Canada Revenue Agency

Agence du revenu du Canada

Payroll Deductions Formulas

115th Edition
Effective January 1, 2022

Canada

Is this guide for you?

Use this guide if you are a payroll software provider or a company which develops its own in-house payroll solution.

This guide has the formulas you need to determine federal, provincial (except Quebec), and territorial income taxes, Canada Pension Plan (CPP) contributions, and employment insurance (EI) premium deductions. The formulas also let you calculate payroll deductions for income sources such as commission, pension, bonuses, and retroactive pay increases.

The formulas used in this guide to calculate statutory deductions have been approved for purposes of the Income Tax Act, the Canada Pension Plan, and the Employment Insurance Act, as well as their related regulations and any amendments proposed to these acts.

For more information on income amounts that are subject to payroll deductions, see the publication **T4001, Employers' Guide – Payroll Deductions and Remittances**.

If you have questions about the formulas in this guide, contact your tax services office or tax centre. For the address and telephone numbers of your tax services office or tax centre, see the listings in the government section of your telephone book or visit **canada.ca/taxes**.

Distribution of this guide

This guide is available in electronic format only.

Electronic mailing lists – more ways to serve you!

We provide an electronic service that can notify you immediately, free of charge, of any changes for payroll deductions.

To subscribe, go to **canada.ca/cra-email-lists** and enter your business's email address for each mailing list that you want to join.

Payroll Deductions Online Calculator

For verifying your payroll deductions, you can use the Payroll Deductions Online Calculator (PDOC). The calculator includes an option to help you make sure that enough Canada Pension Plan contributions and employment insurance premiums have been withheld for full-year employees.

It calculates payroll deductions for the most common pay periods, as well as the applicable province (except Quebec) or territory. The calculation is based on exact salary figures.

Effective January 1, 2022, PDOC users may choose to calculate personal tax credits by either entering the Total Claim value manually or by selecting the corresponding claim code.

PDOC is available at **canada.ca/pdoc**.

Payroll Deductions Tables

Using the following links you can download the publications **T4032, Payroll Deductions Tables** and **T4008, Payroll Deductions Supplementary Tables**. You can also choose to print only the pages or information that you need. For more information on payroll, see our webpage at **canada.ca/payroll**.

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La version française de cette publication est intitulée Formules pour le calcul des retenues sur la paie – 115ᵉ édition.

What's new for January 1, 2022?

This guide reflects some income tax changes recently announced which, if enacted as proposed, would be effective January 1, 2022. We recommend that you use the Payroll Deductions Online Calculator (PDOC), the publication T4032 Payroll Deductions Tables, or the publication T4008 Payroll Deductions Supplementary Tables, and the formulas in this guide for withholding, starting with your first payroll in 2022.

Effective January 1, 2022, PDOC will accept direct entry of Total Claim Amount (TC) and Total Claim Amount Provincial or territorial (TCP).

Indexing

For all federal and provincial or territorial indexed amounts for Income tax, Canada Pension Plan (CPP), Quebec Pension Plan (QPP), and Employment Insurance (E.I.), refer to Chapter 8. Information on provinces and territories that do not use indexing is also available in Chapter 8. Indexing means that the values are adjusted based on changes to the consumer price index.

Federal Changes

Federal Basic Personal Amount

On June 29, 2021, Bill C-30 received Royal Assent. For 2022, employers are to use the maximum BPAF of $14,398 for all employees unless the employee provides a new Form TD1. If the BPAF formula was previously implemented on your payroll system, you can continue to use it. Employees with net income above $155,625 can ask for additional tax to be deducted, by completing the form TD1.

Provincial and Territorial Changes

Below are the provincial and territorial tax changes effective January 1, 2022. The current and previous year figures for the most commonly used rates, amounts, and claim codes can be found in Chapter 8.

New Brunswick

Effective January 1, 2021, the tax rate applied to the first tax bracket was decreased from 9.68% to 9.40%. The prorated tax rate, effective July 1, 2021, was 9.12%.

Newfoundland and Labrador

On June 23, 2021, the Newfoundland and Labrador government enacted a law adjusting the tax brackets and tax rates for higher income earners. Tax rates have been adjusted for income above $139,780. New tax brackets have also been created for those making more than $250,000.

- Tax rates for income between $139,780 and $195,693 increased from 17.3% to 17.8%.
- Tax rates for income between $195,693 and $250,000 increased from 18.3% to 19.8%.
- New tax bracket and rate for income between $250,000 and $500,000 is 20.8%.
- New tax bracket and rate for income between $500,000 and $1,000,000 is 21.3%.
- New tax bracket and rate for income more than $1,000,000 is 21.8%.

Nova Scotia

For 2022, employers are to use the maximum BPANS of $11,481 for all employees unless the employee provides a new Form TD1. If the BPANS formula was previously implemented on your payroll system, you can continue to use it.

Prince Edward Island

The legislated basic personal amount increased from $10,500 to $11,250.

Yukon

For 2022, employers are to use the maximum BPAYT of $14,398 for all employees unless the employee provides a new Form TD1. If the BPAYT formula was previously implemented on your payroll system, you can continue to use it.

Changes in the guide

- The chapters for Personal Tax Credits Returns and Claim Codes (Chapter 2 and Chapter 3 respectively in the January 2021 edition) have been consolidated to Chapter 2 in this edition, as both those chapters dealt with the calculation of personal tax credits.
- For British Columbia and Ontario, a new Factor S2 has been added to name the value of the basic amount used in the calculation of Factor S.

Chapter 1- General information

Rounding procedures

For all mathematical calculations in this guide, use the following rounding rules except when we specify otherwise.

For income tax deductions

If the figure calculated for an employee's income tax deduction for a certain pay period has three or more digits after the decimal point, increase the second digit after the decimal point by one if the third digit is five or more, and drop the third digit. If the third digit after the decimal point is less than five, drop the third digit.

For Canada Pension Plan (CPP) basic exemption and contributions

Determine an employee's basic exemption for a pay period by dividing the annual basic exemption by the number of pay periods in the calendar year. If the figure has three or more digits after the decimal point, drop the third digit after the decimal point.

When the employee's contribution to CPP for the pay period has three or more digits after the decimal point, increase the second digit after the decimal point by one if the third digit is five or more, and drop the third digit. If the third digit after the decimal point is less than five, drop the third digit.

For Employment Insurance (EI) premiums

When the employee's or employer's EI premium for the pay period has three or more digits after the decimal point, increase the second digit by one if the third digit is five or more, and drop the third digit. If the third digit after the decimal point is less than five, drop the third digit.

Tax deductions comparison

When the tax deductions amount using Option 1 in this guide is compared to the tax deductions amount in the publication T4032, *Payroll Deductions Tables*, the amounts will not necessarily be the same. Any difference results from the fact that the amounts in the T4032 are based on:

(i) the mid-point of the range of remuneration under the "Pay" column;

(ii) the federal tax credit for Canada Pension Plan or Quebec Pension Plan contributions and employment insurance premium deductions is based on the amount determined in item (i); and

(iii) the midpoint of the "Claim code" amounts on federal, provincial, and territorial TD1 forms is used, except for code 1 where the actual basic personal non-refundable tax credit amount is used. For claim code 0, no personal tax credits amounts are used when calculating the tax deduction amounts.

Chapter 2 – Personal tax credits returns (Form TD1)

To determine federal total claim (TC), use the total claim amount on Form TD1. Employers are to update TC at the beginning of each year by using either indexing **or** claim codes.

To determine provincial or territorial total claim (TCP), use the total claim amount on the appropriate provincial or territorial Form TD1. Employers are to update TCP at the beginning of each year using either indexing **or** claim codes.

Since claim codes use a mid-point in a range, indexing is considered more accurate.

A separate worksheet, TD1-WS, is available for employees or pensioners who want to calculate partial claims for some of the federal personal tax credits amounts.

Option 1 - Indexing of personal amounts

Each year, certain personal tax credit amounts are indexed based on changes to the consumer price index. Since only some of the amounts are indexed, we recommend that you record separately in your payroll records each item shown on the employee's or pensioner's TD1 form. This will allow you to automatically increase the applicable indexed claim amounts when necessary. This also means you will not have to ask your employees or pensioners to file a new TD1 form when indexing applies.

You can use the following method to calculate the value of TC or TCP (personal tax credits amount) when indexing applies:

Description	Amount
1. Enter the total claim amount reported on Form TD1...	$_____
2. Minus: Prior year BPAF, BPANS, BPAYT	$_____

3. Minus:Any pension income amount, tuition fees, and full-time or part-time education amounts claimed on Form TD1* .... $_____

4. Amount subject to annual indexing (line 1 minus line 2 and 3) .... $_____

5. Enter the indexing factor that applies for the year** .... × _____

6. Multiply line 4 by line 5 (rounded to the nearest dollar) .... $_____

7. Add current year BPAF, BPANS, BPAYT*** .... $_____

8. Enter the amount from line 3 (non-indexed amounts) .... $_____

9. Revised factor TC or TCP (total of personal tax credits amounts) (line 6 plus line 7 and 8) .... $_____

   * For Ontario only, do not include any amounts on line 3, since Ontario credits are indexed.

   ** Yukon personal amounts are not directly attributable to indexing, because they have harmonized amounts with the federal values.

   ***Use the maximum BPAF, BPANS, BPAYT. If the BPAF, BPANS, BPAYT formula was previously implemented on your payroll system, you can continue to use these formulas. If a current year Form TD1 is provided, use the amount from Line 1 of the Form TD1 instead.

If no Form TD1 is on file for the employee or pensioner, use BPAF, BPANS, BPAYT formula at the end of this chapter.

No indexing applies to Nova Scotia, Prince Edward Island, and Alberta

Option 2 – Claim Codes

The claim code depends on the total personal amount (TC) an employee claims on Form TD1. Once the claim code has been established, the same code can be used every year. For example, if an employee was at claim code 3 in 2021, then that employee will remain at claim code 3 in 2022. If an employee submits a new Form TD1, use the total claim amount to determine the new claim code.

