

# Canadians Celebrate Tax Freedom Day on June 10, 2018

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## SUMMARY

- In 2018, the average Canadian family will earn \$115,724 in income and pay a total of \$50,464 in taxes (43.6%).
- If the average Canadian family had to pay its total tax bill of \$50,464 up front, it would have worked until June 9 to pay the total tax bill imposed on it by all three levels of government (federal, provincial, and local).
- This means that in 2018, the average Canadian family will celebrate Tax Freedom Day on June 10.
- Tax Freedom Day in 2018 is the same as in 2017, because the average Canadian family's total tax bill is expected to increase at a similar rate this year (3.1%) as its income (3.3%).
- Tax Freedom Day for each province varies according to the extent of the provincially levied tax burden. The earliest provincial Tax Freedom Day falls on May 22 in Alberta, while the latest falls on June 26 in Newfoundland & Labrador.
- The Balanced Budget Tax Freedom Day for Canada arrives on June 17. Put differently, if governments had to increase taxes to balance their budgets instead of financing expenditures with deficits (which are deferred taxes), Tax Freedom Day would arrive 7 days later.

## Introduction

It is difficult for ordinary Canadians to have a clear idea of how much total tax they really pay. Most Canadians would have little difficulty determining how much income tax they pay; a quick look at their income tax return or pay stub would suffice. The same is true for mandatory Employment Insurance (EI) and Canadian Pension Plan (CPP) premiums. However, there are a host of other taxes that are not so obvious. For instance, while Canadians are painfully aware of sales taxes, calculating the total amount paid would require people to track all of their purchases over the course of a year. Further, there is a class of taxes of which Canadians are largely unaware and which are built into the price of goods and services. The most notable of these “hidden” taxes are import duties, fuel taxes, carbon taxes, and excise taxes on tobacco and alcohol. Finally, most Canadians are unaware that they pay their employer’s portion of payroll taxes, such as EI and CPP premiums, and other taxes levied on businesses. Although businesses pay these taxes directly, the cost of business taxation is ultimately passed onto ordinary Canadians.<sup>1</sup>

Each year, the Fraser Institute calculates Tax Freedom Day to provide a comprehensive and easily understood indicator of the overall tax burden faced by the average Canadian family. This publication presents preliminary calculations for Tax Freedom Day in 2018.<sup>2</sup>

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<sup>1</sup> See Clemens and Veldhuis (2003) for a discussion of who actually pays business taxes and Ebrahimi and Vailancourt (2016) for empirical evidence in Canada on the incidence of business taxes.

<sup>2</sup> As is the case every year, Tax Freedom Day calculations are based on forecasts of personal income and federal and provincial budget tax revenue. When final revenue numbers become available at the end of each fiscal year and personal income data are updated by Statistics Canada, we revise our Tax Freedom Day calculations for previous years.

## Tax Freedom Day

Tax Freedom Day is the day in the year when the average Canadian family has earned enough money to pay the taxes imposed on it by the three levels of Canadian government: federal, provincial, and local. In other words, if Canadians were required to pay all of their taxes up front, they would have to pay each and every dollar they earned to government prior to Tax Freedom Day.

Taxes used to compute Tax Freedom Day include income taxes, payroll taxes, health taxes, sales taxes, property taxes, profit taxes, taxes on the consumption of alcohol and tobacco, fuel taxes, motor vehicle licence fees, carbon taxes, import duties, natural resource fees, and a host of other levies.

In 2018, Canadians will start working for themselves on June 10 (table 1). That is, Canadians must work until June 9 to pay the total tax bill imposed on them by all levels of government. From June 10 to the end of the year, taxpayers can use the income they earn as they please.

It is important to note that Tax Freedom Day is not intended to measure the benefits Canadians receive from governments in return for their taxes. Rather, it looks at the price that is paid for a product—government. Tax Freedom Day is not a reflection of the quality of the product, how much of it each of us receives, or whether we get our money’s worth. These are questions only each of us can answer for ourselves.

Canadians can calculate their personal Tax Freedom Day using the Fraser Institute’s Personal Tax Freedom Day Calculator at [www.fraserinstitute.org](http://www.fraserinstitute.org).

