



Canadians Celebrate Tax Freedom Day on June 9, 2017

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SUMMARY

- In 2017, the average Canadian family will earn \$108,674 in income and pay a total of \$47,135 in taxes (43.4%).
- If the average Canadian family had to pay its total tax bill of \$47,135 up front, it would have worked until June 8 to pay the total tax bill imposed on them by all three levels of government (federal, provincial, and local).
- This means that in 2017, the average Canadian family will celebrate Tax Freedom Day on June 9.
- Tax Freedom Day in 2017 arrives one day later than in 2016, when it fell on June 8, because the average Canadian family's total tax bill is expected to increase at a faster rate this year (2.4%) than the growth in income (2.2%).
- 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 21 in Alberta, while the latest falls on June 25 in Newfoundland & Labrador.
- The Balanced Budget Tax Freedom Day for Canada arrives on June 18. Put differently, if governments had to increase taxes to balance their budgets instead of financing expenditures with deficits, Tax Freedom Day would arrive 9 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.¹

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 2017.²

¹ See Clemens and Veldhuis (2003) for a discussion of who actually pays business taxes. See Ebrahimi and Vaillancourt (2016) and McKenzie and Ferde (2017) for empirical evidence in Canada on the incidence of business taxes.

² 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 2017, Canadians start working for themselves on June 9 (table 1). That is, Canadians must work until June 8 to pay the total tax bill imposed on them by all levels of government. From June 9 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.

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Table 1: Tax Freedom Day

	1981	1985	1995	2000 ^{re}	2005 ^{re}	2010 ^{re}	2015 ^{re}	2016 ^{re}	2017 ^{pe}
Newfoundland & Labrador	May 18	May 09	May 24	June 10	July 01	July 09	June 19	June 23	June 25
Prince Edward Island	May 06	June 07	May 22	May 29	June 12	May 31	June 09	June 03	June 04
Nova Scotia	May 11	May 17	May 31	June 12	June 20	June 07	June 14	June 11	June 11
New Brunswick	May 06	June 02	June 01	June 07	June 10	June 04	June 10	June 07	June 09
Quebec	June 07	June 17	June 09	July 05	June 30	June 20	June 28	June 22	June 21
Ontario	May 29	May 26	June 08	June 17	June 16	June 03	June 09	June 05	June 07
Manitoba	May 17	May 05	June 14	June 18	June 16	June 07	June 11	June 05	June 06
Saskatchewan	May 24	May 17	June 20	June 26	June 29	June 09	May 31	May 24	May 29
Alberta	May 30	May 22	June 02	June 24	June 16	May 25	May 22	May 20	May 21
British Columbia	June 09	June 16	June 12	June 28	June 22	June 05	June 09	June 07	June 04
Canada	May 30	June 06	June 11	June 25	June 23	June 09	June 12	June 08	June 09

Without Natural Resources

Newfoundland & Labrador	May 17	May 08	May 23	June 09	June 22	June 10	June 13	June 14	June 17
Saskatchewan	May 15	May 09	June 13	June 14	June 16	May 31	May 27	May 21	May 26
Alberta	May 06	May 03	May 24	May 30	May 26	May 16	May 20	May 18	May 18
British Columbia	June 06	June 12	June 08	June 19	June 15	June 02	June 07	June 05	June 02
Canada	May 27	June 04	June 09	June 21	June 19	June 06	June 11	June 07	June 08

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, 2017.

A later 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 9, one day later than in 2016, when it fell on June 8.³ There are two main reasons for the

delay. First, Canada's economy is expected to improve in 2017, after two years of very weak growth. When the economy recovers and incomes increase, a family's tax burden tends to increase to a greater extent because of our progressive tax system. Household consumption also increases, which results in an increase in the amount of sales and other consumption taxes that Canadian families pay. Business profits rise as well, increasing the amount of profit taxes paid.

³ In last year's Tax Freedom Day publication (Palacios, Lammam, and Ren, 2016), our preliminary calculations estimated a June 7 Tax Freedom Day for 2016. This year we recalculated Tax Freedom Day for 2016 using updated provincial and federal budget numbers and updated data from Statistics Canada. Our revised calculations show that Tax Freedom Day in 2016 fell on June 8 (table 1).