Claim code 0

This code represents **no claim** amount allowed. If the federal claim code is 0 because the employee is a non-resident, the provincial claim code must also be 0.

Federal, provincial, and territorial claim codes

The claim amounts that correspond to the federal claim codes are different than the claim amounts that correspond to the provincial or territorial claim codes. In Chapter 8, you will find a listing of claim codes and amount ranges.

> **Note:**
>
> If you have received a new Form TD1 and the basic personal amount is not the maximum BPAF, BPANS or BPAYT, you will need to create your own claim code charts by following the instructions below. Otherwise, use the claim code chart using the maximum BPAF, BPANS and BPAYT in Table 8.5, 8.11 and 8.17 respectively.

The Federal and Yukon Claim Code chart income range is $2,430 between all claim codes once the BPAF or BPAYT has been calculated. For example, if the Federal BPAF is $12,719 for a particular employee, then claim code 2 range would be $12,719 – $15,149 and so forth up to claim code 10. Based on above example, to calculate the non refundable tax credits for the BPAF of $12,719 , find the mid-point between $12,719 and $15,149, this amount will be the total claim (Factor TC) for your calculation, multiply this TC by lowest federal tax rate.

The Nova Scotia Claim Code chart income range is $1,600 between all claim codes, once the BPANS has been calculated. For example, if BPANS is $11,481 for a particular employee, then the claim code 2 range would be $11,481 – $13,081 and so forth up to claim code 10. Based on above example, to calculate the non refundable tax credits for the BPANS of $11,481, find the mid-point between $11,481 and $13,081, this amount will be the total claim (Factor TCP) for your calculation, multiply this TCP by lowest provincial tax rate.

Effective January 1, 2022, PDOC will accept direct entry of TC and TCP. To verify your calculations using PDOC simply input the amount for TC and TCP obtained from the appropriate claim code table.

If federal Form TD1 is not submitted by the employer or pensioner, TC is calculated using the BPAF formula.

Federal Basic Personal Amount (BPAF) Formula

Where NI* ≤ $155,625, **BPAF** = $14,398

Where $155,625 < NI* < $221,708, **BPAF****= $14,398 - (NI* - $155,625) × ($1,679 / $66,083)***

Where NI* ≥ $221,708, **BPAF** = $12,719

* Variable NI represents Net income for the year from the employer = A + HD

** If the BPAF has three or more digits after the decimal point, increase the second digit after the decimal point by one if the third digit is five or more, and drop the third digit. If the third digit after the decimal point is less than five, drop the third digit

*** Note that there is no rounding on this division

If the appropriate provincial or territorial Form TD1 is not submitted by the employee or pensioner, TCP is the province or territory's Basic Personal Amount. For Nova Scotia and Yukon, use BPANS and BPAYT formulas respectively.

Nova Scotia Basic Personal Amount (BPANS) Formula

BPANS = Where A ≤ $25,000, BPANS is equal to $11,481;

Where $25,000 < A < $75,000, BPANS is equal to:

$11,481 – [(A – $25,000) × 6%)];*

Where A ≥ $75,000, BPANS is equal to $8,481

* If Nova Scotia's basic personal amount (BPANS) has three or more digits after the decimal point, increase the second digit by one if the third digit is five or more, and drop the third digit. If the third digit after the decimal point is less than five, drop the third digit.

Yukon Basic Personal Amount (BPAYT) Formula

The Yukon Basic Personal Amount (**BPAYT**) formula mirrors the federal Basic Personal Amount (**BPAF**) formula.

BPAYT = BPAF

Chapter 3 – Glossary

Table 3.1 Glossary

Factor	Meaning (for complete details, see the formulas)
A	Annual taxable income
B	Gross bonus, retroactive pay increase, vacation pay when vacation is not taken, accumulated overtime payment or other non-periodic payment
B1	Gross bonuses, retroactive pay increases, vacation pay when vacation is not taken, accumulated overtime payments or other non-periodic payments **year-to-date** (before the pay period)
BPAF	Federal Basic Personal Amount
BPANS	Basic Personal Amount for Nova Scotia
BPAYT	Basic Personal Amount for Yukon
C	Canada (or Quebec) Pension Plan contributions for the pay period
CEA	Canada Employment Amount, a non refundable tax credit used in the calculation for K4 and K4P
D	Employee's year-to-date (before the pay period) Canada Pension Plan contribution with the employer (cannot be more than the annual maximum)
DQ	Employee's year-to-date (before the pay period) Quebec Pension Plan contribution with the employer (cannot be more than the annual maximum)
D1	Employee's year-to-date employment insurance premium with the employer
E	Total commission expenses deductions reported on Form TD1X
EI	Employment insurance premiums for the pay period
F	Payroll deductions for the pay period for employee contributions to a registered pension plan (RPP) for current and past services, a registered retirement savings plan (RRSP), to a pooled registered pension plan (PRPP), or a retirement compensation arrangement (RCA). For tax deduction purposes, employers can deduct amounts contributed to an RPP, RRSP, PRPP, or RCA by or on behalf of an employee to determine the employee's taxable income
F1	Annual deductions such as child care expenses and support payments, requested by an employee or pensioner and authorized by a tax services office or tax centre
F2	Annual alimony or maintenance payments required by a legal document dated before May 1, 1997, to be payroll-deducted authorized by a tax services office or tax centre
F3	Employee registered pension plan or registered retirement savings plan contributions deducted from the current non-periodic payment. You can also use this field or design another to apply other tax-deductible amounts to the non-periodic payment, such as union dues

Factor	Meaning (for complete details, see the formulas)
F4	Employee registered pension plan or registered retirement savings plan contributions deducted from the year-to-date non-periodic payments. You can also use this field or design another to apply other tax-deductible amounts to the non-periodic payment, such as union dues
G	Gross commission amount including gross salary at the time of payment, plus any taxable benefits for commission-remunerated employees who have filled out Form TD1X. When an employee has not filed Form TD1X, tax is calculated the regular way
HD	Annual deduction for living in a prescribed zone, as shown on Form TD1
I	Gross remuneration for the pay period. This includes overtime earned and paid in the same pay period, pension income, qualified pension income, and taxable benefits, but does not include bonuses, retroactive pay increases, or other non-periodic payments
I1	Total remuneration for the year reported on Form TD1X. This include commission payments, salary (where applicable), non-periodic payments, and taxable benefits
IE	Insurable earnings for the pay period including insurable taxable benefits, bonuses, and retroactive pay increases
K	Federal constant. The constant is the tax overcharged when applying the 20.5%, 26%, 29%, and 33% rates to the annual taxable income A
KP	Provincial or territorial constant
K1	Federal non-refundable personal tax credit (the lowest federal tax rate is used to calculate this credit)
K1P	Provincial or territorial non-refundable personal tax credit (the lowest tax rate of the province or territory is used to calculate this credit)
K2	Federal Canada Pension Plan contributions and employment insurance premiums tax credits for the year (the lowest federal tax rate is used to calculate this credit). Note: If an employee has already contributed the maximum CPP and EI, for the year with the employer, use the maximum CPP and EI deduction to determine the credit for the rest of the year. If, during the pay period in which the employee reaches the maximum, the CPP and EI, when annualized, is less than the annual maximum, use the maximum annual deduction(s) in that pay period
K2P	Provincial or territorial Canada Pension Plan contributions and employment insurance premiums tax credits for the year (the lowest provincial or territorial tax rate is used to calculate this credit). If an employee reaches the maximum CPP or EI for the year with an employer, the instructions in the note for the K2 factor also apply to the K2P factor. For employees paid by commission, use the federal K2 formula for commissions and replace the lowest federal rate in the K2 formula with the lowest provincial or territorial tax rate
K2Q	Quebec Pension Plan contributions, employment insurance premiums, and Quebec Parental Insurance Plan premiums federal tax credits for the year (the lowest federal tax rate is used to calculate this credit)
K3	Other federal non-refundable tax credits (such as medical expenses and charitable donations) authorized by a tax services office or tax centre
K3P	Other provincial or territorial non-refundable tax credits (such as medical expenses and charitable donations) authorized by a tax services office or tax centre
K4	Federal non-refundable tax credit calculated using the Canada employment amount (the lowest federal tax rate is used to calculate this credit)
K4P	Territorial non-refundable tax credit calculated using the provincial or territorial Canada employment amount (the lowest territorial tax rate is used to calculate this credit)
L	Additional tax deductions for the pay period requested by the employee or pensioner as shown on Form TD1
LCF	Federal labour-sponsored funds tax credit
LCP	Provincial or territorial labour-sponsored funds tax credit
M	Accumulated federal and provincial or territorial tax deductions (if any) to the end of the last pay period
M1	Year-to-date tax deducted on all payments included in B1
N	The number of days since the last commission payment. The minimum basic exemption amount of $67.30 is included in the formula in line with CPP legislation
NI	Net income for the year from the employer
P	The number of pay periods in the year
PI	Pensionable income for the pay period, or the gross income plus any taxable benefits for the pay period, including bonuses and retroactive pay increases where applicable
PR	The number of pay periods left in the year (including the current pay period)
R	Federal tax rate that applies to the annual taxable income A
S	Provincial tax reduction (only applies to Ontario and British Columbia)

Factor	Meaning (for complete details, see the formulas)
S1	Annualizing factor
S2	Basic amount used in the calculation of Factor S (only applies to Ontario and British Columbia)
T	Estimated federal and provincial or territorial tax deductions for the pay period
T1	Annual federal tax deduction
T2	Annual provincial or territorial tax deduction (except Quebec)
T3	Annual basic federal tax
T4	Annual basic provincial or territorial tax
TB	Tax deductions, i.e., bonuses or retroactive pay increases, payable now
TC	"Total claim amount" reported on federal Form TD1. If Form TD1 is not filed by the employee or pensioner, calculate TC using BPAF formula, and for non-resident individuals, TC is $0. If the claim code is E, T = $0. If the province is Ontario, even if the claim code is E, the Ontario Health Premium is payable on annual income over $20,000
TCP	"Total claim amount" reported on the provincial or territorial Form TD1. If this form is not filed, TCP is the provincial or territorial basic personal amount, refer to Table 8.2. For Nova Scotia and Yukon, use BPANS and BPAYT formulas respectively.
U1	Union dues for the pay period paid to a trade union, an association of public servants, or dues required under the law of a province to a parity or advisory committee or similar body
V	Provincial or territorial tax rate for the year (does not apply to Quebec, outside Canada, or in Canada beyond the limits of any province or territory)
V1	Provincial surtax calculated on the basic provincial tax (only applies to Prince Edward Island and Ontario)
V2	Additional tax calculated on taxable income (only applies to the Ontario Health Premium)
Y	Additional provincial tax reduction amount based on the number of eligible dependents used in the calculation of Factor S (only applies to Ontario)
YTD	Year-to-date, not including current pay period

All factor definitions appear only in the Glossary unless further details are required in specific situations.

