

Measuring the Generational Spending Gap in Canada

Keywords: generational equity; government spending; age

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Abstract

This paper is the first Canadian study to design a method to measure total social spending per capita for the aging population (age 65+) and younger generations (under age 45). The results show that Canadian governments combine to spend between \$38,000 and \$45,000 per person age 65 and over compared to approximately \$12,000 per citizen under age 45. Measuring the generational spending gap is critical for evaluating Canadian commitments to intergenerational equity, as well as policy adaptations to the evolving socioeconomic, demographic and environmental trends facing older and younger Canadians.

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Measuring the Generational Spending Gap in Canada

This paper examines how Canadian governments distribute social spending to the aging population as compared to younger cohorts (under age 45). Age analyses of government spending are topical in the international comparative literature for several reasons. Most Western democracies are home to an aging population as a result of longer life spans and lower fertility rates. Simultaneously, the comparative welfare state literature identifies a range of “new social risks” that flow from the post-industrial economy and evolving gender roles (Tepe and Vanhuyse 2010). These include precarious employment, long-term unemployment for low-skilled workers, diminishing returns for investments in post-secondary education for new entrants to the workforce, higher housing prices, and an increased need for child and elder caregiving services due to the escalation of women in the labour market, family instability, and the rise in lone-parent households. Epidemiology, neuroscience and epigenetics literatures in turn illuminate the biological reality that human beings are especially sensitive to their environments in their earliest years (Keating and Hertzman 1999, Boyce 2007). Such research motivates a new opportunity for public policy to support the optimization of life long health and well-being by investing in early child development.

While the age distribution of government spending is topical, the comparative literature struggles with a dearth of internationally comparable data. For instance, studies that rely on OECD classification of public social expenditure omit health care, housing benefits, and tax expenditures, and sometimes education expenditure (Bradshaw and Holmes 2013). For generational analyses, there are solid reasons to question the utility of such omissions. Medical care spending is an inherently age-oriented investment with most of the expenditure consumed in later life, while education spending is disproportionately consumed earlier in life. Simultaneously, the omission of tax expenditures means that one country’s baby bonus will be counted as a traditional demogrant when another country’s child tax credit will not, although the two are functionally equivalent.

For these reasons, we focus on a single country, Canada, to develop a methodology that captures the breadth of government spending required for a comprehensive age analysis of the distribution of public resources. This is consistent with Bradshaw and Holmes (2013) who develop a case study of the UK in response to data shortcomings in the comparative literature.

An age analysis of total government social spending in Canada is timely for several reasons. First, international rankings position Canada very differently in terms of supporting later life course stages compared to early ones. Groups like Global AgeWatch (2013) rank Canada among the top countries worldwide for aging because of spending on medical care, Old Age Security and the Canada Public Pension Plan, along with our relatively strong economy. By contrast, groups like UNICEF rank Canada among the least generous OECD countries for investments in the generation raising young children (UNICEF 2008).

Second, population outcomes align with these policy rankings. Low-income rates for seniors have dropped from around 29 percent in 1976 to around five to six percent today – lower than any other age group in the country. By contrast, measures of early development reveal that between one-quarter and one-third of Canadian children are vulnerable when they start kindergarten (Kershaw et al. 2010). Although low-income children statistically are more likely to be vulnerable, the majority of vulnerable children reside in the country's more populous middle- and upper-income households and neighbourhoods.

This finding anticipates a third reason to prioritize age analyses of Canadian government spending. Younger Canadians now encounter social, economic and environmental trends that have shifted the burden of socioeconomic vulnerability somewhat away from older cohorts toward Canadians under age 45. For example, the median Canadian in her/his prime child rearing years today earns \$3 less per hour than in 1976 after adjusting for inflation, despite being twice as likely to have post-secondary education, and the higher student debt that comes with tuitions that have more than doubled. S/he then faces average housing prices that are twice as high -- \$383,000 compared to \$203,000 in 1976 -- pushing home

ownership out of reach or obliging young Canadians to assume very high debt loads. By contrast, high housing prices have helped to at least double assets for the median household headed by a 55-64 year old compared to the same age group a generation ago. In addition to more wealth, household income for the median couple heading into retirement is up over 20 per cent compared to 1976, while household incomes have stalled for couples age 25-34 (Kershaw and Anderson 2011).

