# Towards a National Universal Guaranteed Basic Income

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## 1. Introduction

It has been thirty years since the release of the Royal Commission on the Economic Union and Development Prospects for Canada, often called the Macdonald Commission after its chairperson, former Minister of Finance Donald Macdonald. While considerable attention was paid to Commission recommendations for a more flexible, market-oriented economy as the foundation for the Canada-U.S. Free Trade Agreement and the succeeding North American Free Trade Agreement, the Commission also advocated, among other initiatives, welfare reforms to improve social equity and economic efficiency. In particular, the Commission proposed that a Universal Income Security Program (UISP) should replace most existing income support programs with a guaranteed income program designed along the lines of a negative income tax.[1] The Commission offered only illustrative UISP options, but the basic form was clear: The UISP would replace existing income security programs and consist of an income guarantee adjusted for family size and an implicit (negative income) tax or benefit reduction rate that would eliminate the income security benefit at some appropriate break-even level of family income.[2]

The UISP proposal suffered the fate of many royal commission recommendations and was relegated to history and library archives. Yet the idea of a universal guaranteed basic income has endured as a prospective grand reform of the income security system[3] while more modest income tax reforms have adopted its underlying rationale of a benefit guarantee that is reduced according to income. The 2016 budget of the new Trudeau Liberal Government confirms the election pledge to replace existing child benefit programs with an enriched Canada Child Tax Benefit that conforms to this basic design, joining the Goods and Services Tax Credit, the Working Income Tax Credit and the more established Guaranteed Income Supplement for seniors as programs that determine benefit levels according to family taxable income declared in the most recent income tax filing.

In this paper we take stock of Canada's progress toward a universal income security program and propose tax measures which would take us further down this path. In the next section we assess the current set of federal transfer programs as a universal source of income security by examining their impact across different family types. We then focus in section 3 on the current system of nonrefundable

[1] For a discussion of the UISP and subsequent response, see Pasma and Mulvale (no date)

[2] "The replacement of most of our current income-security programs and several of our tax exemptions and deductions would allow the Government of Canada to make available, in **1985,** a basic income guarantee of **$2750** per adult (and for the first child in a single-parent family) and **$750** per child; benefits would be reduced at a rate of **$20** for each **$100** of other income. The elderly would receive an enriched option. . . It should replace the following existing programs: Guaranteed Income Supplement, Family Allowance, Child Tax Credits, Married Exemptions, Child Exemptions, the federal share of Canada Assistance Plan social assistance and, eventually, Federal Social Housing Programs. If the personal income tax exemption were also eliminated, the income guarantee could be raised to **$3825** per adult per annum and **$765** per child." (Royal Commission on the Economic Union and Development Prospects for Canada, 1985, p.48)

[3] Senator Hugh Segal has advocated a guaranteed annual income and proposed the Yukon as a trial site (Davidson, 2010) and the 2016 Ontario budget calls for two pilot projects to test the idea of a guaranteed minimum income (Benzie, 2016). Prior to the Macdonald Commission, the 1971 Special Senate Committee on Poverty recommended the implementation of a federally financed and administered Guaranteed Annual Income and the Manitoba and federal governments jointly financed the Manitoba Basic Annual Income Experiment between 1974 and 1979.

tax credits as the basis for the development of a universal guaranteed basic income (UGBI). We propose a specific design for a UGBI in section 4, estimate its cost, explain how it would be financed, and provide an assessment of its impact on different types of Canadian families and on measures of poverty. Section 5 provides brief concluding remarks.

**2. Current Federal Income Transfers: Are They Equitable?**

In the absence of a truly universal income security program, what is the state of Canada's income security system? An assessment of this nature often concentrates on the incidence and depth of poverty in the population as a whole. In this section, however, we use Statistics Canada's Social Policy Simulation Database and Model (SPSDM) to examine how well specific demographic groups have fared through the tax and transfer system in the absence of a universal income security plan. That is, in our efforts to assist certain population groups, such as families with children and seniors, have we left behind other population groups, such as single individuals and childless couples? Is the Canadian income support system equitable across these population groups?