Chapter 4 – Option 1 – Tax Formulas

This option determines the federal and provincial or territorial tax deductions on salary, wages, taxable benefits, pension income, commissions, and other periodic payments. This option can also be used to calculate the tax on a bonus or other non-periodic payment.

We use Option 1, with the exception of a few factors, to determine the tax deduction amounts in the publications T4032, *Payroll Deductions Tables*, and T4008, *Payroll Deductions Supplementary Tables*, for each province and territory, as well as for Canada beyond the limits of any province or territory and outside Canada.

Outline of Option 1

In general, the Option 1 steps are as follows:

1. Determine the taxable income for the pay period (pay minus allowable deductions) and multiply it by the number of pay periods in the year to get an estimated annual taxable income amount. This annual taxable income amount is factor A.
2. Calculate the basic federal tax on the estimated annual taxable income, after allowable federal non-refundable tax credits. The basic federal tax is factor T3.
3. Calculate the annual federal tax payable. This is factor T1.
4. Calculate the basic provincial or territorial tax on the estimated annual taxable income, after allowable provincial or territorial personal tax credits. The annual basic provincial or territorial tax is factor T4.
5. Calculate the annual provincial or territorial tax deduction. This is factor T2.
6. To get the estimated federal and provincial or territorial tax deductions for a pay period, add the federal and provincial or territorial tax, and divide the result by the number of pay periods. This is factor T.

Special rules apply to determine the annual income for employees paid by commissions. A calculation is provided to determine the tax deductions for bonuses, retroactive pay increases, and other non-periodic payments.

Note:

If an employee or a pensioner has income from another source from which no tax has been deducted (for example, investment income or support payments), they could have a tax liability when they file an income tax and benefit return for the year. The employee or pensioner can ask for more tax deductions, factor L, using Form TD1.

Step 1 – Formula to calculate annual taxable income (A)

A = Annual taxable income

= $[P \times (I - F - F_2 - U_1)] - HD - F_1$

If the result is negative, T = L.

Only for employees paid by commission:

A	=	$I_1 - F^* - F_2^* - U_1^* - HD - F_1 - E$

If the result is negative, T = L.

* Estimated deduction amounts for the year. For registered retirement savings plan (RRSP) contributions included in F, you will need to find out from your employee paid by commission the estimated or expected annual deduction. We recommend that you caution employees not to exceed their RRSP contribution limit for the year.

P = The number of pay periods in the year:

Weekly	P	=	52 (or 53 where applicable)
Biweekly	P	=	26 (or 27 where applicable)
Semi-monthly	P	=	24
Monthly	P	=	12
Other	P	=	10, 13, 22, or any other number of pay periods for the year

F_2 = In situations where a garnishment or a similar order of a court or competent tribunal states that the alimony or maintenance payment cannot be more than a certain percentage of the employee's net salary (net salary as defined in the garnishment or order), more calculations may be required, as follows:

1. Calculate the tax deduction amount and the net salary amount using the alimony or maintenance amount shown in the garnishment or order.

2. Determine the alimony or maintenance payment to be withheld (F_2). This will be either the maximum allowable as a percentage of the employee's net salary calculated in 1 or the amount shown in the garnishment or order, whichever is less.

3. Determine the tax deduction for the pay period using the F_2 amount in 2.

F_1 = If the F_1 amount is implemented after the first pay period in the year, F_1 must be adjusted using the following formula:

$(P \times F_1) / PR$

Step 2 – Formula to calculate basic federal tax (T₃)

T_3 = Annual basic federal tax

= $(R \times A) - K - K_1 - K_2 - K_3 - K_4$

If the result is negative, T_3 = $0.

Only for employees in Quebec:

$(R \times A) - K - K_1 - K_{2Q} - K_3 - K_4$

If the result is negative, T_3 = $0.

R and K are based on 2022 index values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

K_1 = $0.15 \times TC$

K_2 = $[(0.15 \times (P \times C, \text{maximum } \$3,499.80)) + (0.15 \times (P \times EI, \text{maximum } \$952.74))]$

Only for employees in Quebec:

K_{2Q} = Quebec Pension Plan contributions, employment insurance premiums, and Quebec Parental Insurance Plan premiums federal tax credits for the year

= $[(0.15 \times (P \times C, \text{maximum } \$3,776.10)) + (0.15 \times (P \times EI, \text{maximum } \$723.60)) + (0.15 \times (P \times IE \times 0.00494, \text{maximum } \$434.72))]^*$

* In either case, for the rest of the pay periods in the year, $(P \times C)$, $(P \times EI)$, or $(P \times IE \times 0.00494)$ (as applicable) is replaced by the maximum annual deduction(s). This modification ensures that the employee will get the maximum CPP, EI, and QPIP tax credit for the rest of the pay periods in the year.

If you want to use a year-to-date method to calculate CPP, EI, and QPIP federal tax credits, $(P \times C)$ and $(P \times EI)$ can be modified as follows:

$(P \times C)$ is changed to the lesser of:

(i) $3,499.80;

(ii) Year-to-date C + $(PR \times C)$

$(P \times EI)$ is changed to the lesser of:

(i) $952.74;

(ii) Year-to-date EI + $(PR \times EI)$

Only for employees in Quebec:

$(P \times EI)$ is changed to the lesser of:

(i) $723.60;

(ii) Year-to-date EI + $(PR \times EI)$

$(P \times IE \times 0.00494)$ is changed to the lesser of:

(i) $434.72;

(ii) Year-to-date QPIP + $(PR \times IE \times 0.00494)$

Only for employees paid by commission:

K_2	=	$[(0.15 \times (0.0570 \times (I_1 - \$3,500)\text{*}, \text{maximum } \$3,499.80)) + (0.15 \times (0.0158 \times I_1, \text{maximum } \$952.74))]$ * If the resulting amount is negative, enter $0.

Only for employees in Quebec:

K_{2Q} = $[(0.15 \times (0.0615 \times (I_1 - \$3,500)\text{*}, \text{maximum } \$3,776.10)) +$
$(0.15 \times (0.0120 \times I_1, \text{maximum } \$723.60)) + (0.15 \times (0.00494 \times I_1, \text{maximum } \$434.72))]$
* If the resulting amount is negative, enter $0.

Note:

The preceding is subject to the rules in Chapter 6 – "Canada Pension Plan (CPP)" and Chapter 7 – "Employment Insurance (EI)" of this document and the instructions in Guide T4001 Employers' Guide – Payroll Deductions and Remittances.

K_3 = If the K_3 amount is implemented after the first pay period in the year, K_3 must be adjusted using the following formula:

$(P \times K_3) / PR$

K_4 = The lesser of:

(i) $0.15 \times A$*;

(ii) $0.15 \times CEA$

CEA is an indexed amount. See Table 8.2 **Other rates and amounts**

* For the Canada employment amount, A is the annual gross income from office or employment before deductions. Only include the amounts from office or employment, this is the same amount you normally report in box 14 of the T4 slip (s).

Step 3 – Formula to calculate the annual federal tax payable (T_1)

T_1 = Annual federal tax deduction, except for employees in Quebec, outside Canada, and in Canada beyond the limits of any province or territory

= $(T_3 - LCF)$*

* If the result is negative, enter $0.

Only for employees in Quebec:

T_1 = $[(T_3 - LCF)\text{*} - (0.165 \times T_3)]$*

* If the result is negative, enter $0.

Only for employees outside Canada and in Canada beyond the limits of any province or territory:

T_1 = $[T_3 + (0.48 \times T_3) - LCF]$*

* If result is negative, enter $0.

LCF = The lesser of:

    (i) $750;

    (ii) 15% of the amount deducted or withheld during the year for the acquisition, by the employee, of approved shares of the capital stock of a prescribed labour-sponsored venture capital corporation

Note:

If the shares are invested in a registered retirement savings plan, the amount invested can be used to determine the annual taxable income amount.

Tax calculation formulas for bonuses, retroactive pay increases, and other non-periodic payments

Introduction

Generally, the tax on a bonus (or retroactive pay increase) is calculated by finding the tax on the total of regular annual income **plus** any previous bonuses **plus** the current bonus and subtracting the tax on the total of regular annual income **plus** any previous bonuses. The difference will be the tax on the current bonus.

In the optional year-to-date method outlined below, instead of annualizing the current income, use year-to-date income values and year-to-date deductions as the annual income with and without the bonus. In either case the tax on the bonus is as follows:

TB = The difference between:

    (i) the annual tax amount ($T_1 + T_2$) based on the instructions in Step 1 below; and

    (ii) the annual tax amount ($T_1 + T_2$) based on the instructions in Step 2 below

(1) Regular bonus calculation

Step 1

Determine the annual tax ($T_1 + T_2$) based on the annual taxable income (factor A) with the non-periodic payment payable now. The formula to calculate factor A is as follows:

$$A = ([P \times (I - F - F_2 - U_1)] - HD - F_1)^* + (B - F_3)^{**} + (B_1 - F_4)^{**}$$

    * If the result is negative, enter $0.