Beyond lower wages and higher housing costs, young Canadians today inherit a higher debt/GDP ratio than did young adults who came of age in the mid-1970s, even though our economy has more than doubled in size over that period. This fiscal trend underscores a fourth reason to prioritize age analyses of government spending. Multiple Canadian studies project an alarming fiscal gap in government expenditures over the next several decades compared to revenue projections at present rates of taxation (Robson 2010, Ragan 2012). The gap is driven primarily by medical care expenditures, partly because the population is aging, and partly because the country is choosing to expand levels of service to the aging population with the development of new technologies and drugs. The opportunity for younger generations to cope with this fiscal gap is in turn circumscribed by the reality they inherit more pressing environmental debts. Canadian per capita carbon dioxide emissions have stayed static since 1976 despite the growing evidence about the risks and costs of climate change. These risks limit the degree to which historical approaches to economic growth can be used to reduce the size of fiscal debts as a share of our economy (Kershaw and Anderson 2011).

In the light of these policy rankings, socioeconomic, fiscal and environmental trends, as well as population outcomes, new questions need to be asked about Canadian commitments to generational equity. Answering these questions requires a methodology by which Canadian governments, NGOs and citizens can monitor the allocation of government revenue between age cohorts. We design such a methodology in this paper, and document the results.

It is important for questions about generational equity to arise in Canada without falling trap to some of the partisan ways in which this theme has received attention in the US. Those on the political right tend to warn that generational inequity is a result of leaving the bill for current social investments, such as social security, for younger Americans to pay. Those on the left frame the issue to emphasize generational interdependence (Williamson, McNamara, and Howling 2003, Gorin 2000), and also tend to worry that the question of *inter*-generational equity obfuscates class, gender, race and other analyses that pertain to *intra*-generational equity (Williamson and Rhodes 2011).

Our approach considers the concepts of inter- and intra-generational equity together. We are guided by feminist intersectionality methodologies that focus on the interaction of power dynamics, including those that track gender, race and class (Hancock 2007). In this paper we purposefully prioritize power dynamics that revolve around age in part because Canadians have enjoyed considerable success reducing poverty for senior women, while tolerating high rates of low-income status for lone mothers.

We believe this is the first paper to document how Canadian federal, provincial, territorial and municipal government spending across all social program areas, including tax expenditures, varies by age (for a review of the Canadian literature, see Foot and Venne 2005). We focus on two age cohorts. The first is Canadians age 65 and older, who we generally refer to as retirees. Analyzing spending on this age cohort allows us to document the policy investments currently in place for the aging part of Canada's population. Our second cohort is Canadians under age 45. Research shows that this cohort captures the generations that confront worsening wage trends and high housing prices. It is also the age cohort especially likely to be caring for young children. We do not try to separate the benefits that flow to children from government investments in child benefits, child care services, and schools apart from the benefits that flow to their parents from the same policy measures. Accordingly, our analysis of average social spending per person under age 45 overestimates the allocation for those in the cohort who do not have children.

Our methodology is not designed to estimate spending per capita for the 45 to 64 year old cohort. This cohort includes some retirees claiming retirement income benefits; and many families that have children in school and post-secondary. To allocate government expenditures to this age category accurately would require more precise numbers regarding the proportion of retirement and education spending from which they benefit than are currently available. Fortunately, such estimates are not necessary for examining the relative emphasis on spending between the aging population and the younger cohort. We attribute all retirement social spending to the cohort age 65 and older, and all education related spending to the cohort under age 45, recognizing that this approach results in underestimating what is spent on the middle age group.

With this caveat in mind, we divide our analysis into four stages. The first section outlines how we use the most recent consolidated data on total direct annual government spending at all levels, and then update these figures to 2011/12. The second section describes why and how we integrate non-refundable tax expenditures into the estimate of total spending. In section three, we use the most recent Canadian population data disaggregated by age to assign categories of social spending to our two age cohorts based on their estimated usage of, or benefit from, each type of expenditure. We then divide the total social spending on each cohort by the total number of Canadians per age group in order to arrive at average per capita social spending for those age 65-plus and those under age 45. The results show that the best estimate of total government social spending per retiree is approximately \$45,000 per year, although we document a range from \$38,000 to \$45,000 using alternate assumptions. By contrast, total government social spending per person under age 45 is approximately \$12,000 a year. The paper concludes in the final section with a discussion of the implications of this finding for future research.

Section 1. Calculating Total Direct Government Social Spending, by Expenditure Category

For an age analysis of total social spending it is necessary to use a data source which reports both consolidated spending across all levels of government, as well as expenditures by category of spending.

