FRASER BULLETIN



January 2022

Measuring the Impact of Federal Personal Income Tax **Changes on Middle Income Canadian Families since 2015**



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SUMMARY

- During the 2015 federal election campaign, the Liberals pledged to cut income taxes on Canada's middle class. Since coming into office, the government has repeatedly claimed that it has delivered on this commitment. While the federal government did reduce the second lowest federal personal income tax rate, it also simultaneously introduced several other broader changes to the federal personal income tax system.
- For instance, it introduced a new, higher top income tax rate and eliminated several tax credits, which had the effect of increasing taxes on Canadian families who previously claimed those credits. In fact, the elimination of many tax credits may partially, or even completely, offset the tax rate reduction targeted at middle income families.
- This paper measures the net overall effect that the federal government's changes to the personal income tax system have had on the amount of tax that Canadian families with children pay. It finds the federal government's income tax changes have resulted in 61 percent of the 3.7 million families with children covered in this paper (representing 13.6 million individuals), paying more tax. The average tax increase amounts to \$1,006 per family each year.
- Among middle income families-the group of families the federal government claims to want to help-86 percent are paying more in taxes as a result of the federal income tax changes. The average income tax increase for this group of middle income families is \$800.
- For the subset of middle income families consisting of couples with children, an even greater share (89 percent) pays higher income taxes (\$902 on average).

Introduction

During the 2015 federal election, the Liberal Party pledged to cut income taxes on Canada's middle class (Liberal Party of Canada, 2015).¹ Since coming into office, the government has repeatedly claimed that it has delivered on this commitment. For instance, in the government's first budget in 2016, then Finance Minister Bill Morneau proclaimed: "the government cut taxes for middle class Canadians everywhere" (Canada, Department of Finance, 2016a).

The reality of federal personal income tax changes for middle income families is more complicated than the government suggests. The federal government reduced the second lowest personal income tax rate from 22.0 to 20.5 percent, which in 2019 applied to individual income between \$47,630 and \$95,259. However, it simultaneously eliminated several tax credits, which had the effect of increasing personal income taxes on Canadian families who previously claimed such credits.

This analysis, which is an update to the original paper published in 2017, measures the net overall impact of the personal income tax changes introduced by the federal government. There have been a number of other taxes and transfer changes that the federal government has introduced since 2015; however, this analysis focuses exclusively on changes to personal income taxes.2 It does not include the expansion of the

Canada Pension Plan (CPP)-specifically the increase in the contribution rates-which started in 2019. The first section outlines the major changes to the federal income tax system that the government introduced after coming into office. It also defines "middle income families" and explains why they are the focus of analysis. The second section uses Statistics Canada's Social Policy Simulation Database and Model (SPSD/M) to calculate how the personal income tax changes, when taken together, affect the amount of federal income tax that middle income Canadian families pay.

How the impact of federal income tax changes is measured

Since it came to power in October 2015, the federal government has announced a number of significant tax changes that affect how much Canadians pay in personal income tax. Specifically, the federal government 1) reduced the second lowest tax rate and 2) introduced a new higher top tax rate. To assess how the federal government's changes to the personal income tax system affect the amount of tax that Canadians pay, it is necessary to collectively measure the overall impact of the changes rather

tax changes, such as mandating the equivalent of \$170 per tonne carbon pricing and increasing payroll taxes to fund the expansion of the Canada Pension Plan (CPP). In addition, the Trudeau government significantly reformed the transfer to families with children, known as the Canada Child Benefit. There remains confusion regarding the differences between tax reductions and changes to income transfers such as the Canada Child Benefit (CCB) (Canada, Department of Finance, 2017a). The Fraser Institute has published a number of analyses of the CCB over the last number of years trying to clarify different aspects of this new transfer program. See Sarlo (2021; 2020a; 2020b), Clemens and Palacios (2020), and Hill, Li, Palacios, and Clemens (2020).

¹ This paper is an update to Lammam, Palacios and MacIntyre (2017), Measuring the Impact of Federal Personal Income Tax changes on Middle Income Canadian Families.