    ** Result cannot be negative, and result cannot be negative after deducting CPP and EI.

Note:

If the result above is less than or equal to **$5,000**, deduct 15% tax (10% in Quebec) from the bonus or retroactive pay increase.

Step 2

Determine the annual tax ($T_1 + T_2$) based on the annual taxable income (factor A) without the non-periodic payment payable now. The formula to calculate factor A is as follows:

$$A = ([P \times (I - F - F_2 - U_1)] - HD - F_1)^* + (B_1 - F_4)^{**}$$

    * If the result is negative, enter $0.

    ** Result cannot be negative, and result cannot be negative after deducting CPP and EI.

If there is no current I, use the most recent I.

(2) Year-to-date bonus calculation (optional)

Step 1

Determine the annual tax ($T_1 + T_2$) based on the annual taxable income (factor A) with the non-periodic payment payable now. The annual taxable income (factor A) is based on a year-to-date concept, plus the estimated income for the rest of the pay periods in the year. YTD means year-to-date (before this pay period). The formula to calculate factor A is as follows:

$$A = [(I_{YTD} - F_{YTD} - F_{2YTD} - U_{1YTD}) + (PR \times (I - F - F_2 - U_1)) - F_1 - HD]^* + (B - F_3)^{**} + (B_1 - F_4)^{**}$$

    * If the result is negative, enter $0.

    ** Result cannot be negative, and result cannot be negative after deducting CPP and EI.

Note:

If the result above is less than or equal to **$5,000**, deduct 15% tax (10% in Quebec) from the bonus or retroactive pay increase.

Step 2

A = $[(IYTD – FYTD – F2YTD – U1YTD) + (PR × (I – F – F2 – U1)) – F1 – HD]* + (B1 – F4)**$

     *   If the result is negative, enter \$0.

     **   Result cannot be negative, and result cannot be negative after deducting CPP and EI.

Example for year-to-date bonus calculation method

In this example, an employee got a retroactive pay increase from \$1,000 to \$1,100 per week that applies to 25 weeks. Therefore, a retroactive pay increase payment of \$2,500 is payable now. \$1,000 will be directed to the employee's RRSP. Thirty pay periods have passed and 22 pay periods remain in the year. Year-to-date income is \$30,000, year-to-date RPP is \$1,350, and year-to-date union dues are \$150. The current income is \$1,100 with RPP withheld of \$45 and union dues of \$5. The employee received a previous bonus of \$1,000 with only CPP, EI, and tax withheld from it.

Step 1

A	=	Annual taxable income with the non-periodic payment payable now
	=	$[(IYTD – FYTD – F2YTD – U1YTD) + (PR × (I – F – F2 – U1)) – F1 – HD]* + (B – F3)** + (B1 – F4)**$
	=	$[(\$30,000 – \$1,350 – \$0 – \$150) + (22 × (\$1,100 – \$45 – \$0 – \$5)) – \$0 – \$0] + (\$2,500 – \$1,000) + (\$1,000 – \$0)$
	=	$\$28,500 + (22 × \$1,050) + \$1,500 + \$1,000$
	=	$\$54,100$

Step 2

A	=	Annual taxable income without the non-periodic payment payable now
	=	$[(IYTD – FYTD – F2YTD – U1YTD) + (PR × (I – F – F2 – U1)) – F1 – HD]* + (B1 – F4)**$
	=	$[(\$30,000 – \$1,350 – \$0 – \$150) + (22 × (\$1,100 – \$45 – \$0 – \$5)) – \$0 – \$0] + (\$1,000 – \$0)$
	=	$\$28,500 + (22 × \$1,050) + \$1,000$
	=	$\$52,600$

After you have calculated the annual taxable income, factor A, in steps 1 and 2, calculate the factors T1 and T2 in the same way as for regular remuneration.

> **Note:**
>
> The formula above can be used to calculate the tax deductions on non-periodic payments such as accumulated overtime not paid in the same pay period earned, paid vacation not taken by the employee, and bonuses.

Step 4 – Formula to calculate annual basic provincial or territorial tax (T4)

$T4$ = $(V × A) – KP – K1P – K2P – K3P – K4P$

If the result is negative, $T4 = \$0$.

Step 5 – Formulas to calculate the annual provincial or territorial tax deduction (T2)

$T2$ = $T4 + V1 + V2 – S – LCP$

If the result is negative, $T2 = \$0$.

Only for employees in Quebec:

$T2$ = \$0

Only for employees outside Canada and in Canada beyond the limits of any province or territory:

$T2$ = \$0

Alberta

$T2$ = $T4 + V1 – S – LCP$

If the result is negative, $T2 = \$0$.

Where:

$T4$ = $(V × A) – KP – K1P – K2P – K3P$

V and KP are based on 2022 values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

$K1P$ = $0.10 × TCP$

K2P = $[(0.10 \times (P \times C, \text{maximum } \$3{,}499.80)) + (0.10 \times (P \times EI, \text{maximum } \$952.74))]$

V1, **S**, and **LCP** = $0

British Columbia

T2 = $T4 + V1 - S - LCP$

If the result is negative, T2 = $0.

Where:

T4 = $(V \times A) - KP - K1P - K2P - K3P$

V and KP are based on 2022 index values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

K1P = $0.0506 \times TCP$

K2P = $[(0.0506 \times (P \times C, \text{maximum } \$3{,}499.80)) + (0.0506 \times (P \times EI, \text{maximum } \$952.74))]$

V1 = $0

S = Where A ≤ $21,867, S is equal to the lesser of:

(i) T4;

(ii) S2

= Where $21,867 < A ≤ $35,659, S is equal to the lesser of:

(i) T4;

(ii) S2 − [(A − $21,867) × 3.56%]

= Where A > $35,659

= $0

LCP = The lesser of:

(i) $2,000;

(ii) 15% of the amount deducted or withheld during the year for the acquisition by the employee of approved shares of the capital stock of a prescribed labour-sponsored venture capital corporation

Manitoba

T2 = $T4 + V1 - S - LCP$

If the result is negative, T2 = $0.

Where:

T4 = $(V \times A) - KP - K1P - K2P - K3P$

V and KP are based on 2022 index values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

K1P = $0.108 \times TCP$

K2P = $[(0.108 \times (P \times C, \text{maximum } \$3{,}499.80)) + (0.108 \times (P \times EI, \text{maximum } \$952.74))]$

V1, and **S** = $0

LCP = The lesser of:

(i) $1,800;

(ii) 15% of the amount deducted or withheld during the year for the acquisition by the employee of approved shares of the capital stock of a prescribed labour sponsored venture capital corporation

New Brunswick

T2 = $T4 + V1 - S - LCP$

If the result is negative, T2 = $0.

Where:

T4 = $(V \times A) - KP - K1P - K2P - K3P$

V and KP are based on 2022 index values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

K1P = $0.094 \times TCP$

K2P = $[(0.094 \times (P \times C, \text{maximum } \$3{,}499.80)) + (0.094 \times (P \times EI, \text{maximum } \$952.74))]$

V1 and **S** = $0

LCP = The lesser of:

    (i) $2,000;

    (ii) 20% of the amount deducted or withheld during the year for the acquisition by the employee of approved shares of the capital stock of a prescribed labour-sponsored venture capital corporation

Newfoundland and Labrador

T_2 = $T_4 + V_1 - S - LCP$

    If the result is negative, $T_2 = \$0$.

    Where:

    T_4 = $(V \times A) - KP - K_1P - K_2P - K_3P$

    V and KP are based on 2022 index values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

K_1P = $0.087 \times TCP$

K_2P = $[(0.087 \times (P \times C, \text{maximum } \$3,499.80)) + (0.087 \times (P \times EI, \text{maximum } \$952.74))]$

V_1, S and **LCP** = $0

Northwest Territories

T_2 = $T_4 + V_1 - S - LCP$

    If the result is negative, $T_2 = \$0$.

    Where:

    T_4 = $(V \times A) - KP - K_1P - K_2P - K_3P$

    V and KP are based on 2022 index values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

K_1P = $0.059 \times TCP$

K_2P = $[(0.059 \times (P \times C, \text{maximum } \$3,499.80)) + (0.059 \times (P \times EI, \text{maximum } \$952.74))]$

V_1, S, and **LCP** = $0

Nova Scotia

T_2 = $T_4 + V_1 - S - LCP$

    If the result is negative, $T_2 = \$0$.

    Where:

    T_4 = $(V \times A) - KP - K_1P - K_2P - K_3P$

    V and KP are based on 2022 values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

K_1P = $0.0879 \times TCP$

K_2P = $[(0.0879 \times (P \times C, \text{maximum } \$3,499.80)) + (0.0879 \times (P \times EI, \text{maximum } \$952.74))]$

V_1 and **S** = $0

LCP = The lesser of:

    (i) $2,000;

    (ii) 20% of the amount deducted or withheld during the year for the acquisition by the employee of approved shares of the capital stock of a prescribed labour-sponsored venture capital corporation

Nunavut

T_2 = $T_4 + V_1 - S - LCP$

    If the result is negative, $T_2 = \$0$.

    Where:

    T_4 = $(V \times A) - KP - K_1P - K_2P - K_3P$

    V and KP are based on 2022 index values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

K_1P = $0.040 \times TCP$

K_2P = $[(0.040 \times (P \times C, \text{maximum } \$3,499.80)) + (0.040 \times (P \times EI, \text{maximum } \$952.74))]$

V_1, S, and **LCP** = $0

Ontario

T2 = $T4 + V_1 + V_2 - S - LCP$

If the result is negative, T2 = $0.