Assessment of an ideal personal income tax system typically relies on the principles of horizontal and vertical equity.[4] Horizontal equity requires that individuals in the same financial circumstances should face the same tax rate, while vertical equity requires that individuals with a greater ability to pay should pay higher taxes. In the modern taxation system that includes transfers and tax credits, horizontal equity suggests that individuals in the same financial circumstances should pay the same amount of taxes after all credits and transfer benefits (negative taxes) are considered. Similarly, vertical equity suggests that individuals with greater ability to pay should pay more tax after all credits and transfer benefits are considered. Vertical equity is typically associated with a the concept of a progressive tax, defined as a tax for which the average tax rate, calculated as the ratio of taxes owing to taxable income after consideration of all credits and transfer benefits, increases as income increases.

While these concepts seem straightforward, their application confronts the problem of whether "individuals" are literally individual adults or individual family units of various sorts. The United States requires family members to file jointly, which clearly identifies the family as the unit for assessment. Canada and the United Kingdom, on the other hand, require family members to file individually but use family income (income of the tax filer and spouse or partner) to determine various transfer payments and tax credits. That is, these tax systems are not purely individual tax systems either, but rather a hybrid of individual and joint (family) taxation, suggesting that consideration of the family unit is important.

One way to approach this issue is to add a third principle, marriage neutrality. Marriage neutrality requires that the total tax burden of two individual adults should be the same if they live separately or together. While this seems a sensible condition, it is well known that a tax system cannot achieve horizontal and vertical equity and marriage neutrality simultaneously (Hoynes, 2010). In a hybrid system, in particular, achievement of vertical equity and marriage neutrality can only be achieved at some sacrifice to horizontal equity on an individual scale. Thus, tax credits and transfer entitlements which help achieve vertical equity and marriage neutrality necessarily create some horizontal inequities and complicate any assessment of tax equity. In addition, there are tax adjustments which recognize the different costs for persons in families of different size or in families with persons with a disability to achieve the same living standard. In what follows we examine the average amount of

[4] See, for example, volume 1 of the Mirrlees Report on taxation in the United Kingdom (Adam et al, 2010).

income support received per adult as our measure of horizontal equity, recognizing that we must interpret this measure cautiously across various family types.

With these concepts and complications in mind, we examine the degree of horizontal and vertical equity realized in the current tax and transfer system in Canada. Table 1 shows the estimated federal expenditures on income security in 2015 by family type. The final column summarizes the current set of program expenditures: benefits for seniors ($47.5 billion), child benefits ($16.7 billion), Employment Insurance benefits ($16.9 billion), the GST credit ($4.3 billion) and the Working Income Tax Benefit ($1.4 billion), a total of $86.8 billion or an average federal benefit of $4,753 per adult. The remaining columns of Table 1 indicate how these expenditures are distributed across different types of families. To consider horizontal equity on an individual basis, the bottom two rows of Table 1 indicate the average benefit per adult and the percentage of adults receiving any benefit within each family type. Thus, every single parent receives a benefit, an average of $7,710, and virtually all (98% of) single elderly individuals receive a benefit averaging $9,288. Most (86%) elderly couples receive an average benefit of $7,445 per adult while most (71%) adults in two parent families receive a more modest average benefit of $3,222. Non-elderly single individuals and couples without children fare considerably less well, however: Couples receive an average of $3,836 per adult but only 18% receive any benefit, while most (71% of) single individuals receive a benefit but the average benefit is only $1,336.