The former is necessary to ensure that government spending is not counted more than once at different levels of government, which is a risk in Canada because of the intergovernmental transfers that define fiscal federalism, especially for health and social services. The latter is necessary to distinguish the purpose of the expenditure and thereby its benefit by age category. Statistics Canada's Consolidated Government Expenditures (CANSIM Table 385-0001) is the best available resource to meet these requirements together. This source includes "all federal, provincial-territorial, local, and non-market producing entities engaged in the creation and implementation of government policy and in the delivery of government services within their jurisdictions plus the Canada and Quebec Pension Plans" (Statistics Canada 2009b). We use the Department of Finance Canada (2012) Fiscal Reference Tables as secondary information and as a source for cross-checking the validity of the data reported in the consolidated budget.¹

Statistics Canada organizes the consolidated government expenditures according to methods stipulated in the Financial Management System (FMS) of government statistics. The comprehensive operations manual (Statistics Canada 2009a, 4) explains that FMS is presently "the only system which permits inter-provincial or inter-level comparisons on a programmatic basis." Regrettably, the most recent consolidated data that also provide expenditures by category are 2008/09 estimates. In upcoming years, Statistics Canada (2009b) is planning to adopt the International Monetary Fund accounting standard for government, and will provide data using 2008/09 as the reference year. We will repeat our generational spending gap analysis when the new data become available. In the meantime, we update the consolidated budget information to the year 2012 wherever possible, and describe our methodology for this below.

The first column of Table 1 reports Statistics Canada's consolidated funding categories for 2008/09. It shows that total health care spending added up to \$121.6 billion, and total education spending (including elementary, secondary and post-secondary) was \$95.7 billion. The very broad category of social services equaled \$190.3 billion, while recreation and culture added to \$16.3 billion; labour, employment and immigration \$2.4 billion; and spending on housing \$6.1 billion.

Table 1 about here

Statistics Canada breaks down the large category of social services into sub-functions, some of which are at a level of detail that require no further explanation to complete our age analysis. Workers' compensation benefits, veterans' benefits and motor vehicle accident compensation are examples. However, the largest sub-function, "social assistance", along with the non-descriptive "other social services," include a wide array of expenditures that vary significantly by age, including the key components of Canada's retirement income security programs. Accordingly, we utilize several information sources to estimate the expenditures on major programs in these subcategories, guided by the definitions in Statistics Canada's Financial Management System Operating Manual. Specifically, spending on the Canada & Quebec Public Pension Plans equaled \$38.9 billion in 2008/09 (Statistics Canada 2009b). Department of Finance Fiscal Reference Tables (2012, Table 10) show Old Age Security spending was \$33.4 billion, and Employment Insurance (EI) Benefits equaled \$16.3 billion, of which \$3.1 billion was specifically allocated to maternity and parental leave (Treff and Ort 2012, Table 8.2). Spending on the Universal Child Care Benefit (UCCB), Canada Child Tax Benefit (CCTB), and National Child Benefit Supplement (NCBS) totaled \$11.9 billion (Department of Finance Canada 2012, Table 10). Since the UCCB is only available for children under age six, we break that out using Budget 2012/13 data when these expenditures totaled an estimated \$13 billion (Canada 2012, Table 6.6). The Working Income Tax Benefit and the GST/HST Credits are also large refundable tax expenditures that are counted by Statistics Canada in the consolidated spending, representing \$1 and \$6.4 billion respectively (Government of Canada 2013). In addition, there are several other generally smaller refundable tax credits provided by individual provinces. We confirmed with Statistics Canada that they are included in the social assistance expenditures category, but did not identify them separately because they are small.

After estimating the 2008/09 costs of the various "social assistance" sub-function programs listed above, we assume the remaining funds (approximately \$14 billion) cover the balance of the programs that

are included in the FMS Manual definitions for which specific spending amounts are not readily identifiable. Based on the description of the full social assistance category, this includes “the general welfare payments to disadvantaged individuals,” “the rent supplement, the spouse's allowances and the blind and disabled persons allowances” as well as various smaller refundable tax credits (Statistics Canada 2009a, 43).

We treated the “other social services” subcategory of spending in a similar manner. The FMS manual shows it includes spending on child care services. This totals \$3.8 billion when direct federal funding for early learning and child care-related programs like Aboriginal Head Start, First Nations and Inuit Child Care, and the Military Family Resource Programs (Government of Canada 2007) are added to provincial and territorial spending (Friendly et al. 2013, Table 11). We separate this child care spending from the “other social services” subcategory so that it is allocated entirely to the age cohort under age 45.

Unfortunately, no information is readily available to further breakdown the “other social services,” so we treat the remaining \$29.8 billion as one spending block. This balance includes expenses related to the provision of services to old age (excluding C/QPP, OAS, and GIS), persons with disabilities, those temporarily unable to work due to sickness, households with dependent children, survivors of a deceased person (spouse, children, etc.). The subcategory also includes expenditures by hospitals, residential care facilities, etc., along with transfers to private organizations, when they provide lodging and board to elderly persons, children and families; or legal aid; home care services; transport services; services and goods provided to elderly, disabled and survivors to enable them to participate in leisure and cultural and social activities; counseling services; essential goods such as food, clothing, fuel, etc.; rehabilitation services (for alcohol, drug, etc.) and other similar supports (Statistics Canada 2009a, 44).

