

An Updated Calculation Guide for the 2023 Family Living Wage for Manitoba

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Original 2009 Manitoba Guide by Tim Richards, Marcy Cohen,
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Introduction

THE PURPOSE OF this guide is to assist others in calculating a living wage for their own communities, using the method developed by the CCPA–BC and First Call to calculate Vancouver and Victoria living wages in 2008. This particular guide will be most useful for the calculation of the living wage in Manitoba communities. The method can be applied in other provinces and territories; however, the government transfers and tax information will need to be adjusted accordingly.

This guide also serves as a technical appendix to the 2023 public report, *A Family Living Wage for Manitoba: 2023 Update*, which outlines the concept of a living wage and provides the arguments in favour of its adoption by employers. The 2023 report presents the amounts of the living wages (using for the most part data as of the end of 2022) for Winnipeg, Brandon and Thompson, and summarizes the assumptions in the calculations, the formula that calculates the living wages, and how the family expenses are calculated. Previous versions of the *Manitoba Living Wage* and this calculation guide can be downloaded at <https://policyalternatives.ca/offices/manitoba/publications>.

This detailed, step-by-step guide explains how to calculate the amount of a living wage for a specific community. The process involves calculating family expenses, government transfers, and government taxes. It is prudent to work through the details of the government transfer and tax information for each community-specific calculation, rather than making adjustments only to family expenses based on costs in the community and hope that the

government transfer and tax formulas do not change due to the income level of the family (thus skipping Stages 2 and 3 as outlined in the next section).

The living wage methodology focuses on the living wage for a two-parent family with two children. According to the 2020 census, 72 percent of families with children in Manitoba are headed by couples.¹

However, this guide also calculates the living wage for single parent families with one child. The guide notes the changes to the calculations that the different family sizes require.

As a caution, the living wage amount is based on ever-changing information regarding family expenses and government transfers and taxes. Therefore, the information provided is accurate as of the date of this writing. The data must be revised for calculations in other communities or tax years.

Finally, the living wage amount is an estimation based on the assumptions outlined below and further explained on page 7 of *Manitoba's Living Wage Update 2023*. The precise expenses for any given family will obviously vary. The purpose of the family expenses calculation is to ensure provisions for the ability to:

- Feed, clothe and provide shelter for their family;
- Promote healthy child development;
- Participate in activities that are an ordinary element of life in a community; and
- Avoid the chronic stress of living in poverty.

If you or your organisation uses our methodology to calculate a living wage for your community, the CCPA–MB would appreciate hearing from you and learning which community you live in and the living wage amount.

Calculating the Living Wage

Overview of the Calculation Process

The calculation of the living wage can be quite complex. As you work through the steps, keep in mind the following stages:

- Stage 1 – Calculating Family Expenses;
- Stage 2 – Calculating Government Transfers (CCB, GST);
- Stage 3 – Calculating Government Deductions and Taxes;
- Stage 4 – Determining the Living Wage Amount; and
- Stage 5 – Verifying the Calculations.

The living wage is calculated by using the Excel spreadsheets (there are separate tabs for Winnipeg, Brandon and Thompson, for both the two-parent and single parent family) that accompany this guide (and which are also available by contacting ccpamb@policyalternatives.ca or 204-927-3200). In addition, there are numerous sources you will need to consult in regard to family expense amounts and formulas for government transfers and taxes.

Whenever possible, these are identified in the guide.

The method for calculating the living wage remains constant. However, with time and/or with a shift of focus to a community other than those presented in this report, the following will change and require updating.

- **Family Expenses:** Require the most recent data sources and Consumer Price Index data.
- **Government Transfers:** The CCB, GST rebate and Rent Assist formulas may change each July.
- **Government Taxes:** The tax rules and formulas change for each tax (calendar) year.

Background Information

The primary determinants of the living wage are income from employment and family expenses. However, the calculation also factors in the income the family receives from government transfers and deductions from income for statutory contributions (EI and CPP) and taxes. Thus, the living wage is the hourly rate of pay at which a household can meet its expenses once government transfers have been added and government deductions have been subtracted. The living wage is thus calculated using the following formula.

$$\begin{array}{|c|} \hline \text{Annual} \\ \text{Family Expenses} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{Income from} \\ \text{employment} \\ \text{(living wage)} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{Income from} \\ \text{government} \\ \text{transfers} \\ \hline \end{array} - \begin{array}{|c|} \hline \text{EI and CPP} \\ \text{premiums, federal} \\ \text{and provincial taxes} \\ \hline \end{array}$$

The Excel spreadsheet integrates the information regarding family expenses with the calculations for government transfers and deductions from income, as indicated in this formula.

