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How Much Does the Federal Government Spend on Child Care and Who Benefits?

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This report examines federal spending on child care, and estimates the fiscal impact of recent announcements to enhance the Universal Child Care Benefit and the Child Care Expense Deduction. This report also provides a distributional analysis and includes the impact the proposed repeal of the Child Tax Credit will have on the value of families' federal child care benefits.

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Executive Summary

In 2013-2014, Canadian families spent \$5.7 billion in child care expenses.¹ This represents 5 per cent of the average Canadian family's total household expenses.²

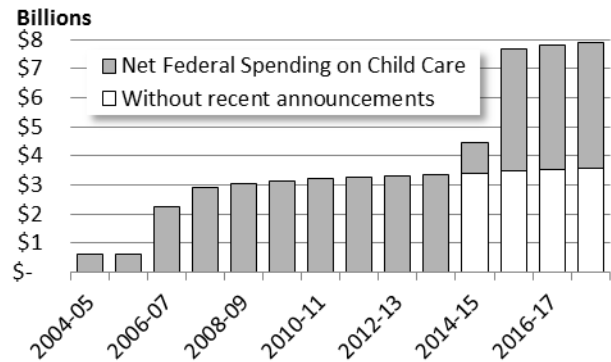
The federal government has two initiatives explicitly and directly linked to defraying the costs of child care expenses, the Universal Child Care Benefit (UCCB) and the Child Care Expense Deduction (CCED). The value of child care benefits grew from \$0.6 billion in 2004-2005 to approximately \$3.3 billion in 2013-2014.³ This amounted to three-fifths (59%) of what Canadian families were spending on child care in 2013-2014.

Families with young children (less than 13 years of age) spending money on child care received two-thirds (66%) of these benefits.⁴ The remaining 34 per cent was distributed to families with no child care expenses and families with older children. As a share of households' aggregate child care expenses, federal benefits represented roughly 42 per cent and 247 per cent respectively.

The federal government announced enhancements to the UCCB and CCED in October 2014.⁵ If Parliament approves these proposed enhancements, PBO estimates the fiscal impact of federal child care policies will increase to roughly \$7.7 billion from the

2013-2014 value of \$3.3 billion. By 2017-2018, it will grow to roughly \$7.9 billion.⁶

Summary Figure 1 Total federal spending on child care



Source: PBO calculations using SPSPD/M v. 21.0

These proposals would also change the allocation of benefits. In 2015, 49 per cent of these benefits would go to families with child care expenses and young children, and the remaining 51 per cent to families with no child care expenses and families with older children. Since families with young children spend more on child care, but will receive roughly half (49%) of the federal child care benefits in 2015-2016, their share will only cover 67 per cent of the amount they will spend on child care. Conversely, benefits that families with older children will receive from the government in 2015-2016 will represent nearly eight times the amount they will spend on child care.

¹ PBO calculations; source: Statistics Canada (2010).

² PBO calculations for 2009 using data from Survey of Household Spending; source: Statistics Canada (2010)

³ PBO calculations using SPSPD/M v. 21.0; Public Accounts of Canada; Final T1 statistics

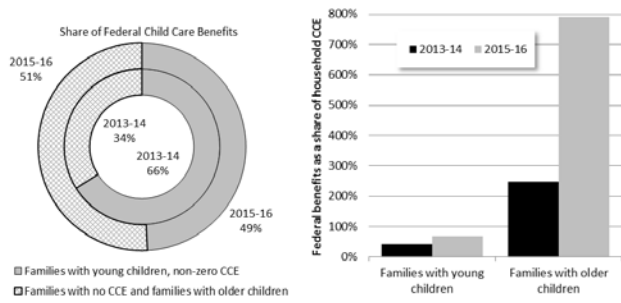
⁴ PBO determined these eligible families are dominant users of child care. Data from Statistics Canada indicate eligible families with older children were lower users of non-parental child care (see Figure 2-1).

Furthermore, child care expenses for children under the age of 13 consistently represented roughly 92% of total household child care expenses; source: PBO calculations of Statistics Canada's Provincial Accounts and SPSPD/M v. 21.0.

⁵ Department of Finance (2014)

⁶ PBO calculations using SPSPD/M v. 21.0

Summary Figure 2 Distribution of federal child care benefits



Source: PBO calculations using SPSP/M v. 21.0
CCE – child care expense

Overall, federal child care benefits are progressive. At the same time, many of the families that benefit from federal child care initiatives do not incur child care expenses – either as a result of provincial child care subsidies, alternative arrangements such as having a relative provide child care, or because a parent is providing care. PBO estimates these families will receive the largest net gain of the recent enhancements to the UCCB.⁷

⁷ When accounting for the loss of the Child Tax Credit. Also note these families do not benefit from the CCED because they have \$0 of child care expenses to claim.

1 Introduction

In October 2014, the federal government announced an enhancement of two federal initiatives that explicitly provide formal support to defray child care expenses: the Universal Child Care Benefit (UCCB) and the Child Care Expense Deduction (CCED).⁸ The government estimates the cumulative fiscal cost of these enhancements to equal \$23.6 billion over the period of 2014-15 to 2019-20, including the partial offset of additional taxes earned from increases to the UCCB.⁹ In addition to the changes of the UCCB and CCED, the federal government also proposed that the Child Tax Credit (CTC) – a fixed-value, non-refundable tax credit for children under 18 years of age – be repealed, which the federal government estimates will save \$9.5 billion cumulatively over the 6 year period.¹⁰

This report:

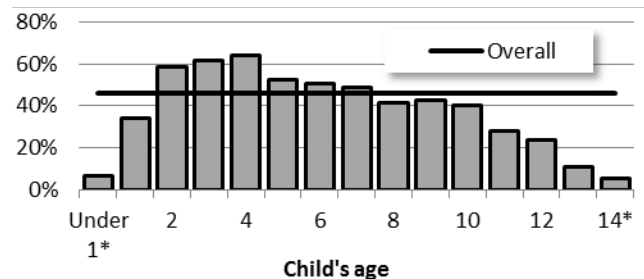
- provides the historical cost of the two major programs that provide explicit support for child care expenses (that is, the UCCB and CCED);
- projects the total fiscal costs including the proposed changes; and,
- provides the after-tax distribution of these federal child care expenditures among Canadian families.¹¹

2 Context

For the purposes of this report, PBO uses a strict definition of child care to refer to the paid care of a child either inside the home or outside the home, exclusive of publicly-funded pre-school and compulsory school. Furthermore, PBO differentiates the term ‘child care’ from parental child care, which is defined as the care of a child that would have ordinarily taken place if the parent was otherwise at their place of employment.

As of 2011, roughly 46 per cent of parents were using some form of non-parental child care. This varies with the age of the child where the proportion of parents using child care is highest among families with children ages 2 to 4 years old (roughly 60%) and declines as the child ages. The lower usage among children under the age of two is partially explained by the availability of employment insurance and parental leave benefits (Figure 2-1 below).¹²

Figure 2-1 Percent of parents using child care, 2011



Source: Statistics Canada¹³

Note: * - use with caution. Statistics Canada determined the coefficient of variation (CV) to be between 16.6% and 33.3%.¹⁴

Child care can be either paid or unpaid. Since parental child care is not paid, it is not included in the estimates of total household spending on child

⁸ Department of Finance (2014)

⁹ Author's calculations and Table 1 in *ibid.*

¹⁰ *Ibid.*

¹¹ This analysis is based on Statistics Canada's Social Policy Simulation Database and Model (SPSD/M). The assumptions and calculations underlying the simulation results were prepared by PBO and the responsibility for the use and interpretation of these data is entirely that of the authors.

¹² Statistics Canada (2014c)

¹³ *Ibid.*

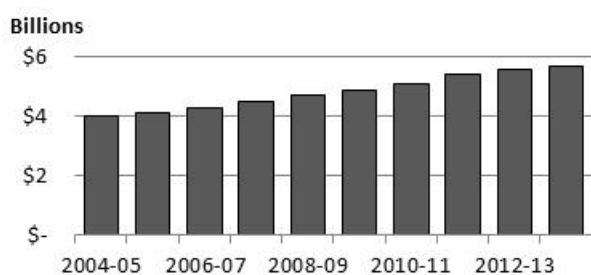
¹⁴ Generally speaking, the CV is a measure of an estimate's reliability, and when the CV is greater than 33.3%, Statistics Canada recommends not reporting the estimate because it is unreliable. See Statistics Canada (2014a) for an example and more information.

care as estimated by Statistics Canada in the Provincial and Territorial Gross Domestic Product by Income and by Expenditure Accounts (hereafter referred to as the Provincial Accounts).¹⁵

Additionally, by excluding the implicit costs of non-parental child care – such as care unpaid child care provided by a relative – these estimates underrepresent the total value of child care.

In 2013-2014, total household spending on child care amounted to approximately \$5.7 billion (see Figure 2-2).¹⁶

Figure 2-2 Total household spending on child care



Source: Provincial Accounts

Among parents using child care full-time for their preschoolers in 2011,¹⁷ 12 per cent (outside of Quebec) had no direct cost of child care and another 5 per cent (outside of Quebec) incurred less than \$200 annually. The median monthly cost per child among parents using full-time child care was lowest in Quebec (\$152) and highest in Ontario (\$677).¹⁸

As presented in Table 2-1 below, the average household child care expense among households with non-zero child care expenses was roughly \$3,800 in 2009. This average value varied across provinces, ranging from a high of \$4,981 in Alberta to a low of \$2,480 in Quebec.