The remaining sub-function that requires explanation in Table 1 is “employee pension plan benefits and changes in equity.” The FMS manual indicates in detail, and we confirmed with the author of the manual at the Public Institutions Division, that these funds represent nuances in the treatment of pension benefits paid to some retired public servants, including in the Public Service Superannuation Plan of

Saskatchewan. The discussion of this expenditure in the FMS manual reveals that careful analysis went into the categorization process. The decision to classify as a social service expenditure the payments to retired public servants from these often non-autonomous pension plans has implications for our analysis because it suggests that these costs should be allocated to retirees. Of course, these benefits are only received by a portion of those over 65; but that is also true for other categories of social expenditures (e.g. veteran's benefits, Old Age Security, etc.). The only other reasonable option for treatment of this expenditure is to allocate the cost across government, pro rating the amounts based on the reported expenditures by spending category. We carry out both analyses below.

After utilizing consolidated budget data to identify categories of public spending amenable to an age analysis, we update spending figures in areas that experienced material change between 2008/09 and 2012. When we conducted the study, 2012 was the most recent year for which budget information was available. These updated numbers are also reported in Table 1. We updated figures with caution, *only* using more recent data when their sources could be reconciled with the 2008/09 figures presented in the consolidated budget from Statistics Canada. Our resulting 2012 estimate of total consolidated spending is \$475.7 billion.

Section 2. Adding All Tax Expenditures

Since 1994, the Government of Canada (2013) has published annual accounts of spending delivered through the income, corporate and goods and services tax systems via credits, deductions, deferrals and exemptions. Whereas direct government spending depends on a two-step process of first collecting revenue in order to later issue cheques to individuals and organizations, tax expenditures combine these steps into one. Credits, deductions, deferrals and exemptions reduce the taxes otherwise owed by the taxpayer, thereby allocating government spending back to the individual or organization without first having to collect the revenue.

Tax expenditures have become very common spending mechanisms for federal and provincial governments, making it imperative to add them to any age analysis of government social spending. Whereas the consolidated budget produced by Statistics Canada includes expenditures delivered by refundable tax credits that are received by taxpayers regardless of whether they owe any taxes, our analysis also counts the billions in social spending delivered through the many non-refundable tax expenditures routinely reported as spending by federal and/or provincial governments.

We rely on the Government of Canada (2013) tax expenditure accounts to identify federal spending via the tax system not included in the consolidated budget. For provincial tax expenditures, we focused on the governments of BC (2013, 122-127), Manitoba (2012, C16-18), Ontario (Government of Ontario 2012) and Quebec (Government of Quebec 2011), because their budget documents provide accessible tax expenditure data. These four provinces represent 78.7 per cent of the Canadian population (Statistics Canada 2012a). In order to estimate the full provincial/territorial cost of each relevant tax expenditure, the total reported for the four provinces was grossed up proportionately ($100/78.7$). This approach likely underestimated actual tax expenditures for two reasons: (1) if no provincial tax expenditures were reported by the four provinces, the estimation approach assumes none exists for any province; and (2) many tax expenditures were not reported by all four provinces even when we know their revenue is affected by federal tax measures, yet the grossing up formula did not change accordingly.

Table 2 about here

Although each province reports on tax expenditures differently, we made efforts to classify them as consistently as possible across jurisdictions. Furthermore, we identified the refundable tax credits that are already incorporated into the consolidated budget to ensure they were not double counted. A question arose regarding the treatment of tax expenditures for medical expenses and the disability tax credit, because portions of these expenditures are refundable. We determined that these amounts are not included in the direct spending reported by the Canadian Institute for Health Information, the source for our

2012 health spending update, and therefore retain them in Table 2. We then calculated the total tax expenditure for each line item by adding the federal amount to the extrapolated provincial/territorial amount.²

Table 2 shows that our comprehensive analysis of tax expenditures adds approximately \$73 billion to total government social spending. These dollars are delivered by a range of health, education, retirement, family, income maintenance, employment, and housing related tax expenditures, of which the retirement measures add by far the largest category of tax expenditure. When all tax expenditures are added to the spending captured by Statistics Canada's consolidated budget, our estimate of total social spending for the year 2012 equals \$549.1 billion.

