	
Other							
Credit For The Basic Personal Amount	\$29,510	\$29,020	\$29,020	SPSD/M	\$30,739	6%	

Appendix II: Excluded tax expenditures

TABLE 4 DETAILS tax expenditures that are not analyzed in this report. In general, these were excluded either because distributional data or else the estimated value of the expenditure were not available. A few expenditures were excluded for other reasons, including the transfer of education, textbook, and tuition tax credits; the carry-forward of education, textbook, and tuition tax credits; and the education, textbook, and tuition tax credit, where data are all aggregated. As such, we were unable to assess these three expenditures separately. Finally, as this report only focuses on expenditures related to personal income taxes, expenditures involving businesses were also excluded from the analysis (see the details in *Table 4*).

TABLE 4 Excluded personal tax expenditures

Tax Expenditure Name	Reason for Exclusion	2011 Tax E&E (2011 year) \$mil	2016 Tax E&E (2011 year) \$mil
Assistance for Artists	Estimate of the cost of the expenditure not available.	\$	\$
Deduction for Artists and Musicians	Estimate of the cost of the expenditure not available.	\$	NA
Adult Basic Education - Tax Deduction for Tuition Assistance	Distributional data not available.	\$5	\$3
Apprentice Vehicle Mechanics' Tools Deduction	Distributional data not available.	\$4	\$4
Transfer of Education, Textbook, and Tuition Tax Credits	The transfer and carry-forward of education, textbook, and tuition tax credits is aggregated with the distributional data on tuition, textbook, and education credits.	\$510	NA
Carry-forward of Education, Textbook and Tuition Tax Credits	The transfer and carry-forward of education, textbook, and tuition tax credits is aggregated with the distributional data on tuition, textbook, and education credits.	\$535	NA
Exemption of Scholarship, Fellowship and Bursary Income	Distributional data not available.	\$43	N/A
Non-Taxation of Benefits in Respect of Home Relocation Loans	Estimate of the cost of the expenditure not available.	\$	\$
Deduction for Tradespeople's Tool Expenses	Distributional data not available.	\$4	\$3
Deferral of Salary through Leave of Absence/Sabbatical Plans	Estimate of the cost of the expenditure not available.	NA	NA
Disability Supports Deduction	Distributional data not available.	\$	\$2
Employee Benefits Plan	Estimate of the cost of the expenditure not available.	NA	NA
Non-taxation of Certain Non-monetary Employment Benefits	Estimate of the cost of the expenditure not available.	NA	NA
Non-Taxation of Strike Pay	Estimate of the cost of the expenditure not available.	NA	NA
Family Caregiver Tax Credit	Estimate of the cost of the expenditure not available.	—	—
Deferral of Capital Gains through Transfers to a Spouse, Spousal Trust or Family Friend	Estimate of the cost of the expenditure not available.	NA	NA
Inclusion of the Universal Child Care Benefit in the Income of an Eligible Dependent	Distributional data not available.	\$5	\$2
Lifetime Capital Gains Exemption for Farm and Fishing Property	The Lifetime Capital Gains Exemption for farm and fishing property is combined with the lifetime capital gain exemption for small business. This study only examines expenditures related to personal income tax.	\$335	\$395
Cash Basis Accounting	Estimate of the cost of the expenditure not available.	NA	NA
Deferral of Capital Gains through Intergenerational Rollovers of Family Farms, Family Fishing Businesses and Commercial Woodlots	Estimate of the cost of the expenditure not available.	NA	NA
Deferral of Income from Destruction of Livestock	Estimate of the cost of the expenditure not available.	\$	\$
Deferral of Income from Sale of Livestock during Drought, Flood or Excessive Moisture Years	Estimate of the cost of the expenditure not available.	NA	NA
Deferral of Income from Grain Sold through Cash Purchase Tickets	Distributional data not available.	\$30	\$70
Deferral through 10-Year Capital Gain Reserve	Distributional data not available.	\$	\$15
Exemption from Making Quarterly Tax Instalments	Estimate of the cost of the expenditure not available.	NA	NA
AgriInvest (Farm Savings Account)	Distributional data not available.	\$15	NA
Agri-Quebec (Farm Savings Account)	Distributional data not available.	\$5	NA
Flexibility in Inventory Accounting	Estimate of the cost of the expenditure not available.	NA	NA
Tax Treatment of the Net Income Stabilization Account	Estimate of the cost of the expenditure not available.	-	NA
Logging Tax Credit	Distributional data not available.	\$	\$1
Transfer of Income Tax Points to Province	Distributional data not available.	\$18,195	\$18,340
\$200 Capital Gains Exemption on Foreign Exchange Transactions	Estimate of the cost of the expenditure not available.	NA	NA