The Question of Timing

Because all the elements of the calculation of the living wage (family expenses, government transfers, and government deductions and taxes) are frequently changing, decisions need to be made regarding the point in time at which you expenses, transfers and taxes are fixed.

For the calculations of the 2023 living wages in this report, we chose:

- Family expenses amounts at the end of December 2022;
- Government transfer amounts for the July 2022 to June 2023 time period; and
- Government deductions and taxes for the 2022 tax year.

The Mechanics of the Excel Spreadsheet

The following explains the layout and components of the Excel spreadsheet that accompany this guide and how the elements of the living wage are integrated into the spreadsheet. Each spreadsheet tab has the same structure; however, the family expense and government transfer amounts are different, reflecting local conditions and differing family types. The spreadsheets have the following five tables:

- Table I – Family Expenses;
 - Table II – Non-Wage Income (Government Transfers);
 - Table III – Family Income less Family Expenses;
 - Table IV – The Living Wage and Government Deductions and Taxes; and
 - Table V – Family Income less Government Deductions and Taxes plus Government Transfers.
- Table I, II and IV each calculate one element of the living wage formula presented above. Table III compares family income with family expenses, and based upon this the wage in Table IV is adjusted to calculate the living wage. Key components of the Excel spreadsheets are listed below.
- Cell C20 in Table I is the amount of the family’s total annual expenses.
 - Cell C34 in Table II is the total annual amount of government transfers received by the family.
 - Cells B48 and C48 in Table IV are the hours per week of employment for each parent.

- Cells B49 and C49 in Table IV are the hourly wages for each parent. These are set to be equal.
- Cells B51 and C51 in Table IV are the annual incomes from employment for each parent.
- Cell D60 in Table IV is the total annual amount of employment income available for the family after government deductions and taxes have been subtracted.
- Cell C40 in Table III is the family's total annual income; the sum of government transfers and employment income after government deductions and taxes.
- Cell C41 in Table III reproduces the family's total annual expenses.
- Cell C42 in Table III indicates the gap between the family's annual income and its annual expenses.

Table V summarizes the family's overall finances, presenting its income from employment, total government taxes, total government transfers, and its annual net surplus.

The spreadsheets have one tab for each family type in each city. The spreadsheets are available upon request.

Stage 1:

Family Expenses

CALCULATING THE LIVING wage requires deciding upon the family characteristics for which the living wage is to be calculated (see *Table 1* for the family characteristics used in this report). It is useful to determine the most common family types in your community, in order to achieve living wage estimates that best match the profiles of families in your community.

TABLE 1 Assumptions about Family Characteristics in the 2023 Living Wage Calculation

	Model 1: Two-parent two-child family	Model 2: Single-parent, one child
Adults		
Number	2	1
Gender	1 Female, 1 Male	Female
Age	25–44	25–44
Number of adults in paid work	2	1
Hours of paid work per adult	35	35
Hourly wage	Equal for both	
Children		
Number	2	1
Gender and age	Boy aged 7, Girl aged 4	Girl aged 4

The Categories of Family Expenses

Family expenses are divided into the ten categories listed below. The first five categories originate from the Market Basket Measure (MBM), a measure of low income in Canada that was developed by Human Resources and Skills Development Canada (HRSDC) in the late 1990s. The MBM provides an intuitive look at low income because it is “based on a basket of goods and services representing a modest, basic standard of living.”² The last five categories represent other necessities of the family budget. Living wage calculations across Canada utilise this same categorization of family expenses. This report derives expenses for clothing and footwear, food, transportation and other directly from the MBM database (maintained by Statistics Canada). Alternative local data are used for: shelter, transportation (bus passes), child care, non-MSP medical expenses, and adult education. The Contingency Amount equals two weeks of pay for each adult at the calculated living wage. The MBM amounts that are used for clothing and footwear and other expenditures in Thompson are the Winnipeg amounts multiplied by an adjustment factor to reflect the cost of living in northern communities (MBM data is not collected specifically for Thompson).

