

Canadians Celebrate Tax Freedom Day on June 15, 2022

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SUMMARY

- In 2022, the average Canadian family will earn \$129,589 in income and pay an estimated \$58,567 in total taxes (45.2%).
- If the average Canadian family had to pay its taxes up front, it would have worked until June 14 to pay the total tax bill imposed on it by all three levels of government (federal, provincial, and local).
- This means that Tax Freedom Day, the day in the year when the average Canadian family has earned enough money to pay the taxes imposed on it, falls on June 15.
- Tax Freedom Day in 2022 comes four days later than in 2021, when it fell on June 11. This change is due to the expectation that the total tax revenue forecasted by Canadian governments will increase faster than the incomes of Canadians.
- 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 June 4 in Manitoba, while the latest falls on July 1 in Quebec.
- Canadians are right to be thinking about the tax implications of the \$86.0 billion in projected federal and provincial government deficits in 2022. For this reason, we calculated 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. In 2022, the Balanced Budget Tax Freedom Day arrives on July 2.

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 the average Canadian family faces. This publication presents preliminary calculations for Tax Freedom Day in 2022.²

¹ 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.

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,

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 2022, Canadians will start working for themselves on June 15 (table 1). That is, Canadians must work until June 14 to pay the total tax bill imposed on them by all levels of government.

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.

we revise our Tax Freedom Day calculations for previous years.

Canadians Celebrate Tax Freedom Day on June 15, 2022

Table 1: Tax Freedom Day

	1981	1985	1995	2000 ^{re}	2005 ^{re}	2010 ^{re}	2015 ^{re}	2020 ^{re}	2021 ^{re}	2022 ^{pe}
NL	May 18	May 09	May 24	June 10	June 27	July 05	June 11	June 07	June 19	June 22
PE	May 06	June 07	May 22	June 08	June 14	May 29	June 05	May 29	May 29	June 05
NS	May 11	May 17	May 31	June 11	June 19	June 09	June 16	May 28	June 07	June 13
NB	May 06	June 02	June 01	June 09	June 14	June 02	June 09	May 26	June 08	June 11
QC	June 07	June 17	June 09	July 11	July 06	June 24	June 28	June 12	June 26	July 01
ON	May 29	May 26	June 08	June 19	June 20	June 07	June 10	May 27	June 07	June 12
MB	May 17	May 05	June 14	June 20	June 18	June 07	June 09	May 18	May 30	June 04
SK	May 24	May 17	June 20	June 28	July 02	June 11	June 01	May 18	June 08	June 08
AB	May 30	May 22	June 02	June 27	June 18	May 27	May 23	May 18	June 05	June 09
BC	June 09	June 16	June 12	June 30	June 26	June 07	June 10	May 22	June 06	June 07
CDA	May 30	June 06	June 11	June 27	June 26	June 11	June 14	May 28	June 11	June 15

Without Natural Resources

NL	May 17	May 08	May 23	June 09	June 18	June 07	June 06	June 02	June 09	June 13
SK	May 15	May 09	June 13	June 17	June 19	June 01	May 27	May 16	June 02	June 01
AB	May 06	May 03	May 24	June 02	May 28	May 19	May 21	May 15	May 26	May 30
BC	June 06	June 12	June 08	June 22	June 18	June 04	June 07	May 21	June 03	June 05
CDA	May 27	June 04	June 09	June 23	June 22	June 09	June 13	May 27	June 08	June 13

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, 2022.

Trends in Tax Freedom Day

The latest Tax Freedom Day in Canadian history was in 2000, when it fell on June 27, almost two months later than in 1961 (May 3), the earliest year for which the calculation has been made. Tax Freedom Day for the average Canadian family decreased from 2000 (June 27) to 2010 (June 11).³

³ There are many reasons for the relatively large reduction in Tax Freedom Day over this period. Prior to the 2008/09 recession, many Canadian governments reduced taxes. For example, the federal government reduced the Goods and Services Tax (GST) rate from 7% to 6% in 2006,

In 2022, Tax Freedom Day arrives on June 15, four days later than last year.⁴ This change is

and again to 5% in 2008. In addition, the federal and many provincial governments reformed their business tax regimes by cutting corporate income and corporate capital taxes. As well, some provinces, such as British Columbia and Manitoba, enacted personal income tax relief while Saskatchewan reduced its provincial sales tax.