Tax Expenditure Name	Reason for Exclusion	2011 Tax E&E (2011 year) \$mil	2016 Tax E&E (2011 year) \$mil
\$1,000 Capital Gains Exemption on Personal-Use Property	Estimate of the cost of the expenditure not available.	NA	NA
Accelerated Deduction of Capital Costs	Estimate of the cost of the expenditure not available.	NA	NA
Deferral through Use of Billed-Basis Accounting by Professionals	Estimate of the cost of the expenditure not available.	NA	NA
Deferral through Five-Year Capital Gain Reserve	Distributional data not available.	\$10	\$5
Reclassification of Expenses under Flow-Through Shares	Distributional data not available.	-\$3	-\$5
Taxation of Capital Gains Upon Realization	Estimate of the cost of the expenditure not available.	NA	NA
Deferral through 10-Year Capital Gain Reserve	Estimate of the cost of the expenditure not available.	S	S
Non-taxation of Provincial Assistance for Venture Investments in Small Businesses	Estimate of the cost of the expenditure not available.	NA	NA
Rollovers of Investments in Small Businesses	Distributional data not available.	\$5	\$4
Non-taxation of Business-Paid Health and Dental Benefits	This expenditure applies to businesses; this report only examines expenditures related to personal income tax.	\$3,155	\$2,315
Deferred Profit-Sharing Plans	Estimate of the cost of the expenditure not available.	NA	NA
Non-taxation of Certain Amounts Received as Damages in Respect of Personal Injury or Death	Distributional data not available.	\$22	NA
Non-taxation of Investment Income from Life Insurance Policies	Distributional data not available.	NA	\$285
Non-taxation of RCMP pensions/compensation in Respect of Injury, Disability or Death	Estimate of the cost of the expenditure not available.	NA	NA
Non-taxation of up to \$10,000 of Death Benefits	Estimate of the cost of the expenditure not available.	NA	NA
Non-taxation of Veteran's Allowances, income support benefits, civilian war pensions and allowances, and other service pensions (including those from Allied countries)	Estimate of the cost of the expenditure not available.	S	S
Non-taxation of Veteran's Disability Pensions and Support for Dependents	Distributional data not available.	\$140	\$270
Registered Disability Savings Plan	Distributional data not available.	\$4	\$15
Saskatchewan Pension Plan	Estimate of the cost of the expenditure not available.	S	NA
US Social Security Benefits	Estimate of the cost of the expenditure not available.	S	NA
Deduction for Certain Contributions by Individuals who have taken Vows of Perpetual Poverty	Estimate of the cost of the expenditure not available.	S	NA
Home Renovation Tax Credit	This tax credit was not in force during the year examined in this report (2011).	-	NA
Non-taxation of Income from the Office of the Governor General	Estimate of the cost of the expenditure not available.	S	S
Non-taxation of Income of Status Indians and Indian Bands on Reserve	Estimate of the cost of the expenditure not available.	NA	NA
Special Tax Computation for Certain Retroactive Lump-Sum Payments	Estimate of the cost of the expenditure not available.	S	S
Non-taxation of capital dividends	Distributional data not available.	NA	\$10
Tax Treatment of Canada Pension Plan and Quebec Pension Plan Contributions and Benefits: Employer Paid Premiums	This expenditure applies to businesses; this report only examines expenditures related to personal income tax.	\$5,030	\$4,945
Tax Treatment of Employment Insurance and Quebec Parental Insurance Plan Premiums and Benefits: Employer Paid Premiums	This expenditure applies to businesses; this report only examines expenditures related to personal income tax.	\$2,075	\$2,075
Deferral through Capital Gains Rollovers	Estimate of the cost of the expenditure not available.	NA	NA
Non-taxation of Lottery and Gambling Winnings	Estimate of the cost of the expenditure not available.	NA	NA
Non-taxation of Allowances for Diplomats and Other Government Employees Posted Abroad	Distributional data not available.	\$44	\$45
Partial Deduction of Meals and Entertainment Expenses	Distributional data not available.	\$180	\$185

Appendix III: Description of tax expenditures

THE FOLLOWING ARE longer descriptions of the tax expenditures examined in *Table 1*. The descriptions are drawn largely from the the 2016 *Report on Federal Tax Expenditures* from Finance Canada.

