The Economic Well-Being of Canadian Children

by

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Abstract

The goal of this paper is to provide a descriptive comparison of economic outcomes for Canadian children, at the bottom, middle and top of the population income distribution. We use a very wide-angle camera, enabling us to provide a broad picture of differences/changes in families, policies and child outcomes. First, we describe some important changes over time in the families in which children live, nationally and by province. Second, we provide an overview of how Canadian policy in support of children has changed and how it differs across provinces. Of particular interest is the fact that the federal government has increased expenditures on child benefits considerably over the past 20 years, and expenditures are expected to grow further with the new Canada Child Benefit introduced in July of 2016 (Office of the Parliamentary Budget Officer, 2017). Third, we illustrate changes/differences in median incomes, in income distributions and in child poverty both before and after taxes and transfers at different points of time and in different provinces. Finally, we compare economic well-being of children in Canada in 2010 with that experienced by children in eight other similarly affluent countries with different policies to support children.
We are using this talk as an opportunity to indulge our own interests in how the economic well-being of Canadian children has changed over time; and how it compares to the economic well-being of children living in other affluent nations. We are also curious about provincial differences in the resources available for children since many relevant policies are set at the provincial level; and, we have a special interest in children from Atlantic Canada who have, perhaps, been less-studied than children from some other regions.\(^1\) Our goal is simply to provide a descriptive comparison of economic outcomes for children, at the bottom, middle and top of the population income distribution. We use a very wide-angle camera rather than a tightly focussed microscope, enabling us to provide a broader picture of differences/changes in families, policies and child outcomes than is typically possible in a more standard piece of economics research. This will not enable us to establish causal linkages between any particular policy or policy change and any specific child outcome.

Throughout our analysis, we take the individual child as our unit of observation, defining a child as anyone under the age of 18.\(^2\) Since we will be drawing on a variety of different Statistics Canada data sets\(^3\) as well as surveys for eight other rich countries accessed through the Luxembourg Income Study, we limit our focus to children in the most clearly identifiable situations -- children living with one or two parents, only. In so doing, we are, of course, excluding some of the most vulnerable Canadian children (e.g., those living in 'other' family

\(^1\) Though, see the excellent NS report cards on poverty by Leslie Frank as well as the meticulous work of policy institutes such as Caledon and IRPP.

\(^2\) All estimates are for each child in a year/province/country rather than for each household with children. Thus, we multiply survey weights for a household by the number of children age 0 to 17 living in the household.

\(^3\) The Canadian data employed in this paper are, unless otherwise noted, drawn from the Survey of Consumer Finance (SCF) for reference years 1986 through 1997; from the Survey of Labour and Income Dynamics (SLID) for years 1998 through 2010; and from the Canadian Income Survey (CIS) for 2012 and 2014. Note that it is the 'personal' focus of the CIS means than we select children and study, for example, income of the economic family. It is not possible to identify adults who are parents with children under 18 and then to study their education levels, paid employment, etc. The SCF and SLID data are accessed through the Luxembourg Income Study; the CIS files are public use, accessed through the Data Liberation Initiative.
arrangements such as foster care or with other relatives because a parent is in prison). And, since the Canadian surveys do not include children living in the North, these potentially vulnerable children are also excluded.

The paper consists of 5 major sections. First, we describe some important changes in the families in which children live, nationally and by province. Second, we provide an overview of how Canadian policy in support of children has changed and how it differs across regions. Of particular interest is the fact that the federal government has increased expenditures on child benefits considerably over the past 20 years, and expenditures are expected to grow further with the new Canada Child Benefit introduced in July of 2016 (Office of the Parliamentary Budget Officer, 2017). Third, we illustrate changes/differences in median incomes, in income distributions and in child poverty both before and after taxes and transfers at different points of time and in different provinces. Fourth, we compare economic well-being of children in Canada in 2010 with that experienced by children in eight other similarly affluent countries with different policies to support children. Finally, a summary and some conclusions are provided.

**Changing Family Context**

We begin with a description of how basic features of family life experienced by the average Canadian child have changed over the past 30 years. First, living with a lone parent relative to living with two parents is more likely -- 14 percent of children in our 2010 sample live with a lone mother compared to 10 percent in 1987, with most of the change occurring between 1987 and 1997 (see Figure 1). While there are still relatively few children living with a lone

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4 These calculations use microdata from the Survey of Consumer Finance and the Survey of Labour and Income Dynamics. Change of survey is noted with a break in the line. Standard errors are marked with 'whiskers' around the point estimates. It isn't possible to do the same analysis using the Canadian Income Survey (CIS). Since the individual is the unit of analysis in the CIS, we cannot identify, for example, the education of a child's parent.
father -- only 4 percent -- this is double the 1987 percentage.\(^5\) Figure 2 illustrates, however, that patterns of lone parenthood have varied across provinces during this period, with the increase in proportion of children living with lone mothers much the greatest for Atlantic Canadian children; whereas, there has been no significant change in the probability of living with a lone mother in Alberta or BC. Parents are also older (about 4 years) by 2010, with mothers, both married\(^6\) and lone mothers, remaining, on average two years younger than fathers (see Figure 3). Notice that married and lone mothers are not statistically different in ages.

Figures 4, 5 and 6 illustrate very striking increases in parental levels of education. The probability that a lone mother has less than high school education has fallen from 50 percent in 1987 to about 15 percent in 2010; the probability that she has a university education has doubled, from 10 to 20 percent. While lone mothers have, on average, lower education than married mothers, the difference by 2010 is much less than in 1987. The probability of having less than high school education has also fallen markedly for both mothers and fathers in two-parent families; and, over 25 percent of both married mothers and married fathers now hold university degrees. An interesting change to notice is that since about 2005, mothers are more likely to have university degrees than their husbands.\(^7\) For all Canadian parents, there has been a very large increase in the probability of completing a post-secondary diploma/certificate. About 40 percent now hold such a designation, making it now most common level of education for a Canadian parent.