² The federal government has specifically claimed to have reduced income taxes for middle class Canadian families, which is why this report focuses only on changes to personal income taxes. The federal government has also announced a number of other

than consider each change in isolation. While the cut to the second lowest personal income tax rate did reduce personal income taxes for Canadians with income in that range, focusing on that tax change alone misses the other changes that have increased taxes on many of the same Canadians. A broader approach that measures all the personal income tax changes enacted by the government is needed to provide a complete measure of whether Canadian families are paying more or less in federal income taxes.

This paper measures the net overall impact of seven major changes to the federal income tax system on the income taxes paid by 3.7 million Canadian families with children (representing 13.6 million individuals). The analysis includes the two principal changes to federal income tax rates as well as the elimination of the following tax credits: income splitting for couples with young children, children's fitness tax credit, children's arts tax credit, education tax credit, textbook tax credit, and the public transit tax credit.³ Appendix A briefly describes the tax changes included in the calculations as well as those that are excluded due to limitations of the model used.4

The data source for this analysis is the new Social Policy Simulation Database and Model (SPSD/M) system from Statistics Canada. The SPSD/M is a micro-analysis system that includes detailed information drawn from a number of specialized databases for more than 1 million Canadians in over 300,000 households with approximately 600 variables included for each individual. The variables include earnings, taxes paid, transfers received from government, and demographic characteristics. It is the only database available in Canada that integrates taxes, transfers, and other characteristics. The SPSD/M currently relies on data from a number of surveys and other sources from 2016, which is then used to forecast to 2019.

The analysis uses the SPSD/M to calculate the percentage of Canadian families with children that pay higher personal income taxes due to the federal government's tax changes. The calculation compares the amount of personal income tax individual families would have paid had the federal tax changes not been enacted to what they do pay under the existing system. Specifically, two sets of calculations were completed using SPSD/M. The first set, the baseline, calculated the taxes that families within the database would pay if the tax changes in appendix table 1 had not been implemented. For example, the tax rates and number of income tax brackets under this first set of calculations are the same as they were in 2015, but the income ranges within the tax brackets are set at the 2019 levels.

It's important to recognize the reason 2019 was used as the year for comparative analysis rather than 2020. Simply put, the effects of COVID and governments' responses to it in 2020 introduce

credit in their calculations as it was not part of the SPSD/M at that time. See appendix A.

³ For perspective, 56 percent of the 3.7 million families with children covered in this report would have claimed a tax benefit from income splitting had it existed in 2019. Approximately 46 percent of families would have claimed the children's fitness tax credit and the children's art tax credit, 8 percent would have claimed the education tax credit, and 8 percent would have claimed the tuition credit. These estimates were derived from SPSD/M.

⁴ The latest version of SPSD/M includes the children's arts tax credit and therefore the impact of eliminating this tax credit is included in the calculations in the next section. Lammam et al. (2017) does not include the impact of this non-refundable

a host of anomalies that make any comparison using 2020 very difficult to interpret. Moreover, sufficient data for 2021 is not yet available and there remain some anomalies from the ongoing responses to COVID.

The second calculates tax payments for Canadian families under the current system with the tax changes fully implemented. The difference between the baseline and the second set of calculations provides the average personal income tax change between 2015 and 2019 given the various tax changes the federal government made. If the difference is greater than zero, the family's tax bill has increased. The calculations are for 2019 and the sample includes all tax returns.⁵ Appendix A provides a description of the included and excluded tax changes.

Of particular note relative to the original 2017 analysis is the inclusion of the children's arts tax credit. The version of the SPSD/M used in the 2017 analysis did not include this tax credit; however, the new version of SPSD/M includes the tax credit.

Defining middle income families

While personal income taxes are levied on individuals rather than families, this paper measures the overall impact of the changes on a family's total personal income tax bill (i.e., the sum of taxes each individual in the family pays). It focuses on households with children, rather than households without, because when discussing "families" and policies affecting families, the federal government has generally referred to couples with children or single parents. For this reason, in this paper "families" are defined as couples or single individuals with children under the age of 18.7

This analysis pays particular attention to middle income families because the federal government has repeatedly referred to its tax changes as a tax cut for middle class families, although it has not clearly defined what constitutes a middle class family. By referring to the reduction in the second lowest personal income tax rate, the government has implied that it considers individual Canadians who earn between \$47,630 to \$95,259 as constituting, or at least being part of, the middle class.8 Typically, analysts define

⁵ Families with a member over age 65 are excluded. This sample group is used throughout the report.