1. Food
2. Clothing and Footwear
3. Shelter
4. Transportation
5. Other
6. Child care
7. MSP Premiums
8. Non-MSP Medical Expenses
9. Adult Education
10. Contingency Amount

The following sections explain the source of the data for each expense, provide links to the data sources where available, and present the calculation formulas used. Some of the data are presented as monthly expenses; these are adapted to annual expenses in the formulas of the Excel spreadsheets.

The purpose of the living wage is to provide only an adequate level of wellbeing and thus the family expenses are based on conservative or lower than average family expense amounts. This is accomplished in part by adopting the Market Basket Measure amounts, as the MBM was developed to provide a perspective on low income in Canada. The MBM expenses for food, clothing and footwear, and shelter are based on median expenditures, and transportation and other expenses are based on less than median expenditures. Median family expenditures are almost invariably less than average family expenditures because average expenditures are pulled upward by the elevated incomes and expenditures of higher income families. To be consistent with this approach, when possible, we use median expenses when incorporating expense amounts from other sources.

Calculating Each of the Family Expenditures

THE INFORMATION IN this section explains how each of the family expenses is calculated.

1. Food

Information needed:

- MBM Food Thresholds for 2022 for MB from Statistics Canada: *Table 11-10-0066-01 Market Basket Measure (MBM) thresholds for the reference family by Market Basket Measure region, component and base year.*
<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110006601>

The 2023 Living Wage uses the 2022 MBM food threshold, which is based on Health Canada's 2019 National Nutritious Food Basket. This requires adjustment as the ages of children in the living wage family are not the same as those in the MBM sample family. Specifically, the living wage family has younger children, which leads to the MBM food amount over-representing family food costs. To account for this difference, we calculated the percentage difference in food costs between the MBM and living wage families, based on a sample of number of published costs of nutritious food baskets in other Western Canadian jurisdictions, including British Columbia, Edmonton and

Saskatchewan, with the living wage family having a food cost estimate equal to 91.2 per cent of the MBM family.

Each tab of the Excel spreadsheet includes annual food expenses in cell C9.

- Step 1: Adjust *Table 11-10-0066-01* using the “Add/Remove data” tab. For “Geography” include only “Brandon, Manitoba,” “Winnipeg, Manitoba,” and Manitoba, population under 30,000 (for Thompson). For “Component” include only “Food.” Find the 2022 Thresholds for Winnipeg and Brandon.
- Step 2: Multiply each amount by 0.912.

The Cost of Eating According to the ‘Nutritious Food Basket’ method for adjusting based on family size is utilized. A simple adjustment factor is used for family sizes of less than four people to account for the higher per person food costs associated with smaller family sizes. An adjustment factor of 1.20 is made to the weekly food cost for a single person and a factor of 1.05 is used for families of fewer than four people but greater than one person. For example, for a 1P1C household, the amount is the MBM for food cost for a family of four, divided by 2, times 1.05 in a 1P1C household. This amount is then multiplied by 0.912.

2. Clothing and Footwear

Information needed:

- MBM Clothing Thresholds for 2022 for MB from Statistics Canada *Table 11-10-0066-01* Market Basket Measure (MBM) thresholds for the reference family by Market Basket Measure region, component and base year. <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110006601>

Winnipeg and Brandon:

- Step 1: Adjust *Table 11-10-0066-01* using the “Add/Remove data” tab. For “Geography” include only “Brandon, Manitoba,” and “Winnipeg, Manitoba.” For “Component” include only “Clothing.” Find the 2022 Thresholds for Winnipeg and Brandon.
- Step 2: To convert to other family sizes, the MBM has a fairly simple formula. To adjust any given MBM Threshold value, divide the value by 2 (the square root of four, which is the number of persons in the

MBM reference family) and multiply by the square root of the number of persons in the desired family type.

Thompson:

MBM data is not collected specifically for Thompson, as it is for Winnipeg and Brandon. However, prices in Thompson are generally more expensive than prices in Winnipeg and Brandon due to the increased transportation costs. The 2009 Manitoba Living Wage report includes a calculation of the price differential between Winnipeg and Thompson for a fixed basket of goods, purchased at three big-box retailers. The basket is a modified version of the basket used in the Acceptable Level of Living (A.L.L.) report published by Social Planning Council of Winnipeg (SPCW) and Winnipeg Harvest³ (see Appendix B of the 2009 Manitoba Living Wage report for a precise list of items in the basket and their prices). The total cost of the Winnipeg basket in 2009 was \$978.98, while the Thompson basket was \$1,339.05. This leads to a price differential of 36.8%.