# Canadians Celebrate Tax Freedom Day on June 10, 2018

**Table 1: Tax Freedom Day**

	1981	1985	1995	2000 <sup>re</sup>	2005 <sup>re</sup>	2010 <sup>re</sup>	2015 <sup>re</sup>	2017 <sup>re</sup>	2018 <sup>pe</sup>
Newfoundland & Labrador	May 18	May 09	May 24	June 16	July 01	July 09	June 19	June 25	June 26
Prince Edward Island	May 06	June 07	May 22	June 01	June 13	May 30	June 08	June 03	June 02
Nova Scotia	May 11	May 17	May 31	June 10	June 21	June 08	June 14	June 14	June 15
New Brunswick	May 06	June 02	June 01	June 09	June 11	June 02	June 11	June 11	June 10
Quebec	June 07	June 17	June 09	July 07	July 02	June 22	June 28	June 22	June 21
Ontario	May 29	May 26	June 08	June 14	June 15	June 03	June 08	June 08	June 09
Manitoba	May 17	May 05	June 14	June 16	June 17	June 07	June 08	June 03	June 03
Saskatchewan	May 24	May 17	June 20	June 27	July 01	June 09	May 28	May 29	June 01
Alberta	May 30	May 22	June 02	June 21	June 15	May 23	May 21	May 22	May 22
British Columbia	June 09	June 16	June 12	July 01	June 27	June 08	June 10	June 06	June 05
<b>Canada</b>	May 30	June 06	June 11	June 25	June 24	June 09	June 11	June 10	June 10

## Without Natural Resources

Newfoundland & Labrador	May 17	May 08	May 23	June 15	June 22	June 10	June 14	June 16	June 17
Saskatchewan	May 15	May 09	June 13	June 15	June 19	May 30	May 23	May 25	May 28
Alberta	May 06	May 03	May 24	May 29	May 25	May 15	May 19	May 19	May 19
British Columbia	June 06	June 12	June 08	June 22	June 20	June 05	June 07	June 04	June 03
<b>Canada</b>	May 27	June 04	June 09	June 20	June 19	June 07	June 10	June 09	June 09

re = revised estimate; pe = preliminary estimate

Note: Data based on total taxes as a percentage of cash income for families with two or more individuals.

Source: The Fraser Institute's Canadian Tax Simulator, 2018.

## Trends in Tax Freedom Day

The latest Tax Freedom Day in Canadian history was in 2000, when it fell on June 25, almost two months later than in 1961 (May 3), the earliest year for which the calculation has been made. This year, Tax Freedom Day arrives on June 10, the same day as last year.<sup>3</sup>

<sup>3</sup> In last year's Tax Freedom Day publication (Palacios, Ren, and Lammam, 2017), our preliminary calculations estimated a June 9 Tax Freedom Day for 2017. This year we recalculated Tax Freedom Day for 2017 using updated provincial and federal budget numbers and updated data from Statistics Canada. Our revised calculations show that Tax Freedom Day in 2017 fell on June 10 (table 1).

It is important to note that Tax Freedom Day calculations are based on forecasts of personal income and budget forecasts of federal and provincial tax revenue. When final revenue numbers become available at the end of each fiscal year and personal income data are updated by Statistics Canada, we revise our Tax Freedom Day calculations for previous years. If federal and provincial revenue or personal income ends up lower (or higher) than currently projected, the 2018 Tax Freedom Day will change when the preliminary estimates are revised.<sup>4</sup>

<sup>4</sup> Historical Tax Freedom Days can change for other reasons as well. As is explained in the methodology section,