Where:

T4 = $(V \times A) - KP - K_1P - K_2P - K_3P$

V and KP are based on 2022 index values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

K1P = $0.0505 \times TCP$

K2P = $[(0.0505 \times (P \times C, \text{maximum } \$3,499.80)) + (0.0505 \times (P \times EI, \text{maximum } \$952.74))]$

V1 = Where $T4 \leq \$4,991$

$V_1 = \$0$

Where $\$4,991 < T4 \leq \$6,387$

$V_1 = 0.20 \times (T4 - \$4,991)$

Where $T4 > \$6,387$

$V_1 = 0.20 \times (T4 - \$4,991) + 0.36 \times (T4 - \$6,387)$

V2 = Where $A \leq \$20,000$, $V_2 = \$0$

Where $\$20,000 < A \leq \$36,000$, V_2 = the lesser of:

(i) $300;

(ii) $0.06 \times (A - \$20,000)$

Where $\$36,000 < A \leq \$48,000$, V_2 = the lesser of:

(i) $450;

(ii) $\$300 + (0.06 \times (A - \$36,000))$

Where $\$48,000 < A \leq \$72,000$, V_2 = the lesser of:

(i) $600;

(ii) $\$450 + (0.25 \times (A - \$48,000))$

Where $\$72,000 < A \leq \$200,000$, V_2 = the lesser of:

(i) $750;

(ii) $\$600 + (0.25 \times (A - \$72,000))$

Where $A > \$200,000$, V_2 = the lesser of:

(i) $900;

(ii) $\$750 + (0.25 \times (A - \$200,000))$

Note:

The Ontario Health Premium (OHP) is not reduced by the Ontario tax reduction (factor S). The OHP is not related to the employer health tax for Ontario. Include the OHP in the total federal and provincial tax deducted on T4 slips.

S = The lesser of:

(i) $T4 + V_1$;

(ii) $[2 \times (S2 + Y)] - [T4 + V_1]$

If the result is negative, S = $0.

Where:

Y = The total of the following amounts as shown on Form TD1ON or for which the employee or pensioner has made a written or electronic request:

- $475 multiplied by the number of disabled dependants; and
- $475 multiplied by the number of dependants under age 19

Note:

If Y is not used, any over deduction of tax will be considered when the individual files their income tax and benefit return. When possible, use the Y factor.

LCP = $0

Prince Edward Island

T_2 = $T_4 + V_1 - S - LCP$

If the result is negative, $T_2 = \$0$.

Where:

T_4 = $(V \times A) - KP - K_1P - K_2P - K_3P$

V and KP are based on 2022 values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

K_1P = $0.098 \times TCP$

K_2P = $[(0.098 \times (P \times C, \text{maximum } \$3,499.80)) + (0.098 \times (P \times EI, \text{maximum } \$952.74))]$

V_1 = Where $T_4 \leq \$12,500$

$V_1 = \$0$

Where $T_4 > \$12,500$

$V_1 = 0.10 \times (T_4 - \$12,500)$

S and **LCP** = $0

Quebec

In this publication, we refer to the annual provincial or territorial tax deduction as factor T_2. However, factor T_2 does not apply in the province of Quebec. Quebec administers its own provincial income tax and Quebec Pension Plan contributions. If you have questions about the formulas for Quebec, please contact Revenu Québec:

Revenu Québec
3800, rue de Marly
Québec (Québec) G1X 4A5

Telephone: **1-800-567-4692**

Outside Canada:........................**1-418-659-4692**

Quebec employers whose employees receive income from tips and gratuities should review the section called "Calculating payroll deductions for employees in the hotel and restaurant business in Quebec," in the publication T4032QC, Payroll Deductions Tables.

Saskatchewan

T_2 = $T_4 + V_1 - S - LCP$

If the result is negative, $T_2 = \$0$.

Where:

T_4 = $(V \times A) - KP - K_1P - K_2P - K_3P$

V and KP are based on 2022 index values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

K_1P = $0.105 \times TCP$

K_2P = $[(0.105 \times (P \times C, \text{maximum } \$3,499.80)) + (0.105 \times (P \times EI, \text{maximum } \$952.74))]$

V_1 and **S** = $0

LCP = The lesser of:

(i) $875;

(ii) 17.5% of the amount deducted or withheld during the year for the acquisition by the employee of approved shares of the capital stock of a prescribed labour-sponsored venture capital corporation

Yukon

T_2 = $T_4 + V_1 - S - LCP$

If the result is negative, $T_2 = \$0$.

Where:

T_4 = $(V \times A) - KP - K_1P - K_2P - K_3P - K_4P$

V and KP are based on 2022 index values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

K_1P = $0.064 \times TCP$

K_2P = $[(0.064 \times (P \times C, \text{maximum } \$3,499.80)) + (0.064 \times (P \times EI, \text{maximum } \$952.74))]$

K4P = The lesser of:

    (i) $0.064 \times A^*$; and

    (ii) $0.064 \times CEA$

    CEA is an indexed amount. See Table 8.2 **Other rates and amounts** in Chapter 8.

* For the Canada employment amount, A is the annual gross income from office or employment before deductions. Only include the amounts from office or employment, this is the same amount you normally report in box 14 of the T4 slip (s).

V_1, **S** and **LCP**= $0

Outside Canada and in Canada beyond the limits of any province or territory:

V, V₁, V₂, S, and **LCP** = $0

Step 6 – Formulas to calculate the estimated federal and provincial or territorial tax deductions (T) for the pay period

T   = $[(T_1 + T_2) / P] + L$

    You can round the resulting amount to the nearest multiple of $0.05 or $0.01.

Only for employees in Quebec, outside Canada, and in Canada beyond the limits of any province or territory:

T   = $(T_1 / P) + L$

    You can round the resulting amount to the nearest multiple of $0.05 or $0.01.

For employees paid by commission who have filled out Form TD1X:

T   =   The tax to be deducted on the current commission payment (factor G)

    = $[(T_1 + T_2) / (I_1 / (G - F - F_1))] + L$

    You can round the resulting amount to the nearest multiple of $0.05 or 0.01.

Note:

The F and F_1 amounts used here are additional amounts that were not known or considered when calculating the Annual taxable income (A) variable.

Chapter 5 – Option 2 – Tax formulas based on cumulative averaging

Option 2 formulas are intended for employees whose pay varies considerably from one pay period to the next. In the Option 2 formulas, the amount of tax to be deducted is based on the projected annual taxable income (including bonuses) compared to the amount of tax already deducted in the year. Option 2 works well for employees who are employed for a full calendar year. If the employee's income is relatively stable for each pay period, there will not be much difference in the tax deductions with Option 2 compared to Option 1.

The following sections explain in detail how Option 2 works. The initials **YTD** used in this option means **year-to-date** and applies to payments or deductions for the current year, but not the payment payable now and the deductions for the current pay period.

Calculation of income

In Option 2, the actual year-to-date income plus the current income is projected over the rest of the pay periods in the year. For example, an employee received a total of $20,000 in 20 previous pay periods and $500 in the current pay period, and there are 5 pay periods left. The projected income for the year using Option 2 will be $25,380.95 [($20,000 + $500) × 26/21].

To determine year-to-date income, you have to use the year-to-date taxable income. Therefore, you will have to store and use the year-to-date values for each pay period factor, such as RPP (factor F) and union dues (U_1).

Calculation of tax for the pay period

For Option 2, you calculate the tax on the projected income for the year, and then find the tax amount that is proportional to the number of pay periods that have occurred (including the current pay period). Compare the result to the tax deducted in the year-to-date. The difference is the tax payable on the current income.

Continuing the above example, if the total federal and provincial or territorial tax on $25,380.95 is $3,560.17 the proportional year-to-date tax is $2,875.52 ($3,560.17/26 × 21). If the total tax deducted year-to-date is $2,736.40 the tax on the current income of $500 is $139.12 ($2,875.52 – $2,736.40). The tax values used in this example are fictitious.

Special situations

When you change tax options to Option 2 during the year, we recommend that you reset the S1 factor to the first pay period. For example, if your pay period is weekly and the tax option is changed for the first pay period after July 1, then S1 should be reset to 52/1 instead of 52/27. In this way, the tax deductions that have been made under the previous option are not considered when calculating the deductions under the new option. This modification could also apply when an employee starts employment with you during the year.

When there are tax changes during the year, the first pay period after the change will show a significant adjustment to balance the new annual tax with the tax deducted at the old rates. We recommend that you reduce this impact by resetting the S1 factor or by averaging the tax increase or decrease over the rest of the pay periods.

Note:

If an employee or a pensioner has income from another source from which no tax has been deducted (for example, investment income or rental income), they could have a tax liability when they file an income tax and benefit return for the year. The employee or pensioner can ask for more tax deductions, factor L, using Form TD1.

Formula to calculate annual taxable income (A)

A	=	Projected annual taxable income
	=	$[S_1 \times (I - F - F_2 - U_1)] + B_1 - HD - F_1$
		If the result is negative, A = $0.
S1	=	This is a set of two numbers: the number of total pay periods (or the employee's pay periods if the employees worked less than the total pay periods) divided by the applicable number of the current pay period, as in the chart below. Also, see the information under "Special situations."

Table 5.1 S1 Examples

Examples	52pp	26pp	24pp	12pp
1st pay period, S1 =	52/1	26/1	24/1	12/1
2nd pay period, S1 =	52/2	26/2	24/2	12/2
3rd pay period, S1 =	52/3	26/3	24/3	12/3
Etc., last pay period, S1 =	52/52	26/26	24/24	12/12

I	=	Gross pay for the pay period. This includes overtime earned and paid in the same pay period, pension income, qualified pension income, and taxable benefits, plus I_{YTD}, but does not include amounts in factor B.
F	=	Payroll deductions for the pay period for employee contributions to a registered pension plan for current and past services, a registered retirement savings plan (RRSP), or a retirement compensation arrangement plus F_{YTD}.

Note:

For full details, see the description under Option 1.

F2	=	Alimony or maintenance payments required by a legal document dated before May 1, 1997, to be deducted at source from the employee's salary for the pay period plus F_{2YTD}. The legal document could be a garnishment or a similar order of a court or competent tribunal.

Note:

For full details, see the description under Option 1.

U1	=	Union dues for the pay period, plus U_{1YTD}.
B1	=	Year-to-date (before this pay period) non-periodic payments such as bonuses, retroactive pay increases, vacation pay when vacation is not taken, and accumulated overtime. Since tax on a current non-periodic payment is calculated separately, do not include the current non-periodic payment in calculating A.