For each family type, multiply the Winnipeg Clothing and Footwear expense by 136.8% or 1.368 to get the Thompson price. Admittedly, this methodology provides only a rough estimate of the current price differential between Winnipeg and Thompson.

3. Shelter

The Shelter expense uses the following formula:

$$\text{Shelter} = \text{Rent} + \text{Utilities} + \text{Content Insurance on Possessions}$$

Rent

Information needed:

- Median rental rates Canada Mortgage and Housing Corporation (CMHC) *House Market Information Portal*. <https://www3.cmhc-schl.gc.ca/hmip-pimh/en#TableMapChart/46/2/Manitoba>

The information portal provides median market rent data for many Canadian cities including Winnipeg, Brandon and Thompson. The median price is used for the living wage calculation and is found under the primary rental market. Select “Full view” option to access median rent data.

Families with 2 children are assumed to rent a 3-bedroom apartment, the 1-child family a 2-bedroom apartment and the single adults a 1-bedroom apartment. Median rents are available for row/apartment (includes apartments and townhouses) and apartment only rates. For Winnipeg and Thompson, the row/apartment rates are used. Due to data availability/quality issues, the 2023 report uses the apartment only rate for Brandon as has been done in previous Manitoba living wage reports.

Utilities

Information needed:

- Manitoba Hydro *2009 Residential Energy Use Survey Report: Low Income Cut-Off (LICO) Sector*. <https://www.pubmanitoba.ca/exhibits/mh2011/Volumes/app50.pdf>
- Annual CPI data for “Electricity” for Manitoba from Statistics Canada, *Table 18-10-0005-01 Consumer Price Index, annual average, not seasonally adjusted*. <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1810000501>

The *Residential Energy Use Survey* report provides a demographic analysis of Manitoba Hydro’s low-income customers. The report suggests that low-income cut-off apartment renters have an average energy burden of 2.4 percent (2.4 percent annual income is spent on home energy costs).⁴ With an average annual income of \$20,318, LICO apartment renters spend, on average, \$487.63 per year on home energy costs.

This is a conservative estimate of the utility’s expenditure of a renter in Manitoba. Multi-attached apartments generally have the lowest energy burden. Those who rent single detached homes will have higher annual expenses. Unfortunately, data is not available for average or median utilities expenditures by apartment size. Thus, the apartment suite dwelling type is generalised for all model families in this report.

- Step 1: Adjust the \$487.63 annual utilities expenditure for inflation using the CPI for “Electricity” for Manitoba. Multiply \$487.63 by the CPI for “Electricity” for Manitoba in the year for which you are doing the study and divide by the CPI for 2009.

Contents Insurance on Possessions

Information needed:

Contents insurance quotes from several insurance agents.

We contacted three different insurance providers in Winnipeg to get estimates for Winnipeg, Brandon and Thompson. The average of their quote brought us to \$25/month. The price of contents insurance varies according to the level of coverage, price of the deductible, the type of construction of the building (framed versus fire resistive), the distance to a fire hydrant/hall, whether sewer back-up coverage is included, and other factors. This report uses a \$25/month contents insurance expense for each family type in each community.

4. Transportation

Information needed:

MBM “Transportation” Thresholds for 2022 for MB from Statistics Canada *Table 11-10-0066-01* Market Basket Measure (MBM) thresholds for the reference family by Market Basket Measure region, component and base year.

- <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110006601>
- Public Transportation Costs

The general formula for the transportation expense is:

$$\text{Transportation} = \text{Vehicle} + \text{Public Transit}$$

Different family types are assumed to have different modes of transportation. The two parent and single-parent families are assumed to have year-round use of a vehicle. The two-parent family also has the expense one adult monthly bus pass for each month. The single adult is assumed to have the expense of a bus pass, but no vehicle.

Vehicle expenses are taken from MBM Transportation thresholds. If a household is in an urban area with a population greater than 30,000 that has a public transit system, the family is allocated a combination of using public transit and owning and operating a modest vehicle. Other households are allocated the cost of paying for and operating a modest vehicle, but not public transit. Our calculation uses the latter for all families and adds the cost of a bus pass based on local public transportation costs, if applicable.