\(^5\) We are not able to identify children living in a shared custody arrangement. Data from the 2011 GSS suggest that, of children whose parents are separated or divorced, 70 percent of children live in the sole custody of their mother; 15 percent live in the sole custody of their father; only 9 percent have custody shared by their parents.
\(^6\) 'Married' includes both legally married and common-law couples who may be biological parents or step-parents.
\(^7\) A number of studies point out that young women now out-number young men on university campuses. See, for example, Drolet, 2011; Fortin, Oreopoulos and Phipps, 2016.
While married fathers have sustained high rates of employment over our entire study period, for mothers, especially lone mothers, the probability of employment has increased rapidly between 1987 and 2010 (see Figures 7 and 8). Given this general pattern, however, there are important provincial differences. As is well-known (e.g., Baker and Milligan, 2008; Beaujot et al., 2013; Fortin, 2015; Lefebvre and Merrigan, 2008; Lefebvre, et al., 2009), the probability that women will be engaged in paid employment has increased markedly in the province of Quebec since low-cost child care was introduced in 1997. Notice, though, that the probability of employment for Atlantic Canadian mothers has increased nearly as much for married mothers and by more for lone mothers. Though not so dramatically, employment has increased for lone mothers in Manitoba and Saskatchewan and for married mothers in Alberta. In BC and Ontario, employment of mothers was initially higher than in other provinces, but there has been little change between 1987 and 2010. Overall, these data show a convergence in employment rates of mothers, between married and lone mothers and across provinces.

Changes over Time in Federal Support for Families with Children in Canada

The Canadian government has offered some support for families with children since the early twentieth century. However, both the level and structure of support has varied over time with changes in families, economic climate and political party in power. The target of expenditures has shifted back and forth between lower and higher-income families; between mothers and fathers and between married- couple families and lone-parent families.

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8 For SLID, 'employed' refers to the main job held during the reference year which may not be the current job. For SCF, 'employed' refers to the current period (i.e., survey week).
Support for individuals with children first appeared in 1918, when an exemption for dependent children was introduced with the income tax system. Tax exemptions are of greatest benefit to those with the highest incomes and therefore the highest marginal tax rates; they are of no benefit to lower-income individuals who do not owe any taxes. Thus, the 1918 policy principally benefited higher-income fathers with children (very few mothers had taxable income in 1918).

Support for lower-income parents was not available until 1945, when cash transfers, in the form of a universal "family allowance" were introduced. In contrast to the tax exemption for children, which mainly benefited fathers, family allowance cheques were sent, twice annually, to mothers.\(^9\)

Further significant change in the structure of federal support for families with children did not occur until 1978, when a refundable child tax credit first appeared. This was an important development insofar as refundable tax credits have been central to almost all further development of the child benefits system in Canada. 'Refundability' meant that even families not owing any income tax could receive a cash benefit (i.e., a cheque in the mail). Moreover, unlike the family allowance, the refundable child tax credit was taxed back for families with higher incomes. Thus, the lowest income families with children received the largest benefit; the highest income families received no benefit at all (i.e., the opposite structure to the 1918 tax exemption).

A further significant structural change was that the income test was based on family (not personal) income, though in other respects Canadian income taxes had been based on an individual filing system. Finally, extra support was provided for lone parents (almost all mothers

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\(^9\) An exemption for child care expenses was introduced in 1972. Family allowances became taxable at the marginal tax rate of the higher-income parent in 1973 and were thus no longer technically 'universal.' Further tinkering with family allowances took place over the years. Benefits were not indexed between 1945 and 1973; they were significantly increased in value and indexed in 1973 and then partially de-indexed in 1986. A high-income clawback of benefits was introduced in 1989.
at this time) by allowing them to claim an 'equivalent to married' tax credit, previously only available for couples in which one spouse was dependent upon the other for income.

The child tax exemption introduced in 1918 was finally replaced by a non-refundable tax credit in 1988. Since the non-refundable credit was calculated using the lowest federal marginal tax rate, higher income parents no longer received a larger benefit than more modest-income parents. Of course, the lowest-income parents, with no taxes owing, did not benefit from the change.

In 1992, the federal government introduced another refundable tax credit -- the Goods and Services Tax credit. Although not specifically targeted at children, it is another form of financial support for lower-income families with children.

In 1993, the Family Allowance, refundable child tax credit and non-refundable child tax credit were combined into one refundable, family-income tested 'Child Tax Benefit' (CTB) that was paid monthly. The CTB was particularly targeted on lower-income families; middle income families received less than previously and higher income families no longer received any federal support except for child care expenses. The benefit was constant in nominal terms (i.e., falling in real terms). Data from the National Council of Welfare and Caledon Institute of Social Policy indicate that the maximum benefit available for a lower-income two-parent family with two children aged 10 and 15 fell 30 percent between 1986 and 1997 (see Figure 9).

In 1998, the National Child Benefit programme was introduced. A new Canada Child Tax Benefit (CCTB) replaced the former CTB. The CCTB consisted of two parts: 1) a basic non-taxable refundable tax credit received by most families with children, though with a family

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10 A 'Working Income Supplement' was also available for low-income parents engaged in paid work between 1993 and 1997. The WIS was replaced by the National Child Benefit Supplement in 1998.

11 The National Council of Welfare and, since 2012, the Caledon Institute of Social Policy have used the same methodology to calculate these benefits. The lone mother is assumed to have one child aged 2; the two-parent family is assumed to have 2 children, aged 10 and 15.
income test applied above the middle of the distribution; 2) a National Child Benefit supplement (NCBS) targeting low-income families.