Adoption Expense Tax Credit (2005)

Adoptive parents are able to claim the non-refundable adoption expense tax credit. Eligible expenses that can be claimed for this credit include a wide range of items such as adoption fees, living expenses for both the parent and the child, and legal expenses. The credit is calculated by applying the lowest personal income tax rate to eligible adoption expenses, which are capped at \$15,255 per child. This credit can be split in the case of two adoptive parents.

Age Credit (1987)

The Age Credit is a non-refundable personal tax credit for individuals 65 and over. The value of the credit is calculated by applying the lowest personal tax rate to the age amount (a maximum of \$6,537 in 2011). Any leftover credit amounts may be transferred to a spouse or partner. The credit is reduced by 15% if an individual's net income is over \$ 32,961 (2011), and the credit is not available to those who have a net income great than \$76,541 (2011).

Canada Employment Credit (2006)

The Canada Employment Credit is a non-refundable tax credit that is meant to highlight expenses that arise when trying to earn income. If you pay tax and earn income, you may be able to claim this credit. The value of the credit is calculated by applying the lowest personal income tax rate to the lower value of a.) \$1,065 (in 2011) or b.) a person's employment income for the year.

Capital Loss Carry-Overs (1971)

This expenditure allows capital losses to be carried backward for up to three years, and carried forward permanently, to offset capital gains in these years.

Caregiver Credit (1998)

Individuals caring for a parent, grandparent (aged 65 or older), or an infirm adult dependant relative are eligible for a non-refundable tax credit. The total value of this credit is calculated by applying the lowest personal income tax rate to the credit amount per qualified/eligible person (\$4,282 in 2011). The amount per eligible person was. In the event that the eligible dependant's total net income is over \$15,735, the credit is reduced. If the dependant's income is over \$20,343, then the credit is no longer available.

Charitable Donation Tax Credit (1917)

The Charitable Donations Tax Credit is a non-refundable tax credit. The value of the credit is determined by using the lowest income tax rate on donations to charities up to \$200. The credit on donations greater than \$200 are calculated by using the highest personal income tax rate.

Child Care Expense Deduction (1971)

The Child Care Expense Deduction is meant to offset the cost of child care that is required to gain income or undertake training and professional development. The deduction may not exceed the lesser of (i) the total of the maximum dollar limits for all children (\$8,000 per child under age 7, \$5,000 per child between 7 and 16 years of age and infirm dependent children over age 16, and \$11,000 for a child eligible for the Disability Tax Credit, regardless of their age), (ii) two-thirds of earned income for the year (not applicable to single-parent students), and (iii) the actual amount of child care expenses incurred. The spouse with the lower income must generally claim the deduction.

Child Tax Credit (2007)

The Child Tax Credit is a non-refundable tax credit; the value of the credit is calculated by applying the lowest personal tax rate to \$2,131 (in 2011) for

each child under the age of 18 at the end of the taxation year. One parent can claim one child; if there are leftover credits, they are able to be transferred to a spouse or partner. It was cancelled in 2015 and replaced with the Canada Child Benefit.

Children's Arts Tax Credit (2011)

This non-refundable tax credit has a value of up to \$500, and is calculated by applying the lowest personal income tax rate to the cost of eligible children's art programs. The credit can be claimed by either parent; the child must be 16 years of age or younger.

Children's Fitness Tax Credit, before 2015 (2006)

The Children's Fitness Tax Credit is a refundable tax credit that can be claimed by either parent of a child who is enrolled in certain eligible programs that promote physical activity. The credit is calculated by applying the lowest personal tax rate to eligible expenses (up to \$1000).

Credit For The Basic Personal Amount (1987)

The Credit for the Basic Personal Amount is a non-refundable personal tax credit, which ensures that no tax is paid on the Basic Personal Amount (\$10,527 in 2011). The credit is calculated by applying the lowest personal income tax rate to the Basic Personal Amount.

Deduction for Clergy Residence (1949)

If a member of the clergy receives a living allowance, or is provided with living accommodations, they are eligible for an offsetting deduction to their taxable income. The value of the deduction is the lesser of the two following amounts: \$1000 per month for the number of months the tax payer was involved with the clergy and one-third of the taxpayer's remuneration from the office or employment; and (2) the amount, if any, by which rent paid exceeds the total deducted by the taxpayer in connection with the residence from income earned from the office or employment or a business.