Note:

For overtime earned and paid in the same pay period, the payment is included with the I factor. Also, when the employee gets vacation pay and takes vacation, the income is included in the I factor. If you want to make deductions such as RRSP contributions from the bonus payment, see the instructions in Option 1 for using factors F3 and F4.

Formula to calculate basic federal tax (T_3)

T_3 = $(R \times A) - K - K_1 - K_2 - K_3 - K_4$

If the result is negative, $T_3 = \$0$.

Only for employees in Quebec:

T_3 = $(R \times A) - K - K_1 - K_{2Q} - K_3 - K_4$

If the result is negative, $T_3 = \$0$.

R and K are based on 2022 index values for A see the **Rates (R, V), income thresholds (A), and constants (K, KP) for 2022** Table 8.1 in Chapter 8.

A = Projected annual taxable income

K_1 = $0.15 \times TC$

K_2 = $[(0.15 \times (0.0570 \times ((S_1 \times PI) + B_1 - \$3,500)^*, \text{maximum } \$3,499.80)) + (0.15 \times (0.0158 \times ((S_1 \times IE) + B_1), \text{maximum } \$952.74))]$

Only for employees in Quebec:

K_{2Q} = $[(0.15 \times (0.0615 \times ((S_1 \times PI) + B_1 - \$3,500)^*, \text{maximum } \$3,776.10)) + (0.15 \times (0.0120 \times ((S_1 \times IE) + B_1), \text{maximum } \$723.60)) + (0.15 \times (0.00494 \times S_1 \times IE) + B_1), \text{maximum } \$434.72))]$

* If the result is negative, enter \$0.

Where:

PI = Pensionable income for the pay period, or the gross income plus any taxable benefits for the pay period, plus PI_{YTD}

IE = Insurable earnings for the pay period including insurable taxable benefits for the pay period, plus IE_{YTD}

The above has to follow the rules in Chapter 6 – "Canada Pension Plan (CPP)" and Chapter 7 – "Employment Insurance (EI)" of this publication and the instructions contained in Guide T4001, Employers' Guide – Payroll Deductions and Remittances.

K_4 = The lesser of:

(i) $0.15 \times A^*$;

(ii) $0.15 \times CEA$

CEA is an indexed amount. See Table 8.2 **Other rates and amounts** in Chapter 8.

* For the Canada employment amount, A is the annual gross income from office or employment before deductions. Only include the amounts from office or employment, this is the same amount you normally report in box 14 of the T4 slip (s).

Formula to calculate the federal tax payable (T_1)

T_1 = Annual federal tax deduction except for Quebec, outside Canada, and in Canada beyond the limits of any province or territory

  = $(T_3 - LCF)^*$

* If the result is negative, enter \$0.

Only for Quebec:

T_1 = $(T_3 - LCF)^* - (0.165 \times T_3)$

* If the result is negative, enter \$0.

Only for outside Canada or in Canada beyond the limits of any province or territory:

T_1 = $[T_3 + (0.48 \times T_3) - LCF]^*$

* If the result is negative, enter \$0.

LCF = The lesser of:

(i)   \$750;

(ii) 15% of the amount deducted or withheld during the year for the acquisition by the employee of approved shares of the capital stock of a prescribed labour-sponsored venture capital corporation

Note:

If the shares are invested in an RRSP, then the amount invested can be used to determine the annual taxable income amount.

Formulas to calculate provincial and territorial tax payable (T2)

We have not repeated the entire explanation for the provincial and territorial variables. Effective January 1, 2022, the variables for Option 2 are the same as for Option 1, except for factor K2P, which is as follows:

K_{2P} = [(Lowest provincial or territorial tax rate × (0.0570 × ((S1 × PI) + B1 – $3,500)*, maximum $3,499.80)) + (lowest provincial or territorial tax rate × (0.0158 × ((S1 × IE) + B1), maximum $952.74))]

* If the result is negative, enter $0.

Replace the lowest provincial or territorial tax rate with the appropriate rate for the province or territory that applies to the employee or pensioner.

Only for Quebec:

T_2 = $0

Only for outside Canada or in Canada beyond the limits of any province or territory:

T_2 = $0

Formulas to calculate the estimated federal and provincial or territorial tax deductions (T) for the pay period

T = [((T1 + T2 – M1) / S1) – M]* + L

* If the result is negative, T = L.

The resulting amount can be rounded to the nearest multiple of $0.05 or $0.01.

Only for employees in Quebec, outside Canada, and in Canada beyond the limits of any province or territory:

T = Estimated federal tax deduction for the pay period**

= [((T1 – M1) / S1) – M]* + L

* If the result is negative, T = L.

** The resulting amount can be rounded to the nearest multiple of $0.05 or $0.01.

M = Do not include any year-to-date extra tax deductions requested by the employee, factor L. Tax already deducted on non-periodic payments such as bonuses, is included in factor M1.

M1 = Accumulated federal and provincial (or territorial) tax deductions on non-periodic payments such as bonuses, if any, to the last pay period. Do not include any year-to-date extra tax deductions for the year requested by the employee, factor L or any tax included in factor M. The T factor (tax deduction for the pay period) will not include the tax on the non-periodic payment. The tax to be deducted on a current non-periodic payment is kept in another field TB.

TB = Estimated federal and provincial or territorial tax deduction on a non-periodic payment for the pay period

= Step 1 minus Step 2 below (if negative, TB = $0)

Step 1

Projected annual taxable income including B1 and B payable now

= [S1 × (I – F – F2 – U1)] + B1 + B – HD – F1

Step 2

Projected annual taxable income including B1, but not B payable now

= [S1 × (I – F – F2 – U1)] + B1 – HD – F1

Chapter 6 – Canada Pension Plan (CPP)

Formula to determine CPP contributions for employees receiving salary or wages

C = The lesser of:

(i) $3,499.80* – D*;

(ii) 0.0570* × [PI – ($3,500 / P)]

If the result is negative, C = $0.

* For employees employed in Quebec

use the QPP max contribution amount of $3,776.10 instead of $3,499.80;

use DQ instead of D; and,

use the QPP contribution rate of 0.0615 instead of 0.0570.

Formula to determine CPP contributions—only for employees paid by commission

C   =   The lesser of:

    (i) $3,499.80* – D*;

    (ii) $0.0570* \times [G – (\$3,500 \times N / 365, \text{minimum } \$67.30)]$

         If the result is negative, C = $0.

    *   For employees employed in Quebec

         use the QPP max contribution amount of $3,776.10 instead of $3,499.80;

         use DQ instead of D; and,

         use the QPP contribution rate of 0.0615 instead of 0.0570.

Formula to determine CPP contributions for employees who were transferred by their employer from Quebec to a location outside Quebec during the year receiving salary or wages

C   =   The lesser of:

    (i) $\$3,499.80 – [(DQ \times (0.0570/0.0615)*) + D]$;

    (ii) $0.0570 \times [PI – (\$3,500 / P)]$

         If the result is negative, C = $0.

    *   No rounding required for this factor.

Formula to determine CPP contributions for employees who were transferred by their employer from Quebec to a location outside Quebec during the year paid by commission

C   =   The lesser of:

    (i) $\$3,499.80 – [(DQ \times (0.0570/0.0615)*) + D]$;

    (ii) $0.0570 \times [G – (\$3,500 \times N / 365, \text{minimum } \$67.30)]$

         If the result is negative, C = $0.

    *   No rounding required for this factor.

Note:

For these formulas, round the resulting amount to the nearest $0.01. The maximum amount for the year [amount (i) above] will vary according to the rules in the section called "Special CPP Situations."

Each employer needs to deduct CPP contributions based on the employee's pensionable income, without regard to any other earnings the employee may have had with another employer in the same year. Accordingly, you must use the maximum above even if the employee works for you less than 12 months. Similarly, you are not entitled to a refund of the employer's share of CPP if the employee works for you less than 12 months.

For payments where the employee receives remuneration such as a bonus, retroactive pay increase, vacation pay when vacation is not taken, or accumulated overtime pay, and the payment is not included with the regular remuneration for the current pay period, you should introduce a code or use the factor B with the record. Also do this if a non-periodic payment is made and no regular remuneration is paid in the pay period. You do this to avoid allowing the basic exemption for the pay period (**$3,500 / P**) in the formula described above.

The basic exemption amount ($3,500 / P) used to determine the employee's contributions for the pay period has to stay the same throughout the year, regardless of whether an employee has worked in each week of the pay period.

Also, you should determine the number of pay periods at the start of the year (for example, for weekly, you can have 52 or 53 pay periods and, for biweekly, you can have 26 or 27 pay periods.) This is to make sure that you have deducted employee contributions properly.

Special CPP situations

You will have to either start or stop deducting CPP contributions under the following circumstances:

Your employee turns 18 – Start deducting CPP contributions for the first pay dated in the month after the employee turns 18.

Your employee turns 70 – Deduct CPP contributions up to and including the last pay dated in the month in which the employee turns 70.

For step (i) in each calculation of C above, the maximum contribution must be prorated for the special situations. For detailed information, refer to T4001 Employers' Guide- Payroll Deductions and Remittances.

Employee's CPP basic exemption for various pay periods

Table 6.1 Basic exemption

Pay period	Basic exemption ($)
Annually (1)	3,500.00
Semi-annually (2)	1,750.00
Quarterly (4)	875.00
Monthly (12)	291.66
Semi-monthly (24)	145.83
Biweekly (26)	134.61
Biweekly (27)	129.62
Weekly (52)	67.30
Weekly (53)	66.03
22 pay periods	159.09
13 pay periods	269.23
10 pay periods	350.00
Daily (240)	14.58
Hourly (2000)	1.75

Chapter 7 – Employment Insurance (EI)

Formula to calculate Employment Insurance (EI) premiums

As an employer, you have to remit these deductions along with your share of EI premiums. For more information, go to Chapter 3, "Employment Insurance premiums," in Guide T4001, Employer's Guide – Payroll Deductions and Remittances.