# Canadians Celebrate Tax Freedom Day on June 10, 2018

**Table 2: Taxes of the average family (with two or more individuals), 2018, preliminary estimates (\$CA)**

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Cash income	106,213	90,834	96,363	92,570	98,858	121,649	113,300	120,788	137,398	114,810	115,724
Income taxes	18,020	13,099	15,841	13,355	15,110	17,173	16,507	17,109	22,178	15,334	17,232
Payroll & health taxes	8,198	7,077	7,377	7,777	10,398	11,305	8,551	8,083	9,652	9,677	10,474
Sales taxes	8,786	7,310	7,657	7,452	7,710	8,498	8,272	8,644	3,745	7,255	7,738
Property taxes	2,427	2,496	3,764	3,922	3,853	5,281	3,632	3,541	3,960	4,648	4,406
Profits taxes	3,850	3,274	4,271	2,964	4,389	5,054	3,582	4,650	3,862	4,302	4,451
Liquor, tobacco, amusement, & other excise taxes	3,247	2,195	2,406	2,429	2,013	2,270	2,799	2,816	3,202	2,823	2,490
Auto, fuel, motor vehicle licence, & carbon taxes	1,828	1,006	1,140	1,364	1,313	1,525	1,460	1,810	2,075	1,793	1,588
Other taxes	1,817	1,027	579	769	773	1,148	2,175	1,337	2,460	1,608	1,301
Import duties	387	309	353	320	344	441	392	447	546	424	423
Natural resource levies	2,505	0	28	118	206	27	47	1,241	1,037	622	361
<b>Total tax bill</b>	<b>51,065</b>	<b>37,794</b>	<b>43,416</b>	<b>40,471</b>	<b>46,108</b>	<b>52,723</b>	<b>47,417</b>	<b>49,677</b>	<b>52,718</b>	<b>48,484</b>	<b>50,464</b>

Note: Payroll taxes include social security and pension deductions.

Source: The Fraser Institute's Canadian Tax Simulator, 2018.

## Income and the average family's total tax bill

Table 2 displays the taxes and income of the average family in Canada and in each of the provinces.<sup>5</sup> In 2018, the average Canadian family

Statistics Canada's Social Policy Simulation Database and Model (SPSD/M) is an important part of the Fraser Institute's Canadian Tax Simulator for calculating Tax Freedom Day from 1997 to 2018. The latest version of the SPSPD/M (version 26.0) is based on the 2014 Canadian Income Survey (CIS). This is a departure from the Survey of Labour and Income Dynamics (SLID), which was used in previous versions of SPSPD/M. For instance, last year's calculations were based on SPSPD/M, version 22.3, which used the 2010 SLID. While the Fraser Institute's methodology has not changed, the changes in the type of survey used and the base year from 2010 to 2014, have led to changes in historical Tax Freedom Days in some provinces.

<sup>5</sup> The average family income displayed throughout the report is not the true average of all families in a particular jurisdiction. Rather, the average income is determined by a sample of families that excludes those with incomes that

(with two or more individuals) will earn \$115,724 in cash income and pay a total of \$50,464 in taxes.<sup>6</sup> Put differently, the total tax bill of the average Canadian family in 2018 will amount to 43.6% of its income (table 8).

Between 2017 and 2018, the total tax bill of the average Canadian family increased by 3.1% (\$1,541). Meanwhile, cash income increased at approximately the same rate, by 3.3% (\$3,723) (table 4).

The largest increase among the myriad taxes comes in the form of income taxes—up \$934 for the average Canadian family (table 4). Other notable increases come in the form of payroll

are either significantly above or below the average. This is done to adjust for outliers.

<sup>6</sup> For a definition and explanation of cash income, see the methodology section at the end of this publication.