**Table 1: Total Federal Expenditure ($Millions) by Type of Family and Benefit – 2015**

| Type of Benefit | Type of Nuclear Family | | | | | | Total |
|---|---|---|---|---|---|---|---|
| | Single Parent | Two Parent | Single Non-Elderly | Couple Non-Elderly | Single Elderly | Couple Elderly | |
| Old Age Security | $30.5 | $110.6 | $0.0 | $0.0 | $15,452.3 | $20,885.4 | $36,478.8 |
| Guaranteed Supplement & Spouse's Allowance | $19.8 | $84.8 | $267.4 | $0.0 | $6,641.1 | $3,964.0 | $10,977.2 |
| Canada Child Benefit | $1,434.8 | $4,308.3 | $0.0 | $0.0 | $0.0 | $0.0 | $5,743.0 |
| National Child Benefit Supplement | $1,413.4 | $1,888.9 | $0.0 | $0.0 | $0.0 | $0.0 | $3,302.3 |
| Universal Child Care Benefit | $1,065.1 | $6,569.2 | $0.0 | $0.0 | $0.0 | $0.0 | $7,634.3 |
| Employment Insurance | $723.7 | $6,435.6 | $4,811.9 | $4,408.7 | $71.2 | $456.3 | $16,907.4 |
| Goods & Services Tax Credit | $378.8 | $486.9 | $1,944.9 | $311.4 | $782.0 | $382.0 | $4,285.9 |
| Working Income Tax Benefit | $149.7 | $191.3 | $875.1 | $197.0 | $2.7 | $10.4 | $1,426.5 |
| **TOTAL ($Millions)** | **$5,217.0** | **$20,078.2** | **$7,907.1** | **$4,918.7** | **$22,950.4** | **$25,698.4** | **$86,770.0** |
| **Average Total Benefit Per Adult[1]** | **$7,710** | **$3,222** | **$1,336** | **$3,836** | **$9,288** | **$7,445** | **$4,753** |
| **% Adults Receiving Any Benefit** | **100%** | **71%** | **71%** | **18%** | **98%** | **86%** | **63%** |

Source: Statistics Canada, Social Policy Simulation Database and Model (SPSDM). Version 22.1. Calculations by the authors.

Note: [1] The average is for all adults, including those receiving no benefits.

Low benefit levels and coverage may simply reflect high incomes for any particular family type, since each of the benefits are conditioned on income to some degree. Table 2 therefore shows the total coverage and the average benefit per adult of all these programs for the low-income population, as defined by the after-tax LICO, as well as the incidence and depth of poverty for each family type. For the low income population, the coverage is higher (90% compared to 63% overall in Table 1) but the average benefit per adult, our rough measure of horizontal equity, is lower ($3305 compared to $4753 overall in Table 1). The source of the lower average benefit is the low benefits received by the non-elderly single person and childless couple groups that fared the worst in Table 1. While the coverage of the low income adults in these two groups is higher, the average benefit is lower: the poorest single individuals receive a benefit of only $818 compared to an overall benefit for this group of $1,336 in Table 1, while the childless couples receive an average benefit of $1,172 that is lower than the average benefit of $3,836 for this group. Thus, the current set of federal transfer programs serves the low income non-elderly childless household very poorly. To make matters worse, the non-elderly single person experienced the highest poverty in 2013 (31.3%) and the greatest depth of poverty (49.0%). By comparison, the single elderly person had a poverty rate of 10.7% and their depth of poverty was only 15.5%.

**Table 2: Total Federal Expenditures ($Millions) On Income Transfer Programs by Family Type for Low Income Adults - 2015**

| Benefit Generosity and Coverage & After Tax LICO Measures | Type of Nuclear Family | | | | | | Total |
|---|---|---|---|---|---|---|---|
| | Single Parent | Two Parent | Single Non-Elderly | Couple Non-Elderly | Single Elderly | Couple Elderly | |
| **TOTAL ($Millions)** | $917.1.0 | $1,852.6 | $1,159.3 | $194.3 | $2,861.9 | $511.1 | $7,496.4 |
| **Average Total Benefit Per Adult[1]** | $8,178 | $6,148 | $818 | $1,172 | $13,010 | $9,799 | $3,305 |
| **% Adults Receiving Any Benefit** | 100% | 96% | 95% | 55% | 100% | 59% | 90% |
| **Poverty Rate (2013)** | 24.4% | 7.9% | 31.3% | 4.5% | 10.7% | 1.5% | 9.7% |
| **Depth of Poverty (2013)** | 23.0% | 24.4% | 49.0% | 41.9% | 15.5% | 23.0% | 35.9% |

Source: Statistics Canada, Social Policy Simulation Database and Model (SPSDM). Version 22.1. Calculations by the authors. Cansim Table 206-0042.

Note: [1] The average is for all adults, including those receiving no benefits.

Recognizing that the assessment of tax and transfer treatment across family types is complicated, it seems clear from the evidence we have presented concerning the benefits coverage of the current federal income security system per adult that there are substantial inequities across family types. What can be done to address these gaps in the current system? In the next section, we suggest how to rectify these shortcomings using the current income tax framework.

