CORRECTION Open Access

Check for

Correction to: Uptake of the child care expense deduction: exploring factors associated with the use of the child care expense deduction among families with a child under 12 years

Loanna Heidinger, Leanne C. Findlay ond Anne Guèvremont

The original article can be found online at https://doi. org/10.1186/s40723-020-00076-0.

*Correspondence: Leanne.findlay@canada.ca Health Analysis Division, Applied Research Branch, Statistics Canada, 100 Tunney's Pasture Driveway, Ottawa. ON K1A 0T6. Canada

Correction to: ICEP (2020) 14:12

https://doi.org/10.1186/s40723-020-00076-0

Following publication of the original article [Heidinger et al. 2020], some errors found in the text. Corrections to the text can be found below, the corrected numbers are provided in bold. The original paper has been updated.

Page 5: Methods

There were a total of **3786** families included in the analytical sample, representing approximately **2,847,738** families across Canada.

Page 8: Methods

Exploratory analyses were also conducted among a subsample of GSS families that reported using child care in the past 12 months. Overall, approximately **56**% of all families with at least one child under the age of 12 reported using child care in the previous year. Among these families using child care, approximately a third (**35**%) claimed the child care expense deduction. However, for reasons previously mentioned, results from the main analysis focus on the analytic sample composed of families with at least one child under the age of 12, regardless of reported child care use in the GSS.

Page 8-page 13: Results.

Characteristics of Child Care Expense Deduction Claimants.

Table 1 displays the characteristics of families with at least one child under the age of 12 and characteristics of families that claimed and did not claim the child care expense deduction for the 2010 tax year. Results from chi-square tests are also presented indicating whether claimant families and non-claimant families were significantly different on the characteristics of interest.

Overall, about one quarter (24%) of families with at least one child under the age of 12 claimed the child care expense deduction. There were also significant differences in the characteristics of families who did and did not claim the child care expense



© The Author(s) 2021. This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/.

Heidinger *et al. ICEP* (2021) 15:7 Page 2 of 9

Table 1 Characteristics of families with at least one child less than 12 years old who did and did not claim the child care expense deduction

	Families with a child less than 12	Claimed child care expense deduction	Did not claim child care expense deduction	Chi square
N	3,786	933	2,853	
Weighted N	2,847,738	690,885	2,156,853	
Weighted percent	100.00	24.26	75.74	
Demographics				
Family composition				25.36*
Two-parent household	85.93	22.48	77.52	
Lone-parent household	14.07	35.15	64.85	
Highest education in house- hold				31.26*
Bachelor's degree or higher	46.06	28.88	71.12	
Less than a Bachelor's degree	53.94	20.42	79.58	
Adjusted family income quartiles				19.13*
Lowest income quartile 1	17.93	13.59	86.41	
Income quartile 2	28.50	21.29	78.71	
Income quartile 3	25.96	29.54	70.46	
Highest income quartile 4	27.62	28.60	71.40	
Family Indigenous status ¹				9.16*
At least one parent Indig- enous	5.22	16.12 ^E	83.88	
No parent Indigenous	94.78	24.69	75.31	
Family visible minority status				4.03*
Lone or both parents vis- ible minority	15.92	19.95	80.05	
One parent visible minority, other parent non-visible minority	5.88	19.58 ^E	80.42	
Lone or neither parent vis- ible minority	78.20	25.49	74.51	
Family immigrant status				3.50*
Lone or both parents immigrants	19.36	20.42	79.58	
One parent immigrant, one parent Canadian born	10.77	22.40	77.60	
Lone or both parents Cana- dian born	69.87	25.64	74.36	
Area of residence				14.07*
Urban	81.73	25.43	74.57	
Rural	18.27	19.02	80.98	
Province				9.44*
NL	1.34	13.83 ^E	86.17	
PE	0.38	28.07 ^E	71.93	
NS	2.43	21.95	78.05	
NB	2.06	28.11	71.89	
QC	23.33	36.1	63.89	
ON	37.57	20.65	79.35	
MB	3.31	23.70	76.30	
SK	2.97	17.88	82.12	
AB	12.96	19.07	80.93	