Table 2-1 Average annual child care expenses, by province, 2009

Province	Average (Families with CCE > \$0)
NL	\$3,422
PE	\$3,259
NS	\$3,508
NB	\$3,334
QC	\$2,480
ON	\$4,638
MB	\$2,782
SK	\$2,975
AB	\$4,981
BC	\$4,097
CANADA	\$3,795

Source: Statistics Canada 2009 Survey of Household Spending (SHS).¹⁹
CCE – child care expenses

Some of the variation is explained by a combination of provincial subsidies and the use of less-expensive, informal child care such as child care provided by a relative. Quebec’s low costs in particular are a reflection of heavily subsidized daycare. As the only province with universal subsidized day care, Quebec offers \$7 a day daycare to parents, and subsidizes the remaining costs (see Box 1 below). Poorer parents could be eligible for fully subsidized day care. Other provinces offer varying levels of subsidization based on varying eligibility criteria.

¹⁵ Statistics Canada (2014e)

¹⁶ Ibid.

¹⁷ Preschoolers refer to children ages 0 to 4.

¹⁸ Data not available for all provinces; source: Statistics Canada (2014c)

¹⁹ Statistics Canada (No date-b)

Box 1: Child care in Quebec

In 1997 the province of Quebec implemented its Family Policy. This policy extended full-time kindergarten to all 5 year olds and subsidized child care fees such that out-of-pocket cost to parents were only \$5 per day for their 4 year old children. By 2000 this subsidization was extended to all children under the age of 5, and in 2004 the parental fee was increased to \$7 per day.^{20, 21}

In 2013-2014, the subsidy cost the province \$2.3 billion, representing 86.5 per cent of total spending on subsidized childcare services.^{22, 23, 24} The 2014 provincial budget committed to an indexation of the parental contribution; as of October 1, 2014 it increased from \$7 per day to \$7.30 per day, and will be means tested beginning in 2016.^{25, 26}

2.1 Two Major Federal Child Care Benefits

There are three federal child care initiatives – in the form of tax deductions and direct transfers to individuals – that are explicitly linked to offset child care expenses. These include the:

1. Universal Child Care Benefit (UCCB), which provides a \$100 benefit for each child less than 6 years of age per month to parents;
2. Child Care Expense Deduction (CCED) which is a tax deduction to working or student parents for eligible child care expenses; and,
3. Goods and Services Tax (GST) exemption on families' eligible child care expenses.

The first two initiatives represented roughly \$3.3 billion in the form of direct federal transfers and

foregone tax revenues in 2013-2014.²⁷ The third initiative is of lesser value: Finance Canada estimates the total GST exemption was \$185 million in 2013.²⁸ The value of the GST exemption for child care services was not split from that of the personal services suggesting the value of the former is even smaller. As such, PBO did not include this initiative in its overall fiscal analysis as its impact is not material.

2.1.1 The Universal Child Care Benefit

The UCCB was introduced in 2006 to support eligible families in their child care choices by providing parents with \$100 of monthly taxable income per child under the age of six.²⁹ These benefits are taxable in the hands of the lower-income spouse.³⁰

With an uptake rate of roughly 89 per cent in 2006 rising to effectively 100 per cent in 2007, the UCCB program cost to the federal government was \$1.8 billion in 2006-2007 (see Figure 2-3 below).^{31, 32} PBO estimates the federal government recovered \$0.3 billion in income tax revenues, resulting in a net federal cost of roughly \$1.5 billion.³³ As the UCCB is not indexed, it fell as a share of household spending on child care from 47 per cent in 2007-2008 to 41 per cent in 2013-2014.

²⁰ Baker, Gruber and Milligan (2008)

²¹ This policy also included funding for new child-care facilities, to keep up with anticipated demand increases. Source: Lefebvre (2004)

²² Includes operating subsidies, infrastructure funding for child care centres (CPEs) and the pension plan of CPE and subsidized-daycare staff.

²³ The remaining 13.5% reflects the parental share at \$7 per day.

²⁴ Source: Finances Québec (2014)

²⁵ Ibid.

²⁶ Québec Premier (2014)

²⁷ PBO calculations using SPSD/M v. 21.0, the Public Accounts of Canada, and data from T1 Final Statistics.

²⁸ Department of Finance (2013)

²⁹ Department of Finance (2006)

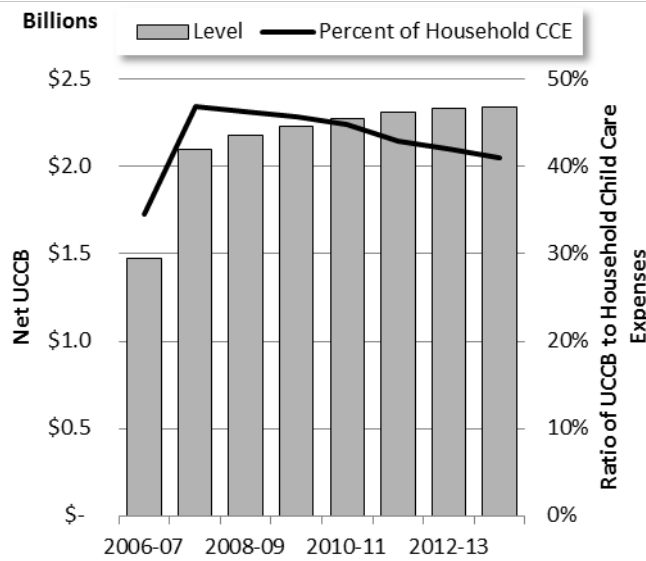
³⁰ Ibid.

³¹ Human Resources and Skills Development Canada (2011)

³² Public Works and Government Services Canada (Various Years)

³³ PBO calculations using SPSD/M v. 21.0

Figure 2-3 Net UCCB, current dollars (millions)



Sources: PBO calculations of data from Public Accounts of Canada and Statistics Canada's Provincial Accounts.

Data for 2013-2014 indicate the UCCB program spending amounted to \$2.7 billion.³⁴ The estimated tax revenues were \$0.4 billion, bringing the net federal cost to \$2.3 billion.³⁵

2.1.2 The Child Care Expense Deduction

The CCED is an income tax deduction for eligible child care expenses (see Box 2 below for an explanation of a tax deduction). It was first introduced in the 1971 budget to mitigate the financial deterrents of employment among mothers that are associated with the costs of child care.³⁶ Eligibility requires that eligible child care expenses are incurred by parents who are employed or who are enrolled in an educational program or are conducting research.

The CCED is available to these eligible parents with children under the age of 16, and is claimed by the

lower-income spouse.³⁷ There are separate maximum deduction amounts for children under the age of 7, and children ages 7 to 15, and the total CCED allowable has an overall cap of 2/3 of the lower-earning spouse's income.

Box 2: Tax Credit vs. Tax Deduction

Both a tax credit and tax deduction can minimize the amount of taxes individuals owe. The difference is in what order the reduction is made when filling out a tax return: the resulting 'savings' of a tax deduction is dependent on an individual's marginal tax rate, whereas the resulting 'savings' of a tax credit is equivalent for all taxpayers.

Marginal tax rate is the amount of tax paid on an additional dollar of income.³⁸

A **Tax Deduction** (for example, the CCED) is subtracted from an individual's total income, producing their net income. Further eligible deductions made on the net income produce an individual's taxable income. Federal tax rates are then applied to the taxable income to calculate the federal taxes owed (federal taxes owed can be reduced by tax credits).

A **Tax Credit** reduces an individual's taxes. It can be either refundable or non-refundable. Non-refundable tax credits (for example, the Child Tax Credit) are first summed and multiplied by the lowest personal income tax rate (15% in 2014), and then subtracted from federal taxes. A refundable tax credit (for example, the GST/HST rebate) is paid to individuals regardless of the taxes they may owe.

³⁴ Public Works and Government Services Canada (2014)

³⁵ PBO calculations using SPSPD/M v. 21

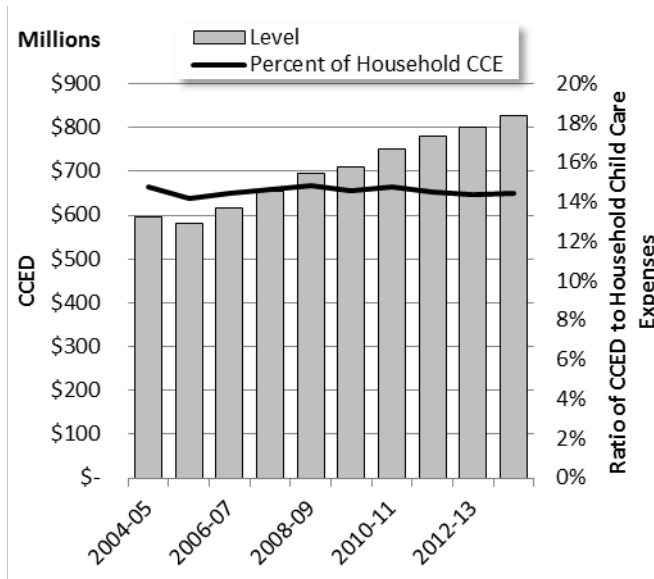
³⁶ Department of Finance (1971); Department of Finance (2010)

³⁷ The exception to this is when the lower income parent was attending school, the other parent was not mentally or physically capable of caring for children (physician statement required) or confined to a prison, or a breakdown in the relationship caused the parents to live apart for a period of time before reconciling.

³⁸ The marginal tax rate for the 2014 tax year is 15% on the first \$44,701 of taxable income and 22% on taxable income on the next \$44,700 up to \$89,401; 26% on the next \$40,185 and 29% on taxable income over \$138,586. Source: Canada Revenue Agency (2015)

The nominal value of the CCED has been growing such that it has been keeping pace with total household spending on child care. By 2013-2014, the estimated value of the CCED was approximately \$0.8 billion (left axis in Figure 2-4), and represented 14.5 per cent of total household child care expenses (right axis in Figure 2-4).