Section 3. Analyzing Social Spending by Age

In the first two sections, we measured total social spending, organizing it into categories that lend themselves to attribution to our age cohorts (under age 45 and age 65-plus). These attributions require analysis of the Canadian population broken down by age. Statistics Canada (2012a) estimated the population at 34.9 million as of 2012 with 19,817,606 people under the age of 45 (56.8 percent); 9,876,063 people 45 to 64 (28.3 percent); and 5,186,822 (14.9 percent) age 65 and older. We use these percentages to allocate social spending across age groups when there is no evidence that one or multiple age cohorts benefit disproportionately from the expenditure. For example, we allocate recreation and culture spending across the entire population, because we assume everyone benefits from these services and facilities. The GST/HST credit is also allocated across the population, because household members of all ages are the intended beneficiaries.

The benefits of many social spending investments do vary with age, and we allocate the dollars accordingly. For instance, we allocate the following expenditures entirely to the cohort under age 45: elementary, secondary and post-secondary education; child care; the maternity/parental leave portion of Employment Insurance; UCCB; CCTB/NCBS; child tax credits (including art and fitness tax expenditures).

While some older Canadians do participate in education programs, we allocate all education expenditures to those under age 45 for the sake of being conservative when measuring the gap in spending between age cohorts. Those under age 45 are most likely to be attending school, and/or to have a direct stake in their children's education. We allocate all costs related to having children to the under 45 age group as well, even though some adults over 45 (including some grandparents) are caring for children and benefit directly from this category of social spending.

Table 3 about here

Conversely, we fully attribute payments made directly to retirees, or expenditures incurred primarily for their benefit, to the group age 65 and over. Relevant spending includes: Old Age Security; the Canada & Quebec Pension Plans; the Age tax credit; the Pension Income Credit; the Pension Splitting Credit; the Seniors' Property Tax Credit; other minor retirement-related tax credits; the Public Employee Pension Plan Benefits/Equity Changes; as well as tax expenditures for Registered Pension Plans (RPPs) and Registered Retirement Savings Plans (RRSPs). In making this allocation, we acknowledge that some Canadians under age 65 will benefit from some of these expenditures: for example, by applying to receive CPP as early as age 60.

Readers will recall from section 2 that the FMS manual treats as direct spending the select pension benefits paid to some retired public servants captured in the category "Public Employee Pension Plan Benefits and Equity Changes." It is for this reason that our primary analysis allocates this spending to Canadians over age 65. Since some may regard it more appropriate to disperse this spending across government services in proportion to the amounts reported by spending categories in sections 1 and 2 of the paper, we also carry out this sensitivity analysis, and show the resulting impacts below.

Similarly, one could argue that younger Canadians should at least be allocated a portion of RRSP expenditures, because they are the immediate beneficiaries of the reduced taxes. We have not categorized them this way in our primary analysis for two reasons. First, the purpose of the public

expenditure is to increase the private funds available for Canadians to set aside income for their retirement years. Second, younger Canadians receive a reduction in taxes only if they keep those funds in specially-designated RRSP accounts; and they forfeit the tax reductions if they do not save their money with this narrow purpose in mind. Nevertheless, to be exhaustive and conservative in our estimate of the generational spending gap, we also calculate below the impact of allocating RRSP tax expenditures to age groups in accordance with the percentage of Canadians who claim these tax deductions.

For health care expenditures, we follow the Canadian Institute of Health Information (2012, Table E1.1), which analyzes total provincial and territorial health spending by age. CIHI data show that 30 percent of health expenditures go to Canadians under the age of 45, compared to 45 per cent for the cohort age 65 and over.

A number of expenditures are most appropriately allocated across the working age population (age 18 to 65), including spending on Employment Insurance; workers compensation; retraining; along with labour, employment and immigration costs (although we acknowledge some portion of the latter will relate to the sponsorship of family members older than age 65). We calculate the proportion of the working age population represented by those age 18 to 44 years (56.6 percent), and assign this portion of the total expenditures to the under age 45 cohort.

We also found it necessary to calculate the proportion of Canadians under age 65 who are younger than 45 years (66.7 percent) to allocate spending on programs like the non-taxation of employer health benefits. Such spending is received by adults, but is often used to cover expenses incurred by minor dependents.

Finally, other expenditures are most appropriately allocated across the entire adult population (age 18-plus). 46.1 percent of this population is between the ages of 18 and 44. 18.5 percent of this population is over age 64. We use these proportions to allocate: veteran's benefits; motor vehicle accident compensation; housing; the Eligible Dependent tax credit; the Spousal or Common-Law tax credit; and

“Other Social Assistance, Income Maintenance and Social Services,” of which the latter includes institutions and services for the elderly, disabled, drug and alcohol counselling, etc. Since this category includes the non-medical costs associated with seniors’ residences, it is likely that proportionately more should be allocated to retirees. On the other hand, while the range of programs included are primarily targeted to adults, the level of benefits paid to some may increase if the recipient has dependent children – suggesting that the allocation for these costs could include those under age 18. As the individual program spending details required to break down the allocations are unavailable, we assume that the costs which might relate to those under 18 are more than offset by the costs associated with seniors’ residences.