Heidinger *et al. ICEP* (2021) 15:7 Page 3 of 9

Table 1 (continued)

	Families with a child less than 12	Claimed child care expense deduction	Did not claim child care expense deduction	Chi square
BC	13.66	21.15	78.85	
Children in household				
Total number of children				4.65*
1	33.71	25.79	74.21	
2	45.15	25.06	74.94	
3+	21.13	20.11	79.89	
Total Number of Children under 12				1.90
1	48.95	24.52	75.48	
2	39.60	25.05	74.95	
3+	11.45	20.43	79.57	
At least one Child under 6				0.06
Yes	62.46	24.11	75.89	
No	37.54	24.52	75.48	
Additional child 12-18 potential to supervise				7.30*
Yes	21.47	20.55	79.45	
No	78.53	25.28	74.72	
Family work characteristics				
Family work/in school				207.59*
Lone or both parents work/ in school	76.99	29.38	70.62	
At least one parent no work/in school	23.01	7.14	92.86	
Family work schedule				117.94*
Lone or both parents standard work	43.70	34.44	65.56	
One parent standard work, one parent non-standard work	30.93	23.89	76.11	
At least one parent not working	25.37	7.66	92.34	
Family work hours				124.29*
Lone or both parents working 30+ hrs	52.01	34.92	65.08	
Lone or one parent work- ing <30 hrs, one parent <30 or 30+ hrs	20.19	22.58	77.42	
At least one parent not working	27.80	7.66	92.34	

Source: General Social Survey 2011 linked to T1FF

 $X Supressed \ to \ meet \ the \ confidentiality \ requirements \ of \ the \ Statistics \ Act$

deduction. That is, claimant families were more likely to be lone parent families (35% $\,$

 $^{^{\}rm E}\,$ Use with caution

F Too unreliable to be published

^{*} p<0.05

 $^{^{\}rm 1}$ Indigenous Identity of First Nations, Métis, and Inuit also considered; however, sample too small to report

Heidinger et al. ICEP (2021) 15:7 Page 4 of 9

of single parent families claimed the child care expense deduction vs 22% of two-parent families), have the highest level of education in the household be a bachelor's degree or higher (29% vs 20% of families with less than a Bachelor's degree), be in the highest income quartile (29% vs 14% of families in the lowest income quartile), be non-Indigenous¹ (25% vs 16% of Indigenous families), be non-visible minorities (25% vs 20% of visible minority families), be non-immigrants (26% vs 20% of immigrant families), live in an urban area (25% vs 19% of families who lived in a rural area), and live in Quebec (36% vs 21% of families in Ontario).

In terms of family composition, claimant families were less likely to have three or more children (20% vs 26% of families with only one child) and to have an additional child aged 12 to 18, supervisory age, living in the household (21% vs 25% of families with no additional child aged 12 to 18). Lastly, in terms of family work characteristics, claimant families were more likely to work or attend school (29% vs 7% of families where at least one parent was not in work or school), work standard shifts (34% vs 8% of families where at least one parent not working), and work full time hours (30 h or more per week; 35% vs 8% of families where at least one parent not working).

Table 2 presents results from the logistic regression model predicting whether or not families claim the child care expense deduction among all families with a child under the age of 12 controlling for differences in key demographic, child composition, and employment characteristics of families. A number of sociodemographic variables remained significant. Lone parent families were more likely to have claimed the expense deduction, with lone parents having more than two times the odds of claiming the deduction compared to two-parent families. As well, the highest level of education in the household was significantly different between claimant and non-claimant families. Families where the highest level of education was less than a bachelor's degree had two-thirds the odds of claiming the child care expense deduction compared to families where the highest level of education was a bachelor's degree or higher.