⁶ The 2016 budget federal stated that "When middle class families are secure in their jobs, they have the ability to invest in the education of their children and save for their retirement" (Canada, Department of Finance, 2016b). In addition, the 2016 budget presents two fictitious families headed by "David" and "Neera"; both families include children. In the 2016 budget speech, then-Finance Minister Bill Morneau said, "I want you to imagine an ordinary middle class Canadian family. Two parents with two kids in university" (Canada, Department of Finance, 2016a). Moreover, the 2017 federal budget stated that: "Middle class Canadians embrace the change that came along with progress because they could see the benefits for their families-new, well-paying jobs, stronger communities, and greater opportunities for their children" (Canada, Department of Finance, 2017b).

⁷ This definition corresponds with Statistics Canada's definition of a "nuclear family." According to SPSD/M, "a nuclear family consists of a head, their spouse (if there is one), and their children under the age of 18, living together in the same dwelling."

⁸ Critically, this definition, which is based on individual income and not family income, bares little relationship to where the middle of the individual income distribution is. In 2019, the median total income (before tax) of individual Canadians over the age of 15 was \$37,800 (Statistics Canada, 2021). Even

Table 1: Income range for families with children by quintiles

	Income range
Quintile 1	\$1 – \$54,494
Quintile 2	\$54,495 – \$84,624
Quintile 3	\$84,625 – \$118,007
Quintile 4	\$118,008 – \$166,319
Quintile 5	\$166,320 +

Source: Calculations by authors based on Statistics Canada's SPSD/M (version 28.1).

middle class income relative to the overall income distribution, where some boundary is set around the mid-point. In this paper, to assess the tax impact on middle income families, we divided Canadian families into five income groups (or quintiles), each representing 20 percent of families with children. Table 1 shows the income ranges for each income group. In keeping with commonly used definitions of the middle class (Cross and Sheikh, 2015), we refer to the third quintile as the middle income group, which has an income range of \$84,625 to \$118,007. We refer to the second group (\$54,495 to 84,624) and fourth group (\$118,008 to 166,319) as the lower-middle and upper-middle income groups, respectively. Note that these income ranges are for family income, which can include the combined income of multiple earners.9

with subsequent income growth, many individual Canadians in the middle of the income distribution do not benefit from the rate reduction to the second lowest personal tax bracket.

The impact of federal personal income tax changes on Canadian families

This section calculates the net overall impact of the federal government's personal income tax changes and estimates the proportion of Canadian families that are, on net, paying more in federal personal income taxes.

Table 2 includes the number and percentage of families with children in each income group who are paying more in personal income tax as a result of the federal government's tax changes. Figure 1 illustrates the percentage of families with children paying higher personal income taxes for each quintile. Table 3 includes the average change in federal personal income taxes.

Overall, 61 percent of all Canadian families with children (i.e., 2.3 million out of 3.7 million families) are paying more federal personal income taxes due to the tax changes the federal government has made over the past couple of years (see the red line in figure 1). For the families who are paying more federal personal income taxes, the average annual increase is \$1,006 (table 3). The remaining 39 percent of families are either paying the same amount of federal personal income tax or less; their average annual tax reduction is \$287 (table 3).

The greatest percentage of families with children paying more in federal personal income taxes are the middle income groups. In fact, the federal government's tax changes have resulted in almost nine out of ten (86 percent) of Canadian families in the middle income group paying higher federal personal income taxes.

children (56 percent) consist of two income earners. Nearly a third of families have one income earner (31 percent). A relatively small portion of families have more than two earners (7 percent).