Utilizing this approach, we calculate in Table 3 that total social spending on the 5,186,822 Canadians age 65-plus adds to \$231.76 billion, which is 42.2 per cent of overall social spending. Total social spending for the 19,817,606 Canadians under age 45 equals \$233.28 billion, or 42.5 per cent of overall spending. We divide these aggregate spending figures by the total population for each age cohort to arrive at an annual per capita expenditure of \$44,647 per retiree and \$11,748 per Canadian under age 45.

Given that opinions may vary as to how to treat government spending on select public pension plan benefits and RRSP deductions, we also estimate per capita spending when these expenditures are not fully allocated to seniors. First, we pro-rate non-autonomous public pension plan expenditures across all government spending categories reported under the Financial Management System (Statistics Canada 2009b). This change reduces spending per retiree to \$41,342 and increases spending per Canadian under age 45 to \$12,096.

In terms of RRSPs, Statistics Canada (2012b) provides data on contributions by age, showing that 33 per cent are made by those under 45, 60 per cent by those aged 45-64, and the remaining 7 per cent by those 65 and over. We use these figures to allocate government spending on RRSP subsidies to our age cohorts. This change reduces per capita spending on those over age 64 by \$2820 per year, and raises

annual spending per person under age 45 by \$264. In combination with the alternative analysis of non-autonomous public pension spending, this change to the treatment of RRSP allocations further reduces the spending per retiree to \$38,522 and increases the spending per Canadian under 45 to \$12,360. In the light of these sensitivity analyses, we conclude that annual social spending per retiree in Canada ranges from approximately \$38,000 to \$45,000, while spending per Canadian under age 45 is approximately \$12,000 per year.

4. Discussion

It is timely for Canadian citizens and policy makers to evaluate the degree to which this per capita spending pattern captures our national expectations about generational equity. The fact there is a large generational spending gap in and of itself does not suggest intergenerational unfairness. We would expect spending per retiree to be higher than spending for younger Canadians because it is a biological reality that we are more likely to become sick and require health care in our later decades. In addition, Canadian social norms support significant investments in income security for retirees to minimize the expectation that citizens must continue to commodify their labour throughout old-age. Since we would never expect the age pattern in spending to be flat, our attention should focus on the size of the generational spending gap.

This means the more important issue is the adequacy of spending for each age cohort *relative to* existing social, economic and environmental circumstances, and how social spending *has adapted* as these circumstances evolved. Scholars of generational equity would serve the broader public well by delving into these issues in more detail. Scholars of neoliberalism would also be well advised to critically evaluate the degree to which generalizations about the hollowing out of Canadian governments hold up when considered for specific age cohorts. For instance, the fact that spending on medical care in Canada is up by three percentage points of GDP (around \$50 billion annually) compared to 1976, and spending on OAS and CPP is up by another two percentage points, suggests anything but the shrinking of total social spending for generations nearing or already retired.

Scholars of population health will find it useful to query the degree to which the pattern of spending \$45,000 per person age 65-plus and \$12,000 per person under age 45 captures the right emphasis on health promotion versus illness treatment. This is significant given the growing epigenetic literature confirming that human beings are especially sensitive to our environments in our earliest years (Keating and Hertzman 1999), and that early gene-environment interactions have lasting influence on life-long health (Boyce 2007). As a result, investments in the determinants of health for the generation raising young children have substantial potential to optimize health trajectories at the population level. Does the current per capita generational spending gap find “the right balance” between promoting important health outcomes for younger generations and addressing the pressures of retiring Baby Boomers?

Finally, it will be important to monitor what happens to per capita social spending for retirees in Canada as this proportion of the population grows. We document that federal spending on Canadians age 65 and older is projected to increase by \$11.7 billion annually between 2011/12 and 2016/17, compared to \$2.1 billion for those under age 45. We observe a similar pattern in the BC budget, which is increasing spending on retirees by more than \$1 billion over this period, with no meaningful change for those under age 45. As we analyze other provincial budgets, we notice that this pattern is repeated. Will these planned budget increases be sufficient to maintain social spending per retiree at current levels? And what does it mean for generational equity when efforts to sustain per capita spending on seniors leave relatively little for governments to adapt to new wage, housing, time, and environmental pressures facing younger generations? These are key questions that still require answers from the research community.