A particularly new feature of the National Child Benefit programme was that income support for low-income families became a joint federal/provincial initiative. With much higher income-tested benefits for all low-income families with children made available through the NCBS, provinces could opt to substitute NCBS dollars for part of the provincial social assistance payments being made to families with children and to use the funds saved for other purposes, provided the money was re-invested in children.\(^\text{12}\) Provinces varied significantly in their responses. In some cases, families on social assistance were simply allowed to keep the NCBS; in other cases, funds were used to initiate a provincial child benefit; or, used to subsidize daycare spaces or enhance child health programmes (see National Child Benefit Progress Reports, 1999-2013; Milligan and Stabile, 2016).\(^\text{13}\)

While the focus of federal support for families with children was on lower income families in the period between 1998 and 2005, policy changes in the later part of the decade reintroduced some programmes of benefit to higher-income families. In 2006, the federal government introduced a new universal cash transfer for children under the age of six. Families, regardless of income, received a $100 per month 'Universal Child Care Benefit' (UCCB). The UCCB was taxable for two-parent families and paid to the parent with the lower income.\(^\text{14}\)

In 2007, the non-refundable child tax credit was re-introduced; as previously, this non-refundable credit was only of benefit for parents with sufficient taxes owing. Finally, a 'family

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\(^{12}\) In cases where social assistance benefits were reduced dollar for dollar as the National Supplement increased, low-income families on social assistance would not have experienced any gain in income while low-income working poor families would have experienced increases in income. In this way, it was hoped that movements from social assistance to paid work would be easier (the NCBS would replace some of the social assistance benefits lost).

\(^{13}\) The province of Quebec did not participate in National Child Benefit Programme, but reformed its own programmes significantly in 1997 and 2005.

\(^{14}\) Studies of the impact of the UCCB include Schirle (2015) on mothers' labour force participation; Daley (2016) on mothers' mental health.
A tax cut introduced for tax year 2014 allowed married couples with different marginal tax rates (e.g., families with one stay-at-home parent) to transfer up to $50,000 of income from the partner with the higher income to the partner with the lower income. The income splitting tax credit could generate benefits up to $2,000 annually for affluent one-earner, two-parent families. Income splitting was of no help to lone parents.

As indicated in Figures 9 and 10, the real value of federal benefits increased very significantly between 1998 and 2014.\textsuperscript{15} Again using data from the National Council of Welfare and Caledon Institute of Social Policy, Figure 9 indicates that the maximum benefit available for a lower-income two-parent family with two children aged 10 and 15 increased by 150 percent. The most significant increases in benefits occurred between 1997 and 2006, with benefits relatively constant in real terms thereafter. For children in lone-parent families, the value of benefits grew even more over the same time period -- a 185\% increase in real value. Since the sample lone-parent family used for the purposes of these calculations has one child aged two, they would be eligible for the UCCB when it was introduced in 2006. As was true for the two-parent family, real increases in the value of child benefits are most noticeable in the period between 1997 and 2007, but with the additional jump in benefits due to UCCB apparent before the real value of benefits levels off.

The UCCB was extended to children of all ages in 2015 while the amount for younger children increased from $1200 annually to $1920. Then, in July of 2016, the CCTB, NCBS and UCCB were rolled together into one new benefit -- the Canada Child Benefit, with a further significant infusion of funds. Income splitting was discontinued.

As a final note, while we have not so far mentioned the Employment Insurance system, considerable federal support for families is also offered through this social insurance programme.

\textsuperscript{15} A child disability tax credit was also introduced in 2003.
In particular, maternity benefits were introduced in 1971, expanded to include 10 weeks of parental benefits and further expanded with an additional 25 weeks of benefits in 2001 (see Phipps, 2006). Since 1997, there has been an income-tested Family Supplement to EI.\textsuperscript{16} Varying by family size and income, the FS can potentially increase the effective earnings replacement to a maximum of 80\% As of 2015, FS benefits would entirely disappear when family net income reaches $25,921. In part because real incomes have grown while the nominal threshold for FS receipt has remained unchanged, receipt of FS by unemployed families with children has fallen by 56.8 percent between 2006/2007 and 2014/2015. Given their lower market earnings, women make up 82 percent of FS recipients (EI Monitoring and Assessment Report, 2014/1015, p. 58).

**Provincial Tax and Transfer Programmes for Families with Children**

**Social Assistance and Other Provincial Tax Credits and Benefits**

**Cash Benefits for Two-Parent Families**

As documented in detail by Milligan and Stabile (2016), Jones, et al., 2015 and the Caledon Institute for Social Policy Canadian Social Reports, provinces have pursued different paths over time in the provision of benefits for lower-income families with children. Figures 11 through 13 illustrate for the two-parent, two-child family discussed above, the maximum real provincial benefits that would have been available in Atlantic Canada, Central Canada and Western Canada, respectively, between 1986 and 2015. These benefits consist principally of social assistance, but the value of child tax credits or provincial child benefits are also included, when available.

\textsuperscript{16} The family-income tested FS replaced an individual earnings tested 'Dependency Ratio' whereby unemployed parents with low individual earnings could receive a replacement rate of 60\% rather than the usual 55\%. See MacDonald et al., 2001 for further details.
Two general points can be made from these figures: 1) despite the important increases in federal benefits for families with children, provinces are still the most important source of income for very low-income families in Canada; 2) the real value of provincial cash benefits for a low-income two-parent family was much lower in 2015 than in 1986 in all provinces.

However, there has been significant variation across provinces in both levels and trends. To facilitate a comparison, it is helpful to consider three time periods. Between 1986 and the implementation of the NCB in 1998, particularly sharp reductions were evident in Ontario and Manitoba whereas benefit levels actually increased in New Brunswick and remained relatively constant in Nova Scotia and BC. After 1998, cash benefits for two-parent families fell in all provinces, though less dramatically in Atlantic Canada. Of course, the intent of the federal/provincial agreements was to allow provinces to reduce social assistance spending on children to free up funds for re-investment in other areas of spending on children such daycare, for example. Finally, real provincial cash benefits available for low-income two-parent families began to increase or at least to cease falling after about 2005 in all provinces except Manitoba.

A net result of these changes is that the extent of variation in cash benefit levels across provinces was lower in 2015 than in 1986. At the most extreme, in 1992, the two-parent entitlement was about 28,000 (real 2011 dollars) in Ontario compared to about 13,000 in New Brunswick (the highest and lowest provinces, respectively) whereas, in 2015, all provinces offered cash benefits that fall within a roughly 5000 dollar band between 13000 and 18000 annually.