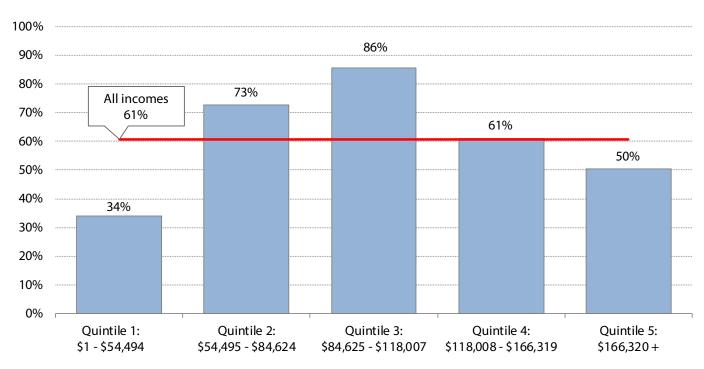
⁹ Income earners can include not just employed parents, but also employed children under the age of 18, with income earners defined as someone who has employment or self-employment income. According to SPSD/M, most Canadian families with

Table 2: Number and percentage of Canadian families with children paying higher personal income taxes

Family income range	Number of families paying higher taxes (thousands)	All families (thousands)	Percent of total paying higher taxes
Quintile 1: \$1 – \$54,494	251	738	34%
Quintile 2: \$54,495 – \$84,624	541	744	73%
Quintile 3: \$84,625 – \$118,007	637	744	86%
Quintile 4: \$118,008 – \$166,319	454	743	61%
Quintile 5: \$166,320 +	375	744	50%
All Incomes	2,258	3,719	61%

Source: Calculations by authors based on Statistics Canada's SPSD/M (version 28.1).

Figure 1: Percentage of families with children paying higher personal income taxes



Source: Calculations by authors based on Statistics Canada's SPSD/M (version 28.1).

Table 3: Average change in personal income tax payments for families with children

	Average change in tax payments (\$)					
Family income range	Families paying higher taxes	Families not paying higher taxes	All families			
Quintile 1: \$1 – \$54,494	107	0	37			
Quintile 2: \$54,495 – \$84,624	369	-34	258			
Quintile 3: \$84,625 – \$118,007	800	-205	654			
Quintile 4: \$118,008 – \$166,319	922	-401	408			
Quintile 5: \$166,320 +	2,973	-745	1,134			
All Incomes	1,006	-287	498			

Source: Calculations by authors based on Statistics Canada's SPSD/M (version 28.1).

Seventy-three (73) percent of Canadian families in the lower-middle group (household income of between \$54,495 and \$84,624) are paying higher federal personal income taxes in 2019 than in 2015. A lower share of families in the upper-middle income group are paying more in federal personal income taxes: 61 percent. Contrary to the federal government's claims, the overwhelming majority of middle income families are paying more in federal personal income tax as a result of the personal income tax changes.10

The average federal personal income tax increase for families in the middle income groups ranges from \$369 for those in the lower-middle

any personal income tax. An individual making more than this may still not pay income tax if they claim or receive other tax credits. In 2017, for example, 85 percent of individual tax filers with income below \$20,000 did not pay personal income tax (CRA, 2021a). Thus, many of the families in the first quintile in table 3 and figure 1 do not pay personal income tax and therefore are not affected by the federal government's tax changes. An assessment of the impact of the tax changes on low income families should focus narrowly on just those families who do pay income tax, which is the subject of a separate essay.

Table 3 shows the dollar value of the change in personal income tax payments for Canadian families in each quintile. It displays the average change in the amount of income tax paid by the majority of families that are paying more tax, the minority of families that are paying the same or less tax, and the overall average for all families in each quintile.

¹⁰ In table 2 and figure 1, the lowest (or first) income quintile has the smallest share of families paying more in personal income tax (34 percent). However, it is important to remember that many lower income Canadians do not, on net, pay any personal income tax because the value of the tax credits they claim is equal to or greater than the amount of tax they would have owed without those credits. For example, for 2019, every taxpayer receives the federal basic personal amount, which means the first \$12,069 of earned income is tax free, so someone making \$12,069 or less would not have to pay

Table 4: Breakdown of the overall average change for families with children paying higher personal income taxes

Family income range	Tax rate changes	Elimination of income splitting		Indirect effects	Overall average change
Quintile 1: \$1 – \$54,494	-7	51	72	-9	107
Quintile 2: \$54,495 – \$84,624	-49	347	84	-13	369
Quintile 3: \$84,625 – \$118,007	-243	989	81	-27	800
Quintile 4: \$118,008 – \$166,319	-552	1,411	99	-36	922
Quintile 5: \$166,320 +	1,349	1,611	136	-123	2,973
All Incomes	32	919	94	-39	1,006

Source: Calculations by authors based on Statistics Canada's SPSD/M (version 28.1).