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Table 2: Taxes of the average family (with two or more individuals), 2017, preliminary estimates (\$ Cdn)

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Cash income	105,388	82,222	92,415	91,302	94,323	111,790	103,347	120,585	134,706	110,376	108,674
Income taxes	17,598	11,662	15,307	13,154	14,841	15,034	15,894	16,822	21,040	14,378	15,854
Payroll & health taxes	8,234	6,314	7,053	7,488	9,992	10,391	7,887	8,127	9,110	9,494	9,809
Sales taxes	9,139	6,399	7,391	7,224	7,285	7,923	7,722	8,510	3,639	6,768	7,302
Property taxes	2,010	2,614	3,001	3,729	3,482	5,038	3,040	3,105	4,499	4,504	4,229
Profits taxes	3,599	3,452	3,533	3,017	3,876	4,601	3,283	4,523	4,109	4,558	4,208
Liquor, tobacco, amusement, & other excise taxes	3,364	2,043	2,433	2,473	1,987	2,141	2,695	3,060	3,377	2,752	2,417
Fuel, motor vehicle licence, & carbon taxes	1,960	933	1,146	1,496	1,329	1,430	1,077	1,823	1,877	1,626	1,486
Other taxes	1,714	864	482	717	703	976	1,965	1,238	2,270	1,433	1,138
Import duties	359	270	313	300	316	377	353	420	508	382	375
Natural resource levies	2,335	0	35	115	191	24	43	1,197	1,005	580	317
Total tax bill	50,312	34,551	40,693	39,713	44,003	47,935	43,958	48,826	51,433	46,473	47,135

Note: Payroll taxes include social security and pension deductions.

Source: The Fraser Institute's Canadian Tax Simulator, 2017.

Tax Freedom Day also comes later in 2017 because some Canadian governments have increased taxes.⁴

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 fed-

eral and provincial revenue or personal income ends up lower (or higher) than currently projected, the 2017 Tax Freedom Day will change when the preliminary estimates are revised.

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.⁵ In 2017, the average Canadian family (with two or more individuals) will earn \$108,674 in cash income and pay a total of \$47,135 in taxes.⁶

⁴ For instance, in 2017 British Columbia increased tobacco taxes; Alberta introduced a new carbon levy; Saskatchewan increased its provincial sales tax (PST) rate and base, the corporate capital tax rate on large financial institutions, tobacco taxes, liquor mark-ups, and the education property tax (Saskatchewan did decrease some taxes but taken together with the increases the net effect is higher taxes); and Ontario introduced a non-resident speculation tax and a new cap-and-trade system and increased tobacco taxes. A complete delineation of tax changes is available in the 2017 federal and provincial budgets.

⁵ 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 are either significantly above or below the average. This is done to adjust for outliers.

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

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Table 3: Taxes of the average family (with two or more individuals), 2016, revised estimates (\$ Cdn)

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Cash income	103,267	80,861	90,316	89,188	93,781	109,467	101,675	118,628	132,170	106,134	106,293
Income taxes	17,020	11,420	14,631	12,637	14,697	14,271	15,334	16,667	20,788	13,984	15,312
Payroll & health taxes	8,165	6,396	7,073	7,485	10,323	10,365	7,948	8,296	9,254	9,528	9,874
Sales taxes	8,358	5,843	7,203	6,557	7,220	7,625	7,577	6,304	3,559	6,480	6,991
Property taxes	2,067	2,571	2,955	3,665	3,513	4,976	3,024	3,113	4,467	4,631	4,189
Profits taxes	3,208	3,435	3,541	2,979	3,892	4,602	3,158	4,634	3,888	4,342	4,116
Liquor, tobacco, amusement, & other excise taxes	3,364	2,084	2,442	2,441	2,065	2,178	2,700	3,011	3,406	2,731	2,441
Fuel, motor vehicle licence, & carbon taxes	2,193	946	1,129	1,509	1,329	1,026	1,079	1,747	1,374	1,599	1,283
Other taxes	1,717	850	462	691	655	955	1,932	1,210	2,230	1,386	1,100
Import duties	396	304	346	331	359	420	393	474	570	419	417
Natural resource levies	2,555	0	33	129	186	25	46	1,029	667	655	286
Total tax bill	49,043	33,850	39,814	38,426	44,238	46,441	43,190	46,485	50,204	45,754	46,009

Note: Payroll taxes include social security and pension deductions.