# Canadians Celebrate Tax Freedom Day on June 10, 2018

**Table 3: Taxes of the average family (with two or more individuals), 2017, revised estimates (\$CA)**

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Cash income	102,770	88,467	93,442	90,019	95,603	117,677	109,800	116,574	133,462	110,737	112,001
Income taxes	16,742	12,578	15,047	12,594	14,367	16,002	15,783	16,004	21,494	14,464	16,299
Payroll & health taxes	7,743	6,771	7,002	7,461	10,124	10,870	8,193	7,697	9,409	9,591	10,136
Sales taxes	8,799	7,162	7,373	7,246	7,499	8,259	8,219	7,948	3,702	7,032	7,531
Property taxes	2,341	2,490	3,645	3,801	3,704	5,019	3,533	3,423	3,875	4,555	4,270
Profits taxes	3,794	3,367	4,368	3,345	4,391	5,124	3,608	4,626	3,695	4,519	4,532
Liquor, tobacco, amusement, & other excise taxes	3,166	2,172	2,380	2,390	2,011	2,279	2,760	2,759	3,216	2,771	2,479
Auto, fuel, motor vehicle licence, & carbon taxes	1,873	1,021	1,116	1,496	1,332	1,600	1,127	1,775	1,874	1,652	1,568
Other taxes	1,792	1,020	567	755	820	1,133	2,124	1,306	2,408	1,591	1,295
Import duties	384	311	351	321	346	442	393	445	558	426	426
Natural resource levies	2,358	0	34	124	195	27	53	1,166	1,250	679	386
<b>Total tax bill</b>	<b>48,993</b>	<b>36,892</b>	<b>41,883</b>	<b>39,533</b>	<b>44,790</b>	<b>50,756</b>	<b>45,793</b>	<b>47,148</b>	<b>51,481</b>	<b>47,280</b>	<b>48,923</b>

Note: Payroll taxes include social security and pension deductions.

Source: The Fraser Institute's Canadian Tax Simulator, 2018.

**Table 4: Difference in the Average Family's Tax Bill between 2018 and 2017 (\$CA)**

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Cash income	3,443	2,368	2,921	2,551	3,255	3,972	3,500	4,215	3,936	4,073	3,723
Income taxes	1,279	521	794	761	743	1,171	724	1,105	684	870	934
Payroll & health taxes	454	306	374	316	274	436	358	386	243	86	337
Sales taxes	(14)	148	284	206	211	239	53	696	43	223	207
Property taxes	86	6	120	121	148	262	99	117	85	93	136
Profits taxes	56	(92)	(97)	(381)	(2)	(70)	(26)	24	167	(217)	(81)
Liquor, tobacco, amusement, & other excise taxes	81	24	26	40	2	(9)	39	57	(14)	51	10
Auto, fuel, motor vehicle licence, & carbon taxes	(46)	(15)	25	(132)	(19)	(75)	332	36	201	141	20
Other taxes	24	7	11	14	(47)	15	51	31	52	17	6
Import duties	4	(2)	2	(1)	(2)	(2)	(1)	2	(11)	(3)	(3)
Natural resource levies	147	0	(6)	(6)	11	0	(5)	75	(212)	(56)	(25)
<b>Total tax bill</b>	<b>2,072</b>	<b>902</b>	<b>1,532</b>	<b>938</b>	<b>1,318</b>	<b>1,967</b>	<b>1,624</b>	<b>2,529</b>	<b>1,238</b>	<b>1,205</b>	<b>1,541</b>

Notes: (1) Numbers may not add due to rounding.

(2) In Ontario, the decrease in the category "auto, fuel, motor vehicle licence, & carbon taxes" is due to an expected reduction in carbon allowance proceeds which follows a robust increase in carbon-related tax revenue from the cap-and-trade auctions held in 2017/18. All other taxes in this category are expected to increase in 2018/19.

Source: The Fraser Institute's Canadian Tax Simulator, 2018.



**Table 5: Tax Freedom Days including government deficits, 2018, preliminary estimates**

	Tax Freedom Day	Balanced Budget Tax Freedom Day	Total increase (days)
NL	June 25	July 11	16
PE	June 03	June 06	3
NS	June 14	June 19	5
NB	June 11	June 17	6
QC	June 22	June 24	2
ON	June 08	June 17	9
MB	June 03	June 11	8
SK	May 29	June 07	9
AB	May 22	June 07	16
BC	June 06	June 08	2
CDA	June 10	June 17	7

Sources: The Fraser Institute's Canadian Tax Simulator, 2018; 2018 Federal and Provincial Budgets; calculations by authors.

and health taxes (\$337),<sup>7</sup> sales taxes (\$207), and property taxes (\$136). The taxes that decreased between 2017 and 2018 for the average Canadian family were profit taxes,<sup>8</sup> natural resources levies, and import duties (table 4).

<sup>7</sup> The payroll tax increase is driven by the increase in the Employment Insurance contribution rate from \$1.63 per \$100 to \$1.66 per \$100 in 2018.