⁴ In last year's Tax Freedom Day publication (Palacios, Fuss, and Li, 2021), our preliminary calculations estimated a May 24 Tax Freedom Day for 2021. This year we recalculated Tax Freedom Day for 2021 using updated provincial and federal budget numbers and updated data from Statistics Canada. Our revised calculations show that Tax Freedom Day in 2021 fell on June 11 (table 1). Tax Freedom

Table 2: Taxes of the Average Family (with Two or More Individuals), 2022, Preliminary Estimates (\$Cdn)

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Cash income	110,502	101,860	107,370	103,232	116,178	135,394	125,492	133,176	140,635	134,220	129,589
Income taxes	17,442	15,096	17,756	14,592	19,276	18,849	19,314	19,492	24,189	17,661	19,488
Payroll & health taxes	8,992	8,042	7,970	8,161	13,000	12,661	9,703	9,277	10,687	11,722	12,005
Sales taxes	9,277	8,391	8,570	8,351	10,103	9,449	8,177	9,545	3,878	8,212	8,858
Property taxes	2,059	2,702	3,972	4,460	3,910	6,349	3,911	2,967	5,116	5,532	5,153
Profits taxes	4,860	3,926	5,283	4,506	5,997	7,042	4,626	6,686	5,025	6,632	6,247
Liquor, tobacco, amusement, & other excise taxes	2,856	2,147	2,275	2,232	2,138	2,151	2,518	2,395	2,936	2,656	2,366
Auto, fuel, motor vehicle licence, & carbon taxes	1,533	1,212	1,041	1,687	1,459	1,722	2,001	2,696	2,289	2,055	1,797
Other taxes	2,020	1,172	692	909	1,038	1,376	2,022	1,491	2,714	1,817	1,516
Import duties	291	294	319	293	351	408	360	380	446	409	392
Natural resource levies	2,534	0	18	117	277	27	43	2,526	3,857	819	745
Total tax bill	51,865	42,982	47,897	45,310	57,550	60,034	52,676	57,457	61,138	57,514	58,567

Notes: Payroll taxes include social security and pension deductions.

Data are 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, 2022.

due to the expectation that the incomes of Canadians will increase more slowly than the total tax revenue forecasted by Canadian governments. For example, forecasts for personal income growth are lower than forecasts for personal income tax revenue, thereby increasing the estimated burden. Specifically, the revamp of the Canadian economy and inflation are driving the increase in tax revenues rather than changes in tax rates or the introduction of new sources of revenue. Indeed, there were no significant changes to tax rates among the federal and provincial governments this year.

Private sector forecasts of personal income growth and federal and provincial budget forecasts of how much revenue they will collect are used to estimate Tax Freedom Day for the current year. When final revenue numbers become available at the end of each fiscal year and income data are updated by Statistics Canada, we revise our Tax Freedom Day calculations for previous years. If federal and provincial revenue ends up higher or lower than currently projected, the 2022 Tax Freedom Day will change when the preliminary estimates are revised.⁵

Day in 2021 occurred 14 days later than 2020 because total taxes grew by 16.1% while income increased by 8.1% for the average Canadian family (of two individuals or more).

⁵ 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 2022. The latest version of the SPSPD/M (version 29.0) is based on the 2017 Canadian Income Survey (CIS).

Table 3: Taxes of the Average Family (with Two or More Individuals), 2021, Revised Estimates (\$Cdn)

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Cash income	109,478	100,984	106,883	101,770	115,327	134,672	123,115	130,263	139,409	130,971	128,500
Income taxes	16,560	13,105	16,536	13,914	18,465	17,969	18,247	19,188	23,161	16,524	18,540
Payroll & health taxes	9,125	7,769	7,514	7,845	12,315	12,108	9,071	9,112	10,486	11,122	11,466
Sales taxes	8,989	8,317	8,067	8,454	9,221	8,902	7,732	9,213	3,620	7,600	8,248
Property taxes	1,796	2,798	3,890	4,222	3,792	6,153	3,890	2,826	5,094	5,964	5,102
Profits taxes	4,263	4,375	5,562	4,597	6,482	7,606	4,914	6,889	4,993	7,083	6,657
Liquor, tobacco, amuse- ment, & other excise taxes	2,901	1,964	2,204	2,154	1,964	1,934	2,273	2,319	2,790	2,411	2,168
Auto, fuel, motor vehicle licence, & carbon taxes	1,641	1,132	1,042	1,583	1,502	1,430	1,739	2,553	2,083	1,901	1,637
Other taxes	2,023	1,112	644	866	987	1,281	1,819	1,445	2,673	1,737	1,437
Import duties	289	271	297	278	328	382	331	360	420	378	365
Natural resource levies	2,998	0	143	116	327	33	46	2,155	3,712	995	752
Total tax bill	50,585	40,843	45,898	44,031	55,382	57,798	50,061	56,059	59,030	55,714	56,372

Note: Payroll taxes include social security and pension deductions.