Source: The Fraser Institute's Canadian Tax Simulator, 2017.

Table 4: Difference in the average family's tax bill between 2017 and 2016 (\$ Cdn)

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Cash income	2,121	1,361	2,098	2,114	542	2,323	1,672	1,957	2,537	4,242	2,382
Income taxes	577	241	676	516	144	764	560	155	252	393	542
Payroll & health taxes	69	-81	-20	2	-331	27	-61	-169	-144	-35	-65
Sales taxes	782	556	188	667	65	298	145	2,206	79	288	311
Property taxes	-56	43	46	64	-31	62	17	-8	32	-127	40
Profits taxes	391	17	-8	38	-16	-2	125	-110	221	216	92
Liquor, tobacco, amusement, & other excise taxes	0	-42	-9	32	-77	-37	-5	49	-30	21	-24
Fuel, motor vehicle licence, & carbon taxes	-233	-13	17	-13	0	404	-3	76	503	28	204
Other taxes	-3	14	20	26	48	21	34	28	40	47	38
Import duties	-38	-34	-33	-32	-43	-43	-41	-54	-62	-37	-42
Natural resource levies	-220	0	2	-14	5	-1	-3	168	337	-74	31
Total tax bill	1,269	701	878	1,287	-236	1,494	768	2,341	1,229	719	1,126

Note: Numbers may not add due to rounding.

Source: The Fraser Institute's Canadian Tax Simulator, 2017.

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Put differently, the total tax bill of the average Canadian family in 2017 will amount to 43.4% of its income (table 8).

Between 2016 and 2017, the total tax bill of the average Canadian family increased by 2.4% (\$1,126). This compares to a smaller percentage increase in cash income of 2.2% (\$2,382) (table 4).

The largest increase among the myriad taxes comes in the form of income taxes—up \$542 for the average Canadian family (table 4). Other notable increases come in the form of sales taxes (\$311), fuel, motor vehicle, and carbon taxes (\$204), and profit taxes (\$92). The taxes that decreased between 2016 and 2017 for the average Canadian family were liquor, tobacco, amusement, and other excise taxes; payroll and health taxes;⁷ and import duties (table 4).

Table 5: Tax Freedom Days including government deficits, 2017, preliminary estimates

	Tax Freedom Day	Balanced Budget Tax Freedom Day	Total increase (days)
NL	June 25	July 15	20
PE	June 04	June 11	7
NS	June 11	June 17	6
NB	June 09	June 19	10
QC	June 21	June 26	5
ON	June 07	June 14	7
MB	June 06	June 19	13
SK	May 29	June 10	12
AB	May 21	June 13	23
BC	June 04	June 11	7
CDA	June 09	June 18	9

Sources: The Fraser Institute's Canadian Tax Simulator, 2017; 2017 Federal and Provincial Budgets; calculations by authors.

⁷ The payroll tax reduction is driven by the reduction in the Employment Insurance contribution rate from \$1.88 per \$100 to \$1.63 per \$100 in 2017.

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 21 in Alberta; the latest in Newfoundland & Labrador on June 25.⁸

Compared to last year, Tax Freedom Day comes later in 2017 for all but two provinces. This means that most Canadians will work more for the government and less for themselves and their families this year. The largest delay in Tax Freedom Day among the provinces occurs in Saskatchewan, where taxpayers must wait an additional five days to celebrate Tax Freedom Day. Taxpayers in Ontario, New Brunswick, and Newfoundland & Labrador wait two extra days to celebrate Tax Freedom Day this year. The delay in Prince Edward Island, Manitoba, and Alberta is one day. Taxpayers in Nova Scotia celebrate Tax Freedom Day on the same day as last year.

Quebec and British Columbia are the only provinces where Tax Freedom Day comes earlier this year. In Quebec, Tax Freedom Day is one day earlier, in part due to tax reductions. While BC's Tax Freedom Day comes three days earlier, this result is based on the province's February budget, before the election in May. At the time of writing, the BC NDP and the Green Party have struck a power-sharing agreement that proposes several significant tax changes including increases to personal income taxes, business taxes, and carbon taxes. If these tax increases are included in the calculations, Tax Freedom Day would likely come later in BC.