<sup>8</sup> The federal government projects a decline in corporate income tax revenue in 2018/19 due in part to the reduction in the small business tax rate from 10.5% to 10% effective January 1, 2018 and to 9% effective January 1, 2019. British Columbia's corporate income tax revenue is expected to decline in 2018/19 due to the decrease in the settlement payment for prior years (for more details, see pages 11 and 12 from the 2018 British Columbia budget), partly offset by an increase in instalments reflecting the full-year impact of increasing the general income tax rate from 11% to 12%, effective January 1, 2018. Similarly, Ontario's corporate income tax revenue is expected to decline due to prior year and other adjustments. In New Brunswick, the provincial government expects a drop of 27% in corporate income tax

## Tax Freedom Day by province

Tax Freedom Day for each province varies according to the extent of the provincially levied tax burden (table 1). This year, the earliest provincial Tax Freedom Day falls on May 22 in Alberta; the latest in Newfoundland & Labrador on June 26.

Compared to last year, Tax Freedom Day in 2018 comes later in four provinces. The largest delay in Tax Freedom Day among the provinces occurs in Saskatchewan, where taxpayers must wait an additional three days to celebrate the day. Taxpayers in Ontario, Newfoundland & Labrador, and Nova Scotia wait one extra day to celebrate Tax Freedom Day this year.<sup>9</sup> Taxpayers in Manitoba and Alberta celebrate Tax Freedom Day on the same day as last year. Tax Freedom Day arrives one day earlier in British Columbia, Quebec, Prince Edward Island, and New Brunswick.<sup>10</sup>

revenue partly due to the reduction of the small business tax rate from 3% to 2.5% effective April 1, 2018.

<sup>9</sup> In Ontario, total taxes for the average family are expected to increase at a faster rate than income (3.9% versus 3.4%), which results in a one-day delay in Tax Freedom Day. This is partly due to a progressive tax system. As incomes increase, personal taxes increase to a greater extent. Similarly, household consumption also increases, which results in an increase in the amount of sales and other consumption taxes that families pay.

<sup>10</sup> The earlier Tax Freedom Day in BC is driven primarily by a reduction in Medical Service Plan premiums (health taxes), which was first announced in the 2017 February budget by the previous Liberal government. The current NDP government followed through with the policy. However, the NDP also enacted or announced a series of tax increases in the 2017 fiscal update and 2018 budget including increases to the top personal income tax rate, general corporate income tax rate, carbon tax, luxury auto tax, foreign buyers' tax, speculation tax, property tax on homes valued over \$3 million, fuel tax, tobacco tax, and a new employer health payroll tax. If all the announced tax increases that have yet to be fully implemented are included in the calculations, BC's Tax Freedom Day would likely come later.

# Canadians Celebrate Tax Freedom Day on June 10, 2018

**Table 6: Average income and tax for three different types of family, 2018, preliminary estimates (\$CA)**

## 1. Families and unattached individuals

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Avg. cash income	86,835	72,902	73,995	74,745	74,751	93,775	89,362	95,158	108,628	87,708	88,767
Total tax	40,764	29,736	32,983	31,508	35,183	40,832	36,174	38,928	41,340	37,284	38,325
Tax rate	46.9%	40.8%	44.6%	42.2%	47.1%	43.5%	40.5%	40.9%	38.1%	42.5%	43.2%
Tax rate (excluding natural resources)	44.6%	40.8%	44.5%	42.0%	46.9%	43.5%	40.4%	39.9%	37.3%	42.0%	42.9%

## 2. Families with two or more individuals

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Avg. cash income	106,213	90,834	96,363	92,570	98,858	121,649	113,300	120,788	137,398	114,810	115,724
Total tax	51,065	37,794	43,416	40,471	46,108	52,723	47,417	49,677	52,718	48,484	50,464
Tax rate	48.1%	41.6%	45.1%	43.7%	46.6%	43.3%	41.9%	41.1%	38.4%	42.2%	43.6%
Tax rate (excluding natural resources)	45.7%	41.6%	45.0%	43.6%	46.4%	43.3%	41.8%	40.1%	37.6%	41.7%	43.3%