Deduction for Other Employment Expenses (1948)

This allows for eligible Canadians to deduct certain employment expenses from their total taxable income. Examples of deductible employment expenses include: legal expenses paid in order to collect salary, and the cost of lodging and food for transport workers.

Deduction of Allowable Business Investment Losses (1978)

Capital losses arising from the sale of shares and debt instruments are generally deductible only against capital gains. However, one-half of the cap-

ital loss from a deemed disposition of bad debts or shares of a bankrupt corporation or from a disposition to an arm's length person of shares or debts of a small business corporation (known as an "allowable business investment loss") may be used to offset other income. Unused allowable business investment losses may be carried back 3 years and forward 10 years. After 10 years, the loss reverts to an ordinary capital loss and may be carried forward indefinitely.

Deduction of Carrying Charges Incurred to Earn Income (1923)

Interest and other carrying charges incurred to earn business or investment income (i.e. fees, professional advice, and legal fees relation to the business) are deductible from taxable income under certain conditions.

Deduction of Union and Professional Dues (1951)

Union and professional fees can be deducted from an individual's taxable income if that individual paid annual fees or dues throughout the course of the year. Employer contributes cannot be deducted.

Disability Tax Credit (1944)

The Disability Tax Credit is a non-refundable tax credit. Its value is calculated by applying the lowest personal tax rate to the eligible amount (\$7,341 in 2011). This credit can be transferred to various members of the family.

Dividend Gross-Up and Tax Credit (1949)

When an individual receives corporate dividends they are subject to both personal and corporate income tax. This tax credit is in place to ensure to avoid "double taxation": first, of the money as corporate profit via corporate income taxes and second as a dividend through the personal income tax system.

**Donations of ecologically sensitive land,
donations of cultural property (1995)**

Objects that are certified by the Canadian Cultural Property Export Review Board as culturally valuable to Canada are exempt from capital gains tax when sold or donated within 24 months of certification to a cultural institution (i.e. museum or art gallery). A zero inclusion rate applies to capital gains arising from a donation of ecologically sensitive land to a public conservation charity if the fair market value of the land is certified by the Minister of the Environment.

Eligible Dependent Credit (1987)

The Eligible Dependent Credit is a non-refundable personal income tax credit that targets people who have dependants and do not have a spouse or partner (living with them). The credit is calculated by applying the lowest personal tax rate to the Eligible Dependent amount (\$10,527 in 2011); this amount is reduced dollar for dollar according to the dependant's net income.

Employee Stock Option Deduction (1977)

When workers purchase shares through their employee stock option plan, they receive a taxable benefit equal to the difference between the fair market value of the shares at the time they are acquired and the amount paid to acquire them. If specific requirements are met, an employee is entitled to deduct half of the benefit they obtained from the stock options benefit from their individual taxable income, thereby benefiting from the same effective tax rate that investors receive on capital gains.

Farm and Fishing Loss Carry-Overs (1942)

Non-capital losses from farm and fishing may be carried back or forward and deducted against all sources of income. For losses incurred in or after 2006, the carry-back period is 3 years and the carry-forward period 20 years.

First-Time Home Buyer's Tax Credit (2009)

First-time home buyers who are qualifying can obtain up to \$750 in tax relief by claiming the First-Time Home Buyers' Tax Credit. The value of this non-refundable credit is calculated by multiplying the credit amount of \$5,000 (2011) by the lowest personal income tax rate. If there is an unused portion of the credit, spouses or common law partners are able to claim the remainder.

Flow-through Share Deductions

& Mineral Exploration Tax Credit (2000)

A corporation can transfer certain unused tax deductions related specifically to oil, gas, mining, and exploration activities, to equity investors. An investor buying a flow-through share is entitled to claim deductions on account of Canadian Exploration Expenses (100% immediate deduction, including for Canadian Renewable and Conservation Expenses) and Canadian Development Expenses (deductible at 30% per year) transferred to the investor by the corporation.

Foreign Tax Credit for Individuals (1927)

This non-refundable tax credit applies to individuals who are Canadian residents and have paid foreign income tax. If eligible, these individuals

receive an income tax credit in the amount that they paid to the foreign government, up to the amount of tax that the individual would pay on that same income in Canada.

Infirm Dependant Credit (1987)

This non-refundable tax credit can be claimed by an individual with an infirm dependent, including a spouse, parent, child, grandparent, uncle, aunt, nephew or niece who are age 18 or older. The credit is worth a maximum of \$ 4,282 (2011) and is reduced as the dependant's income increases.