Figure 2-4 CCED Tax Expenditures, current dollars (millions)



Sources: PBO calculations of data from CRA T1 and Statistics Canada's Provincial Accounts.

2.2 Overall Federal Government Child Care Spending

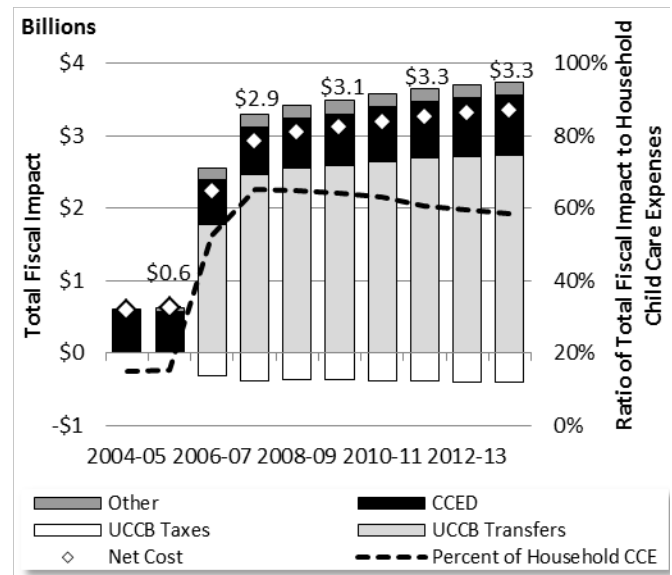
A few years prior to the introduction of the UCCB, federal spending on child care was limited to the CCED, and amounted to \$0.6 billion dollars in 2004-2005.

With the introduction of the UCCB, total federal spending on child care nearly quadrupled, amounting to \$2.3 billion in the 2006-2007 fiscal year. By 2013-2014, federal child care spending was equal to \$3.3 billion. These totals include the additional impacts the UCCB and CCED have on other federal transfers

and tax revenues (labeled as 'Other' in Figure 2-5 below).³⁹

Compared to total household child care expenses, the introduction of the UCCB greatly increased the federal share (58% in 2006-2007). Without the indexation of the UCCB however, this share declined slightly over time.

Figure 2-5 Total net fiscal impact by component, (billions) 2004 – 2014 fiscal years



Sources: PBO calculations of data from CRA T1 and Statistics Canada's Provincial Accounts.

Note: UCCB Taxes are limited to federal tax revenues; 'Other' includes impacts of CCED and UCCB on other federal transfers/tax revenues.

2.3 Distribution to Families

To understand who benefits from these federal child care initiatives, PBO estimated the allocation of these financial benefits across families.

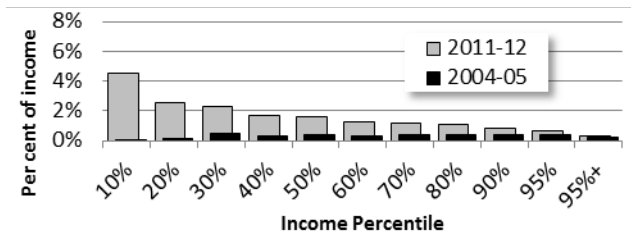
Specifically, these results present changes to families' disposable (after-tax) income resulting from the implementation and changes to federal child care

³⁹ See Appendix section A.4 for a description.

policies.⁴⁰ The after-tax income used in this report includes all taxes and benefits (that is, federal and provincial).

PBO determined families with young children to be the dominant users of child care.⁴¹ As a share of average income, federal child care benefits are progressive among these families (Figure 2-6).

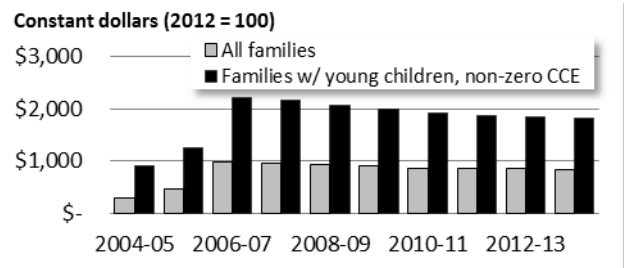
Figure 2-6 After-tax child care benefits as a percent of income among families with young children, by income group



Source: PBO calculations using SPSP/M v.21.0
 Note: Limited to families with children under the age of 13

Families with young children and child care expenses received larger average benefits. This is a result of the UCCB being tied to young children, and the CCED being tied to child care expenses.

Figure 2-7 After-tax child care benefits, by family type

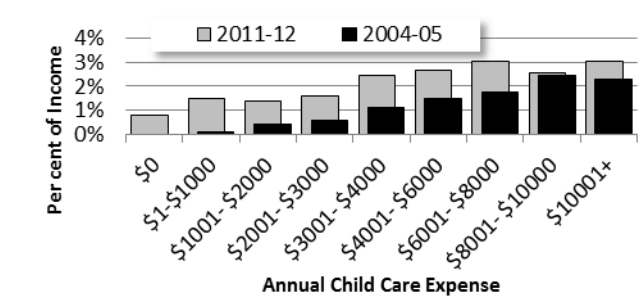


⁴⁰ The benefits may vary depending on province of residence and are meant to present what an average Canadian family would experience.
⁴¹ Children under the age of 13 receiving paid child care represent roughly 92% of total child care expenses. Source: PBO calculations of Statistics Canada's Provincial Accounts and SPSP/M v. 21.0. Furthermore, the percent of parents using child care decreases with the child's age (see Figure 2-1).

Source: PBO calculations using SPSP/M v.21.0
 All families – families with children under the age of 18; Young children – children less than 13 years of age.
 Note: Values were deflated using the child care services consumer price index (CPI).⁴²

Since the CCED is tied to child care expenses, there is some correlation between the average annual child care expense and the value of the federal child care benefits. On the other hand, because the UCCB is not directly linked to child care expenses, families incurring little or no child care expenses still benefit (see Figure 2-8 below).

Figure 2-8 After-tax child care benefits as a percent of income, by annual child care expenses



Source: PBO calculations using SPSP/M v.21.0
 Note: Limited to families with children under the age of 13.

3 Child Care Enhancements

3.1 Increase in Federal Spending

The federal government announced changes to the UCCB and CCED that will come into effect – if passed into legislation – January 2015. PBO estimated the federal fiscal impact over the next four years.

The federal fiscal impact is an estimate of the net revenue increase (decrease) to the federal treasury associated with implementing, removing or changing government policies.

A tax simulation database and model – SPSP/M – was used to estimate the results.⁴³ This tool uses

⁴² Statistics Canada (2014d)

micro-data to simulate individuals' and families' tax returns, calculating the taxes paid to, and transfers received from, the provincial and federal governments. It is a static model, meaning it assumes individuals and families will not actively make changes as a result of any change to these policies. A detailed methodology is provided in Appendix B.

To estimate the federal fiscal impact of federal child care policies, PBO took an additive approach. This allows for a breakdown of each federal child care initiative, which were summed to estimate the total fiscal impact. Table 3-1 below provides an overview of the main assumptions for the simulation process.

Table 3-1 Impact of federal enhancements to annual child care benefits per child

	Pre-Oct 30 announcement	Post-Oct 30 announcement
UCCB (0-5)	\$1,200	\$1,920
UCCB (6-17)	\$0	\$720
CCED (0-6)	\$7,000	\$8,000
CCED (7-16)	\$4,000	\$5,000
CTC†	\$ 2,255*	\$0**

Source: PBO

Note the CTC is indexed and therefore has a different value each year;

†Included in distributional analysis only

*2014 value per eligible child; ** 2015-2018 value

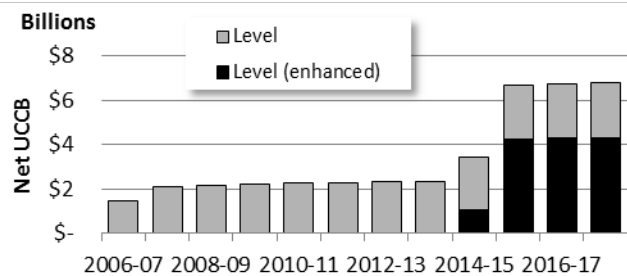
The simulated estimates are in calendar years and were converted to fiscal years before they were summed.⁴⁴

3.1.1 UCCB

The government intends to enhance the UCCB by increasing payments to \$160 a month for children ages 0 to 5, as well as expand it to provide \$60 a month per child aged 6 to 17.

Assuming all eligible families will receive the UCCB, and benefits will be retroactive as of January 2015, the total net UCCB federal expenses is estimated to be \$3.5 billion in 2014-2015 (see Figure 3-1 below). This rises to \$6.7 billion in 2015-2016, that is, once the enhanced UCCB has been implemented for a full fiscal year.

Figure 3-1 Net UCCB fiscal impact



Sources: Statistics Canada's Provincial Accounts; PBO calculations; Public Accounts of Canada

Note: Net UCCB includes total UCCB transfers less UCCB tax revenues.

3.1.2 CCED

Beginning in 2015, the federal government announced the age caps of the CCED will increase by \$1,000.⁴⁵ If the caps to the CCED claims are enhanced, the CCED will increase marginally from their projected values without the enhancements (black bars in Figure 3-2).