## 3. Families of four (parents and two children under 18)

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Avg. cash income	139,105	132,717	131,391	129,204	114,863	141,967	126,747	146,654	153,504	147,150	138,008
Total tax	67,945	55,159	59,914	55,520	48,399	55,198	47,955	57,383	54,765	59,198	55,079
Tax rate	48.8%	41.6%	45.6%	43.0%	42.1%	38.9%	37.8%	39.1%	35.7%	40.2%	39.9%
Tax rate (excluding natural resources)	46.1%	41.6%	45.6%	42.8%	41.9%	38.9%	37.8%	38.0%	34.8%	39.7%	39.6%

Source: The Fraser Institute's Canadian Tax Simulator, 2018.

There is an unresolved debate as to whether natural resource royalties are actually a tax, or simply the conversion of a balance sheet asset (“public asset”) into an income stream. This debate is not one we attempt to resolve in our annual calculations. For this reason, we provide two sets of Tax Freedom Days for provinces with significant natural resources, one including and one excluding resource royalties. If natural resource revenues are excluded, Tax Freedom Day is nine days earlier in Newfoundland & Labrador, four days earlier in Saskatchewan, three days earlier in Alberta, and two days earlier in British Columbia (table 1).

## Balanced Budget Tax Freedom Day

Canadians may be thinking about the economic and tax implications of budget deficits since the federal government and six provinces (Newfoundland & Labrador, New Brunswick, Ontario, Manitoba, Saskatchewan, and Alberta) are forecasting budget deficits this year.<sup>11</sup> Specifically,

<sup>11</sup> British Columbia, Quebec, Nova Scotia, and Prince Edward Island are expecting to balance their operating budgets but will still accumulate net debt because these provinces separate their annual spending (the operating budget) from long-term spending (the capital budget). For further discussion, see Wen (2014).

# Canadians Celebrate Tax Freedom Day on June 10, 2018

**Table 7: Breakdown of the average family's tax bill by level of government, 2018, preliminary estimate**

	Federal		Provincial		Local		Tax bill
	\$	% of total	\$	% of total	\$	% of total	\$
NL	25,511	52.5%	20,520	42.3%	2,530	5.2%	48,560
PE	19,778	52.3%	17,119	45.3%	896	2.4%	37,794
NS	22,833	52.6%	16,744	38.6%	3,811	8.8%	43,388
NB	21,362	52.9%	16,614	41.2%	2,377	5.9%	40,353
QC	20,667	45.0%	21,332	46.5%	3,904	8.5%	45,902
ON	28,259	53.6%	19,462	36.9%	4,975	9.4%	52,696
MB	24,687	52.1%	18,976	40.1%	3,707	7.8%	47,370
SK	27,693	57.2%	17,089	35.3%	3,654	7.5%	48,436
AB	34,245	66.3%	14,040	27.2%	3,397	6.6%	51,681
BC	26,750	55.9%	18,331	38.3%	2,781	5.8%	47,862
CDA	26,613	53.1%	19,533	39.0%	3,957	7.9%	50,103

Notes:

(1) The average family with two or more individuals.

(2) The total tax bill presented on this table excludes natural resource levies. For this reason, this differs from the one shown on table 2.

Source: The Fraser Institute's Canadian Tax Simulator, 2018.

the federal government alone is projecting an \$18.1 billion deficit this year while the provinces are cumulatively forecasting deficits amounting to \$17.3 billion.<sup>12</sup>

Of course, today's deficits must one day be paid for by taxes. Deficits should therefore be considered as deferred taxation. For this reason, we calculate a Balanced Budget Tax Freedom Day, the day on which average Canadians would start working for themselves if governments were obliged to cover current expenditures with current taxation.

Table 5 presents Balanced Budget Tax Freedom Days for Canada and the provinces. Balanced Budget Tax Freedom Day for Canada arrives on

June 17. Put differently, if governments had to increase taxes to balance their budgets instead of financing expenditures with deficits, Tax Freedom Day would arrive 7 days later.