Investment Tax Credits (1948)

If an individual bought certain new buildings, machinery, or equipment and they were used in certain areas of Canada in qualifying activities such as farming, fishing, logging, manufacturing, or processing, or partook in certain eligible research and development activities, the individual may be eligible for a non-refundable tax credit.

Labour-Sponsored Venture Capital Corporations Credit (1985)

Labour-sponsored venture capital corporations (LSVCCs) are labour or union sponsored investment funds. A tax credit is provided to individuals for the acquisition of shares of LSVCCs, up to an annual eligible share purchase limit (\$5,000). It was calculated as 15% of eligible share purchases in 2011.

Lifetime Capital Gains Exemption for Small Business Shares & Farm and Fishing (1985)

The Lifetime Capital Gains Exemption (LCGE) provides a tax exemption in respect of capital gains realized by individuals on the sale of their qualified farm or fishing property and qualified small business shares. An individual may shelter capital gains realized up to a lifetime limit of \$750,000 (2011). Qualified small business shares are from a Canadian-controlled and have been owned for the 24 months prior to the sale, and more than 50% of the fair market value of the assets of the corporation must be attributable to assets used principally in an active business in Canada .

Medical Expense Tax Credit (1942)

The Medical Expense Tax Credit is a non-refundable tax credit that is calculated by applying the lowest personal income tax rate to the amount of qualifying medical expenses, up to the lesser of a.) 3% of net income or b.) \$1,089 (2011).

Moving Expense Deduction (1971)

Eligible moving expenses, including travel costs, the costs of transporting or storing household effects, meals and temporary accommodation and the cost of selling a former residence, can be deducted from taxable income. Note that in order for a move to be “eligible,” taxpayer must move a minimum of 40 kilometers closer to new job or place of study.

Non-Capital Loss Carry-Overs (1942)

Other non-capital losses, excluding farm and fishing non-capital losses, may be carried back or forward and deducted against all sources of income. For losses incurred in or after 2006, the carry-back period is 3 years and the carry-forward period 20 years.

Non-taxation of Capital Gains on Principal Residences (1972)

The Non-Taxation of Capital Gains on Principal Residences is a tax exemption that insures that no tax is paid on capital gains made from the sale of a principal residence. Principle residences are viewed as places of shelter and necessity, not as investments.

Non-taxation of Guaranteed Income Supplement and Allowance Benefits (1971)

The non-taxation of guaranteed income supplement and allowance benefits is aimed at assisting low-income Canadian seniors. These benefits are not subject to taxation, but must be included as income in an individual’s income tax statement for income-tested benefits.

Non-Taxation of Income Earned by Military and Police Deployed to High and Moderate risk international missions (2004)

Income earned by police and armed forces personnel, while deployed on risky international missions, is included as total personal income (in order to determine eligibility for means-tested benefits), but the income earned on these missions is not taxed.

Non-Taxation of Social Assistance Benefits (1981)

In Canada, any social assistance benefits must be included in income (and therefore used to calculate means-tested credits and benefits). However, a deduction is provided in order to ensure that no tax is paid on those reported earnings.

Non-Taxation of Workers’ Compensation Benefits (1915)

In Canada, any compensation that is obtained through workers compensation in relation to an injury, death, or disability must be included in in-

come (and therefore used to calculate means-tested credits and benefits). However, a deduction is provided in order to ensure that no tax is paid on those reported earnings.

Northern Residents Deductions (1986)

The Northern Residents Deduction can be used by residents of certain eligible northern locations. Two deductions can be claimed: a deduction of up to \$16.50 a day, and a deduction for two employer-provided vacation trips per year and unlimited employer-provided medical travel.

Overseas Employment Tax Credit (1979)

This non-refundable tax credit can be claimed by employees who are residents of Canada and employed outside of Canada for more than six consecutive months (by a resident in Canada) in a position related to the exploration for, or exploitation of, certain natural resources; construction, installation, engineering or agricultural activities; or the United Nations. This credit is equal to the federal income tax otherwise payable on 20% (for 2015) the employee's foreign employment income (80% before 2013), up to a maximum foreign employment income of \$100,000.

Partial Inclusion of Capital Gains (1971)

This deduction ensures that only half of net realized capital gains are included as taxable income.

Pension Income Credit (1987)

This non-refundable tax credit is calculated by applying the lowest personal income tax rate to the first \$2,000 (2011) of pension income. In the event that there are left over credits, they may be used by a partner or spouse.