**3. Federal Non-refundable Tax Credits**

The current federal tax system of primarily non-refundable tax credits has evolved over time to provide some degree of horizontal and vertical equity, among other objectives. Table 3 shows the impact of the current

set of non-refundable credits on individual adult incomes by family income level. For example, consider the basic personal amount, which applies to all tax filers and constitutes 60% of the total value of all non-refundable credits (Simpson and Stevens, 2015). It shows that individuals in families with incomes below the Statistics Canada Low Income Cutoff (LICO) for their size of family and community receive a 4.8% increase in their disposable income on average from the Basic Amount, which is a non-refundable credit only available to offset taxable income owing. Individuals in families with incomes between 1 and 2 times the LICO receive a 5% increase, while individuals in families 2 to 3, 3 to 4 and 4 or more times the LICO receive 4.3%, 3.6%, and 2.1% of the LICO, respectively. The average increase for all individuals is 3.5%, which suggests that the credit is mildly progressive, since those with lower incomes (up to 4 times the LICO) receive a larger than average increase in disposable income from the credit while those in the highest income group (more than 4 times the LICO) receive a lower increase than the average. As the bottom row of Table 3 indicates, the total effect of all current non-refundable tax credits is slightly more progressive in the sense that the impact of the credits for the poorest two income groups (8.74% and 8.86%) exceeds the average impact for all income groups (5.85%) by a greater margin and the second highest income group as well as the highest falls below the overall average. Nonetheless, the progressivity of the credits is not uniform, since the lowest income group with family incomes below the LICO does not do as well as families with incomes between one and two times the LICO.

**Table 3: Per cent Change in Individual Disposable Income Due to Presence of Non-Refundable Credit, by Type of Credit and Family Low Income Status – Canada 2015**

| Non-Refundable Credit | Family Low-Income Status (After tax LICO) | | | | | All Adults | Total Value ($Millions) |
|---|---|---|---|---|---|---|---|
| | Under LICO | 1 -2 X LICO | 2 -3 X LICO | 3 -4 X LICO | 4+ X LICO | | |
| Basic | +4.8% | +5.0% | +4.3% | +3.6% | +2.1% | +3.5% | $36,978.7 |
| Age + Pension Income | +0.16% | +0.86% | +0.70% | +0.43% | +0.17% | +0.46% | $4,899.8 |
| Married + Married Eq. | +0.16% | +0.35% | +0.30% | +0.15% | +0.07% | +0.19% | $1,999.1 |
| Employment Income | +0.15% | +0.26% | +0.29% | +0.27% | +0.17% | +0.23% | $2,450.1 |
| CPP Contributions | +0.74% | +0.38% | +0.31% | +0.27% | +0.16% | +0.27% | $2,833.0 |
| EI Contributions | +0.04% | +0.12% | +0.17% | +0.17% | +0.11% | +0.14% | $1,442.3 |
| Fitness & Transit | +0.04% | +0.05% | +0.06% | +0.04% | +0.02% | +0.04% | $402.2 |
| (Family) + Caregiver[1] | +0.02% | +0.03% | +0.03% | +0.02% | +0.01% | +0.02% | $208.5 |
| Disability | +0.02% | +0.06% | +0.08% | +0.06% | +0.03% | +0.06% | $586.7 |
| Total Education[2] | +0.09% | +0.17% | +0.15% | +0.12% | +0.08% | +0.12% | $1,261.4 |
| Medical Expenses | +0.03% | +0.11% | +0.16% | +0.12% | +0.08% | +0.11% | $1,165.8 |
| Charitable Donations | +0.02% | +0.07% | +0.18% | +0.22% | +0.38% | +0.24% | $2,571.9 |
| Family Tax Cut Credit | +0.03% | +0.16% | +0.32% | +0.20% | +0.11% | +0.18% | $1,959.6 |
| **Total** | **+8.74%** | **+8.86%** | **+7.20%** | **+5.73%** | **+3.49%** | **+5.85%** | **$62,062.8** |

Source: Statistics Canada, Social Policy Simulation Database and Model (SPSDM). Version 22.1. Calculations by the authors

Note: [1] Includes the caregiver and the family caregiver tax credits

[2] Includes: Interest on Student Loans, Tuition, Education and Textbook tax credits.