Adjusted family household income quartiles were also different between claimant and non-claimant families after controlling for key variables in the final analytic model. Low income families, those in income quartile 1, had about **three-fifths** the odds of claiming the child care expense deduction than high income families (the highest income quartile). Although claimant and non-claimant families differed by immigrant status, visible minority status, and Indigenous identity in the descriptive analysis, once included in the final logistic regression model which examined all variables simultaneously, these demographic indictors were no longer significant predictors of families claiming the child care expense deduction. Families living in rural areas had three-quarters the odds of claiming the child care expense deduction compared to families living in urban areas.

Provincial differences remained a significant predictor of claimant families in the final model. Families that resided in Quebec had higher odds of claiming the child care expense deduction compared to families residing in all other Canadian provinces except for New Brunswick and Prince Edward Island. The odds that families residing in Ontario claimed the child care expense deduction were half the odds of claiming for families residing in Quebec.

In the descriptive analysis, the percentage of participants claiming the child care expense deduction differed by the total number of children in the household; however,

 $[\]overline{}^{1}$ Indigenous Identifiers of First Nations, Métis, and Inuit were considered separately; however, the sample was too small to report and was not included in subsequent analysis.

Heidinger *et al. ICEP* (2021) 15:7 Page 5 of 9

Table 2 Logistic regression predicting claimants of the child care expense deduction among families with a child less than 12

	Model 1	Model 2	Model 3
	Odds ratio	Odds ratio	Odds ratio
Intercept	0.71	0.53	0.66
Family composition			
Two-parent household (REF)	1.00	1.00	1.00
Lone-parent household	3.28*	3.37*	2.64*
Highest Education in Household			
Bachelor's degree or higher (REF)	1.00	1.00	1.00
Less than a Bachelor's degree	0.65*	0.66*	0.69*
Adjusted Family Income Quartiles			
Lowest income quartile 1	0.33*	0.33*	0.58*
Income quartile 2	0.69*	0.68*	0.79
Income quartile 3	1.04	1.03	1.12
Highest income quartile 4 (REF)	1.00	1.00	1.00
Family Indigenous status ¹			
At least one parent Indigenous	1.19	1.19	0.93
No parent Indigenous (REF)	1.00	1.00	1.00
Family Visible Minority Status			
Lone or both parents visible minority	0.80	0.80	0.81
One parent visible minority, other parent non-visible minority	0.74	0.75	0.78
Lone or neither parent visible minority (REF)	1.00	1.00	1.00
Family Immigrant status			
Lone or both parents immigrants	0.97	0.98	1.11
One parent immigrant, one parent Canadian-born	1.06	1.06	1.12
Lone or both parents Canadian-born (REF)	1.00	1.00	1.00
Area of residence			
Rural	0.75*	0.75*	0.76*
Urban (REF)	1.00	1.00	1.00
Province			
NL	0.27*	0.27*	0.32*
PE	0.68	0.70	0.75
NS	0.46*	0.46*	0.52*
NB	0.64*	0.63*	0.69
QC (REF)	1.00	1.00	1.00
ON	0.44*	0.43*	0.49*
MB	0.58*	0.59*	0.58*
SK	0.41*	0.41*	0.49*
AB	0.42*	0.42*	0.48*
BC	0.41*	0.41*	0.47*
Number of children in the household			
1 (REF)		1.00	1.00
2		1.08	1.19
3+		1.13	1.25
Child 12–18 potential to supervise			
No		1.32*	1.49*
Yes (REF)		1.00	1.00
Family work hours			
Lone or both parents working 30 + h (REF)			1.00
Lone or one parent working < 30 h, one parent working < 30 or 30+h			0.67*

Heidinger et al. ICEP (2021) 15:7 Page 6 of 9

Table 2 (continued)

	Model 1	Model 2	Model 3
At least one parent not working			0.20*

Source: General Social Survey 2011 linked to T1FF

¹ Sample of Indigenous Identity distinctions (First Nations, Métis, Inuit) too small to include in analysis

Family work variables (family working/in school and family work schedule) were not included in the final models due to high correlation with family work hours variable

Model 1: Demographic variables

Model 2: Demographic variables + child composition

Model 3: Demographic variables + child composition + family work characteristics

not by the total number of children under the age of 12 in the household or whether there was a child in the household under the age of 6. In the final analytic model including key variables, having a child in the household between the ages of 12 and 18 remained significant. The odds of claiming the child care expense deduction were 1.5 times higher for families without a child between the ages of 12 to 18.