Pension Income Splitting (2006)

Canadian residents receiving income that qualifies for the Pension Income Credit can allocate up to one-half of that income to their resident spouse or common-law partner for income tax purposes. The shift of income from a higher earner to a lower earner may reduce the marginal bracket in which that income is taxed thereby lowering the tax rate for the family.

Political Contribution Tax Credit (1974)

The Political Contributions Tax Credit aims to provide a financial incentive for the public to engage in the Canadian electoral process via financial donation to a registered campaign, individual, or party. The value of the credit is as follows: 75% of the first \$400, 50% of the next \$350, and finally 33 1/3% of the following \$525. The maximum value of the credit is \$650 annually.

Public Transit Tax Credit (2006)

The Public Transit Tax Credit is a non-refundable tax credit; it is calculated by applying the lowest person tax rate to the monthly cost for transit passes. This credit may also be claimed by a spouse or partner.

Quebec Abatement (1960s)

This tax measure directly reflects the fact that Quebec opted out of certain federal income tax transfer programs. Tax payers residing in Quebec receive an abatement of federal income tax which is equal to 16.5 % of the basic federal tax amount.

Refundable Medical Expense Supplement (1997)

The Refundable Medical Expense Supplement is a refundable credit that provides low-income working Canadians with assistance for medical and disability-related expenses. Individuals must be 18 years of age or older and have a minimum of employment income and have claimed eligible medical expenses under the Medical Expense Tax Credit or the disability supports deduction. The supplement is equal to 25% of the allowable portion of expenses that can be claimed under the Medical Expense Tax Credit and the disability supports deduction, up to a maximum credit of \$1,000 for 2011.

Registered Education Savings Plans (1973)

A Registered Education Savings Plan (RESP) is a savings vehicle designed encourage savings for post-secondary education. Contributions to an RESP are not tax deductible and as such are not taxed upon withdrawal, while the investment income accruing in the plan is not subject to tax until withdrawal. For each beneficiary of an RESP, there is a lifetime contribution limit of \$50,000, but no annual limit on contributions. Contributions to an RESP may attract additional government assistance.

RPP Deductions for contributions (1917)

Registered Pension Plans (RPPs) are meant to encourage Canadians to save and build a secure future financially. Contributions to RPPs are deductible for an individual's taxable income, and investments that build in the RPP are not taxable. Withdrawals are, however, included in income for tax purposes.

RRSP Deductions for Contributions (1957)

Registered Retirement Savings Plans (RRSPs) are meant to encourage Canadians to save and build a secure future financially. Contributions to RRSPs are deductible for an individual's taxable income, and investments that

build in the RRSP are not taxable. Withdrawals are, however, included in income for tax purposes.

Spouse or Common-Law Partner Credit (1987)

The Spouse or Common-Law Partner Credit is a non-refundable tax credit that is worth \$10,527 (2011). This credit is reduced dollar for dollar by the net income of the dependent partner or spouse.

Student Loans Interest Credit (1998)

The Student Loan Interest Credit is a non-refundable personal income tax credit that provides assistance to those who have student debt. The interest that was paid in the first, or following five years, of a student loan provided through the Apprentice Loans Act, the Canada Student Loans Act, or the Canada Student Financial Assistance Act, can be claimed for this credit. The amount of the credit is determined by applying the lowest personal income tax rate to the amount of interest that the individual paid.

Tax Free Savings Account (TFSA) (2008)

Tax-Free Savings Account contributions are not deductible from taxable income, but investment income earned in the account and amounts withdrawn are not included in income for tax purposes, nor are they taken into account in determining eligibility for federal income-tested benefits and credits.

Tax Treatment of Alimony and Maintenance Payments (1944)

Spousal support payments (also called “alimony and maintenance payments”) paid on a periodic basis under a written agreement or court order are deductible by the payer and included in the taxable income of the recipient.

Tax Treatment of Canada Pension Plan and Quebec Pension Plan Contributions and Benefits: Employee Paid Contributions (1965)

Employed and self-employed workers are eligible for a non-refundable tax credit for contributions made to CPP/QPP (not including employer’s contributions). The value of the credit is determined by applying the lowest personal income tax rate to the value of the individual’s annual contributions.

Tax Treatment of Employment Insurance and Quebec Parental Insurance Plan Premiums and Benefits: Employee Paid Contributions (1971)

Workers are eligible for a non-refundable tax credit for premiums paid for Employment Insurance and Quebec Parental Insurance Plan. The value of the credit is determined by applying the lowest personal income tax rate to the value of the premiums.