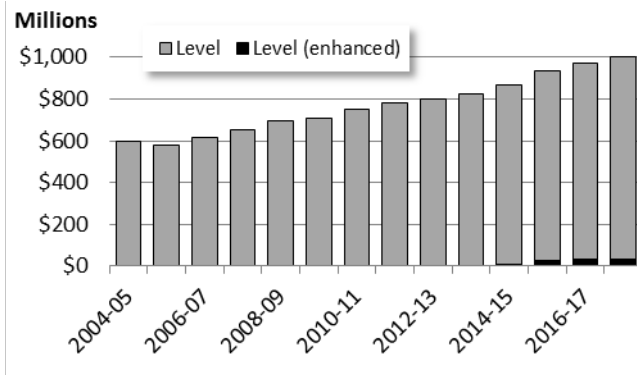
⁴³ Statistics Canada (2014b)

⁴⁴ PBO verified the simulated UCCB estimates using population projections and average effective tax rates and also by comparing them to historical information recorded in the Public Accounts of Canada. Similarly, PBO compared historical information from the Public Accounts of Canada on the CTC, and data from Canada Revenue Agency's (CRA) income tax return (T1) statistics on the CCED Tax Expenditures to those derived from the simulation (see Appendix A).

⁴⁵ The caps are currently \$7,000 for a child aged 0-6, \$4,000 for a child aged 7-16 and infirm dependent children over the age of 16, and \$10,000 for a child for whom the disability amount can be claimed; Department of Finance (2014)

Assuming the CCED claims will continue to grow at their historical growth rate, the total CCED will grow from \$0.6 billion in 2004-2005 to \$0.9 billion in 2014-2015. By 2017-2018, the CCED will have increased to \$1.0 billion.

Figure 3-2 CCED fiscal impact



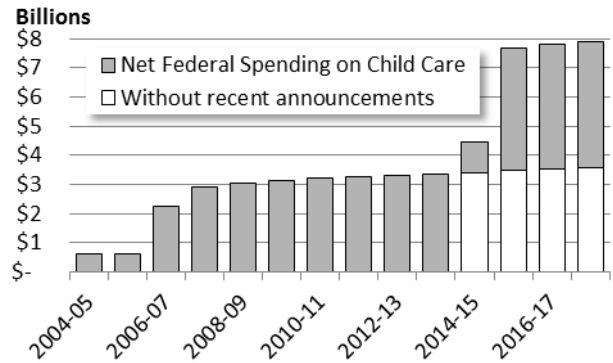
Sources: Statistics Canada’s Provincial Accounts; PBO calculations; Canada Revenue Agency’s T1 Final Statistics

Since claimed child care expenses per child eligible for the tax deduction have historically fallen well below the maximum amounts claimable, the fiscal impact of the enhancements to the CCED are relatively small.⁴⁶

3.1.3 Projected Total Fiscal Impact

Overall, PBO estimates the total fiscal impact will be \$7.7 billion in 2015-2016 – when the proposed enhancements will have been in place for a full fiscal year (see Figure 3-3). By 2017-2018, the fiscal impact is projected to grow to \$8.0 billion.

Figure 3-3 Total fiscal impact



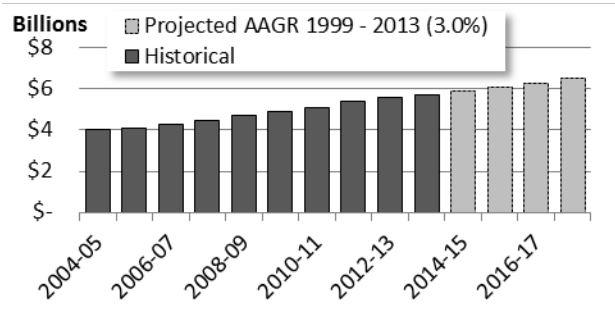
Source: PBO calculations using SPSPD/M v. 1

Note: ‘Other’ includes the effects the UCCB and CCED have on other federal transfers and tax revenues

3.2 Household Child Care Expenses

Figure 3-4 below shows the historical household child care spending as well as the projected spending. In 2004-2005, total household spending on child care amounted to \$4.0 billion. By 2013-2014 it had grown to \$5.7 billion and the PBO projects it to exceed \$6.5 billion in 2017-2018.

Figure 3-4 Total household spending on child care

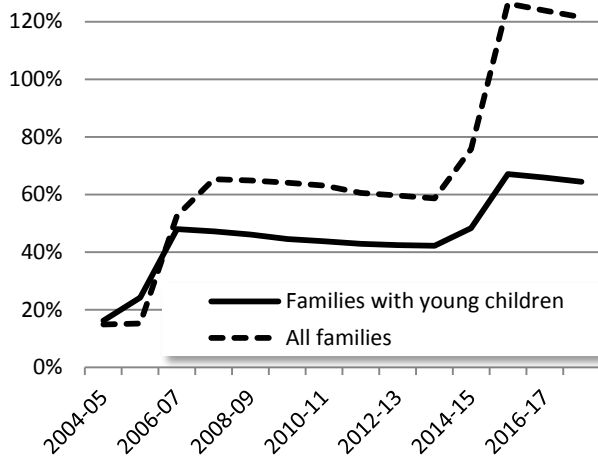


Source: Statistics Canada’s Provincial Accounts; PBO Calculations.

⁴⁶ PBO calculations of CRA T1 Statistics

The substantial increase in federal spending on child care (presented in Figure 3-3) will outstrip the projected growth in total household spending on child care over the same period. By 2015-2016 – when the enhanced UCCB and CCED will have been in place for a full fiscal year – federal child care spending will exceed total household child care expenses by 26 per cent (see Figure 3-5). As stated previously however, without an indexation of the UCCB, this share again will fall over time.

Figure 3-5 Ratio of Federal Spending on Child Care to Total Household Child Care Expenses



Sources: Statistics Canada’s Provincial Accounts; PBO Calculations.

Families with young children and child care expenses represent the majority of total household child care expenses. Their share of federal child care benefits is enough to cover roughly 67% of the aggregate child care expenses in 2015-2016.

3.2.1 Behavioural Change

PBO considered the potential impact federal child care policies can have on individual choices. These ‘behavioural effects’ can in turn have an impact on the total net federal spending on child care and consumption of child care. After examining the literature, PBO determined the impact was negligible and did not include it in PBO estimates. Appendix A discusses the literature in more detail.

PBO did find evidence, however, that the form in which the subsidy takes (for example, at point of purchase versus a tax benefit) is influential on the size of these behavioural impacts (Appendix A).

3.3 Future Distribution to Families

On average, all eligible families will realize an increase in their after-tax income if the enhancements to the UCCB and CCED are legislated. While the benefit is mitigated by the termination of the child tax credit, this still holds true (see Appendix C). Historically, families saw nominal increases to their disposable income with the introduction of the UCCB in 2006, and will again with the enhancements to the UCCB in 2015.

Families with child care expenses and young children (under the age of 13) will continue to receive a larger nominal benefit, and a larger benefit as a share of their after-tax income.

Table 3-2 and Table 3-3 provide an overview of the changes.

How Much Does the Federal Government Spend on Child Care and Who Benefits?

Table 3-2 All Census families with children under the age of 18

Year	Average change in after-tax income	Average change in after-tax income as a per cent of average child care expense	Average federal expense on child care	Average federal expense on child care as a per cent of average child care expense	Average change in after-tax income	Average change in after-tax income as a per cent of average child care expense	Total federal spending on child care (billions)	Federal savings if CTC is repealed (billions)
CTC is not repealed				CTC is repealed				
2004	\$ 291	21%	\$ 236	17%	-	-	\$0.7	-
2005	\$ 292	21%	\$ 233	16%	-	-	\$0.7	-
2006	\$ 979	69%	\$ 970	68%	-	-	\$2.9	-
2007	\$ 956	67%	\$ 950	67%	-	-	\$3.0	-
2008	\$ 924	65%	\$ 924	65%	-	-	\$3.0	-
2009	\$ 902	63%	\$ 902	64%	-	-	\$3.1	-
2010	\$ 871	62%	\$ 867	62%	-	-	\$3.1	-
2011	\$ 856	61%	\$ 852	61%	-	-	\$3.2	-
2012	\$ 846	60%	\$ 842	59%	-	-	\$3.3	-
2013	\$ 839	59%	\$ 835	59%	-	-	\$3.3	-
2014	\$ 834	58%	\$ 829	58%	-	-	\$3.4	-
2015	\$1,737	122%	\$ 1,801	126%	\$ 1,293	91%	\$7.6	\$2.0
2016	\$1,706	119%	\$ 1,769	124%	\$ 1,289	88%	\$7.7	\$2.1
2017	\$1,674	117%	\$ 1,736	121%	\$ 1,284	86%	\$7.8	\$2.2
2018	\$1,642	115%	\$ 1,702	119%	\$ 1,279	83%	\$7.9	\$2.2

Constant 2012 dollars

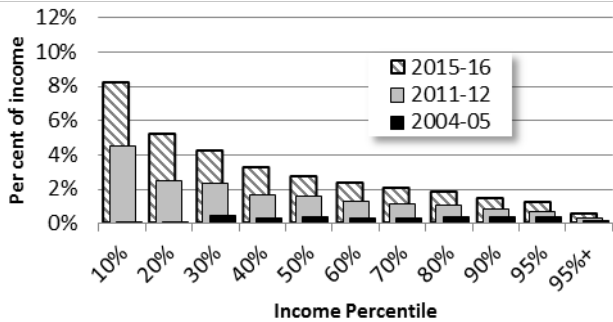
Table 3-3 Census families with children under the age of 13 and non-zero child care expenses