Endnotes

¹ For example, the total 2008/09 spending estimates reported by Statistics Canada, including CPP/QPP, totalled \$631,253 million whereas the actual fiscal results for 2009 reported in the Fiscal Reference Tables, with CPP/QPP, totalled \$650,369 million (Table 34). The difference of \$19,116 million could stem from estimation errors and/or timing and accounting differences in the methodology used to consolidate the data in each report. Nonetheless, the difference is relatively small, at only 3% of the total spending.

² For the sake of including all spending that one could reasonably consider an expenditure on younger generations, we included the Child Care Expense Deduction in our list of tax expenditures even though it is considered a "memorandum item" in the federal tax expenditure publication. This status indicates there is uncertainty in the literature whether it ought to be categorized as a tax expenditure or considered part of the normative tax system.

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Table 1. Social Spending Reported in Consolidated Budget

All \$ millions	<i>Consolidated Budget 2009</i>	<i>Updated to 2012</i>
Health	\$121,577	\$144,638
Hospital Care	\$41,203	
Medical Care	\$49,072	
Preventive Care	\$5,210	
Other health spending	\$26,092	
Education	\$95,732	\$101,732
Elementary & Secondary	\$50,941	
Postsecondary	\$39,670	
Special retraining	\$3,615	
Other education	\$1,506	
Social Services	\$190,276	\$204,543
Social Assistance	\$121,813	\$136,079
CPP/QPP	\$38,866	\$44,217
OAS	\$33,377	\$40,100
Employment Insurance (net of parental leave)	\$13,236	\$14,428
Employment Insurance (parental leave)	\$3,072	\$3,072
UCCB	\$11,900	\$2,747
CCTB/NCBS		\$10,153
Working Income Tax Benefit	\$1,030	\$1,030
GST/HST Rebate	\$6,380	\$6,380
Other Social Assistance	\$13,952	\$13,952
Workers Compensation	\$7,356	\$7,356
Veterans' Benefits	\$3,281	\$3,281
Motor Vehicle Accident Compensation	\$786	\$786
Other social services	\$33,650	
Child Care	\$3,839	\$3,839
Other social services less child care	\$29,811	\$29,811
Employee Pension Plan Benefits, Changes in Equity	\$23,391	\$23,391
Recreation and Culture	\$16,306	\$16,306
Labour, Employment & Immigration	\$2,395	\$2,395
Housing	\$6,120	\$6,120
Total Social Spending in Consolidated Budget	\$432,406	\$475,734
Add Tax Expenditures (See Table 2)		\$73,415
TOTAL SOCIAL SPENDING		\$549,149
Source: Authors' compilation		

Table 2. Calculation of Annual Tax Expenditures Related to Social Spending Not Included in Consolidated Tables

All \$ millions	Federal	BC	Manitoba	Ontario	Quebec	Extrap PT Total	FPT Total
Health							6,346
Medical Expense, Disability, etc. Tax Expenditures	1,755	64	53	265	512	1,135	2,890
Non-taxation of business paid health & dental benefits	3,155	146				186	3,341
Children's Fitness Tax Credit	115						115
Education							2,465
Post-secondary tax expenditures, various (mainly for tuition, textbook, etc.)	1,881	61	56	342		584	2,465
Social Services							48,797
<i>Re Retirement/Seniors</i>							41,229
Age credit	2,260	56	34	275	174	684	2,944
Pension Income Credit	975	22		115		174	1,149
Pension Income Splitting	925	50	17	250	105	536	1,461
RPPs	15,625	724	90	900	1,684	4,317	19,942
RRSP	9,910	459	144	2,100	1,879	5,822	15,732
Retirees/Seniors, other tax expenditures	105	n/a	15	30	156	256	361
<i>Re Families with kids</i>							5,549
Families with kids tax expenditures, various: (e.g. Child Tax Credit)	1,525		58			74	1,599
Children's Arts Tax Credit	100	n/a	4	n/a		5	105
Eligible Dependent Credit	805		17	85		129	934
Spouse or CL (Equivalent-to-Married) Credit	1,400	77	24	205		389	1,789
Child Care Expense Deduction	810	38	13	195		313	1,123
<i>Re Income maintenance</i>							2,018
Income Maintenance tax expenditures, various (excluding those specifically for seniors)	100			45	525	724	824
Non-taxation of social assistance benefits	145			30		38	183
Veterans Disability	175						175
Non-taxation of workers compensation benefits	645			150		191	836
Labour, Employment & Immigration							6,838