**Tuition Tax Credit, Textbook Credit, Education Tax Credit
(Current, Transfer and Carry-forward) (1960)**

The Tuition Tax Credit allows students to claim a non-refundable tax credit at the lowest rate of personal income tax on fees paid to educational institutions (fees must be greater than \$100). The Textbook Tax credit is valued at \$65 per month of full-time study and \$20 per month of part-time study. With the Educational Tax Credit, students are able to claim \$400 per month of full-time study, and \$120 per month of part-time study. The credits must first be used by the student at tax time, if there are any unused credits left the amount can be carried over to another year, or used by a parent or supporting person.

Volunteer Firefighters Tax Credit (2011)

In order to claim this non-refundable tax credit, a person needs to volunteer as a firefighter for a minimum of 200 hours during a calendar year. The credit is calculated by applying the lowest personal income tax rate to \$3000.

Working Income Tax Benefit (2007)

The Working Income Tax Benefit (WITB) is meant to assist low income workers aged 19 or older who are not attending school full time. The non-refundable personal tax credit matches 25% of each dollar earned over \$3,000, up to maximum value which varies based on individual circumstance (net-family income, number of dependants, etc.).

Notes

- 1** See, for example, David Macdonald (2014), “Income Splitting in Canada: Inequality by Design,” Canadian Centre for Policy Alternatives, <https://www.policyalternatives.ca/publications/reports/income-splitting-canada>.
- 2** Finance Canada, Review of Federal Tax Expenditure, <http://www.fin.gc.ca/access/tt-it/rftedff-eng.asp> (accessed on November 13, 2016).
- 3** Finance Canada (2016), Report on Federal Tax Expenditures: Concepts, Estimates, and Evaluations, Ottawa: Government of Canada, <https://www.fin.gc.ca/taxexp-depfisc/2016/taxexp16-eng.asp> (accessed October 12, 2016).
- 4** Ken Boessenkool. 2015. Policy Forum: Kids are not Boats. *Canadian Tax Journal* 63, no. 4: 1006.
- 5** *Ibid.*, p. 1006.
- 6** Thomas Piketty, Emmanuel Saez, Stefanie Stantcheva (2011), “Taxing the 1%: Why the top tax rate could be over 80%,” VOX-Centre for Economic Policy Research, <http://voxeu.org/article/taxing-1-why-top-tax-rate-could-be-over-80> (accessed on November 13, 2016).
- 7** Jonathan David Ostry, Andrew Berg, Charalambos G. Tsangarides “Redistribution, Inequality and Growth,” IMF Staff Discussion Note, February 2014 (http://redproteccionsocial.org/sites/default/files/redistribution_inequality_and_growth.pdf Accessed on November 13th, 2016)
- 8** See Figure 5 of Marc Lee (2007), “Eroding Tax Fairness: Tax Incidence in Canada, 1990 to 2005,” Canadian Centre for Policy Alternatives, p. 15, https://www.policyalternatives.ca/sites/default/files/uploads/publications/National_Office_Pubs/2007/Eroding_Tax_Fairness_web.pdf.
- 9** Department of Finance (2016), Report on Federal Tax Expenditures, p. 6.
- 10** Department of Finance (2016), Report on Federal Tax Expenditures: Concepts, Estimates, and Evaluations. Ottawa: Government of Canada, p. 15, <https://www.fin.gc.ca/taxexp-depfisc/2016/taxexp16-eng.asp> (accessed October 12, 2016).
- 11** See, for instance, Pete Evans, “Canadians in Panama Papers shouldn’t expect a tax deal, CRA says,” *CBC News*, September 2016, <http://www.cbc.ca/news/business/cra-panama-papers-1.3778888>.