Moreover, many of the current non-refundable credits are not progressive at all. The Employment Insurance (EI) tax credit improves the family incomes of those below the LICO by only 0.4%, far less than all other income groups. Similar patterns are observed for the age and pension income credit, the employment income credit, the disability credit, the family tax cut credit and the charitable donations tax credit. The charitable donations tax credit is particularly regressive, as the benefits of the credit rise uniformly with income from 0.02% for the lowest income group to 0.38% for the highest income group.

Our assessment is that the current system of federal, largely non-refundable income tax credits falls well short of what is needed to provide equitable income support for Canadians. We argue in the next section that the current system can be fairly simply redesigned at modest cost to address this issue.

## 4. Reforming the Current Federal Personal Income Tax System: Design and Financing

### 4.1 The Design

A Universal Guaranteed Basic Income (UGBI) can be provided to Canadian adults (18 years of age and over) in the form of a refundable tax credit delivered through the income tax system. It is now well known that refundable tax credits correspond to a negative income tax scheme that provides a basic income guarantee combined with a system of negative tax or benefit reduction rates that reduce the level of income support as income rises (Hum and Simpson, 2001; Simpson and Stevens, 2015). Our design features a basic income guarantee of $6700 for a single individual that is adjusted according to family size using a standard equivalence scale that reflects economies of scale in consumption (OECD, 2011).[5] The income guarantee is reduced according to a fixed benefit reduction rate of 15% that is applied to total family income (the sum of market income, pension income and federal transfer payments)[6] until the net payment reaches zero. We refer to the family income level at which UGBI payments cease as the exit level, corresponding to the breakeven level in the negative income tax literature. For those claiming the federal disability, infirm dependents and caregiver tax credits, the guarantee will be increased by a fixed amount that is consistent with current practice.[7] Based on the budget available for a UGBI, which we discuss below, we recommend the parameters for the UGBI presented in Table 4:

[5] If the size of family is n, the guarantee is $\sqrt{n}s$ where *s* is the guarantee for a single individual, or $6700 in Table 4. A number of closely related and commonly used equivalence scales are discussed at http://www.oecd.org/eco/growth/OECD-Note-EquivalenceScales.pdf. The "square root" scale is used in recent OECD publications.

[6] The Goods and Services Tax Credit will not be included in the definition of total family income because it is being eliminated and replaced by the UGBI. The benefit reduction rate of 15% is derived from Simpson and Stevens (2015).

[7] The top-ups for disability, infirm dependents and caregivers were set to be slightly more generous than the current value of the tax credits for these situations. The 2015 disability tax credit is worth $1,185 ($7,899 x 0.15) while the caregiver tax credit is worth $691 ($4,608 x 0.15).

**Table 4: Parameters of the Proposed UGBI**

| Family Size | Basic Income Guarantee | Benefit Reduction Rate | Exit level of Family Income | |
|---|---|---|---|---|
| | | | Amount | % of 2015 After Tax LICO[1] |
| 1 | $6,700 | 15.0% | $46,667 | 229% |
| 2 | $9,475 | 15.0% | $63,168 | 255% |
| 3 | $11,605 | 15.0% | $77,367 | 250% |
| 4 | $13,400 | 15.0% | $89,333 | 232% |
| 5 | $14,982 | 15.0% | $99,880 | 227% |
| 6 | $16,412 | 15.0% | $109,413 | 225% |
| 7 or more | $17,727 | 15.0% | $118,180 | 221% |
| Top-up For Disability & Infirm Dependants: $1,500 | | | | |
| Top-up for Caregivers: $750 | | | | |

Note: [1] For cities of 500,000 and over.