Year	Average change in after-tax income	Average change in after-tax income as a per cent of average child care expense	Average federal expense on child care	Average federal expense on child care as a per cent of average child care expense	Average change in after-tax income	Average change in after-tax income as a per cent of average child care expense	Total federal spending on child care (billions)	Federal savings if CTC is repealed (billions)
CTC is not repealed				CTC is repealed				
2004	\$906	20%	\$731	16%	-	-	\$ 0.6	-
2005	\$909	20%	\$719	16%	-	-	\$ 0.6	-
2006	\$2,235	50%	\$2,173	48%	-	-	\$ 1.9	-
2007	\$2,175	49%	\$2,121	47%	-	-	\$ 1.9	-
2008	\$2,085	47%	\$2,049	47%	-	-	\$ 2.0	-
2009	\$2,004	45%	\$1,973	45%	-	-	\$ 2.0	-
2010	\$1,931	45%	\$1,891	44%	-	-	\$ 2.0	-
2011	\$1,886	44%	\$1,845	43%	-	-	\$ 2.1	-
2012	\$1,845	43%	\$1,806	42%	-	-	\$ 2.1	-
2013	\$1,822	43%	\$1,781	42%	-	-	\$ 2.2	-
2014	\$1,803	43%	\$1,760	42%	-	-	\$ 2.3	-
2015	\$2,778	66%	\$2,816	67%	\$2,262	54%	\$ 3.7	\$ 0.9
2016	\$2,727	66%	\$2,766	66%	\$2,261	53%	\$ 3.8	\$ 0.9
2017	\$2,677	65%	\$2,675	65%	\$2,261	52%	\$ 3.8	\$ 0.9
2018	\$2,630	64%	\$2,665	64%	\$2,264	51%	\$ 4.0	\$ 1.0

Constant 2012 dollars

The enhancement of the UCCB and CCED boosts the historical progressive aspect of child care benefits across income groups (see Figure 3-6 below).

Figure 3-6 After-tax child care benefits as a percent of income among families with young children, by income group



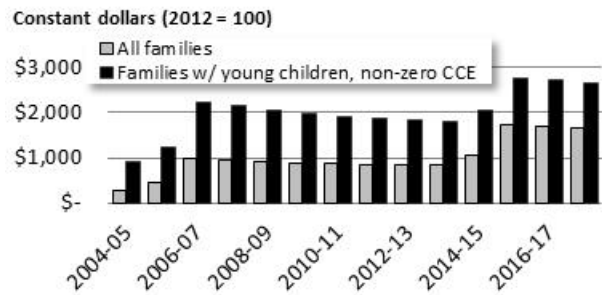
Sources: PBO, SPSP/M v. 21
 Note: 2015 includes the enhancements to the UCCB and the CCED.

On average, families earning more than the top 70 per cent will see their benefits as a share of their income increase by a smaller percent than lower income earners in 2015-2016. Overall, all income groups will see the proportion of average household child care expenses that can be paid for via federal child care policies increase.

On a per family basis, families with young children continue to be the main beneficiary of federal child care benefits, however all eligible families on average will experience an increase in their after-tax income (See Figure 3-7 below).

In fact, the enhancements to the UCCB and CCED will bring the average nominal benefits roughly back to their historical levels when the UCCB was first introduced.

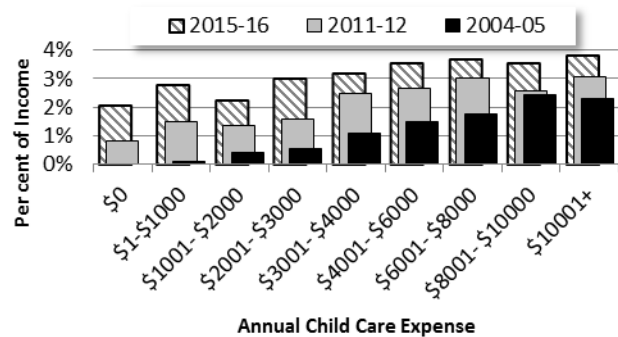
Figure 3-7 After-tax child care benefits, by family type



Sources: PBO, SPSP/M v. 21
 Note: 2015 includes the enhancements to the UCCB and the CCED.
 Converted to real dollars using child care services consumer price index.⁴⁷

PBO estimates that in 2015-2016 the average family not spending anything on child care will see their after-tax income increase by 1.2 percentage points from 2011-2012 (Figure 3-8). In fact, these families receive the largest net gain of the recent enhancements to the UCCB.⁴⁸

Figure 3-8 After-tax child care benefits as a percent of income, by annual child care expenses



Source: PBO calculations using SPSP/M v.21.0
 Note: Limited to families with children under the age of 13.

⁴⁷ Statistics Canada (2014d)

⁴⁸ When accounting for the repeal of the Child Tax Credit. They do not benefit from the CCED because they have \$0 of child care expenses to claim.

4 Conclusion

The federal government's child care initiatives have provided after-tax benefits to households since the inception of the CCED. The introduction of the UCCB greatly increased the level of benefits, as well as offered benefits to eligible families with a stay-at-home parent. The enhancements to the UCCB, and to a lesser degree the CCED, will increase the federal fiscal impact to an historical high of roughly \$7.7 billion in 2015-2016. This is estimated to grow to roughly \$7.9 billion by 2017-2018.

Eligible families with greater usage of child care and higher child care expenses (that is, families with children under the age of 13 with non-zero child care expenses) will receive roughly half (49%) of these federal benefits in 2015-2016 – a decline from the 2013-2014 share of roughly 66 per cent. As a share of these families' aggregate household child care

expenses, federal spending will rise from roughly 42 per cent in 2013-2014 to 67 per cent in 2015-2016.

Conversely, eligible families with lower usage of child care and lower child care expenses (that is, families with older children and families with no child care expenses) will see their share increase from 34 percent in 2013-2014 to 51 per cent in 2015-2016. This share, valued at roughly \$3.9 billion in 2015-2016, will exceed these families' aggregate household child care expenses nearly eight times over.

Overall, federal spending on child care will outstrip that of all households by over 25 per cent beginning in 2015-2016. However, without an indexation of the UCCB to keep pace with household child care expenses, the ratio of federal child care spending to that of households will fall gradually over time. This is consistent with the historical trend.

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territories, annual (persons) (table). CANSIM (database).

Statistics Canada. (No date-f, September 17, 2014).

Table 052-0005 Projected population, by projection scenario, age and sex, as of July 1, Canada, provinces and territories, annual (persons x 1,000). CANSIM (database)

Appendix A Methodology

This appendix describes in more detail the methodology utilized to estimate the federal fiscal impact and distributional analysis of federal child care policies.

The following steps were used to estimate the fiscal impact of federal child care policies:

1. Estimate the fiscal impact of implementing the UCCB for the years of 2013 and 2014;
2. Estimate the change in federal tax revenues associated with implementing the CCED for the years of 2011-2014;
3. Estimate the fiscal impact of enhancing the UCCB for the years 2015-2018;
4. Estimate the change in federal tax revenues due to an enhancement of the CCED for the years of 2015-2018;
5. Sum steps 1 through 4;
6. Estimate impact of UCCB and CCED on other federal tax revenue streams and transfers (that is, the interrelated effects) and add to step 5;
7. Estimate the fiscal impact of both the UCCB and CCED together for the years of 1997-2018, including enhancements; and,
8. Calculate the size of other interrelated effects by subtracting step 6 from step 7 and add to step 6.

The following sections describe each step in more detail.

A.1 Estimating the Universal Child Care Benefit

The calculation of the federal fiscal impact of the UCCB was performed in three steps:

1. Run a status-quo scenario in SPSP/M for the years 2006 to 2018;⁴⁹
2. Run a scenario assuming the UCCB was never implemented for the same years (2006-2018); and,
3. Calculate the difference between step 1 and step 2 for each year (2006 – 2018).

The following statistics were recorded for each year, for each scenario:

- Total UCCB transfers paid
- Total federal tax revenues
- Total federal transfers paid, including the UCCB
- Federal net fiscal balance (taxes less transfers)

Since historical data were available from 2005-06 to 2012-13, the estimated UCCB transfers paid were only required for 2014 to 2018.

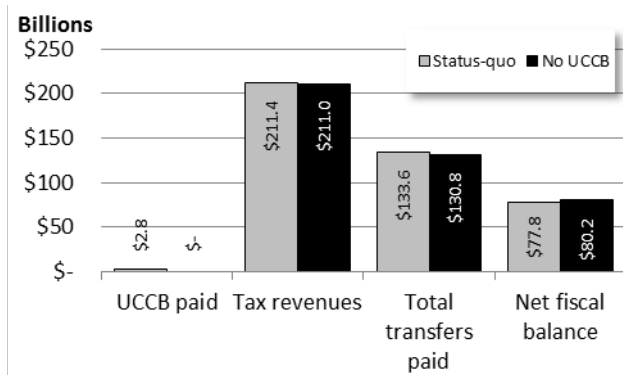
As UCCB is taxable income, the estimated change in federal tax revenues is subtracted from the total UCCB transfers paid in order to derive the direct, net federal cost of the UCCB. These tax revenues were estimated for all years, since no historical data was available.

Estimating the change in total federal transfers paid net of the UCCB transfers paid provides the estimated cost of the UCCB's "interrelated effects" (discussed in more detail in section A.4 below). Finally, estimating the change in total federal net fiscal balance provides the estimated net cost of the UCCB, including all interrelated effects. This last estimate is equivalent to subtracting the total federal transfers paid from total federal income tax

⁴⁹ Note that each year's simulation parameters reflect the values of that tax year

revenues. See Figure A-1 below for an illustration of the estimation of the net federal UCCB cost.