- 12** CRA has committed to publishing a “tax gap” report covering personal and corporate income taxes. The first, “Estimating and Analyzing the Tax Gap Related to the Goods and Services Tax/Harmonized Sales Tax,” was published in July 2016, <http://www.cra-arc.gc.ca/gncy/stmntng-nlyzng-tx-gp/stmntg-nlyzng-tx-gp-eng.html> (accessed November 13, 2016).
- 13** Finance Canada, Report on Federal Tax Expenditures (1995–2016), <http://www.fin.gc.ca/purl/taxexp-eng.asp>.
- 14** Brian Murphy, Mike Veall and Michael Wolfson (2015), “Top-End Progressivity and Federal Tax Preferences in Canada: Estimates from Personal Income Tax Data,” *Canadian Tax Journal* 63, no. 3.
- 15** All of the 64 personal tax expenditures with appropriate data are listed in Table 1 and graded using this scheme, except for those where estimates were not possible, as outlined in Appendix II.
- 16** See a description of this method in Murphy et al., p. 667.
- 17** See Table 3 of David Macdonald (2016), “A Policymaker’s Guide to Basic Income,” Canadian Centre for Policy Alternatives.
- 18** Income taxes paid on \$128,800 in the top bracket (128,800 x 29%) – income taxes on \$128,800 in income (\$27,256) + basic personal exemption again (10,527 x 15%) = \$11,679. To hit this maximum, the lower-earning spouse would have to earn nothing (including from CPP) and be under 65, thereby having no access to OAS.
- 19** For income for the top marginal bracket, see the 2011 T1 General Schedule 1 form, <http://www.cra-arc.gc.ca/formspubs/prioryear/t1/2011/5000-s1/5000-s1-11e.pdf> (accessed on November 5, 2016).
- 20** Murphy et al., p. 678.
- 21** SPSD/M 22.1, including all Canadians 18 or over.
- 22** Murphy et al., p. 685.
- 23** Ibid., p. 681.
- 24** Total personal income taxes collected in 2011-12 were \$121 billion: Table 4.2.5 for fiscal year 2011-12 from the 2013 federal budget, Ministry of Finance, March 2013.
- 25** SPSD/M 22.1
- 26** Using the Low Income Measure (LIM)
- 27** Federal component of the elimination of undergraduate tuition: *Alternative Federal Budget 2016: It’s time to move on*, Canadian Centre for Policy Alternatives, March 2016, pg 23
- 28** Table 4.2.5 for fiscal year 2011-12 from the 2013 federal budget, Ministry of Finance, March 2013.
- 29** SPSD/M 22.1. Federal refundable tax credits including the WITB and Quebec abatement are excluded from this sum as they are included in the value of tax expenditures. In 2011, the UCCB/NCBS/CCTB had yet to be replaced by the Canada child benefit. In federal budget reporting, the GST credit is not considered a “major transfers to persons,” but a GST tax expenditure which reduces GST revenue. All transfer values were as they were in 2011.
- 30** All totals are from 2011, when the UCCB, CCTB and NCBS had yet to be replaced by the new Canada child benefit, which happened in July 2016. Note also that EI and CPP payments are not funded from the general tax base, but have their own revenue streams. The value of federal transfers funded from the tax base was \$54 billion in 2011 (excluding EI and CPP payments), SPSD/M 22.1.
- 31** Although in the 2016 report these refundable tax credit programs are considered transfer payments (see p. 39).

32 This includes the GST credit, which is technically a tax expenditure from the goods and services tax system. Care is taken, when personal income tax expenditures are compared to income transfers below, that programs are only included in one of the two categories.

33 Reaching \$21,800 a person with a 50% clawback would cost \$83 billion. See Table 14 in David Macdonald (2016), “A Policymaker’s Guide to Basic Income,” Canadian Centre for Policy Alternatives.

34 This analysis is based on Statistics Canada’s Social Policy Simulation Database and Model (SPSD/M). The assumptions and calculations underlying the simulation results were prepared by David Macdonald and the responsibility for their use and interpretation is entirely that of the author.

35 Canada Revenue Agency (2013), “T1 Final Income Statistics 2013 (2011 tax year) Table 2 for all Canada, All returns by total income class,” <http://www.cra-arc.gc.ca/gncy/stts/gb11/pst/fnl/tbls-eng.html>

36 Prepared by Richard Shillington of Tristat Resources, Richard@shillington.ca

37 Department of Finance Canada, Tax Expenditures and Evaluations 2011, 2012.

38 Department of Finance Canada, Report on Federal Tax Expenditures: Concepts, Estimates and Evaluations, 2016.

39 As outlined in Table 2 of Murphy et al., p. 670.

40 Cristobal Young and Charles Varner (2011), “Millionaire Migration and State Taxation of Top Incomes: Evidence From a Natural Experiment,” *National Tax Journal*, 64:2, pp. 255–83, <https://www.ntanet.org/NTJ/64/2/ntj-v64n02p255-83-millionaire-migration-state-taxation.pdf?v=%CE%B1&r=6285842964274835>.

41 Lars Osberg (2015), “How Much Income Tax Could Canada’s Top 1% Pay?,” Canadian Centre for Policy Alternatives, <https://www.policyalternatives.ca/publications/reports/how-much-income-tax-could-canadas-top-1-pay>.



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