In our design, the net amount of the UGBI paid to each family will be based on total income of the 'nuclear' family[8] (parents plus children under 18) but divided equally among the adults in the family unit to be consistent with our current system of individual tax filing. Adult children (18 years and older) living with their parents will be entitled to their own UGBI, based on the amount for a single person. All those who are permanent residents of Canada and who have filed a tax return in the previous year will be eligible for the UGBI, including status Indians living on reserves.[9]

## 4.2 The Cost and Financing of the UGBI

Using SPSDM, we estimate that the proposed UGBI will cost $51.177 billion in 2015 dollars.[10] This is the total change (loss) in disposable income due to the removal of the tax credits and the GSTC. Thus, the proposed UGBI leaves total disposable income the same. To finance this, Table 5 identifies the existing tax credit programs that would provide the funds for the UGBI: $46.639 billion from the elimination of a broad range of non-refundable tax credits and $4.286 Billion from the elimination of the Goods and Services Tax Credit for a total of $50.925 billion, leaving a shortfall of $252 million to be raised by other means. The UGBI would thereby replace the following fixed-amount non-refundable tax credits: Basic, Age, Pension Income. The following variable-amount non-refundable tax credits will also be eliminated: fitness and transit, education (incluing tuition,

[8] The 'nuclear' family is the unit selected because it is the one used by Canada Revenue Agency in determining the value of refundable tax credits.

[9] For status Indians living on-reserve, both their on-and-off reserve income will be counted in determining the net value of the GAI.

[10] Our cost estimates and subsequent impact estimates in this paper do not include behavioural response. In particular, we do not adjust for labour supply response as in earlier work (Simpson and Stevens, 2015). Since the amount of income transferred to individuals is unchanged, income effects on labour supply would cancel out across those who gain and lose from our proposed UGBI if we assume that these effects are uniform across the population. Some reduction in labour supply could arise for those who receive additional benefits under the UGBI because they now face a benefit reduction (implicit tax) rate of 15% on additional earnings compared to a tax rate of zero under the current scheme of non-refundable credits, but we expect these (substitution or compensated wage) effects to be relatively small.

textbook and interest on student loans credits) and the Family Tax Cut credit. The remaining non-refundable tax credits will be left in place: the married and married equivalent, the caregiver and disability, charitable donations, medical expenses, EI and CPP contributions and employment. In addition, the refundable Goods and Services Tax Credit will be eliminated.

**Table 5: Sources of Financing for the UGBI**

| **Current Tax Credits** | **Expenditure ($Millions)** |
|---|---|
| **Non-Refundable Tax Credits:** | |
| Basic | $36,978.7 |
| Age + Pension Income | $4,899.8 |
| Fitness & Transit | $402.2 |
| Total Education | $1,261.4 |
| Family Tax Cut Credit | $1,959.6 |
| **Total Non-Refundable Credits**[1] | $46,639.0 |
| **Refundable Tax Credits:** | |
| Goods and Services Tax Credit | $4,285.9 |
| | |
| **Total Cost ($ Millions)** | **$50,925.0** |

Source: Tables 1 and 3. Please refer to the sources and notes for those tables.

Note: [1] The total of all of the tax credits taken together is slightly higher than the sum of the credits taken individually ($45,501.7) due to the combined effect on taxes paid.

One can debate which tax credits should be eliminated and which should be kept on equity and other grounds. The Basic Personal Amount must be eliminated since it is a transfer that is universally available but currently of no benefit to those with insufficient taxable income, resulting in (vertical) inequities that are corrected by making it refundable as the largest component of our proposed UGBI. We would argue that the Age and Pension income credits should be eliminated because they worsen horizontal equity by favouring elderly people with the same income as non-elderly persons. The education tax credits should be eliminated because single young adults are eligible for their own UGBI which they can use to pursue their education. The Family Tax Cut Credit, a non-refundable credit introduced by the previous federal government that is of no benefit to families without sufficient taxes owing, will be eliminated by the current federal government as part of its redesign of the child benefit system. We also eliminate the Fitness and Transit tax credits because they are mildly regressive and are of questionable efficacy in promoting the desired behaviour. The remaining tax credits are left in place partly because they promote horizontal equity (the medical expenses tax credit) and partly because they promote the non-profit sector which relies on charitable donations. The married and married equivalent and the disability and caregiver tax credits are retained so as to better achieve horizontal equity and marriage neutrality in the tax system.