Employment tax expenditures, various (e.g. union & prof dues, moving, other employment expenses)	2,962		19	820	618	1,851	4,813
Canada Employment Credit	2,025						2,025
Housing							8,610
Non-taxation of capital gains on principal residences, etc.	4,235				1,287	1,635	5,870
Property Taxes, various: (e.g. Homeowners grant under 65, transfer taxes, etc.)		935		1,011		2,473	2,473
Senior Homeowners Property Tax grant				210		267	267
TOTAL TAX EXPENDITURES	51,633	2,632	542	7,028	6,940	21,782	73,415
Source: Authors' compilation							

Table 3. Social Spending By Age Cohort

All \$ millions	Total Public Spending	% to 65+	\$ to 65+	Per capita 65+	% to under 45	\$ to under 45	Per capita under 45
Health Care							
Consolidated Budget Spending	144,638	45%	65,087	12,549	30%	43,825	2,211
Medical Expense, Disability, etc. tax expenditures	2,890	45%	1,301	251	30%	876	44
Non-taxation of business paid health & dental benefits	3,341	0%	0	0	57%	1,892	95
Children's Fitness tax credit	115	0%	0	0	100%	115	6
Total Health Care	150,983		66,388	12,799		46,708	2,357
Education							
Kindergarten (under 6)	1,388	0%	0	0	100%	1,388	70
Elementary & Secondary (over 6)	53,053	0%	0	0	100%	53,053	2,677
Post-secondary	42,170	0%	0	0	100%	44,635	2,252
Other education (e.g. retraining)	5,121	0%	0	0	57%	2,900	146
Post-secondary tax expenditures	2,465	0%	0	0	100%	2,465	124
Total Education	104,197	0%	0	0	0%	104,441	5,270
Social Services							
Social Assistance							
CPP/QPP	44,217	100%	44,217	8,525	0%	0	0
OAS	40,100	100%	40,100	7,731	0%	0	0
Age credit	2,944	100%	2,944	568	0%	0	0
Pension Income credit	1,149	100%	1,149	222	0%	0	0
Pension Income splitting	1,461	100%	1,461	282	0%	0	0
RPPs	19,942	100%	19,942	3,845	0%	0	0
RRSPs	15,732	100%	15,732	3,033	0%	0	0
Retirees/Seniors, other tax expenditures	361	100%	361	70	0%	0	0
Employment Insurance (net of parental leave)	14,428	0%	0	0	57%	8,171	412
Employment Insurance (parental leave)	3,072	0%	0	0	100%	3,072	155
UCCB	2,747	0%	0	0	100%	2,747	139
CCTB/NCBS	10,153	0%	0	0	100%	10,153	512
Families with kids tax expenditures, various	1,704	0%	0	0	100%	1,704	86
Eligible Dependent credit	934	19%	173	33	46%	431	22
Spouse or Equivalent to Married credit	1,789	19%	332	64	46%	825	42
Working Income Tax Benefit	1,030	0%	0	0	57%	583	29
GST/HST Rebate	6,380	15%	949	183	57%	3,625	183
Other Social Assistance	13,952	19%	2,588	499	46%	6,436	325
Income Maintenance tax expenditures	2,018	19%	374	72	46%	931	47
Workers Compensation Benefits	7,356	0%	0	0	57%	4,166	210
Veteran's Benefits	3,281	19%	609	117	46%	1,514	76
Motor Vehicle Accident Compensation	786	19%	146	28	46%	363	18
Other Social Services: Child Care	3,839	0%	0	0	100%	3,839	194
Child Care Expense Deduction	1,123	0%	0	0	100%	1,123	57
Other Social Services: Institutions & Services for Elderly, Disabled, D & A Counselling, etc.	29,811	19%	5,530	1,066	46%	13,752	694
Employee pension plan benefits/equity changes	23,391	100%	23,391	4,510	0%	0	0
Total Social Services	253,700		159,998	30,847		63,434	3,201
Recreation and Culture	16,306	15%	2,425	467	57%	9,264	467
Labour, Employment & Immigration							
Consolidated Budget Spending	2,395	0%	0	0	57%	1,356	68

Employment tax expenditures, various	4,813	0%	0	0	57%	2,726	138
Canada Employment Credit	2,025	0%	0	0	57%	1,147	58
Total Labour, Employment & Immigration	9,233		0	0		5,229	264
Housing							
Consolidated Budget Spending	6,120	19%	1,135	219	46%	2,823	142
Non-taxation of capital gains on principal residences, etc. tax expenditures	5,870	19%	1,089	210	46%	2,708	137
Property Tax expenditures, various	2,473	19%	459	88	46%	1,141	58
Senior Homeowners Property Tax expenditure	267	100%	267	51	0%	0	0
Total Housing	14,730		2,950	569		6,672	337
TOTAL SOCIAL SPENDING	549,149		231,760	44,683		235,748	11,896
Source: Authors' compilation							