Figure A-1 Example: UCCB Estimation Process 2014



Source: PBO calculations using SPSD/M v.21

To estimate the impact of the enhancements to the UCCB, the same process was used, but with some adjustments. For the years 2015-2018, the UCCB values are adjusted from their status-quo value of \$1,200 for children ages 0-5 to \$1,920. To correctly implement the enhanced UCCB for older children the code in SPSD/M was adjusted, assigning the value of \$720 to be transferred to eligible parents with children ages 6-17. Following the same process as above produced the fiscal impact of the proposed enhancements to the UCCB.

Since these estimates are tax simulations, they are in calendar years. They were converted into fiscal years by adding $\frac{3}{4}$ of year 1 (for example, 2006) to $\frac{1}{4}$ of the following year (2007).⁵⁰

A.2 Estimating the Child Care Expense Deduction

Estimating the annual cost of the CCED is more complex. As a tax deduction, this cost is often referred to as a “tax expenditure” – foregone

⁵⁰ The $\frac{3}{4}$ and $\frac{1}{4}$ reflect the 9 out of 12 months and 3 out of 12 months, respectively, that each month of the calendar year falls within the fiscal year.

revenue that the federal government could have collected if the CCED did not exist. Since there is a limit on the child care expenses that can be claimed, any tax expenditure calculation can be less than actual child care expenses. Furthermore, tax filers may have a tendency to not claim eligible expenses when the value is small, or may not claim eligible expenses for other reasons.⁵¹ Finally, only parents who are either employed, going to school or undertaking research are eligible to claim their child care expenses. Therefore, using the aggregate spending on child care as a proxy for the claimed CCED amount would over-estimate the tax expenditure.

The Canada Revenue Agency (CRA) publishes T1 statistics, providing the level of child care expenses claimed on Canadian families’ tax returns. Comparing these statistics to the total child care expenses in Canada confirmed a significant difference between actual child care expenses and child care expenses (CCE) that are eligible for the CCED.⁵²

The CRA T1 statistics reflect the actual total child care expenses claimed and eligible for the CCED. Therefore, the historical estimates of the CCED tax expenditure are calculated by multiplying the actual child care expenses allowable by income group – as reported by Canada Revenue Agency’s (CRA) T1 statistics – by the marginal tax rates.⁵³ This data was only available for a limited number of years (2004 – 2012 for all tax returns; 2004 – 2010 for taxable returns).

⁵¹ This has been observed in the literature studying tax credits. See Smart and Stabile (2005), Blumenthal, Erard and Ho (2005) and Currie (2004).

⁵² PBO compared the aggregate household child care expenditures, and the T1 CCE amounts claimed and CCE allowable for the years of 2004 - 2010.

⁵³ Canada Revenue Agency (Multiple years (2006-2010)) and Canada Revenue Agency (Multiple years (2011-2012)).

Table A-1 Child care expenses and CCED tax expenditure estimates

Child care expenses	Source	2008 value (millions)	
CCE claimed*†	CRA T1	\$3,765	i
CCE allowable*‡	CRA T1	\$3,548	ii
Total household CCE	NA	\$4,640	(A)
CRA allowable / Total household	NA, CRA T1	78.1%	(B)
CCED TE midpoint (CRA T1)	CRA T1	\$695	(C)
CCED TE high-end (CRA T1)	CRA T1	\$715	(D)
CCED TE low-end (CRA T1)	CRA T1	\$675	(E)
CCED TE (SPSD/M)	SPSD/M	\$581	(F)
CCED TE (federal)	FC	\$790	(G)

Source: PBO

* Average CCE reported for taxable returns and all returns

† Using final statistics and not the preliminary statistics⁵⁴

‡ Using the preliminary statistics⁵⁵

NA – Provincial Accounts;⁵⁶ CRA – Canada Revenue Agency; T1 – Tax return; CCE – child care expenses; FC – Finance Canada⁵⁷

Included in CRA’s T1 statistics are the CCE claimed and CCE allowable, for both taxable tax returns and all tax returns.⁵⁸ Since it is impossible to know the proportion of returns that were non-taxable as a result of the CCED, PBO used the average CCE allowable from taxable returns, and added 50 per cent of the CCE allowable from non-taxable returns. This was equal to \$3.6 billion in 2008 (see row (ii) in Table A-1). This was done for each income group.

The CCED midpoint estimate was calculated by multiplying the average CCE allowable by the marginal tax rate. If the average taxable income in an income group fell between the tax brackets, the CCED midpoint estimate for that income group was weighted. Re-grouping the income groups based upon the taxable income (rather than the default

total income) allowed for more accurate tax-brackets and consequently more appropriate application of the marginal tax rates.

For example, in 2008 the average taxable income in the \$150,000 to \$250,000 income group was \$161,191. The cut-off for the highest marginal tax rate was \$123,184. Therefore, the CCED midpoint estimate for this income group was calculated by multiplying 1/3 of the average CCE allowable by the second highest marginal tax rate of 26 per cent, and 2/3 of the average CCE allowable by the highest marginal tax rate of 29 per cent.

Data from taxable returns were only available from 2004 to 2010. Therefore to project the CCED tax expenditures forward, PBO relied on several assumptions:

- the CCED tax expenditure derived using all tax returns (that is, the high-end estimate) continued to grow at its 2004-2010 average annual growth rate of 3.21 per cent;
- the CCED tax expenditure derived using taxable tax returns (that is, the low-end estimate) continued to grow at its 2004-2008 average annual growth rate of 2.87 per cent; and,
- the CCED tax expenditure using the average between all and taxable returns (that is, the midpoint estimate) was less than the high-point estimate by 2.78 per cent (the 2004-2010 average percent difference between the high-end and midpoint estimate).

Since the CCED has impacts on other federal transfers and tax policies that are not captured in the CRA T1 data, PBO simulated them using SPSP/M. The nominal values were inflated to adjust for the known difference between the simulated and CRA T1 CCED. The inflator was equal to the 2004 – 2010 average difference between CRA T1 CCED and the

⁵⁴ Canada Revenue Agency (Multiple years (2006-2010)) and Canada Revenue Agency (Multiple years (2011-2012))

⁵⁵ Canada Revenue Agency (Multiple years (2008 - 2014))

⁵⁶ Statistics Canada (2014e)

⁵⁷ Department of Finance (2011)

⁵⁸ Allowable refers to the child care expenses eligible to be claimed as a tax deduction: the minimum of the actual expenses, two-thirds of the claimant’s income and the CCED caps (\$7,000 for a child aged 0-6, \$4,000 for a child aged 7-16 and infirm dependent children over the age of 16, and \$10,000 for a child for whom the disability amount can be claimed). These caps increased by \$1,000 each, effective January 1, 2015.

simulated CCED (that is, 24.4%).⁵⁹ This was done for the years of 2004 to 2018.

Similar to the UCCB, the CCED and CCED-related estimates are in calendar years. They were converted into fiscal years by adding $\frac{3}{4}$ of year 1 (for example, 2006) to $\frac{1}{4}$ of the following year (2007).⁶⁰

A.3 Estimating the Total Fiscal Impact

To estimate the total fiscal impact of federal child care policies, PBO ran two scenarios in SPSD/M:

1. A status-quo scenario for years 2004 – 2018; and,
2. A scenario where the UCCB and CCED were assumed to never have been implemented for years 2004 – 2018.

For each scenario, the change in the federal balance (that is, taxes collected less transfers paid) was recorded. The difference between scenario 1 and scenario 2 represents the estimate for the total fiscal impact of federal child care policies.

A.4 Additional Impacts

When considering the total net cost of the UCCB and CCED, the impacts they have on other federal transfers (costs) need to be considered. Similarly, the impact these two policies have on each other's outcomes also need to be considered.

The UCCB decreases the amount of the Canadian Child Tax Benefit (CCTB) transfers and to a lesser extent Employment Insurance (EI) benefits, GST credits, and 'other' federal transfers.⁶¹ This results in

a reduction in the net federal cost of child care expenditures. Conversely, the CCED increases federal transfers via EI benefits and 'other' federal transfers. However, the overall impact of the CCED on other transfers outweighs that of the UCCB, resulting in an increased net federal cost.

The total fiscal impact is not equivalent to the added independent impacts of the UCCB and CCED. This is because of the interactions between the CCED and UCCB – and their own interrelated impacts' interactions with the others'. PBO accounted for this by estimating the total fiscal cost of federal child care policies (that is, both UCCB and CCED) all at once and comparing it to the sum of the independently-estimated results (that is, the results in A.3, and A.1 and A.2 respectively). The difference is added to the estimated net federal spending on child care.

Ultimately, this reconciles the additive (summed) approach to an "all-at-once" approach.

A.5 Distributional Analysis

A.5.1 Income Group

The income group distribution analysis was limited to families with children under the age of 13.

To estimate the after-tax distribution of federal child care benefits to eligible families by income group, income deciles were first calculated for select years (2006, 2012, 2015 and 2018). Using income deciles allows results to be comparable over time. Then, using a status-quo scenario and a scenario where federal child care policies do not exist, the dollar and per cent change in the after-tax income is calculated.

⁵⁹ The values are small and using the estimated annual difference resulted in negligible changes.

⁶⁰ The $\frac{3}{4}$ and $\frac{1}{4}$ reflect the 9 out of 12 months and 3 out of 12 months, respectively, that each month of the calendar year falls within the fiscal year.