Note: Indirect effects include the effects from the Quebec Abatement and the indirect effect from other tax credits.

income group to \$922 for those in the uppermiddle income group. Families in the middle income group (quintile three) pay on average \$800 more in federal personal income tax. Families in the highest income group (quintile five) have seen their income tax increase by far the most (\$2,973). This significant increase is driven partly by the fact that some individual earners in this group face the higher top personal income tax rate (on income over \$210,371 in 2019) in addition to the other tax changes.

For those families with children who do pay more in federal personal income tax (61 percent of them), the average increase is \$1,006 (table 3). The average federal personal income tax decrease for the 39 percent of families with children who are either paying the same or less tax is \$287.

Table 4 breaks the average increase in overall federal personal income tax payments down into its component parts. For families paying higher overall taxes in each income group, the

table displays the average tax change resulting from the personal income tax rate changes as well as the effect of eliminating various tax credits (children's fitness credit, children's art credit, education and textbook credits, and public transit credit) and income splitting. The table also shows the average tax change caused by indirect effects.11

Consider the first component (the tax rate changes). The federal government's changes to personal income tax rates result in lower average tax payments for all families with children except those in the highest income group, who-due to the new, higher top tax rate of 33 percent-pay, on average, \$1,349 more in federal personal income tax. Due to the reduction in the second lowest personal income tax rate, families in the other income groups see

¹¹ The main driver of indirect effects is the Quebec abatement, which reduces the amount of federal tax that Quebecers pay.

their average tax payment decrease. The average reduction ranges from \$7 for families in the lowest income group to \$552 for those in the upper-middle income group. Families in the middle income group (quintile three) have their federal personal income taxes decrease an average of \$243.

However, for the families experiencing an average decrease in their federal personal income tax, this reduction is completely offset by the average tax increases for other components, namely, the elimination of income splitting and other tax credits. The elimination of income splitting for couples with young children is the main driver of the increase in overall federal personal income taxes. Alone, it translates into an average tax increase of \$989 for families in the middle income group, which more than offsets the \$243 reduction from the personal income tax rate change. Eliminating income splitting has a similar effect on families in the lower-middle, upper-middle, and lowest income groups, specifically the loss from the elimination of income splitting overwhelms the value of the reduction in the federal personal income tax rate.

The elimination of other tax credits contributes to the higher overall federal personal income tax that these families pay. This component of the federal government's tax changes led to an average federal personal income tax increase of \$81 for those middle income families who found themselves paying higher taxes overall. It had the effect of increasing the average income tax payable by \$72 to \$136 for families in other income groups. 12 While eliminating ineffective tax

Table 5: Income range for couples with children and singles with children by quintile

	Couples (\$)	Singles (\$)
Quintile 1	\$1 – \$68,554	\$1 – \$27,707
Quintile 2	\$68,555 – \$99,337	\$27,708 – \$40,555
Quintile 3	\$99,338 – \$132,294	\$40,556 – \$55,177
Quintile 4	\$132,295 – \$176,270	\$55,178 – \$78,538
Quintile 5	\$176,271 +	\$78,539 +

Source: Calculations by authors based on Statistics Canada's SPSD/M (version 28.1).

credits does reduce the complexity of the tax system, if there are insufficient concurrent offsetting reductions in general income tax rates, such eliminations simply result in an increase in the average amount of income tax that Canadians who claimed the credits pay.

Impact on couples versus singles with children

The fact that table 4 shows the elimination of income splitting was the main driver of the personal income tax increases on the majority of Canadian families raises an important question. How do the results differ for couples with children versus single parents with children? Unlike many couples with children under the age of 18, single parents did not receive any tax benefits from income splitting because there was no spouse with whom to make notional transfers.

income) for lower and middle income families (i.e., it is regressive).