Cash Benefits for Lone-Parent Families

Changes between 1986 and 2015 in cash benefits potentially available to a lone-parent family with one child are more muted than is the case for two-parent families but basically
follow the same patterns in Central and Western provinces, with the biggest reduction in benefits apparent in Ontario, where they were originally highest (see Figures 14 to 16). In Atlantic Canadian provinces, on the other hand, the real value of cash benefits is actually higher in 2015 than in 1986 -- very slightly so in Nova Scotia; nearly doubling in Newfoundland, which in 2015 offered the highest cash transfers to lone parents.

Re-investments by Provinces

Childcare was one of the major forms of re-investment for funds provinces saved on social assistance through the NCB joint initiative, and there is evidence that this resulted in some increases in regulated childcare spaces available for pre-school children (see Figures 17 and 18). By 2014, regulated spaces were available for 25 to 30 percent of children in New Brunswick, Nova Scotia and Quebec, 17 for 20 to 25 percent of children in most other provinces, though for only 12.6 percent in Saskatchewan. Expenditures on regulated spaces per child 0 to 5 in the province also varies, with Quebec and Manitoba spending the most ($1321 and $986 per regulated space, respectively) and Saskatchewan spending the least ($327 per space).

Figure 19 illustrates variation across provinces in the percent of children in lone-mother families living in subsidized housing from a low of 10 percent in Quebec to highs of about 30 percent in Ontario and Manitoba. It is also true that there are significant cross-province differences in, for example, prescription drug coverage or dental care for children (see Ungar and Witkos, 2005 and Rowan-Legg, 2013, respectively).

Minimum Wages

Another important policy for lower-income families set at the province level is the value of the minimum wage. As documented by Fortin and Lemieux, 2015 and Galerneau and

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17 As noted above, the province of Quebec has followed a separate path in terms of family policy. The Quebec daycare scheme has received much earlier research attention (e.g., Baker and Milligan, 2008; Beaujot et al., 2013; Fortin, 2015; Lefebvre and Merrigan, 2008; Lefebvre, et al., 2009).
Fecteau, 2014, after remaining constant or even declining for many years, the real value of the minimum wage has increased markedly in some regions since about 2005 (see Figures 20 to 22). Increasing minimum wages appears to be the explanation for relative growth in wages at the bottom of the income distribution in recent years. It is likely that that minimum wages are particularly important for children living with lone mothers since women are more likely to be minimum wage workers (e.g., Green, 2015).

**Child Support**

Finally, provinces decide how income from child support is treated in calculation of eligibility for provincial income-tested benefits. In many provinces, Income support is reduced by the full amount of any child support payments received, strongly reducing any incentive for child support payments to be made. And, indeed, relatively few lone-mother families receive consistent child support payments. BC in September of 2015 and Ontario in January of 2017 both adopted policies of exempting income from child support when calculating amounts for income-tested transfers (Frank, 2016).

**Economic Resources Available for Canadian Children**

**Median Equivalent Incomes**

A first basic measure of economic resources available for children is income from all sources (including government transfers) less taxes paid and adjusted for inflation (i.e., real disposable income). Thus, we begin by comparing annual income after taxes and transfers.
available to a representative Canadian child in each year from 1987 to 2010. In order to make these comparisons, several measurement decisions are required.

Income potentially available for the child will depend on how many other people are sharing family income. We account for differences in how far income will stretch for families of different sizes by adjusting disposable income using an equivalence scale (the square root of family size) and call this adjusted income 'equivalent disposable income.' For example, a child living in a family of four members (mother, father, one sibling) whose disposable income is $60,000 will have an 'equivalent income' of $30,000 ($60,000/2). A child living in a family of two members (lone parent, no siblings) with the same disposable income would have an 'equivalent income' of $42,550 ($60,000/1.41).

Second, since we have no information about how financial resources are used within the family (e.g., for the parent versus the child; for one sibling versus another), we are forced to assume that each family members receives an equal share. Indeed, some expenditure (e.g., housing, heating, internet access) will inevitably benefit all family members equally. Although expenditure on items of private consumption will benefit one member but not another, it is also possible that parent use limited resources for their children rather than for themselves (see Burton, Woolley and Phipps, 2007).

Finally, throughout this paper, our unit of observation is the individual child (rather than the family). That is, we take each child to be a separate unit of analysis so that, for example, each child in a multi-child family is assigned the disposable equivalent income for his or her family using the sample weight for that family.
**Median Equivalent Incomes Levels**

Figure 23 compares real equivalent after-tax and transfer median incomes for Canadian children in two-parent, lone father and lone mother families between 1971 and 2014, the longest span of time for which we have available micro-data. The first point to note in this figure is that children in lone-mother families have much lower incomes than children living with both parents and even much lower incomes than children living with lone fathers. This has been true for as long as we have had micro-data to study the issue. A second key point is that there has been real income growth for all family types between 1971 and 2014. However, for children living in two-parent families, there was a long period of virtual stagnation at about $30,000 from about 1980 until 2000; real equivalent income then grew to about $37,000 by 2010 and to $40,000 by 2014. For a child in a lone mother, median equivalent income grew more continuously, albeit at a very slow pace from the very low value of $10,000 in 1971. The rate of growth increased after 1998, to a median value of about $22,000 in 2010, but with no further growth thereafter.

Income patterns for children in lone father families are generally quite similar to those in two-parent families and always nearly double the equivalent incomes for lone mothers. Also, although numbers are growing, lone father families are still much less likely than lone mother families with the result that sample sizes become uncomfortably small for provincial breakdowns. For these reasons, we focus most of our subsequent analysis on children in two-parent and lone-mother families.

Under the extreme thought experiment that all state taxes and transfers entirely disappeared but nothing else changed (e.g., no parents try to work more hours and no young families move back home with grandparents), Figure 24 compares before and after tax/transfer patterns for children in two-parent families and children in lone-mother families, respectively,
and depicts real growth in all cases. While the net effect of government taxes/transfers at the median income for two-parent families is negative (i.e., taxes exceed transfers); the net effect at the median income for lone-mother families is positive (i.e., transfers exceed taxes), both because the lone-mother median market income (i.e., income before taxes and transfers) is lower and because there are some differences in policy treatment. Net taxes paid by the median two-parent families have fallen in real terms and net transfers received by lone mothers have increased since 1998 with increases in federal child benefits.