The formula below will allow you to determine, in your payroll calculations, the premium payable by an insured person under the Employment Insurance Act. The formula is:

EI = The lesser of:

    (i) $952.74 - D_1$;

    (ii) $0.0158 \times IE$

Only for employees in Quebec:

EI = the lesser of

    (i) $723.60 - D_1$;

    (ii) $0.0120 \times IE$*

    * Round the resulting amount(s) in (ii) to the nearest $0.01.

    Note:

    When an employee changes province of employment during the year but stays with the same employer, the maximum premium for the year is based on the province where the first $60,300 of insurable earnings is paid.

Example:

An employee makes $30,000 of insurable earnings in Ontario, changes their province of employment to Quebec, and makes an extra $40,000 with the same employer. The employee's maximum premium is calculated as follows:

In Ontario:	$30,000	×	1.58%	=	$474.00
In Quebec:	$30,300	×	1.20%	=	$363.60
Totals:	$60,300	=			$837.60

QPIP premiums and maximum insurable earnings will be updated on the following link of **Revenu Quebec** website once the information is available. The rate of 0.00494 remains unchanged for 2022.

Chapter 8 – Rates and amounts

To download the Chapter 8 tables in comma-separated value (CSV) format see the **T4127 Payroll Deductions Formulas** website.

Table 8.1 Rates (R, V), income thresholds (A), and constants (K, KP) for 2022

		1st	2nd	3rd	4th	5th	6th	7th	8th
Federal	A	0	50,197	100,392	155,625	221,708			
	R	0.1500	0.2050	0.2600	0.2900	0.3300			
	K	0	2,761	8,282	12,951	21,819			
AB	A	0	131,220	157,464	209,952	314,928			
	V	0.1000	0.1200	0.1300	0.1400	0.1500			
	KP	0	2,624	4,199	6,299	9,448			
BC	A	0	43,070	86,141	98,901	120,094	162,832	227,091	
	V	0.0506	0.0770	0.1050	0.1229	0.1470	0.1680	0.2050	
	KP	0	1,137	3,549	5,319	8,214	11,633	20,035	
MB	A	0	34,431	74,416					
	V	0.1080	0.1275	0.1740					
	KP	0	671	4,132					
NB	A	0	44,887	89,775	145,955	166,280			
	V	0.0940	0.1482	0.1652	0.1784	0.2030			
	KP	0	2,433	3,959	5,886	9,976			
NL	A	0	39,147	78,294	139,780	195,693	250,000	500,000	1,000,000
	V	0.0870	0.1450	0.1580	0.1780	0.1980	0.2080	0.2130	0.2180
	KP	0	2,271	3,288	6,084	9,998	12,498	14,998	19,998
NS	A	0	29,590	59,180	93,000	150,000			
	V	0.0879	0.1495	0.1667	0.1750	0.2100			
	KP	0	1,823	2,841	3,613	8,863			
NT	A	0	45,462	90,927	147,826				
	V	0.0590	0.0860	0.1220	0.1405				
	KP	0	1,227	4,501	7,236				
NU	A	0	47,862	95,724	155,625				
	V	0.0400	0.0700	0.0900	0.1150				
	KP	0	1,436	3,350	7,241				
ON	A	0	46,226	92,454	150,000	220,000			
	V	0.0505	0.0915	0.1116	0.1216	0.1316			
	KP	0	1,895	3,754	5,254	7,454			
PE	A	0	31,984	63,969					
	V	0.0980	0.1380	0.1670					
	KP	0	1,279	3,134					
SK	A	0	46,773	133,638					
	V	0.1050	0.1250	0.1450					
	KP	0	935	3,608					
YT	A	0	50,197	100,392	155,625	500,000			
	V	0.0640	0.0900	0.1090	0.1280	0.1500			
	KP	0	1,305	3,213	6,169	17,169			

Table 8.2 Other rates and amounts for 2022

	Basic amount	Index rate	LCP rate	LCP amount	CEA	S2	T4 to V1	V1 rate	Abatement	Surtax
Federal	BPAF	0.024	0.150	750	1,287					
AB	19,369	–								
BC	11,302	0.021	0.150	2,000		491				
MB	10,145	0.021	0.150	1,800						
NB	10,817	0.024	0.200	2,000						
NL	9,803	0.028								
NS	BPANS	–	0.200	2,000						
NT	15,609	0.024								
NU	16,862	0.024								
ON	11,141	0.024				257	0	0.000		
							4,991	0.200		
							6,387	0.360		
PE	11,250	–					0	0.000		
							12,500	0.100		
QC	–	–							0.165	
SK	16,615	0.024	0.175	875						
YT	BPAYT	0.024			1,287					
Outside Canada										0.480

For information on 2022 federal personal amounts, see the form TD1, Personal Tax Credits Return and the form TD1X, Commission Income and Expenses for Payroll Tax Deductions. For information on 2022 provincial or territorial personal amounts, see the respective form TD1AB, TD1BC, TD1MB, TD1NB, TD1NL, TD1NS, TD1NT, TD1NU, TD1ON, TD1PE, TD1SK, or TD1YT. For information on QC amounts, refer to Revenu Quebec.

Table 8.3 Canada Pension Plan / Quebec Pension Plan 2022 rates and amounts

CPP/QPP	YMPE	Basic Exemption	Max contributory earnings YMCE	Employee contribution rate	Employee max contribution	Self-employed max contribution	YMPE before rounding
CPP (Canada except QC)	64,900	3,500	61,400	0.0570	3,499.80	6,999.60	64,976.96
QPP (QC)	64,900	3,500	61,400	0.0615	3,776.10	7,552.20	64,976.96

Table 8.4 Employment Insurance 2022 rates and amounts

EI	Annual max insurable earnings	Employee contribution rate	Employer contribution rate	Annual max employee premium	Annual max employer premium
Canada except QC	60,300	0.0158	0.02212	952.74	1,333.84
QC	60,300	0.0120	0.01680	723.60	1,013.04

Claim codes for 2022

Table 8.5 Federal Claim Codes (using maximum BPAF)

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TC = ($)	Option 1, K1 ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	14,398.00	14,398.00	2,159.70
2	14,398.01	16,828.00	15,613.00	2,341.95
3	16,828.01	19,258.00	18,043.00	2,706.45
4	19,258.01	21,688.00	20,473.00	3,070.95
5	21,688.01	24,118.00	22,903.00	3,435.45
6	24,118.01	26,548.00	25,333.00	3,799.95
7	26,548.01	28,978.00	27,763.00	4,164.45
8	28,978.01	31,408.00	30,193.00	4,528.95
9	31,408.01	33,838.00	32,623.00	4,893.45
10	33,838.01	36,268.00	35,053.00	5,257.95

Table 8.6 Alberta claim codes

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TCP = ($)	Option 1, K1P ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	19,369.00	19,369.00	1,936.90
2	19,369.01	22,203.00	20,786.00	2,078.60
3	22,203.01	25,037.00	23,620.00	2,362.00
4	25,037.01	27,871.00	26,454.00	2,645.40
5	27,871.01	30,705.00	29,288.00	2,928.80
6	30,705.01	33,539.00	32,122.00	3,212.20
7	33,539.01	36,373.00	34,956.00	3,495.60
8	36,373.01	39,207.00	37,790.00	3,779.00
9	39,207.01	42,041.00	40,624.00	4,062.40
10	42,041.01	44,875.00	43,458.00	4,345.80

Table 8.7 British Columbia claim codes

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TCP = ($)	Option 1, K1P ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	11,302.00	11,302.00	571.88
2	11,302.01	13,845.00	12,573.50	636.22
3	13,845.01	16,388.00	15,116.50	764.89
4	16,388.01	18,931.00	17,659.50	893.57
5	18,931.01	21,474.00	20,202.50	1,022.25
6	21,474.01	24,017.00	22,745.50	1,150.92
7	24,017.01	26,560.00	25,288.50	1,279.60
8	26,560.01	29,103.00	27,831.50	1,408.27
9	29,103.01	31,646.00	30,374.50	1,536.95
10	31,646.01	34,189.00	32,917.50	1,665.63

Table 8.8 Manitoba claim codes

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TCP = ($)	Option 1, K1P ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	10,145.00	10,145.00	1,095.66
2	10,145.01	11,838.00	10,991.50	1,187.08
3	11,838.01	13,531.00	12,684.50	1,369.93
4	13,531.01	15,224.00	14,377.50	1,552.77
5	15,224.01	16,917.00	16,070.50	1,735.61
6	16,917.01	18,610.00	17,763.50	1,918.46
7	18,610.01	20,303.00	19,456.50	2,101.30
8	20,303.01	21,996.00	21,149.50	2,284.15
9	21,996.01	23,689.00	22,842.50	2,466.99
10	23,689.01	25,382.00	24,535.50	2,649.83

Table 8.9 New Brunswick claim codes

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TCP = ($)	Option 1, K1P ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	10,817.00	10,817.00	1,016.80
2	10,817.01	13,216.00	12,016.50	1,129.55
3	13,216.01	15,615.00	14,415.50	1,355.06
4	15,615.01	18,014.00	16,814.50	1,580.56
5	18,014.01	20,413.00	19,213.50	1,806.07
6	20,413.01	22,812.00	21,612.50	2,031.58
7	22,812.01	25,211.00	24,011.50	2,257.08
8	25,211.01	27,610.00	26,410.50	2,482.59
9	27,610.01	30,009.00	28,809.50	2,708.09
10	30,009.01	32,408.00	31,208.50	2,933.60

Table 8.10 Newfoundland and Labrador claim codes

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TCP = ($)	Option 1, K1P ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	9,803.00	9,803.00	852.86
2	9,803.01	11,920.00	10,861.50	944.95
3	11,920.01	14,037.00	12,978.50	1,129.13
4	14,037.01	16,154.00	15,095.50	1,313.31
5	16,154.01	18,271.00	17,212.50	1,497.49
6	18,271.01	20,388.00	19,329.50	1,681.67
7	20,388.01	22,505.00	21,446.50	1,865.85
8	22,505.01	24,622.00	23,563.50	2,050.02
9	24,622.01	26,739.00	25,680.50	2,234.20
10	26,739.01	28,856.00	27,797.50	2,418.38