Source: The Fraser Institute's Canadian Tax Simulator, 2022.

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.⁶ In 2022, the average Canadian family (with two or more individuals) will earn \$129,589 in cash income and pay a total of \$58,567 in taxes.⁷ Put differently, the total tax bill of the average Canadian family in 2022 will amount to 45.2% of its income (table 8).

⁶ 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.

⁷ For a definition and explanation of cash income, see the methodology section at the end of this publication.

Between 2021 and 2022, the total tax bill of the average Canadian family increased by 3.9% (\$2,195). Meanwhile, cash income increased at a slower rate, by 0.8% (\$1,089) (table 4). The largest increase among the myriad of taxes comes in the form of income taxes—up \$948 for the average Canadian family (table 4). Other notable increases come in the form of sales taxes (\$610), payroll & health taxes (\$539), and liquor, tobacco, and excise taxes (\$198). Profit taxes was one of the only categories that decreased between 2021 and 2022 for the average Canadian family (table 4).

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 pro-

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Table 4: Difference in the Average Family's Tax Bill between 2022 and 2021 (\$Cdn)

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Cash income	1,024	876	486	1,462	851	722	2,377	2,913	1,226	3,249	1,089
Income taxes	883	1,991	1,219	678	811	879	1,068	304	1,028	1,136	948
Payroll & health taxes	(133)	273	456	316	685	553	632	165	201	600	539
Sales taxes	287	75	504	(103)	882	548	446	332	258	612	610
Property taxes	262	(96)	82	239	119	196	21	141	22	(432)	51
Profits taxes	597	(449)	(279)	(91)	(484)	(564)	(288)	(203)	32	(450)	(409)
Liquor, tobacco, amusement, & other excise taxes	(45)	182	71	78	174	217	245	77	146	244	198
Auto, fuel, motor vehicle licence, & carbon taxes	(108)	80	(1)	104	(43)	292	262	143	207	154	161
Other taxes	(3)	60	48	43	51	95	203	47	41	79	79
Import duties	2	23	23	15	24	26	29	21	27	32	27
Natural resource levies	(463)	0	(124)	1	(49)	(6)	(3)	371	145	(176)	(7)
Total tax bill	1,280	2,139	1,999	1,279	2,169	2,235	2,615	1,398	2,108	1,800	2,195

Note: Numbers may not add due to rounding.

Source: The Fraser Institute's Canadian Tax Simulator, 2022.

vincial Tax Freedom Day falls on June 4 in Manitoba; the latest in Quebec on July 1.

Nine provinces experienced a later Tax Freedom Day than 2021 (Saskatchewan's date is unchanged), which is the result of tax revenues increasing in these provinces due to the economic recovery from COVID-19 and high levels of inflation.⁸

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 includ-

Table 5: Tax Freedom Days Including Government Deficits, 2022, Preliminary Estimates

	Tax Freedom Day	Balanced Budget Tax Freedom Day	Total increase (days)
NL	June 22	July 07	15
PE	June 05	June 20	15
NS	June 13	June 29	16
NB	June 11	June 20	9
QC	July 01	July 15	14
ON	June 12	July 02	20
MB	June 04	June 17	13
SK	June 08	June 21	13
AB	June 09	June 19	10
BC	June 07	June 24	17
CDA	June 15	July 02	17

Sources: The Fraser Institute's Canadian Tax Simulator, 2022; 2022 federal and provincial budgets; calculations by authors.

⁸ In these nine provinces, growth in the total tax bill for the average family generally outpaces the growth in income for 2022.

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Table 6: Average Income and Tax for Three Different Types of Family, 2022, Preliminary Estimates (\$Cdn)

1. Families and unattached individuals

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Avg. cash income	88,012	78,042	81,661	81,737	86,645	108,038	97,896	102,703	109,971	102,366	100,378
Total tax	41,042	32,055	35,674	35,681	42,105	46,282	39,509	42,381	46,049	43,573	43,897
Tax rate	46.6%	41.1%	43.7%	43.7%	48.6%	42.8%	40.4%	41.3%	41.9%	42.6%	43.7%
Tax rate (excluding natural resources)	44.3%	41.1%	43.7%	43.5%	48.4%	42.8%	40.3%	39.5%	39.2%	42.0%	43.2%