In Figure 25, we illustrate changes in equivalent transfers received by children with family equivalent incomes placing them in different deciles of the population equivalent income distribution in 1998 and again in 2010. Notice that although the introduction of the National Child Benefit Supplement was targeted at low-income children, responses by provinces in 'removing children from welfare' indicates that there was no real increase in the receipt of transfers for children in the bottom two deciles; however, increases are evident children with family incomes in all other higher deciles.

Figures 25, 26 and 27 show real equivalent after tax and transfer incomes (i.e., disposable income) for children living with two parents in the Atlantic, Central and Western provinces, respectively. We restrict the sample period for these analyses to 1987 through 2014 in order to have some years prior to the introduction of the NCB in 1998, without attempting an analysis throughout all years for which data are available. In the late 1980's, children living with two parents in Ontario had the highest incomes in Canada. But, whereas median equivalent incomes then remained virtually constant from 1986 through 2014 in Ontario, there has been real growth since 2000 in other provinces. Notably, booming energy prices increased equivalent incomes of

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21 Conveniently, the national unemployment rate was 7.1 percent in 1998 and 6.9 percent in 2010 (CANSIM Table 282-0002).
children living with two parents in Newfoundland, Saskatchewan and especially Alberta\textsuperscript{22} to be the highest in the country, with only small reductions evident in 2014. There has also been real growth in equivalent income for children with two parents living in Nova Scotia, New Brunswick and PEI, so that they are much nearer the incomes available for children in Ontario. In general, we observe a convergence in the real incomes of children in two-parent families toward the Ontario median value (about $40,000 in 2015).\textsuperscript{23}

Figures 28, 29 and 30 repeat this exercise for children living with lone mothers in the three regions. Real equivalent incomes stagnated between $15,000 and $20,000 for children in lone-mother families in most provinces from 1986 until about 2005 (i.e., even longer than was the case for children in two-parent families). In the Atlantic provinces, incomes for children living with lone mothers were considerably lower than elsewhere at the end of the 1980s (between $8,000 and $12,000). However, real growth throughout the entire 1986 through 2014 period have resulted in median income levels surpassing those available to lone-mother families in Western Canada except Alberta and matching those available for children in lone-mother families in Ontario and Quebec.

\textit{Equivalent Income Distributions}

Thus far, we have compared median equivalent incomes available to children in different places or at different points in time, but have paid no attention to how income is distributed among children. Figure 32 shows how inequality as well as median incomes have changed over time by plotting real median equivalent incomes for all children in a year against the Gini index.

\textsuperscript{22} Several authors (Fortin and Lemieux, 2016; Green and Sand, 2013 and Marchand, 2014) demonstrate differences across provinces in real wage growth, largely driven by the energy boom increasing wages in Alberta, Newfoundland and Saskatchewan.

\textsuperscript{23} Though, as noted above, provinces differ in provision of non-monetary benefits for children; and, of course, living costs differ.
calculated for all children in the same year.\textsuperscript{24} By connecting the dots, we can trace out the path followed over time. Our analysis is carried out both for market income and for disposable income. Figure 32 illustrates, as has much earlier research,\textsuperscript{25} that real incomes grew and inequality fell during the 1970's and 1980's; then incomes stagnated and inequality increased during the 1990's. Taxes and transfers only partially offset the increased inequality generated in the market. Since about 2004, real equivalent incomes available for Canadian children have begun to increase. Inequality of income among children has fallen only very slightly, but certainly not nearly enough to return to pre-1990's levels.

As well as knowing how inequality among children differs, we wanted to see where children fit in the population income distribution. Figures 32, 33, 34 and 35 illustrate changes across the year 1987, 1998, 2010 and 2014 in the equivalent disposable income distribution for children and for all Canadians. In these figures, for children and for everyone, respectively, the extent of disposable equivalent income inequality is illustrated through the horizontal 'spread' of incomes relative to the median. Markers indicate deciles of the population distribution.

It is clear in these figures that population income inequality increased between 1987 and 2010, with some reduction by 2014. But, what is also clear is that the position of children has been 'slipping to the left' relative to all Canadians. That is, whereas in 1987, children were over-represented at equivalent incomes around the median, in subsequent years, the children's distribution flattened out in the middle, with children now over-represented relative to the population at incomes in a band between the median and 50 percent of the median.\textsuperscript{26}

\textsuperscript{24} Inequality among children is less-often studied than poverty among children, but see also Oxley et al., 2001; Phipps and Lethbridge,2006 or UNICEF 2016 which looks at the difference between children at the middle and bottom of the distribution (i.e., 'bottom end' inequality).

\textsuperscript{25} See, for example, Fortin et al, 2012; Frenette, Green and Milligan, 2009.

\textsuperscript{26} Our survey data do not allow an analysis of the top 1 percent, where there has been substantial increase in inequality (e.g., Atkinson and Piketty, 2007; Osberg, 2015; Saez and Veall, 2005; Veall, M. 2012.)
Child Poverty

From a policy perspective, it seems particularly important to look at children whose families have relatively little money despite living in a rich country. We argue, as do many others,\(^27\) that in rich countries, poverty is necessarily a relative concept and so count a child as 'poor' if he or she lives in a family with less than 50 percent of the median equivalent income for all other Canadians in the same year.\(^28\) Figures 36 through 39 illustrate trends in market versus after-tax and transfer poverty rates and depth, for children living with two parents, lone mothers and lone fathers.\(^29\)

Perhaps the most striking point made in Figures 36 and 37 is the much higher incidence of poverty experienced by children living with lone mothers compared to children living with two parents or lone fathers. This has been true in every year since 1987 -- indeed, the pre-tax and transfer incidence of poverty has remained constant at about 60 percent throughout our study period. The main 'good news' story, however, is that post-taxes and transfers, the incidence of poverty for children in lone-mother families has fallen from 50 percent in 1987 to 45 percent in 2014. Of course, this still means that the poverty rate is twice as high as for children with lone fathers and 4.5 times as high as for children in two-parent families.