Lastly, child care expense claiming and non-claiming families differed by the work characteristics of parents. Only family work hours (lone or both parents work more than 30 h, lone or one parent works less than 30 h/other parent works less than 30 h or more than 30 h, at least one parent non-working) was included in the final analytic model due to the high correlation of family work hours with family employment status and family standard employment variables.

Compared to families with lone or two parents working 30 h or more a week, families with at least one parent not working and families with lone or one parent working less than 30 h and the other parent working (less/more than 30 h a week) had lower odds of claiming the child care expense deduction. Families where at least one parent was not working had **one-fifth** the odds of claiming the child care expense deduction, and families where lone or one parent was working less than 30 h and the other parent was working (less/more than 30 h per week) had **two-thirds** the odds of claiming the child care expense deduction than families where lone or both parents were working more than 30 h a week. In other words, families where lone or both parents worked more than 30 h a week had higher odds of claiming the child care expense deduction.

Page 13: Discussion.

A relatively small proportion of families claimed the child care expense deduction in Canada; less than a quarter of families with at least one child under the age of 12 in 2011 claimed the child care expense deduction during the 2010 tax year. The 2011 GSS collected data on the use of child care and approximately **56**% of families in the analytic

sample, families with at least one child under 12, reported using child care. Among these families that reported using child care, approximately a third (35%) claimed the child care expense deduction, indicating that even among families that reported the use of child care, the proportion of families claiming the child care expense deduction remains relatively small. Additional analyses (available upon request) controlled for family childcare use in the final analytic model and revealed similar results.

^{*}p < 0.05

Heidinger *et al. ICEP* (2021) 15:7 Page 7 of 9

Table 3 Characteristics of families with at least one child less than 6 years old who did and did not claim the child care expense deduction

	Families with a child less than 6	Claimed child care expense deduction	Did not claim child care expense deduction	Chi square
N	2,223	559	1,664	
Weighted N	1,778,769	428,814	1,349,954	
Weighted percentage	100.00	24.11	75.89	
Family demographics				
Family composition				7.00*
Two-parent household	89.76	23.16	76.84	
Lone-parent household	10.24	32.44	67.56	
Highest education in house- hold				28.75*
Bachelor's degree or higher	48.07	29.67	70.33	
Less than a Bachelor's degree	51.93	19.01	80.99	
Adjusted family income quartiles				12.88*
Lowest income quartile 1	18.56	12.98	87.02	
Income quartile 2	29.03	21.31	78.69	
Income quartile 3	23.42	29.79	70.21	
Highest income quartile 4	28.98	28.43	71.57	
Family Indigenous status				8.67*
Lone or at least one parent Indigenous	5.04	14.18 ^E	85.82	
Lone or neither parent Indig- enous	94.96	24.61	75.39	
Family visible minority status				1.14
Lone or both parents visible minority	16.09	22.33	77.67	
One parent visible minority, other parent non-visible minority	6.94	19.43 ^E	80.57	
Lone or neither parent visible minority	76.97	24.86	75.14	
Family immigrant status				0.33
Lone or both parents immigrants	18.81	22.35	77.65	
One parent immigrant, one parent Canadian-born	11.34	23.78	76.22	
Lone or both parents Canadian-born	69.85	24.66	75.34	
Area of residence				5.69*
Urban	81.86	25.11	74.89	
Rural	18.14	19.59	80.41	
Region				5.18*
Atlantic	5.76	25.28	74.72	
Quebec	23.48	32.46	67.54	
Ontario	36.48	21.45	78.55	
Prairie	20.11	20.21	79.79	
British Columbia	14.16	22.15	77.85	
Children in household				
Total number of children				1.12
1		24.07	75.93	
2		25.39	74.61	