¹² Interestingly, the average income tax increase resulting from the elimination of these other credits is similar across income groups, implying that the impact of their elimination is greater (relative to

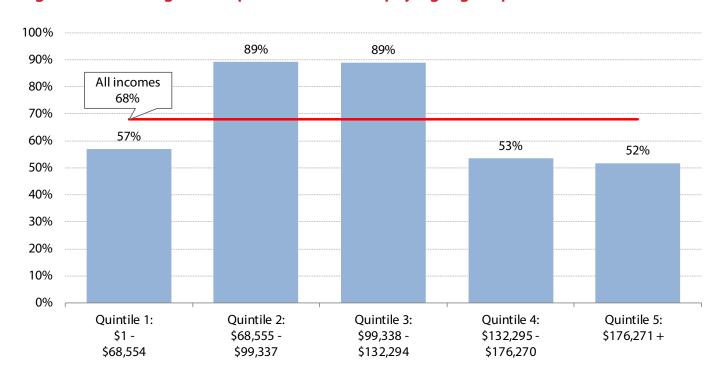


Figure 2: Percentage of couples with children paying higher personal income taxes

Source: Calculations by authors based on Statistics Canada's SPSD/M (version 28.1).

To investigate this question, all families with children were split into the two groups: (1) couples with children (under the age of 18) represent 82 percent of the total number of Canadian families and (2) the remaining 18 percent are single parents with children under age 18. Each family type is divided into five equal income groups (quintiles). Table 5 displays the income ranges for both family types. Note that the income ranges for singles with children are lower, reflecting the fact that this family type contains only one adult as a potential income earner.

Figure 2 shows the percentage of families consisting of couples with children, by income group, who are paying higher federal personal income taxes due to the federal government's

tax changes. Again, the key difference in this analysis is that it excludes families with just one parent. Among those in the middle income group, nearly nine of 10 (89 percent) are paying higher overall income taxes. Eighty-nine percent of the lower-middle group and 53 percent of the upper-middle group are paying higher federal personal income taxes. More generally, 68 percent of all couples with children are paying more federal personal income tax because of the federal government's tax changes. This compares to 61 percent of all families - including single parent families -- with children. Indeed, couples with children are particularly hard hit by the federal government's tax changes. Table B1 in appendix B gives a breakdown of what is driving the overall tax increases.

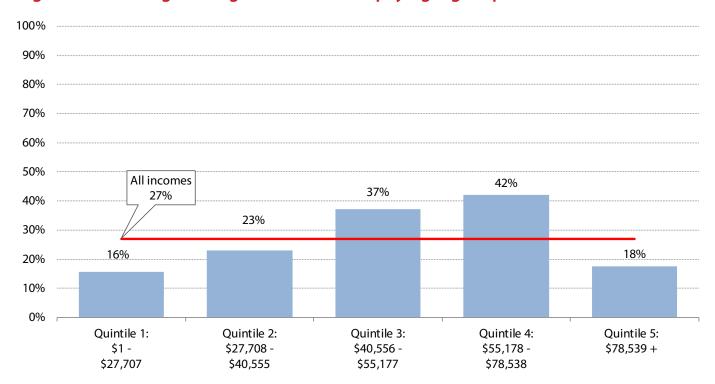


Figure 3: Percentage of singles with children paying higher personal income taxes

Source: Calculations by authors based on Statistics Canada's SPSD/M (version 28.1).

While singles with children are not as adversely affected by the federal government's income tax changes as couples with children, there is still a significant share of middle income single parents with children under age 18 who are paying higher federal personal income taxes. Figure 3 presents the results for singles with children by quintile. In total, a little over one in four families (27 percent) are experiencing higher federal personal income taxes due to the tax changes. A little over one-third of families in the middle income group, 37 percent, face higher federal personal income taxes. Almost one in four families with single parents (23 percent) in the lower-middle and 42 percent of upper-middle families are paying more federal personal income tax due to the tax changes.