Table 8.11 Nova Scotia claim codes (using maximum BPANS)

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TCP = ($)	Option 1, K1P ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	11,481.00	11,481.00	1,009.18
2	11,481.01	13,081.00	12,281.00	1,079.50
3	13,081.01	14,681.00	13,881.00	1,220.14
4	14,681.01	16,281.00	15,481.00	1,360.78
5	16,281.01	17,881.00	17,081.00	1,501.42
6	17,881.01	19,481.00	18,681.00	1,642.06
7	19,481.01	21,081.00	20,281.00	1,782.70
8	21,081.01	22,681.00	21,881.00	1,923.34
9	22,681.01	24,281.00	23,481.00	2,063.98
10	24,281.01	25,881.00	25,081.00	2,204.62

Table 8.12 Northwest Territories claim codes

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TCP = ($)	Option 1, K1P ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	15,609.00	15,609.00	920.93
2	15,609.01	18,293.00	16,951.00	1,000.11
3	18,293.01	20,977.00	19,635.00	1,158.47
4	20,977.01	23,661.00	22,319.00	1,316.82
5	23,661.01	26,345.00	25,003.00	1,475.18
6	26,345.01	29,029.00	27,687.00	1,633.53
7	29,029.01	31,713.00	30,371.00	1,791.89
8	31,713.01	34,397.00	33,055.00	1,950.25
9	34,397.01	37,081.00	35,739.00	2,108.60
10	37,081.01	39,765.00	38,423.00	2,266.96

Table 8.13 Nunavut claim codes

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TCP = ($)	Option 1, K1P ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	16,862.00	16,862.00	674.48
2	16,862.01	19,589.00	18,225.50	729.02
3	19,589.01	22,316.00	20,952.50	838.10
4	22,316.01	25,043.00	23,679.50	947.18
5	25,043.01	27,770.00	26,406.50	1,056.26
6	27,770.01	30,497.00	29,133.50	1,165.34
7	30,497.01	33,224.00	31,860.50	1,274.42
8	33,224.01	35,951.00	34,587.50	1,383.50
9	35,951.01	38,678.00	37,314.50	1,492.58
10	38,678.01	41,405.00	40,041.50	1,601.66

Table 8.14 Ontario claim codes

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TCP = ($)	Option 1, K1P ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	11,141.00	11,141.00	562.62
2	11,141.01	13,541.00	12,341.00	623.22
3	13,541.01	15,941.00	14,741.00	744.42
4	15,941.01	18,341.00	17,141.00	865.62
5	18,341.01	20,741.00	19,541.00	986.82
6	20,741.01	23,141.00	21,941.00	1,108.02
7	23,141.01	25,541.00	24,341.00	1,229.22
8	25,541.01	27,941.00	26,741.00	1,350.42
9	27,941.01	30,341.00	29,141.00	1,471.62
10	30,341.01	32,741.00	31,541.00	1,592.82

Table 8.15 Prince Edward Island claim codes

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TCP = ($)	Option 1, K1P ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	11,250.00	11,250.00	1,102.50
2	11,250.01	12,850.00	12,050.00	1,180.90
3	12,850.01	14,450.00	13,650.00	1,337.70
4	14,450.01	16,050.00	15,250.00	1,494.50
5	16,050.01	17,650.00	16,850.00	1,651.30
6	17,650.01	19,250.00	18,450.00	1,808.10
7	19,250.01	20,850.00	20,050.00	1,964.90
8	20,850.01	22,450.00	21,650.00	2,121.70
9	22,450.01	24,050.00	23,250.00	2,278.50
10	24,050.01	25,650.00	24,850.00	2,435.30

Table 8.16 Saskatchewan claim codes

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TCP = ($)	Option 1, K1P ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	16,615.00	16,615.00	1,744.58
2	16,615.01	18,753.00	17,684.00	1,856.82
3	18,753.01	20,891.00	19,822.00	2,081.31
4	20,891.01	23,029.00	21,960.00	2,305.80
5	23,029.01	25,167.00	24,098.00	2,530.29
6	25,167.01	27,305.00	26,236.00	2,754.78
7	27,305.01	29,443.00	28,374.00	2,979.27
8	29,443.01	31,581.00	30,512.00	3,203.76
9	31,581.01	33,719.00	32,650.00	3,428.25
10	33,719.01	35,857.00	34,788.00	3,652.74

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Table 8.17 Yukon Claim Codes (using maximum BPAYT)

Claim code	Total claim amount ($) from	Total claim amount ($) to	Option 1, TCP = ($)	Option 1, K1P ($)
0	No claim amount	No claim amount	0.00	0.00
1	0.00	14,398.00	14,398.00	921.47
2	14,398.01	16,828.00	15,613.00	999.23
3	16,828.01	19,258.00	18,043.00	1,154.75
4	19,258.01	21,688.00	20,473.00	1,310.27
5	21,688.01	24,118.00	22,903.00	1,465.79
6	24,118.01	26,548.00	25,333.00	1,621.31
7	26,548.01	28,978.00	27,763.00	1,776.83
8	28,978.01	31,408.00	30,193.00	1,932.35
9	31,408.01	33,838.00	32,623.00	2,087.87
10	33,838.01	36,268.00	35,053.00	2,243.39

Table 8.18 Rates (R, V), income thresholds (A), and constants (K, KP) for 2021

		1st	2nd	3rd	4th	5th	6th	7th
Federal	A	0	49,020	98,040	151,978	216,511		
	R	0.1500	0.2050	0.2600	0.2900	0.3300		
	K	0	2,696	8,088	12,648	21,308		
AB	A	0	131,220	157,464	209,952	314,928		
	V	0.1000	0.1200	0.1300	0.1400	0.1500		
	KP	0	2,624	4,199	6,299	9,448		
BC	A	0	42,184	84,369	96,866	117,623	159,483	222,420
	V	0.0506	0.0770	0.1050	0.1229	0.1470	0.1680	0.2050
	KP	0	1,114	3,476	5,210	8,045	11,394	19,623
MB	A	0	33,723	72,885				
	V	0.1080	0.1275	0.1740				
	KP	0	658	4,047				
NB	A	0	43,835	87,671	142,534	162,383		
	V	0.0940*	0.1482	0.1652	0.1784	0.2030		
	KP	0	2,253	3,744	5,625	9,620		
NL	A	0	38,081	76,161	135,973	190,363		
	V	0.0870	0.1450	0.1580	0.1730	0.1830		
	KP	0	2,209	3,199	5,238	7,142		
NS	A	0	29,590	59,180	93,000	150,000		
	V	0.0879	0.1495	0.1667	0.1750	0.2100		
	KP	0	1,823	2,841	3,613	8,863		
NT	A	0	44,396	88,796	144,362			
	V	0.0590	0.0860	0.1220	0.1405			
	KP	0	1,199	4,395	7,066			
NU	A	0	46,740	93,480	151,978			
	V	0.0400	0.0700	0.0900	0.1150			
	KP	0	1,402	3,272	7,071			
ON	A	0	45,142	90,287	150,000	220,000		
	V	0.0505	0.0915	0.1116	0.1216	0.1316		
	KP	0	1,851	3,666	5,166	7,366		
PE	A	0	31,984	63,969				
	V	0.0980	0.1380	0.1670				
	KP	0	1,279	3,134				
SK	A	0	45,677	130,506				
	V	0.1050	0.1250	0.1450				
	KP	0	914	3,524				
YT	A	0	49,020	98,040	151,978	500,000		
	V	0.0640	0.0900	0.1090	0.1280	0.1500		
	KP	0	1,275	3,137	6,025	17,025		

*The January 2021 edition published a rate of 0.0968 and the July 2021 edition published a prorated rate of 0.0912.

Table 8.19 Other rates and amounts for 2021

	Basic amount	Index rate	LCP rate	LCP amount	CEA	S	T4 to V1	V1 rate	Abatement	Surtax
Federal	BPAF	0.010	0.150	750	1,257					
AB	19,369	–								
BC	11,070	0.011	0.150	2,000		481				
MB	9,936	0.010								
NB	10,564	0.010	0.200	2,000						
NL	9,536	0.004	0.200	2,000						
NS	BPANS	–	0.200	2,000						
NT	15,243	0.010								
NU	16,467	0.010								
ON	10,880	0.009				251	0	0.000		
							4,874	0.200		
							6,237	0.360		
PE	10,500						0	0.000		
							12,500	0.100		
QC									0.165	
SK	16,225	0.010	0.175	875						
YT	BPAYT	0.010	0.250	1,250	1,257					
Outside Canada										0.480

For information on 2021 federal personal amounts, see the form TD1, Personal Tax Credits Return and the form TD1X, Commission Income and Expenses for Payroll Tax Deductions. For information on 2021 provincial or territorial personal amounts, see the respective form TD1AB, TD1BC, TD1MB, TD1NB, TD1NL, TD1NS, TD1NT, TD1NU, TD1ON, TD1PE, TD1SK, or TD1YT. For information on QC amounts, refer to Revenu Quebec.

Table 8.20 Canada Pension Plan / Quebec Pension Plan 2021 rates and amounts

CPP/QPP	YMPE	Basic Exemption	Max contributory earnings YMCE	Employee contribution rate	Employee max contribution	Self-employed max contribution	YMPE before rounding
CPP (Canada except QC)	61,600	3,500	58,100	0.0545	3,166.45	6,332.90	61,647.97
QPP (QC)	61,600	3,500	58,100	0.0590	3,427.90	6,855.80	61,647.97

Table 8.21 Employment Insurance 2021 rates and amounts

EI	Annual max insurable earnings	Employee contribution rate	Employer contribution rate	Annual max employee premium	Annual max employer premium
Canada except QC	56,300	0.0158	0.02212	889.54	1,245.36
QC	56,300	0.0118	0.01652	664.34	930.08