Heidinger *et al. ICEP* (2021) 15:7 Page 8 of 9

Table 3 (continued)

	Families with a child less than 6	Claimed child care expense deduction	Did not claim child care expense deduction	Chi square
3+		21.55	78.45	
Total number of children under 12				0.93
1		24.36	75.64	
2		24.91	75.09	
3+		21.23	78.77	
Additional child 12-18 potential to supervise				0.70
Yes	8.01	21.53 ^E	78.47	
No	91.99	24.33	75.67	
Family work characteristics				
Family work/in school				137.19*
Lone or both parents work/ in school	74.22	29.99	70.01	
At least one parent no work/in school	25.78	7.18 ^E	92.82	
Family work schedule				77.66*
Lone or both parents stand- ard work	41.46	34.67	65.33	
One parent standard work, one parent non-standard work	30.15	24.98	75.02	
At least one parent not working	28.39	7.80	92.20	
Family work hours				81.71
Lone or both parents work- ing 30+ hrs	49.04	35.02	64.98	
Lone or one parent working <30 hrs, one parent <30 or 30+ hrs	19.84	23.85	76.15	
At least one parent not working	31.12	7.80	92.20	

Source: General Social Survey 2011 linked to T1FF

 $X Supressed \ to \ meet \ the \ confidentiality \ requirements \ of \ the \ Statistics \ Act$

Appendix

Appendix A

See Table 3.

Appendix B

See Table 4

^E Use with caution

F Too unreliable to be published

^{*} p<0.05

 $^{^{\}rm 1}$ Indigenous Identity of First Nations, Métis, and Inuit also considered; however, sample too small to report

Heidinger et al. ICEP (2021) 15:7 Page 9 of 9

Table 4 Logistic Regression Predicting Claimants of the Child Care Expense Deduction among Families with a Child less than 6 - Stepwise

	Model 1	Model 2
	Odds Ratio	Odds Ratio
Intercept	0.59	0.93
Highest education in household		
Bachelor's degree or higher (REF)	1.00	1.00
Less than a Bachelor's degree	0.73*	0.72*
Adjusted family income quartiles		
Lowest income quartile 1	0.43*	0.76
Income quartile 2	0.72	0.90
Income quartile 3	1.09	1.30
Highest income quartile 4 (REF)	1.00	1.00
Family Indigenous status ¹		
Lone or at least one parent Indigenous	1.24	0.89
Lone or neither parent Indigenous (REF)	1.00	1.00
Area of residence		
Rural	0.89	0.95
Urban (REF)	1.00	1.00
Region		
Atlantic	0.68*	0.78
Quebec	1.00	1.00
Ontario	0.51*	0.60*
Prairie	0.51*	0.62*
British Columbia	0.52*	0.64
Family work hours		
Lone or both parents working 30+ hrs (REF)		1.00
Lone or one parent working <30 hrs, one parent working <30 or 30+ hrs		0.63*
At least one parent not working		0.17*

Source: General Social Survey 2011 linked to T1FF

include in analysis

Note: Family work variables (family working/in school and family work schedule) were not included in the final models due to high correlation with family work hours variable

Model 1: Demographic variables

 ${\sf Model 2: Demographic \, variables + family \, work \, characteristics}$

Published online: 16 June 2021

Reference

Heidinger, L., Findlay, L. C., & Guèvremont, A. (2020). Uptake of the child care expense deduction: exploring factors associated with the use of the child care expense deduction among families with a child under 12 years. *ICEP*, 14, 12. https://doi.org/10.1186/s40723-020-00076-0

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

^{*} p<0.05

¹ Sample of Indigenous Identity distinctions (First Nations, Métis, Inuit) too small to