Conclusion

The federal government has repeatedly claimed that it has cut income taxes for middle class Canadian families. This claim rests solely on the federal government's reduction from 22 percent to 20.5 percent of the second lowest personal income tax rate. The reality, however, is that the federal government has enacted other changes to the personal income tax system that have increased the amount of federal income tax that Canadian families pay. Those changes include the elimination of income splitting and other tax credits. When taken together, 2.3 million Canadian families with children (61 percent of the total 3.7 million such families) are paying higher income taxes due to the fed-

eral government's income tax changes-\$1,006 more on average.

While the government's tax cutting claim focuses on middle class families, the overwhelming majority of middle income families with children (86 percent) are actually paying more income tax (\$800 more, on average). For the subset of middle income families consisting of couples with children, an even greater share (89 percent) pays higher federal personal income taxes.

Table 6: Federal personal income tax brackets and rates for 2019

Income range	Marginal tax rate		
\$0 - \$47,630	15.0%		
\$47,630 – \$95,259	20.5%		
\$95,259 – \$147,667	26.0%		
\$147,667 – \$210,371	29.0%		
Over \$210,371	33.0%		

Source: CRA (2021b).

Note: The income range is based on taxable income, which is the amount of an individual's income that is subject to personal income taxes.

Appendix A: The federal government's major changes to the personal income tax system

This appendix briefly itemizes the federal personal income tax changes that represent \$50 million in revenue or more. 13 Table A1 summarizes the tax changes that are included in the analysis and calculations. Due to the limitations of Statistics Canada's Social Policy Simulation Database and Model, not all of the changes enacted by the federal government to personal income taxes are included in the analysis. Table A2 summarizes the excluded tax changes that represent \$50 million or more in revenue. The total absolute cost of the tax changes in tables A1 and A2 is \$7.2 billion, of which approximately 94 percent is covered in the analysis and calculation. This estimate is based on the authors' calculations using data from Canada, Department of Finance (2016b, 2017b, and 2017c).

¹³ Since coming into office, the federal government has also proposed or enacted several major tax changes not related to personal income taxes. For example, CPP payroll taxes are set to increase from 2019 to 2025, the equivalent of a \$170 per tonne carbon pricing will be imposed on provinces by 2030, and alcohol and tobacco excise taxes have been raised. While these tax changes are important, evaluating their impact on Canadians is beyond the scope of this paper.

Table A1: Federal personal income tax changes included in calculations

Tax change	Description
Reduction in the second lowest personal income tax rate	In 2016, the second lowest federal rate was reduced from 22.0 percent to 20.5 percent. As of 2019, the new 20.5 percent tax rate applies to taxable individual income earned from \$47,630 to \$95,259.
A new, higher top personal income tax rate	In 2016, a new, higher top tax rate of 33 percent was introduced. As of 2019, this rate applies to income above \$210,371. Previously, taxpayers faced a top federal marginal tax rate of 29.0 percent.
Elimination of income splitting	This tax credit, eliminated in 2016, allowed couples with children under the age of 18 to notionally split part of their income to reduce their tax bill. The maximum tax benefit was \$2,000.
Elimination of children's fitness tax credit	This tax credit allowed parents to claim expenses for qualifying programs of physical activities for a child under the age of 16. In 2015, the maximum tax benefit was \$150 per child. This was reduced to \$75 per child in 2016 and eliminated in 2017.
Elimination of children's arts tax credit	This tax credit allowed parents to claim eligible expenses up to a maximum of \$500 for programs of artistic, cultural, recreational or development activity. There was an additional payment made for children with disabilities. The tax credit was reduced in 2016 and eliminated in 2017.
Elimination of public transit tax credit	The value of the public transit tax credit was equal to 15 percent of the cost of purchasing an eligible public transit pass. This tax credit was eliminated in 2017.
Elimination of education and textbook tax credits	This tax credit, eliminated in 2017, allowed students enrolled in a qualifying educational program to claim up to \$400 per month that the student was enrolled in a full-time course of studies and \$120 per month for part-time enrolment. As for the textbook amount, a related tax credit, the maximum amount claimed was \$65 per month for full-time enrolment and \$20 per month for part-time enrolment.