Among the provinces, the latest Balanced Budget Tax Freedom Day occurs in Newfoundland & Labrador and falls on July 11, which is 16 days later than Tax Freedom Day. Notably, the Balanced Budget Tax Freedom Day is considerably later for several other provinces including Alberta (16 days), Ontario and Saskatchewan (9 days later), Manitoba (8 days later), and New Brunswick (6 days later) than their Tax Freedom Days.

## Fairness in the tax system

In addition to the size of the average family's tax bill, there are concerns about the fairness of

<sup>12</sup> The cumulative deficit figure only includes those provinces with forecasted deficits for 2018/19.



**Table 8: Tax Rates (percent)**

	1981	1985	1995	2000 <sup>re</sup>	2005 <sup>re</sup>	2010 <sup>re</sup>	2015 <sup>re</sup>	2017 <sup>re</sup>	2018 <sup>pe</sup>
Newfoundland & Labrador	37.4	34.9	38.9	45.5	49.4	51.6	46.2	47.7	48.1
Prince Edward Island	34.2	42.8	38.5	41.4	44.4	40.8	43.0	41.7	41.6
Nova Scotia	35.5	37.0	40.9	44.0	46.7	43.2	44.8	44.8	45.1
New Brunswick	34.2	41.6	41.1	43.5	44.1	41.6	44.0	43.9	43.7
Quebec	42.9	45.6	43.5	51.1	49.7	47.0	48.7	46.8	46.6
Ontario	40.3	39.5	43.1	44.9	45.2	41.9	43.0	43.1	43.3
Manitoba	37.2	33.8	44.7	45.6	45.6	43.0	43.1	41.7	41.9
Saskatchewan	39.0	37.1	46.5	48.5	49.6	43.5	40.0	40.4	41.1
Alberta	40.6	38.5	41.4	46.9	45.0	38.8	38.3	38.6	38.4
British Columbia	43.4	45.2	44.3	49.6	48.3	43.2	43.7	42.7	42.2
<b>Canada</b>	40.8	42.7	43.9	47.9	47.4	43.5	44.1	43.7	43.6

### Without Natural Resources

Newfoundland & Labrador	37.2	34.6	38.8	45.3	47.0	43.8	44.7	45.4	45.7
Saskatchewan	36.5	34.8	44.6	45.4	46.1	40.8	38.8	39.4	40.1
Alberta	34.2	33.3	39.1	40.5	39.2	36.5	37.8	37.6	37.6
British Columbia	42.6	44.3	43.1	47.2	46.3	42.3	43.0	42.1	41.7
<b>Canada</b>	39.9	42.1	43.4	46.7	46.3	42.9	43.8	43.3	43.3

re = revised estimate; pe = preliminary estimate

Note: Data based on total taxes as a percentage of cash income for families with two or more individuals.

Source: The Fraser Institute's Canadian Tax Simulator, 2018.

the Canadian tax system. Only the top 20% of income earners in Canada pay a higher share of all taxes than their share of all income earned. Specifically, the top 20% pays 54.4% of all taxes while earning 46.9% of all income. At the other end of the income spectrum, the bottom 20% pays 2.0% of all taxes despite earning 4.8% of all income (table 9). The overall distribution shows that Canada's tax system is effectively progressive and extracts proportionately more money from those on the higher end of the income scale, in effect penalizing hard work and economic success.

### Marginal versus average tax rates

The tax rate that someone faces on the next dollar of income that he or she earns is referred to as the "marginal tax rate." It can differ dramatically from the average tax rate, which is the rate that we are most accustomed to thinking about. Table 9 shows both marginal and average rates for different income levels in 2018. It is this marginal tax rate that enters into people's decisions about how much to work. When someone decides whether or not to work an extra hour, she asks herself how much extra she will earn and how much extra tax she will pay. She does not consider how much tax she is paying *on average*, because this does not reflect the true return to any extra effort she may wish to provide.