⁶¹ In SPSD/M, 'other' includes Federal Other Refundable Tax Credits (employee and partner GST rebate, the Refundable Medical Expense Supplement, the Refundable Working Income Tax Benefit and the Refundable Working Income Tax Benefit Supplement for Persons with

Disabilities), the refundable Quebec tax abatement, Federal Relief for Heating Expenses, the Federal Energy Cost Benefit and Federal new programs (Other Social Assistance or Guarantees and Other Taxable Demigrants not explicitly listed in SPSD/M); Source: SPSD/M v. 21.0

A.5.2 Child Care Expenses

The CCE distributional analysis was limited to families with children under the age of 13 to represent families likely to have a greater need for child care. Nine nominal CCE groups were created: \$0; \$1 - \$1,000; \$1,001 - \$2,000; \$2,001 - \$3,000; \$3,001 - \$4,000; \$4,001 - \$6,000; \$6,001 - \$8,000; \$8,001 - \$10,000; and, \$10,001+.

Then, using a status-quo scenario and alternate scenarios, the dollar and per cent change in the after-tax income is calculated (similar to the estimation process of the total fiscal impact explained in section A.3).

A.6 Estimating the Child Tax Credit

PBO incorporated the proposed repeal of the Child Tax Credit (CTC) in its projected distributional analysis using simulation software. Finance Canada also estimates the tax expenditures of the CTC in their Tax Expenditures and Evaluations reports.⁶² The tax expenditure estimates produced by SPSD/M are roughly 6 per cent larger than that of Finance Canada's.

A.7 Estimating Household Child Care Expenses

The Provincial Accounts draws its data on child care expenses from the Survey of Household Spending (SHS). These numbers are estimated by making adjustments to information collected from the Survey of Household Spending (SHS).⁶³

The SHS questionnaire first asks respondents if they had any expenses for child care, including expenses made for someone else's children; the follow-up question asks for the annual amount of these expenses. Respondents are told to include day care

and occasional babysitting inside or outside the home, but to exclude children's camps, for example, day camps and summer camps.⁶⁴

When the SHS was revised in 2010, the questionnaire changed, prompting respondents to exclude occasional babysitting.⁶⁵ As such, the post-2009 child care expenses as reported by the Provincial Accounts may not be directly comparable with historical values. However, since the average annual growth rate of child care expenses during 2010-2013 was comparable to that of four years previous (4.2% vs 4.8%) despite the exclusion of occasional babysitting, PBO assumes that these costs are not received and thus treats the time series as consistent.

A.8 Understanding Behavioural Impacts

The UCCB and CCED have conflicting incentives with respect to their impact on labour force participation. The CCED, eligible only to working or studying parents, would theoretically increase the labour force participation rate and child care expenses either directly or indirectly. The UCCB, however, is not only not tied to actual child care expenses, it is taxable, thus providing a disincentive to join the labour force. Other factors impact a parent's decision to either join the labour force or use child care – not just financial factors.

In fact, the literature highlights several determinants of the use of child care, including the type of child care, age of the child, available subsidies, the mother's and father's income, maternity benefits, work schedules, the price of child care, availability of child care, and work schedules.^{66, 67} The degree to which each of these determinants impacts both the demand or use of child care, and the mothers' labour

⁶² Department of Finance (Annual Publication (1995 - 2013))

⁶³ Statistics Canada (2008)

⁶⁴ Statistics Canada (No date-c)

⁶⁵ Statistics Canada (No date-d)

⁶⁶ Child Care Human Resources Sector Council (2009)

⁶⁷ Statistics Canada (2006)

force participation rate or employment varies across Canadian and international studies.

The Congressional Budget Office (CBO) in the U.S. found non-labour income had no effect on labour force participation among women and secondary earners.⁶⁸ The Institute for the Study of Labour's evaluation of international studies state that changes to child care costs do not have a large impact on employment rates, though for some individuals can have a significant impact.⁶⁹

Only two studies estimating the secondary impacts of the UCCB and CCED were found; one for each policy. The estimated impact of a 1 per cent increase in the CCED is a resulting 0.07 per cent increase in the use of non-parental care, and a 0.07 per cent increase in the employment rate of mothers.⁷⁰ The implementation of the UCCB, on the other hand, reduced the employment rate of mothers by 0.1 percentage points.⁷¹

Overall, the size of these secondary impacts is negligible.

As noted previously, the delivery mechanism for child care subsidies can affect the take-up rates of non-parental child care and employment. Several Canadian papers examining the impact of Quebec's subsidized child care policy find that child care price subsidies can increase mothers' employment – with a range of 7.7 percentage points to 12.0 percentage points.⁷² This type of subsidy is applied at the point of consumption.

In fact, much of the literature examining the price elasticity of child care (on employment and child care use) is also significant. This is a further indication that the form the child care subsidy takes – taxable income benefit, tax deduction, price subsidy – can strongly dictate the size of the effect. When considering the literature pointing to subsidies in the form of a taxable benefit or tax deduction, a sizable impact is not evident. Therefore, the results contained in this report do not include any estimates of behaviour effects.

⁶⁸ Congressional Budget Office (2014)

⁶⁹ Immervoll and Barber (2006)

⁷⁰ Michalopoulos and Robins (2000)

⁷¹ Schirle (forthcoming)

⁷² Fortin, Godbout and St-Cerny (2012)

Appendix B Federal Child Care Policies

B.1 Child Care Spaces Initiative

The child care spaces initiative was originally proposed in 2006. In the budget document, the initiative itself was a commitment of \$250 million per year, beginning in 2007-2008, to create 25,000 new child care spaces annually.⁷³ At this point in time, it was not yet determined how the \$250 million would be allocated.⁷⁴ In the 2007 budget, the Government announced that the child care spaces initiative would become a 25 per cent investment tax credit to businesses that create new child care spaces in the workplace, up to a maximum of \$10,000 per space.^{75, 76}

The government also announced an additional \$250 million to provinces and territories. This amount was later rolled into the Canada Social Transfer to provinces.⁷⁷ With limited uptake of the tax investment credit, this was effectively a reallocation of \$250 million from employers to provinces.⁷⁸

B.2 Government Sales Tax Exemption

Child care services provided for periods of less than 24 hours to children less than 14 years of age are exempt under the Goods and Services Tax (GST).⁷⁹ The estimated federal cost of this initiative is lumped together with GST exemptions for personal care provided to eligible individuals, and it was not

possible to separate the two. Together they represented an estimated \$185 million in 2013.⁸⁰

B.3 Child Care Expense Deduction – Additional Information

Eligible expenses include, but are not limited to, claim payments for child care expenses made to caregivers providing child care services, day nursery schools and daycare centres, educational institutions for the part of the fees that related to child care services (that is, not education costs), day camps and day sports schools where the primary goal of the camp is to care for children (for example, not a sports study program) or boarding schools, overnight sports schools, or camps where lodging is involved (subject to weekly maximums).⁸¹

On average, claimed child care expenses per child eligible for the tax deduction have historically fallen well below the maximum amounts claimable.⁸² This varies across the income group the filer falls into from an average of \$1,200 per child among filers earning \$10,000 to \$20,000 to \$3,500 per child among filers earning \$100,000 and over.⁸³

Additionally, in 2008 roughly 96 per cent of the total child care expenses claimed were eligible for the tax deduction.

Effectively then, only a few families will benefit from the CCED allowable increases: those who spend more than the current deduction allowance *and* whose lower-earning spouse earns at least 150 per cent of their child care expenses or are attending an educational institution.⁸⁴

⁷³ Department of Finance (2006)

⁷⁴ The federal government stated it would have consultations to ensure the \$250 millions in federal assistance in creating child care spaces would be effective, responsive, efficient and accountable. See *ibid.*

⁷⁵ Department of Finance (2007)

⁷⁶ A 2007 report from the Ministerial Advisory Committee on the Government of Canada's Child Care Spaces Initiative made several recommendations. See Ministerial Advisory Committee on the Government of Canada's Child Care Spaces Initiative (2007).

⁷⁷ Department of Finance (2009)

⁷⁸ See the 'S' amount recorded in Finance Canada's Tax Expenditures and Evaluations Reports for the child care spaces initiative - Department of Finance (2013) for example – which equates to less than \$2.5 million.

⁷⁹ Department of Finance (2010)

⁸⁰ Department of Finance (2013)

⁸¹ Canada Revenue Agency

⁸² PBO calculations of CRA T1 Statistics

⁸³ PBO calculations of 2008 CRA T1 Statistics among taxable returns

⁸⁴ The author was unable to get access to bootstrap weights or alternatively a coefficient variation (CV) table to determine if the sample was sufficiently large and whether the estimate was reliable or not. Therefore, no statistics about these individuals could be released with any level of reliability.

B.4 Child Tax Credit

The child tax credit (CTC) is not considered a child care policy, however because its repeal will impact families after-tax benefits, it was included in the calculations of the distributional analysis.

The (CTC) is a tax credit for families with children under the age of 18. As introduced in the 2007 budget, it was equal to a \$2,000 claimable amount per child, multiplied by the lowest personal income

tax rate (15.5 per cent in 2007).⁸⁵ The benefit per child then was \$310 and added up to a total federal cost of \$1.5 billion in 2007-2008. Over time, the claimable amount was increased and in 2012-2013 the federal cost was an estimated \$1.6 billion.⁸⁶

In late 2014, the federal government announced it would repeal the child tax credit in the *Income Tax Act*. The federal government also stated that the enhancements to the UCCB would replace the CTC.⁸⁷

⁸⁵ Department of Finance (2007)

⁸⁶ Department of Finance (Annual Publication (1995 - 2013))

⁸⁷ Department of Finance (2014)

Appendix C Sensitivity Analysis

PBO examined various sources of the CCED tax expenditure. Finance Canada estimates the CCED tax expenditures, however they are consistently larger than what the CRA T1-derived CCED tax expenditure estimates would dictate (Table C-1).⁸⁸ On the other hand, the tax calculator appeared to underestimate the CCED tax expenditure.