For children living with two parents, the market rate of poverty increased between 1987 and 2010 (from 13.5 to as high as 21 percent in 2012), but the after-tax and transfer rate has remained unchanged at roughly 10 percent from 1987 until 2014. That is, re-distribution through

\(^{27}\) See, for example, Gornick and Jantii, 2012; Myles and Picot, 2005.

\(^{28}\) When we compare market versus post-tax and transfer poverty, we calculate the market poverty rate and depth using the post-tax/transfer poverty line.

\(^{29}\) Average depth of poverty (i.e., how far below the poverty threshold each poor child falls) is calculated by taking the average of all the shortfalls and dividing by the relevant poverty line.
taxes and transfers off-set the otherwise negative consequences of more limited opportunities in the labour market for two-parent child poverty in Canada.

Figures 38 and 39 illustrate poverty depth over time for children from the 3 family types. A comparison of these figures indicates that while Canadian transfers do not lift most children out of poverty, they much more successfully reduce the extent of deprivation.

Figures 40 and 42 illustrate poverty rates before and after taxes/transfers for children in two-parent families in 1987 and 2014, respectively, in the 10 provinces. Considerable variation is apparent with poverty falling in, for example, Newfoundland, Saskatchewan and Alberta\textsuperscript{30} but increasing in Quebec and, especially, Ontario. Thus, while child poverty in was lowest in Ontario in 1987, poverty is now lowest in Alberta. There are also some important differences across the provinces in the extent to which taxes and transfers reduce the rate of poverty for children in two-parent families. For example, in 2014, the poverty rate in Quebec is reduced from 18.6 before taxes and transfers to 8.3 percent after.

Poverty rates are dramatically higher for children living with lone mothers in every province, though again with differences across provinces (see Figures 42 and 43). Rates have fallen in all Atlantic provinces so that in 2014, poverty for children living with lone mothers was relatively low in both Nova Scotia and PEI (similar to Alberta). On the other hand, lone-mother poverty rates have increased in Ontario, BC and Manitoba. In terms of transfers lifting children out of poverty, both Quebec and Nova Scotia appear relatively effective in 2014.

\textsuperscript{30} Although oil prices fell in 2014, the full impact on incomes may not be discernible in the data until later cycles of the Canadian Income Survey.
International Comparisons: Financial Resources Available for Children in Canada and Eight Rich Countries

In this section of the paper, we compare the economic well-being of Canadian children to that of children in eight other similarly affluent countries using harmonized microdata available through the Luxembourg Income Study. Specifically, we compare Canadian children in 2010 to children in Australia, Denmark, Germany, Ireland, the Netherlands, Norway, the United Kingdom and the United States.31

What makes these nine countries very interesting to compare is that, while all able to afford the same kinds of programmes, they have different policy choices. Australia, Canada, Ireland, the United Kingdom and the United States are together categorized as having 'liberal' welfare states with relatively low levels of government intervention, often a preference for income-tested transfers and a concern with preserving market incentives. Levels of poverty and inequality have typically been higher than elsewhere. In contrast, Denmark and Norway are said to have 'Scandinavian' welfare states, with high levels of taxes/transfers, a preference for universal transfers with entitlement viewed as a social right. Levels of poverty and inequality have traditionally been relatively low. Finally, Germany and the Netherlands are counted as having a 'continental' approach to social policy, with an emphasis on social insurance linked to employment and a more traditional gender division of caregiving responsibilities (see, for example, Esping-Andersen, 1980; Beland, 2010; Myles and Picot, 2005; Gornick and Jantii, 2010; 2012).

Figures 44 and 45 use LIS data from the year 2010 to compare market and disposable equivalent incomes for children in nine countries all expressed in 2011 Canadian dollars, using

31 Although 2013 data are available for some LIS countries, we choose 2010 as the year for our comparisons as this allows us to include a broader set of countries.
purchasing power parity adjustments. However, much more than was the case for provinces, a comparison of money incomes across countries, even PPP adjusted, does not take into account services that may be available for children that are funded from tax revenues. This means that we will under-state the economic well-being of children in countries with high taxes but significant public provision of services for children (e.g., of daycare, healthcare, education).

It is clear from Figure 45 that median market equivalent incomes earned in two-parent families are high in all countries, ranging from a low of about $30,000 in Ireland to a high of roughly $50,000 in Denmark and Norway (with the Netherlands only slightly lower). Canadian two-parent families, together with those in Australia and Germany, have market incomes in about the middle at $40,000 equivalent Canadian 2011 dollars. With only one parent available to participate in the paid labour market, median market equivalent incomes are, of course, much lower in lone-parent families. Market incomes are again highest in Norway and Denmark and lowest in Ireland, Australia and the UK. It is striking, however, that whereas median pre-tax and transfer equivalent incomes for Danish children with lone parents are roughly 1/2 of what is available in two-parent families; in Australia, for example, market incomes for children in lone-parent families are only 1/8 of those available in two-parent families.

After taxes and transfers, median equivalent incomes are much more similar both across countries and between children living with two parents and children living with lone parents. Median after-tax and transfer incomes are lower in all countries except Ireland for children in two-parent families while they are higher for children living with lone parents in all countries except Denmark. Median disposable incomes as well as market incomes are particularly high for children in both family types in Norway. Despite having lower market incomes, two-parent families in the US have slightly higher disposable incomes than Danish two-parent families

32 When using the international data, we combine lone mothers and lone fathers.
(presumably since they pay fewer taxes). On the other hand, Danish lone parents have higher disposable incomes than US lone parents purely on grounds of having higher market incomes since, at the median, they receive fewer transfers than US lone parents. The economic circumstances of children in lone-parent families are dramatically improved after taxes and transfers in Australia, Ireland and the UK, where market incomes are very low; indeed, the extent of transfer support available to children in lone-parent families might not be predicted by the 'three welfare states' typology.