⁸ Please note the tax data used for Quebec in this year's report is based on consolidated budget forecasts, not the general revenue fund, as was used in previous years.

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Table 6: Average income and tax for three different types of family, 2017, preliminary estimates (\$ Cdn)

1. Families and unattached individuals

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Avg. cash income	84,124	65,464	71,205	72,712	72,149	89,869	80,941	92,979	108,984	82,142	85,055
Total tax	39,093	26,997	30,144	29,850	33,564	38,731	33,125	36,226	40,756	33,919	36,251
Tax rate	46.5%	41.2%	42.3%	41.1%	46.5%	43.1%	40.9%	39.0%	37.4%	41.3%	42.6%
Tax rate (excluding natural resources)	44.3%	41.2%	42.3%	40.9%	46.3%	43.1%	40.9%	38.0%	36.6%	40.8%	42.3%

2. Families with two or more individuals

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Avg. cash income	105,388	82,222	92,415	91,302	94,323	111,790	103,347	120,585	134,706	110,376	108,674
Total tax	50,312	34,551	40,693	39,713	44,003	47,935	43,958	48,826	51,433	46,473	47,135
Tax rate	47.7%	42.0%	44.0%	43.5%	46.7%	42.9%	42.5%	40.5%	38.2%	42.1%	43.4%
Tax rate (excluding natural resources)	45.5%	42.0%	44.0%	43.4%	46.4%	42.9%	42.5%	39.5%	37.4%	41.6%	43.1%

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

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Avg. cash income	146,778	93,083	115,131	121,563	114,077	127,968	125,508	144,409	159,811	129,734	127,814
Total tax	70,302	33,625	53,802	51,855	50,983	48,945	52,000	55,754	60,333	48,871	51,336
Tax rate	47.9%	36.1%	46.7%	42.7%	44.7%	38.2%	41.4%	38.6%	37.8%	37.7%	40.2%
Tax rate (excluding natural resources)	45.6%	36.1%	46.7%	42.5%	44.5%	38.2%	41.4%	37.5%	36.9%	37.1%	39.8%

Source: The Fraser Institute's Canadian Tax Simulator, 2017.

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 eight days earlier in Newfoundland & Labrador, three days earlier in Alberta and Saskatchewan, 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 half of the provinces (Newfoundland & Labrador, New Brunswick, Manitoba, Saskatchewan, and Alberta) are forecasting budget deficits this year.⁹ Specifically, the federal government alone is projecting a

⁹ British Columbia, Ontario, Quebec, Nova Scotia and Prince Edward Island are expecting to balance their operating budget 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).

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Table 7: Breakdown of the average family's tax bill by level of government, 2017, preliminary estimate

	Federal		Provincial		Local		Tax bill
	\$	% of total	\$	% of total	\$	% of total	\$
NL	24,234	50.5%	21,628	45.1%	2,115	4.4%	47,977
PE	18,109	52.4%	15,654	45.3%	788	2.3%	34,551
NS	21,277	52.3%	16,337	40.2%	3,043	7.5%	40,657
NB	20,722	52.3%	16,614	42.0%	2,261	5.7%	39,598
QC	19,434	44.4%	20,824	47.5%	3,554	8.1%	43,812
ON	25,383	53.0%	17,812	37.2%	4,717	9.8%	47,911
MB	22,750	51.8%	18,038	41.1%	3,128	7.1%	43,916
SK	26,862	56.4%	17,572	36.9%	3,194	6.7%	47,628
AB	32,426	64.3%	14,254	28.3%	3,748	7.4%	50,428
BC	25,568	55.7%	17,525	38.2%	2,800	6.1%	45,893
CDA	24,476	52.3%	18,558	39.6%	3,784	8.1%	46,817

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, 2017.

\$28.5 billion deficit this year while the provinces are cumulatively forecasting deficits amounting to \$12.8 billion.¹⁰

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 18. Put differently, if governments had to

increase taxes to balance their budgets instead of financing expenditures with deficits, Tax Freedom Day would arrive 9 days later.