**5. The Net Impact of a GAI on Family After-tax Income**

In this section we estimate the impact of the proposed UGBI set out in Table 4. Table 6 provides our estimates of the net benefits across all families by income category, including the average income gain per family and the proportion of families who gain from our scheme. Thus, the 12.0% of families who are below the LICO with an average family income of $12,652 gain an average of $4,574 or 36.2% from our proposed UGBI and almost all (98.4%) of these poorest families receive some additional income support. Moreover, the benefits of the UGBI are targeted to this lowest income group, as the income group one to two times the LICO gains a modest 4.8% while other groups experience modest losses overall.

**Table 6: Distribution of Winners and Net Impacts by After-tax Low Income Status of Families – Canada 2015**

| After-tax LICO Level of Family Income | Per cent of Nuclear Families[1] | Average Family After-tax Income Before UGBI | Net Impact (UGBI – Tax Increase) | | Per cent Gaining Income |
|---|---|---|---|---|---|
| | | | Amount ($) | % of After-tax Income | |
| Below LICO | 12.0% | $12,652 | +$4,574 | +36.2% | 98.4% |
| 1 to 2 x LICO | 31.4% | $29,606 | +$1,418 | +4.8% | 64.2% |
| 2 to 3 x LICO | 28.0% | $47,409 | -$1,080 | -2.3% | 26.1% |
| 3 to 4 x LICO | 15.8% | $63,097 | -$1,740 | -2.8% | 21.1% |
| 4+ x LICO | 12.9% | $116,541 | -$2,071 | -1.8% | 16.6% |
| TOTAL | 100.0% | $52,507 | $0 | 0.0 | 42.8% |

Source: Statistics Canada, Social Policy Simulation and Database Model, Version 22.1. Calculations by the author.

[1] Includes non-family individuals and families.

Table 7 breaks down the impact of the UGBI in percentage income terms by family type and income level. It shows, for example, that single parents below the LICO receive an increase of 36.7% in after-tax income, which is just above the increase for all families of 36.2%, and single parents receive an increase of 5.9% over all income levels. The other major beneficiaries of the UGBI are the single non-elderly, who gain 6.0% overall and 44.6% in the lowest income group. The elderly and non-elderly couples lose the most (3.6% and 2.1%, respectively), but even for these groups the poorest families gain considerably (37.3% and 42.9%, respectively). In general, all families below the LICO gain substantially from our UGBI design.

**Table 7: Average Per cent Change in Disposable Family Income Due to the GBI by Family Type and Income**

| After-tax LICO Level of Family Income | Type of Nuclear Family | | | | | | Total Families |
|---|---|---|---|---|---|---|---|
| | Single Parent | Two Parent | Non-Elderly Single | Non-Elderly Couple | Elderly Single | Elderly Couple | |
| Below LICO | +36.7% | +26.2% | +44.6% | +42.9% | +13.4% | +37.3% | +36.2% |
| 1 to 2 x LICO | +9.7% | +3.5% | +9.0% | +3.2% | +2.1% | +0.9% | +4.8% |
| 2 to 3 x LICO | +0.7% | -3.8% | +2.6% | -3.6% | -3.2% | -6.1% | -2.3% |
| 3 to 4 x LICO | -0.8% | -3.6% | +2.1% | -4.0% | -2.4% | -6.3% | -2.8% |
| 4+ x LICO | -0.8% | -2.2% | +1.1% | -2.3% | -1.0% | -3.0% | -1.8% |
| TOTAL | +5.9% | -1.6% | +6.0% | -2.1% | +0.2% | -3.6% | 0.0% |

Source: Statistics Canada, Social Policy Simulation and Database Model, Version 22.0. Calculations by the author.

Finally, Table 8 estimates the impact of the proposed UGBI on the rate and depth of poverty, using the LICO as our poverty measure. If the UGBI were implemented, we estimate that the number of nuclear families living below the poverty line would decline from 10.8 to 5.8 per cent for a 46 per cent decline. While all family types realize a substantial reduction in the incidence of poverty, the largest declines would be for single parents (from 15.4% to 0.9% or a reduction of 94% in the incidence of poverty) and two-parent families. We estimate that, of those remaining in poverty after the implementation of our proposed UGBI, the depth of poverty would decline modestly from 46.2 to 35.4 per cent, or 23 per cent. While the depth of poverty would increase for the families with children and elderly couples, only a small percentage of these family groups would remain below the LICO after receipt of the UGBI. Other groups with larger percentages remaining in poverty, particularly non-elderly singles realize a large reduction (36%) in the depth of poverty as well.