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**Table 9: The distribution of cash income and tax across deciles, and the average and marginal tax rates by decile, 2018, preliminary estimate**

Decile	1	2	3	4	5	6	7	8	9	10
<i>Distribution across deciles</i>										
Tax	0.5%	1.5%	3.0%	4.5%	6.1%	7.9%	9.8%	12.3%	16.5%	37.9%
Income	1.6%	3.2%	4.4%	5.5%	6.9%	8.4%	10.3%	12.8%	16.5%	30.4%
<b>Average tax rate</b>	14.2%	21.7%	31.1%	37.1%	40.6%	42.5%	43.5%	43.9%	45.9%	56.9%
<i>Marginal tax rates when moving from a lower to a higher decile</i>										
		<b>1 → 2</b>	<b>2 → 3</b>	<b>3 → 4</b>	<b>4 → 5</b>	<b>5 → 6</b>	<b>6 → 7</b>	<b>7 → 8</b>	<b>8 → 9</b>	<b>9 → 10</b>
		28.7%	57.1%	60.9%	54.2%	51.3%	47.8%	45.7%	52.6%	69.8%

Notes:

(1) Deciles group families from lowest to highest incomes with each group containing ten percent of all families. The first decile, for example, represents the ten percent of families with the lowest incomes.

(2) Deciles may not sum to 100% due to rounding.

(3) The marginal tax rate is the change in the average tax paid by decile relative to the change in average income, when moving from one decile to a higher decile.

Source: The Fraser Institute's Canadian Tax Simulator, 2018.

As table 9 shows, these rates jump considerably as one moves from the second to the third income group, reflecting that initially it is very costly to work because one rapidly loses social assistance. The reason for this result is that many social assistance payments are reduced (the gains are “clawed back”) once the recipient starts earning income. In effect, these claw-backs can cause the tax rate on the first few dollars of earned income to be very high. This effect fades in the middle income brackets but rises again at higher levels of income due to the effect of increasing progressivity.

## Conclusion

The Canadian tax system is complex and no single number can give us a complete idea of who pays how much. That said, Tax Freedom Day is the most comprehensive and easily un-

derstood indicator of the overall tax bill of the average Canadian family. In 2018, Canadians will celebrate Tax Freedom Day on June 10, the same day as last year.

## Methodology—How the Fraser Institute's Canadian Tax Simulator Works

Tax Freedom Days are calculated using the Fraser Institute's Canadian Tax Simulator. The Canadian Tax Simulator is a model we use to calculate all the taxes paid to the three levels of government by average families. The calculation has two parts. First, we calculate total cash income, then we estimate total taxes paid.

Cash income includes wages and salaries, self-employment income (farm and non-farm), interest, dividends, private and government pension payments, old age pension payments, and

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other transfers from governments (such as the Canada Child Benefit). The sources for this data are Statistics Canada (Provincial Economic Accounts; National Accounts; Investment Income division, farm income series) and the Canada Revenue Agency.

A broader definition of income is total income before taxes, which includes cash income plus fringe benefits from employment, the value of food from farms, investment income from pension plans and insurance companies, and corporate retained earnings. However, cash income is the appropriate income measure to convey the size of the total tax bill imposed on Canadian families because total income before taxes includes deferred incomes such as investment income accumulated by pension plans, interest accumulated on insurance policies, and corporate retained earnings. While these types of incomes are accumulated, they are not paid to Canadian families in the current year, and thus should not be considered as part of their income for Tax Freedom Day calculations.

The tax calculation consists of adding up the various taxes that Canadian families pay to the three levels of government: federal, provincial, and local. These include income taxes, payroll taxes, health taxes, sales taxes, property taxes, profit taxes, fuel taxes, vehicle taxes, carbon taxes, import duties, liquor taxes, tobacco taxes, amusement taxes, natural resource fees, and a host of other levies. The tax data comes from Statistics Canada (System of National Accounts, Government Finance) as well as federal and provincial public accounts and government budgets (for the latest year of analysis).

Statistics Canada's Social Policy Simulation Database and Model, version 26.1 (SPSD/M), is an important part of the Canadian Tax Simulator; it is used to calculate Tax Freedom Days from

1997 to 2018. SPSPD/M helps allocate federal taxes to the provinces as well as cash income and tax shares to an average family.

After the current income and tax totals for each family type are determined, Tax Freedom Day is calculated by dividing total taxes paid in the current year by total cash income. The result is then converted to days of the year, starting from January 1. That date on the calendar is then Tax Freedom Day.

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## Disclaimer

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