Among the provinces, the latest Balanced Budget Tax Freedom Day in Newfoundland & Labrador falls on July 15, which is 20 days later than Tax Freedom Day. Notably, the Balanced Budget Tax Freedom Day is considerably later for several other provinces including Alberta (23 days later), Manitoba (13 days later), Saskatchewan (12 days later), and New Brunswick (10 days later) than their Tax Freedom Days.

¹⁰ The cumulative deficit figure only includes those provinces with forecasted deficits for 2017/18.

Table 8: Tax rates (percent)

	1981	1985	1995	2000 ^{re}	2005 ^{re}	2010 ^{re}	2015 ^{re}	2016 ^{re}	2017 ^{pe}
Newfoundland & Labrador	37.4	34.9	38.9	43.7	49.3	51.7	46.2	47.5	47.7
Prince Edward Island	34.2	42.8	38.5	40.7	44.2	40.9	43.3	41.9	42.0
Nova Scotia	35.5	37.0	40.9	44.5	46.4	43.0	44.8	44.1	44.0
New Brunswick	34.2	41.6	41.1	43.2	43.7	42.0	43.6	43.1	43.5
Quebec	42.9	45.6	43.5	50.8	49.3	46.5	48.7	47.2	46.7
Ontario	40.3	39.5	43.1	45.8	45.4	41.7	43.4	42.4	42.9
Manitoba	37.2	33.8	44.7	46.1	45.3	42.8	44.0	42.5	42.5
Saskatchewan	39.0	37.1	46.5	48.1	48.9	43.5	41.0	39.2	40.5
Alberta	40.6	38.5	41.4	47.6	45.4	39.3	38.4	38.0	38.2
British Columbia	43.4	45.2	44.3	48.6	47.1	42.4	43.4	43.1	42.1
Canada	40.8	42.7	43.9	48.0	47.2	43.3	44.3	43.3	43.4

Without Natural Resources

Newfoundland & Labrador	37.2	34.6	38.8	43.5	46.9	43.7	44.6	45.0	45.5
Saskatchewan	36.5	34.8	44.6	45.0	45.4	40.9	39.8	38.3	39.5
Alberta	34.2	33.3	39.1	41.0	39.5	37.0	37.9	37.5	37.4
British Columbia	42.6	44.3	43.1	46.4	45.2	41.6	42.8	42.5	41.6
Canada	39.9	42.1	43.4	46.8	46.0	42.7	44.0	43.0	43.1

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, 2017.

Fairness in the tax system

In addition to the size of the average family's tax bill, there are concerns about the fairness of 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 55.9% of all taxes while earning 47.6% of all income. At the other end of the income spectrum, the bottom 20% pays 1.8% 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 one earns on the next dollar of income 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 2017. It is this marginal 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 on average she is paying because this does not reflect the true return to any extra effort she may wish to provide.

Table 9: The distribution of cash income and tax across deciles, and the average and marginal tax rates by decile, 2017, preliminary estimate

Decile	1	2	3	4	5	6	7	8	9	10
<i>Distribution across deciles</i>										
Tax	0.5%	1.3%	2.6%	4.3%	5.9%	7.7%	9.8%	12.1%	16.3%	39.6%
Income	1.6%	3.2%	4.4%	5.5%	6.8%	8.3%	10.1%	12.5%	16.1%	31.6%
<i>Average tax rate</i>	13.7%	18.7%	27.5%	35.7%	39.0%	42.1%	43.9%	43.9%	46.2%	57.0%
<i>Marginal tax rates when moving from a lower to a higher decile</i>										
		1 → 2	2 → 3	3 → 4	4 → 5	5 → 6	6 → 7	7 → 8	8 → 9	9 → 10
		23.6%	51.3%	68.4%	52.3%	56.8%	52.2%	43.5%	54.6%	68.2%

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, 2017.

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 from 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 understood indicator of the overall tax bill of the

average Canadian family. In 2017, Canadians celebrate Tax Freedom Day on June 9, one day later than in 2016.

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 other transfers from governments (such as the Canada Child Benefit). The sources for this data

Canadians Celebrate Tax Freedom Day on June 9, 2017

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 22.3 (SPSD/M), is an important part of the Canadian Tax Simulator; it is used to calculate Tax Freedom Days from 1997 to 2017. 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

The assumptions and calculations underlying the SPSD/M simulation results were prepared by The Fraser Institute and the responsibility for the use and interpretation of these data is entirely that of the authors.

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