**Table 8: Impact of the GBI on the Rate and Depth of Family Poverty (After-tax LICO) by Family Type**

| Nuclear Family Type | Rate of Poverty | | | Depth of Poverty | | |
|---|---|---|---|---|---|---|
| | Pre-UGBI | Post- UGBI | Impact (%) | Pre- UGBI | Post- UGBI | Impact (%) |
| Single Parent | 15.4% | 0.9% | -94% | 30.6% | 48.5% | +58% |
| Two Parent | 5.0% | 0.7% | -86% | 25.4% | 38.7% | +52% |
| Non-Elderly Single | 17.8% | 12.2% | -31% | 56.4% | 36.0% | -36% |
| Non-Elderly Couple | 4.3% | 1.9% | -56% | 48.9% | 36.2% | -26% |
| Elderly Single | 8.7% | 1.8% | -79% | 10.7% | 7.5% | -30% |
| Elderly Couple | 2.2% | 0.8% | -64% | 39.4% | 50.7% | +29% |
| TOTAL | 10.8% | 5.8% | -46% | 46.2% | 35.4% | -23% |

Source: Statistics Canada, Social Policy Simulation and Database Model, Version 22.0. Calculations by the author.

## 5. Conclusions

Without a universal income security program, significant inequities have arisen in the Canadian system of tax credits and transfer benefits. We illustrate these inequities by examining the impact of current transfers and tax credits across family types. Non-elderly single individuals and couples without children do particularly poorly in our current income support system. We propose a universal guaranteed basic income program that replaces certain existing non-refundable tax credit programs, since these programs deny benefits to those with insufficient taxable income, and assess its impact. The proposed UGBI provides significant benefits to Canada's poorest families regardless of type and significantly reduces the incidence and depth of poverty across all family types. Although non-elderly single individuals receive more assistance in relative terms than other families, their incidence of poverty remains high in comparison with other family groups.

## References


Adam, Stuart, Timothy Besley, Richard Blundell, Stephen Bond, Robert Chote, Malcolm Gammie, Paul Johnson, Gareth Myles, and James Poterba, eds. (2010) *Dimensions of Tax Design: The Mirrlees Review* prepared for the Institute for Fiscal Studies, Oxford University Press

Benzie, Robert (2016) "Wynne touts basic-income pilot project to help poor," thestar.com, March 17, accessed at http://www.thestar.com/news/canada/2016/03/17/wynne-touts-basic-income-pilot-project-to-help-poor.html

Davidson, Justine (2010) "Senator promotes guaranteed income model," *Whitehorse Daily Star*, April 12. Accessed February 3, 2015 at: http://whitehorsestar.com/News/senator-promotes-guaranteed-income-model

Hoynes, Hilary (2010) "Commentary by Hilary Hoynes," in Adam et al (2010), 174-183

Hum, Derek, and Wayne Simpson (2001) "A Guaranteed Annual Income? From Mincome to the Millenium," *Policy Options/Options Politiques*, January-February, 78-82

OECD (2011) *Divided We Stand – Why Inequality Keeps Rising*, Paris.

Pasma, Chandra, and Jim Mulvale (no date) "Income Security for All Canadians: Understanding Guaranteed Income," BIEN Canada at: http://www.cpj.ca/files/docs/Income_Security_for_All_Canadians.pdf

Royal Commission on the Economic Union and Development Prospects for Canada (1985) "Volume One," Minister of Supply and Services Canada at: http://publications.gc.ca/collections/collection_2014/bcp-pco/Z1-1983-1-1-1-eng.pdf

Simpson, Wayne and Harvey Stevens (2015) "The Impact of Converting the Federal Non-refundable Tax Credits Into Refundable Credits," University of Calgary School of Public Policy Research Papers 8(29) at: http://www.policyschool.ucalgary.ca/?q=content/impact-converting-federal-non-refundable-tax-credits-refundable-credits