Table C-1 Percent difference of CCED midpoint from other tax expenditures estimates, 2004 – 2010

	2004	2005	2006	2007	2008	2009	2010
CRA high-end	-5%	-4%	-1%	-3%	-3%	-2%	-1%
CRA low-end	6%	4%	4%	4%	3%	8%	10%
SPSD/M	15%	11%	11%	15%	20%	27%	31%
FC	6%	0%	-18%	-14%	-12%	-14%	-13%

Source: PBO calculations of SPSPD/M, CRA T1 and Provincial Accounts data

PBO also estimated a high-end and low-end CCED tax expenditure, as explained in Appendix A above. Table C-1 presents the percent difference of PBOs main CCED tax expenditure estimate (CCED midpoint) from the various other sources' estimates. For example, PBO's main estimate was 5 per cent lower than PBO's high-end estimate using CRA data in 2004. Finance Canada's estimates were lower for the years of 2004 and 2005, but were much higher beginning in 2006.

PBO also verified the UCCB estimates by comparing historical values and historical simulated values, as well as comparing simulated values to those estimated using population projections (Table C-2).

Table C-2 Gross UCCB estimates (millions) by source and percent difference from SPSPD/M estimates

Year	SPSD/M (A)	Population Projections (B)	Finance Canada (C)	Percent difference (A) – (B)	Percent difference (A) – (C)
06-07	\$2,027	\$1,950	\$1,784	3.9%	13.6%
07-08	\$2,467	\$2,481	\$2,474	-0.5%	-0.3%
08-09	\$2,519	\$2,546	\$2,548	-1.1%	-1.1%
09-10	\$2,567	\$2,597	\$2,594	-1.1%	-1.0%
10-11	\$2,610	\$2,651	\$2,651	-1.5%	-1.5%
11-12	\$2,656	\$2,692	\$2,691	-1.4%	-1.3%
12-13	\$2,722	\$2,733	\$2,725	-0.4%	-0.1%
13-14	\$2,786	\$2,778	\$2,740	0.3%	1.7%
14-15	\$4,078	\$3,687	n/a	10.6%	n/a
15-16	\$7,876	\$6,726	n/a	17.1%	n/a
16-17	\$7,965	\$7,789	n/a	2.3%	n/a
17-18	\$8,056	\$7,901	n/a	2.0%	n/a

Source: PBO calculations of SPSPD/M, Statistics Canada's population estimates and projections⁸⁹, and Finance Canada

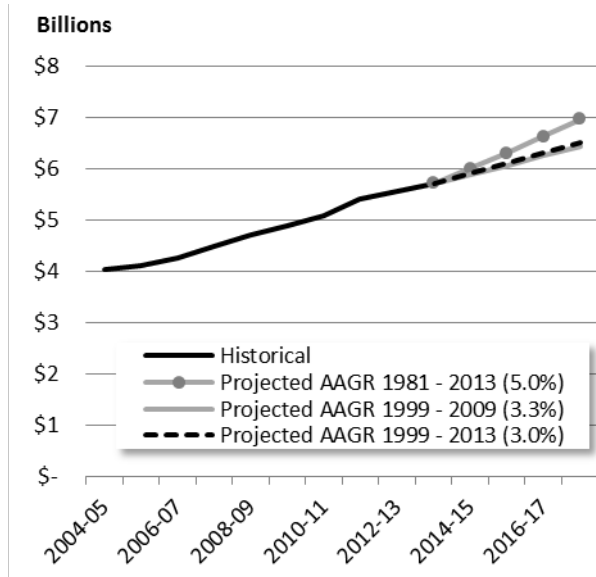
Finally, PBO also projected the household spending on child care using two alternate assumptions. Figure C-1 shows the historical spending as well as the projected spending. These alternate assumptions were used to generate a low-end and high-end estimate, which were used in conducting sensitivity analysis.⁹⁰

⁸⁹ Statistics Canada (No date-f), Statistics Canada (No date-e). Note that Projection scenario M1: medium-growth, 1991/1992 to 2010/2011 trends were used for population projections (that is, population estimates for the years 2014 to 2018).

⁹⁰ Quarterly data for aggregate household spending on child care was available for first quarter (Q1) 1997 to the second quarter (Q2) 2014 (historical data was available as far back as 1981). Aggregate household spending on child care was projected using its own historical average annual growth rate (AAGR) for the 1999 – 2013 period. From 1981-82 to 2013-14, this growth rate was 5.0%. However, because Quebec introduced subsidized universal day care in 1998, the average annual growth rate was calculated over the years of 1999-2013 (3.3%).

⁸⁸ Department of Finance (Annual Publication (1995 - 2013))

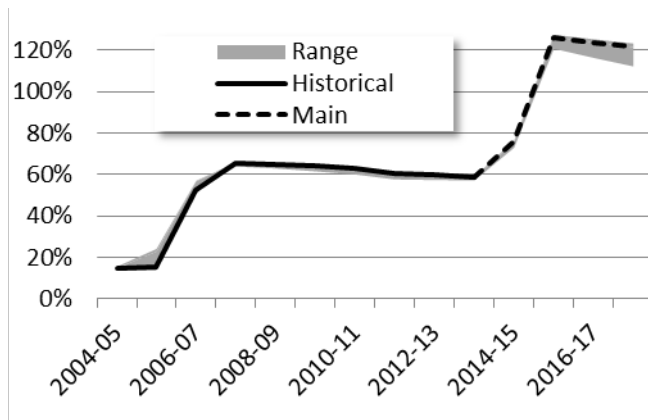
Figure C-1 Household Spending on Child Care



Source: PBO calculations of Statistics Canada’s Provincial Accounts

The variation in the projected household spending on child care is the main driver behind the range in PBO estimates for the fiscal years of 2015-2016 to 2017-2018, shown in Figure C-2 below.

Figure C-2 Household Spending on Child Care



Source: PBO calculations of Statistics Canada’s Provincial Accounts

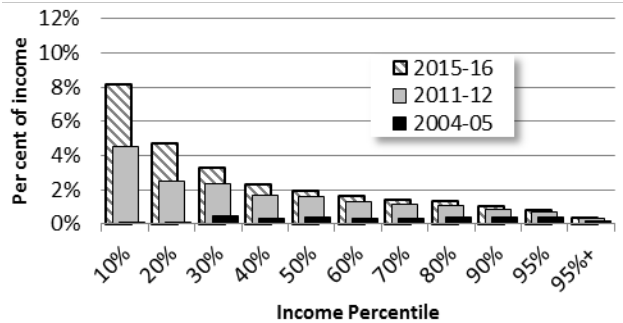
The historical variation is driven solely by the different estimates of the CCED. Overall, the

different assumptions will not greatly affect the estimates, indicating PBO results are robust.

PBO also considered the impact the repeal of the CTC would have on families. Figure C-3, Figure C-4 and Figure C-5 below present the distribution of after-tax benefits under the assumption the CTC is repealed beginning in 2015.

Overall, the loss of the CTC reduces eligible families’ after-tax benefits. This is observed by comparing Figure C-3, Figure C-4 and Figure C-5 below to the figures in section 3.3 above. Higher-earning families feel the effects of the loss of the CTC to a greater extent, as do families with young children and non-zero child care expenses. The loss of the CTC was relatively evenly distributed across eligible families by annual child care expenses.

Figure C-3 After-tax child care benefits as a percent of income among families with young children, by income group

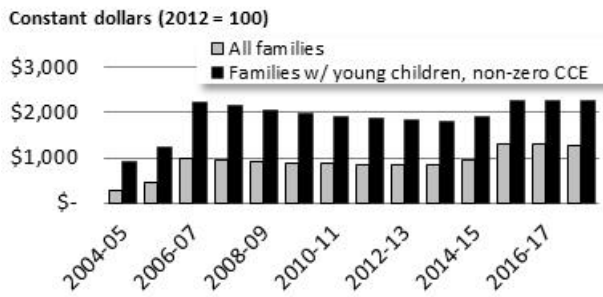


Sources: PBO, SPSD/M v. 21

Note: 2015-16 includes the enhancements to the UCCB and the CCED and the termination of the CTC.

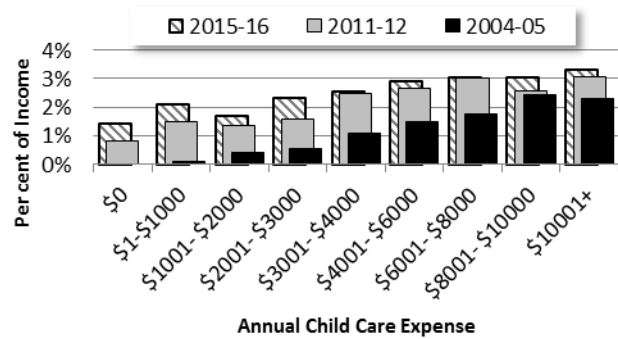
The loss of the CTC does not offset the benefits provided by the enhancements to the UCCB and CCED; eligible families’ after-tax benefits will still increase compared to their historical levels.

Figure C-4 After-tax child care benefits, by family type



Sources: PBO, SPSPD/M v. 21
 Young children – children under the age of 13; CCE – child care expense.
 Note: 2015-16 includes the enhancements to the UCCB and the CCED and the termination of the CTC. Converted to real dollars using child care services consumer price index.⁹¹

Figure C-5 After-tax child care benefits as a percent of income, by annual child care expenses



Source: PBO calculations using SPSPD/M v.21.0
 Note: Limited to families with children under the age of 13. 2015-16 includes the termination of the CTC

⁹¹ Statistics Canada (2014d)