Sources: Canada, Department of Finance (2016b, 2017b, and 2017c); CRA (2021b).

Note: Only changes that represent \$50 million in annual federal revenue are included in this list.

Table A2: Major federal personal income tax changes that are not included in the calculations

Tax change	Description
CPP changes	The CPP enhancements raised the contribution rate for both employers and employees to 5.95% from 4.95% (before enhancement) over a seven-year phase-in period that began on Jan. 1, 2019.
Reduction in the maximum annual contribu- tion to TFSAs	TSFAs allow Canadians to shelter the income that they earn from savings from taxation. The federal government reduced the maximum amount Canadians can contribute to their Tax-Free Savings Accounts (TSFAs) each year from \$10,000 in 2015 to \$5,500 in 2016. This represents a tax increase on the earnings from savings.
Restoring the labour-sponsored venture capital corporations tax credit	Canadians can claim a tax credit worth 15 percent of a contribution (up to \$5,000) made to a labour-sponsored venture capital corporation, which is a form of mutual fund that is sponsored by a labour organization. This tax credit was in the process of being phased-out, starting in 2015, but was fully restored in 2016.
Expansion of northern residents deduction	This tax credit allows Canadians in northern regions to deduct a certain amount of taxable income for every day of residence in a northern zone. In 2016, the maximum daily deduction increased from \$16.50 to \$22.00.
Consolidation of caregiver credits	Starting in 2017, the Canada Caregiver Credit consolidates and replaces three pre-existing tax credits: infirm dependent credit, the caregiver credit, and the family caregiver tax credit. The new tax credit provides a maximum benefit of \$6,883 (for 2017) for Canadians that support an eligible infirm relative as a dependent.

Sources: Canada, Department of Finance (2016b, 2017b, and 2017c); CRA (2021c).

Only changes that represent \$50 million in annual revenue are included in this list.

There is a strong economic rationale for phasing out the labour-sponsored venture capital corporations credit, as research finds it displaces more effective private venture capital funding and lowers the level of overall capital available to Canadian entrepreneurs (Cumming et al., 2007).

Appendix B: Breakdown of the overall average change for couples and singles with children paying higher personal income taxes

Table B1: Breakdown of the overall average change for couples with children paying higher personal income taxes

Family income range	Tax rate changes	Elimination of income splitting	Elimination of tax credits	Indirect effects	Overall average change
Quintile 1: \$1 – \$68,554	-12	148	76	-13	199
Quintile 2: \$68,555 – \$99,337	-122	670	73	-19	602
Quintile 3: \$99,338 – \$132,294	-363	1,218	78	-31	902
Quintile 4: \$132,295 – \$176,270	-619	1,445	117	-41	902
Quintile 5: \$176,271+	1,648	1,654	137	-132	3,307
All Incomes	25	998	91	-42	1,072

Source: Calculations by authors based on Statistics Canada's SPSD/M (version 28.1).

Note: Indirect effects include the effects from the Quebec Abatement and the indirect effect from other tax credits.

Table B2: Breakdown of the overall average change for singles with children paying higher personal income taxes

Family income range	Tax rate changes	Elimination of income splitting	Elimination of tax credits	Indirect effects	Overall average change
Quintile 1: \$1 – \$27,707	0	0	77	0	77
Quintile 2: \$27,708 – \$40,555	0	0	70	0	70
Quintile 3: \$40,556 – \$55,177	0	0	96	-2	94
Quintile 4: \$55,178 – \$78,538	-15	0	118	-3	100
Quintile 5: \$78,539 +	944	0	248	-74	1,118
All Incomes	119	0	116	-11	224

Source: Calculations by authors based on Statistics Canada's SPSD/M (version 28.1).

Note: Indirect effects include the effects from the Quebec Abatement and the indirect effect from other tax credits.

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Acknowledgments

The authors wish to thank the anonymous reviewers for their suggestions and feedback. Any remaining errors or oversights are the sole responsibility of the authors.

As the researchers have worked independently, the views and conclusions expressed in this paper do not necessarily reflect those of the Board of Directors of the Fraser Institute, the staff, or supporters.

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ISSN 2291-8620

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