2. Families with two or more individuals

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Avg. cash income	110,502	101,860	107,370	103,232	116,178	135,394	125,492	133,176	140,635	134,220	129,589
Total tax	51,865	42,982	47,897	45,310	57,550	60,034	52,676	57,457	61,138	57,514	58,567
Tax rate	46.9%	42.2%	44.6%	43.9%	49.5%	44.3%	42.0%	43.1%	43.5%	42.9%	45.2%
Tax rate (excluding natural resources)	44.6%	42.2%	44.6%	43.8%	49.3%	44.3%	41.9%	41.2%	40.7%	42.2%	44.6%

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

	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	CDA
Avg. cash income	158,695	128,805	149,261	144,129	147,611	167,727	143,346	151,191	141,981	160,609	156,086
Total tax	82,422	54,412	64,043	64,151	69,526	69,168	58,586	63,707	55,059	65,523	66,303
Tax rate	51.9%	42.2%	42.9%	44.5%	47.1%	41.2%	40.9%	42.1%	38.8%	40.8%	42.5%
Tax rate (excluding natural resources)	49.3%	42.2%	42.9%	44.4%	46.8%	41.2%	40.8%	39.8%	35.4%	40.1%	41.8%

Source: The Fraser Institute's Canadian Tax Simulator, 2022.

ing and one excluding resource royalties. If natural resource revenues are excluded, Tax Freedom Day is nine days earlier in Newfoundland & Labrador, seven days earlier in Saskatchewan, ten 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 eight provinces

are forecasting budget deficits this year. Specifically, the federal government alone is projecting a \$52.8 billion deficit this year while the provinces are cumulatively forecasting deficits amounting to \$33.2 billion (RBC, 2022).

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

Table 7: Breakdown of the Average Family's Tax Bill by Level of Government, 2022, preliminary estimate

	Federal		Provincial		Local		Tax bill
	\$	% of total	\$	% of total	\$	% of total	\$
NL	26,195	53.1%	20,989	42.5%	2,145	4.3%	49,330
PE	22,734	52.9%	19,462	45.3%	786	1.8%	42,982
NS	25,790	53.9%	18,068	37.7%	4,020	8.4%	47,878
NB	23,927	52.9%	18,606	41.2%	2,659	5.9%	45,193
QC	26,188	45.7%	27,097	47.3%	3,988	7.0%	57,273
ON	33,595	56.0%	20,719	34.5%	5,694	9.5%	60,007
MB	29,739	56.5%	19,047	36.2%	3,847	7.3%	52,633
SK	32,698	59.5%	19,165	34.9%	3,068	5.6%	54,931
AB	37,994	66.3%	15,004	26.2%	4,283	7.5%	57,281
BC	33,180	58.5%	20,154	35.5%	3,360	5.9%	56,695
CDA	31,667	54.8%	21,678	37.5%	4,477	7.7%	57,822

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, 2022.

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 July 2. Put differently, if governments had to increase taxes to balance their budgets instead of financing expenditures with deficits, Tax Freedom Day would arrive 17 days later.

Among the provinces, the latest Balanced Budget Tax Freedom Day occurs in Quebec and falls on July 15, which is 14 days later than the province's Tax Freedom Day.⁹ Notably, the Bal-

anced Budget Tax Freedom Day is considerably later for several other provinces including Ontario (20 days), British Columbia (17 days), and Nova Scotia (16 days) 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 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 53.0% of all taxes while earning 44.6% of all income. At the other

⁹ Quebec is projected to record the second highest nominal deficit among the provinces in 2022/23 at \$6.5 billion (the first being Ontario with a \$19.9 billion deficit). Quebec

has the third highest deficit among the provinces on a percentage of GDP basis (Fuss et al, 2022).

Table 8: Tax Rates (percent)

	1981	1985	1995	2000 ^{re}	2005 ^{re}	2010 ^{re}	2015 ^{re}	2020 ^{re}	2021 ^{re}	2022 ^{pe}
NL	37.4	34.9	38.9	43.8	48.4	50.5	44.1	43.1	46.2	46.9
PE	34.2	42.8	38.5	43.3	44.7	40.3	42.4	40.6	40.4	42.2
NS	35.5	37.0	40.9	44.0	46.2	43.5	45.2	40.4	42.9	44.6
NB	34.2	41.6	41.1	43.6	44.7	41.5	43.5	39.6	43.3	43.9
QC	42.9	45.6	43.5	52.3	50.9	47.6	48.7	44.5	48.0	49.5
ON	40.3	39.5	43.1	46.2	46.6	42.9	43.8	40.0	42.9	44.3
MB	37.2	33.8	44.7	46.7	45.8	42.9	43.4	37.5	40.7	42.0
SK	39.0	37.1	46.5	48.8	49.7	43.9	41.1	37.5	43.0	43.1
AB	40.6	38.5	41.4	48.4	45.9	39.9	38.8	37.5	42.3	43.5
BC	43.4	45.2	44.3	49.4	47.9	42.8	43.7	38.8	42.5	42.9
CDA	40.8	42.7	43.9	48.5	48.2	44.1	44.7	40.3	43.9	45.2
Without Natural Resources										
NL	37.2	34.6	38.8	43.6	46.0	42.8	42.6	41.7	43.5	44.6
SK	36.5	34.8	44.6	45.7	46.3	41.3	39.9	36.9	41.4	41.2
AB	34.2	33.3	39.1	41.8	40.1	37.7	38.2	36.9	39.7	40.7
BC	42.6	44.3	43.1	47.1	46.0	42.0	43.0	38.3	41.8	42.2
CDA	39.9	42.1	43.4	47.3	47.1	43.5	44.4	40.0	43.3	44.6