Figure 47 plots disposable equivalent incomes against Gini coefficients calculated for all children in each country, and it is evident that incomes are both higher and distributed more equally among children in Norway (and Denmark) than in Canada; incomes are lower, but inequality among children is similar to Canada in Ireland and the UK; incomes are high, but are much less equally distributed among children in the United States. These patterns correspond to the cluster typology described above, though the Canada/U.S. distinction is perhaps greater than might be suggested by the countries both having been placed in the 'liberal' cluster.

**Where Do Children Fit In Across Countries?**

As we did for Canadian children over time, we compare countries in terms of where children fit within the country's population equivalent disposable income distribution. We again make use of diagrams showing the extent of disposable equivalent income inequality in each country through the horizontal 'spread' relative to the median (see Figures 47 through 50). To compare quite different countries, for example, Denmark, Norway and the U.S., it is evident that the population income distribution (lighter gray) is more 'peaked' in the middle in both Denmark and Norway (i.e., a lot of people have incomes around the median; inequality is relatively low).
Children are particularly likely to have equivalent disposable incomes close to the country median. In contrast, in the U.S., the spread of incomes relative to the median is much greater (i.e., inequality is relatively high) and children are over-represented at or below median income level. Though Canadian distribution is somewhere between these more extreme countries, it looks more similar to the U.S. distribution than to the Scandinavian countries.\textsuperscript{33}

\textit{Child Poverty}\textsuperscript{34}

Figures 51 and 52 help to tell a story about differences across countries in the extent to which markets have generated child poverty and governments have alleviated it for children in two-parent and lone-parent families, respectively. For each country, we have drawn an arrow, moving from the top right-hand side of the diagram toward the bottom left. The starting point of the arrow depicts both the market rate and average depth of poverty for that year; the end point (with the arrow head) depicts disposable income child poverty.

We distinguish countries according to their welfare-state 'type.' The Scandinavian countries (Denmark and Norway) are marked with light gray solid lines. For these countries, the rate of child poverty generated by markets is low, though the average depth of poverty for those children who are poor is not particularly so. Both incidence and depth of poverty are sharply reduced through tax and transfer policy. The continental European countries (Germany and the Netherlands) are light gray dashed arrows that are reasonably similar to the Scandinavian countries. This is particularly the case for the Netherlands. Both Ireland and the UK (dark gray dashed lines) have extremely high rates of market-based child poverty in addition to extremely high average depth of poverty. The striking thing to notice here, however, is that tax and transfer

\textsuperscript{33} We repeat the Canadian 2010 for ease of comparison with the other countries.

\textsuperscript{34} We count a child as 'poor' if he or she lives in a family with less than 50 percent of the median equivalent income for all other people living in the same country in the same year.
policies in these countries substantially reduce both the incidence and the depth of child poverty, though not to the levels of poverty observed in the Scandinavian countries (+ the Netherlands). The U.S. has a pattern different from any of the other countries studied (depicted with a black arrow). Poverty generated by markets is high (though not nearly so high as in Ireland and the UK). But, while there is clearly a reduction in child poverty that occurs due to government tax and transfer policy, many more children are left in poverty and the depth of poverty for these children is much greater than in the other countries studied. Finally, Canada and Australia occupy a more 'middle ground.' That is, we start with more market poverty than Denmark, Germany, the Netherlands and Norway but less market poverty than the other 'liberal' countries. However, Canadian taxes and transfers do not reduce child poverty as much as the UK and Ireland, for example.

Similar patterns are apparent for children in lone-parent families, except that both starting and ending points are higher than was the case for children in two-parent families. This is true for all nine countries. The Scandinavian countries and the US continue to occupy the extreme positions discussed above. Interestingly, neither Germany nor the Netherlands does nearly so well at reducing poverty for lone-mother families, while the UK does a much better job (after-taxes and transfers the rate of poverty for lone parents in the UK is similar to that in Norway).

Comparing Economic Well-Being for Children in Ten Provinces with that of Children in Eight Other Rich Countries

Given the extent of variation across provinces in both relevant policies and in economic well-being for children documented in earlier sections of the paper, we also compare provinces

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with other affluent countries. Perhaps it is not appropriate to consider all Canadian provinces as having the same kind of welfare state?

Figure 54 points out that median equivalent disposable income for children in Alberta (in 2010) was nearly as high as that of children in Norway and higher than that in either Denmark or the US. However, the distribution of income among children in Alberta is much less equal than is the case in Norway or Denmark though it is much more equal than among children in the US. Children in Quebec and the Maritimes are closer to the continental European countries than other provinces.

Finally, Figures 54 and 55 compare poverty rates in Canadian provinces with those of the LIS countries. For children living with two parents, all Canadian provinces (together with Australia and the US) have higher rates of poverty than any of the European countries; children in Manitoba and BC stand out as having the highest poverty rates of all. For children living with lone mothers, there is more variation both across provinces and across countries. Newfoundland, PEI and Manitoba have poverty rates in the same range as the US. Nova Scotia, Quebec, Ontario and Alberta have lone parent poverty rates lower than Germany and similar in magnitude to those in Ireland and the Netherlands.

**Summary and Conclusions**

In what follows, we summarize some major patterns. First, we observe stagnating incomes for children from the late 1980's until the mid 2000s while inequality among children increased. From 2005 until 2014 (our most recent data), real income growth resumed, but inequality remained stuck at the new, higher level. Although there has been growth in incomes for children living with lone mothers, their incomes remain substantially lower than for children
living with lone fathers or two parents. Although equivalent incomes were lower for Atlantic Canadian children in 1987, there has been convergence to Ontario levels by 2014.

Since 1998 when the National Child Benefit Programme was introduced, net taxes paid at the median by two-parent families have fallen while net transfers received at the median by lone-mother families have increased. In fact, more transfers are available in 2010 than in 1987 to children in families in all deciles except the bottom two.

The after-tax and transfer rate of poverty for Canadian children living with two parents has remained the same for decades; there has been a 10 percentage point reduction in the rate of poverty for children in lone-mother families, to 40 percent (4 times the two-parent rate and over twice the lone-father rate). Across provinces, there have been variations in poverty patterns across time with poverty generally falling in the Atlantic provinces and rising in Ontario, for example.