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, 2022.

end of the income spectrum, the bottom 20% pays 2.1% of all taxes despite earning 5.2% 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 think-

ing about. Table 9 shows both marginal and average rates for different income levels in 2022. 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.

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 so-

Table 9: The Distribution of Cash Income and Tax across Deciles, and the Average and Marginal Tax Rates by Decile, 2022, Preliminary Estimate

Decile	1	2	3	4	5	6	7	8	9	10
<i>Distribution across deciles</i>										
Tax	0.6%	1.5%	3.0%	4.6%	6.3%	8.0%	10.2%	12.9%	17.3%	35.6%
Income	1.8%	3.5%	4.6%	5.8%	7.2%	8.8%	10.6%	13.0%	16.5%	28.2%
Average tax rate	15.3%	20.2%	30.0%	36.4%	40.2%	41.8%	44.3%	45.7%	48.7%	58.4%
<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
		25.3%	59.0%	61.2%	56.3%	48.8%	56.7%	51.8%	60.1%	72.1%

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, 2022.

cial 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 understood indicator of the overall tax bill of the average Canadian family. In 2022, Canadians will celebrate Tax Freedom Day on June 15, four days later than 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 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.

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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 29.0 (SPSD/M), is an important part of the Canadian Tax Simulator; it is used to calculate Tax Freedom Days from 1997 to 2022. 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.

References

- Clemens, Jason, and Niels Veldhuis (2003). Who Pays Business Taxes? A Different View. *Fraser Forum* (October).
- Ebrahimi, Pouya, and François Vaillancourt (2016). *The Effect of Corporate Income and Payroll Taxes on the Wages of Canadian Workers*. Fraser Institute. <<https://www.fraserinstitute.org/sites/default/files/effect-of-corporate-income-and-payroll-taxes-on-wages-of-canadian-workers.pdf>>, as of May 18, 2022.
- Fuss, Jake, Tegan Hill, and Alex Whalen (2022). *High Spending and More Borrowing Common Theme Across Canada*. The Fraser Institute Blog. <<https://www.fraserinstitute.org/blogs/high-spending-and-more-borrowing-common-theme-across-canada>>, as of May 18, 2022.
- McKenzie, Kenneth, and Ergete Ferede (2017). *Who Pays the Corporate Tax? Insights from the Literature and Evidence for Canadian Provinces*. SPP Research Papers 10, 6. University of Calgary, School of Public Policy. <<http://www.policyschool.ca/wp-content/uploads/2017/04/Corporate-Tax-McKenzie-Ferede1.pdf>>, as of May 18, 2022.
- Palacios, Milagros, Jake Fuss, and Nathaniel Li (2021). *Canadians Celebrate Tax Freedom Day on May 24, 2021*. Research Bulletin. Fraser Institute. <<https://www.fraserinstitute.org/studies/canadians-celebrate-tax-freedom-day-on-may-24-2021>>, as of May 18, 2022.
- Royal Bank of Canada [RBC] (2022). *Canadian Fiscal Reports. Provincial Budgets and Economic Statements*. <<http://www.rbc.com/economics/economic-reports/canadian-fiscal-reports.html>>, as of May 18, 2022.

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Treff, Karin, and Deborah Ort (various dates). *Finances of the Nation* (various issues). Canadian Tax Foundation. <https://www.ctf.ca/CTFWEB/EN/Publications/Finances_of_the_Nation.aspx>, as of May 18, 2022.

Treff, Karin, and David B. Perry (various dates). *Finances of the Nation* (various issues). Canadian Tax Foundation. <https://www.ctf.ca/CTFWEB/EN/Publications/Finances_of_the_Nation.aspx>, as of May 18, 2022.



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