If we compare the economic well-being of Canadian children with that of other children in equally affluent countries, it is clear that inequality of income among children is greater in Canada than in Denmark, Norway, the Netherlands or Germany. Although the rate of poverty for Canadian lone mothers has fallen, it remains much higher than is the case in Denmark, Norway or the UK, for example. In both Norway and Denmark, poverty rates are low both before and after taxes and transfers, suggesting the importance of factors such as the level and distribution of wages, including gender wage differentials and/or supports for working parents such as childcare and family leave35 in addition to differences in cash transfers.

In conclusion, our goal has simply been to provide a broad range of data about child economic well-being and potentially related policies over time, across provinces and across countries. We make no attempt to estimate to estimate causal links between changes/differences

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35 See for example, Gornick and Meyer, 2003 or Phipps, 2010.
in specific programmes and particular child outcomes. Rather, our idea has been that sometimes looking at the 'big picture' can help as we try to decide what is most important and where we should direct more focused research efforts.
Figure 1. Proportion of Children Living with Lone Parents

Figure 2. Proportion of Children in Lone Mother Families by Province 1987 and 2010
Figure 6. Parents with Diploma/Certificate. Proportion
Figure 7. Mothers' Employment in Two-Parent Families by Province over Time. Proportion.

Figure 8. Mother's Employment in Lone-Mother Families by Province and Over Time. Proportion.
Figure 9 Maximum Federal Child Benefits. Two-Parent Family. 1 child 10 and 1 child 15. 2011 dollars.


Figure 10. Real Maximum Federal Child Benefits. Lone Parent with 1 Child Aged 2. 2011 dollars.

Figure 11. Maximum Cash Provincial Benefits for Low-Income Two-Parent Family with 2 Children in Atlantic Canada.


Figure 12. Maximum Cash Provincial Benefits for Low-Income Two-Parent Family with 2 Children in Central Canada.


Figure 13. Maximum Cash Provincial Benefits for Low-Income Two-Parent Family with 2 Children in Western Canada.

Figure 14. Maximum Cash Provincial Benefits for Low-Income Lone Parent with One Child in Atlantic Canada.


Figure 15. Maximum Cash Provincial Benefits for Low-Income Lone Parent with One Child in Central Canada.


Figure 16. Maximum Provincial Cash Benefits for Low-Income Lone Parent with One Child in Western Canada.

Source: Macdonald and Friendly, 2016, Table 12.

Proportion of children for whom there is a regulated space is multiplied by expenditure per regulated space. Nominal values are adjusted to real using CPI.
Figure 20. Real Hourly Minimum Wages. Atlantic Provinces.


Figure 21. Real Hourly Minimum Wages. Central Provinces.


Figure 22. Real Hourly Minimum Wages. Western Provinces.

Figure 23. Median Equivalent Incomes After Taxes and Transfer ($2011)

Figure 24. Median Equivalent Income Before and After Tax and Transfer ($2011). Canadian Children.
Figure 25. Equivalent Transfers as Proportion of Median Equivalent Income

Decile
Figure 26. Median Equivalent After Tax and Transfer Income for Children in Two-Parent Families in Atlantic Canada ($2011)

Figure 27. Median Equivalent After Tax and Transfer Income for Children in Two-Parent Families in Central Canada ($2011)

Figure 28. Median Equivalent After Tax and Transfer Income for Children in Two-Parent Families in Western Canada ($2011)
Figure 29. Median Equivalent After Tax and Transfer Income for Children in Lone-Mother Families in Atlantic Canada ($2011)

Figure 30. Median Equivalent After Tax and Transfer Income for Children in Lone-Mother Families in Central Canada ($2011)

Figure 31. Median Equivalent After Tax and Transfer Income for Children in Lone-Mother Families in Western Canada ($2011)
Figure 32: Canadian Children Equivalent Income Before and After Tax and Transfer ($2011)
Figure 33: Equivalent Income Densities After Tax and Transfer: 1987

Figure 34: Equivalent Income Densities After Tax and Transfer: 1998

Figure 35: Equivalent Income Densities After Tax and Transfer: 2010

Figure 36: Equivalent Income Densities After Tax and Transfer: 2014
Figure 37. Poverty Rate Before Tax and Transfer by Family Type.

Figure 38. Poverty Rate After Tax and Transfer by Family Type.
Figure 39. Poverty Depth Before Tax and Transfer by Household Type

Figure 40. Poverty Depth After Tax and Transfer. Canada over Time by Family Type
Figure 41. Poverty Rates Before and After Tax and Transfer for Children living with Two Parents by Province. 1987

Figure 42. Poverty Rates Before and After Tax and Transfer for Children living with Two Parents by Province. 2014
Figure 43. Poverty Rates Before and After Tax and Transfer. Children living with Lone Mothers by Province. 1987

Figure 44. Poverty Rates Before and After Tax and Transfer for Children living with Lone Mothers by Province. 2014
Figure 45. Median Equivalent Incomes Before Taxes and Transfers for Canada Plus Eight Rich Countries in 2010 ($2011 CDN PPP)

Figure 46. Median Equivalent Incomes After Taxes and Transfers for Canada + Eight Rich Countries in 2010 ($2011 CDN PPP)
Figure 47. Medians and GINIs of Child Equivalent Incomes After Tax and Transfer (2011 PPP). Canada and Eight Rich Countries. 2010.
Figure 48. Canada - Equivalent Income Density After Tax and Transfer - 2010

Figure 49. Denmark - Equivalent Income Density After Tax and Transfer - 2010

Figure 50. Norway - Equivalent Income Density After Tax and Transfer - 2010

Figure 51. USA - Equivalent Income Density After Tax and Transfer - 2010
Figure 52. Market and Disposable Income Poverty. Children in Two-Parent Families in Canada and Eight Rich Countries. 2010.

Figure 53. Market and Disposable Income Poverty: Children of Lone Parents in Canada and Eight Rich Countries. 2010
Figure 54. Medians and GINI of Child Equivalent Incomes After Tax and Transfer. Canada and Provinces + Eight Rich Countries. 2010.
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