The annual vehicle amount for 2022 is thus found in both the “Manitoba, rural” and “Manitoba, population under 30,000” categories of the “Transportation” component of the MBM (*Table 11-10-0066-01*).

Monthly Winnipeg Transit bus passes in 2023 are \$107.80 for adults thirty day Brandon Transit passes are \$86 for adults, hence \$16 was added to the adult pass to account for monthly calculation. In Thompson, monthly bus passes are \$76 for adults.

- Step 1: Adjust *Table 11-10-0066-01* using the “Add/Remove data” tab. For “Geography” include only “Manitoba, rural.” For “Component” include only “Transportation.”
- Step 2: Add the cost of monthly bus passes if applicable.

5. Other

Information needed:

- MBM “Other” Thresholds for 2022 for MB from Statistics Canada *Table 11-10-0066-01* Market Basket Measure (MBM) thresholds for the reference family by Market Basket Measure region, component and base year.

The other category is a remainder category to capture all other expenses considered necessary according to current social norms. The other category accounts for a wide range of goods and services, including, but not limited to:

- Communication services and equipment
- Household supplies
- Furniture and other household furnishings and accessories
- Climate control equipment
- Small and medium kitchen appliances
- Other electrical parts and equipment
- Food preparation and eating utensils
- Service maintenance of household equipment
- Personal care

- Sporting equipment
- Entertainment
- Children’s toys
- Education supplies and reading materials
- Bank service charges
- Computer, Cell phone and Internet services

Winnipeg and Brandon:

- Step 1: Adjust *Table 11-10-0066-01* using the “Add/Remove data” tab. For “Geography” include only “Brandon, Manitoba,” and “Winnipeg, Manitoba.” For “Component” include only “Other.” Find the 2022 Thresholds for Winnipeg and Brandon.

To convert to other family sizes, the MBM has a fairly simple formula. To adjust any given MBM Threshold value, divide the value by 2 (the square root of four, which is the number of persons in the MBM reference family) and multiply by the square root of the number of persons in the desired family type.

Thompson:

Similar to the clothing and footwear expense, a price differential is applied to the Other expense to reflect the higher prices in Thompson. For each family type, multiply the Winnipeg Other expense by 1.368 to get the Other expense for the Thompson family.

6. Child Care

Information needed:

- Maximum child care rates from The Community Child Care Standards Act (C158 de la C.P.L.M.) Child Care Regulation. <https://web2.gov.mb.ca/laws/regs/current/pdf-regs.php?reg=62/86>
- Number of days for which before and after school child care is required (2022–2023 school year). <https://www.edu.gov.mb.ca/k12/schools/schooldiv.html>

TABLE 2 Child Care Cost Calculation

	Days	Cost per Day	Annual Cost
Days in a year	365		
Weekend days (2 × 52)	104		
Statutory holidays	8		
Summer holidays (for working adults)	10		
Total number of workdays = child care days for four-year-old	243	\$10.00	\$2,430.00
School days = days of before and after school care for seven-year-old	187	\$8.60	\$1,608.20
Days of full-day care for seven-year-old	44	\$20.80	\$915.20
Total cost for children aged 4 and 7			\$4,953.40

* For a list of Statutory holidays in Manitoba see, <https://www.gov.mb.ca/labour/standards/doc.gen.holidays-after-april-30-07,factsheet.pdf>

Assumptions:

- The four-year old (pre-school age) is in full-time day care (4 to 10 hours per day) year-round, save for weekends, statutory holidays and two weeks (10 days) of summer holidays.
- The seven-year-old (school age) is in before and after school care (2 periods of attendance) and in full time care for the total number of work days minus school attendance days (number of school days minus school administration days). We also subtract an additional 12 days assuming alternative unpaid arrangements are made for child care during winter (7 days) and spring breaks (5 days). Note that this assumption does not include full-time day care for holiday vacation, spring break, funding to cover alternative child care during any days children are sick, and assumes that the parents only need to pay their child care centre for days attended.
- Children attend a private child care centre with a licensee that is classified as an early childhood educator level 2 or 3.

Maximum child care rates are legislated in Manitoba and can be obtained from page 74 (subsection 38(2)) of the regulations accompanying the Manitoba Community Child Care Standards Act (refer to Column 6 for the applicable maximum daily fees for a given child). *Table 2* outlines the child care costs associated with each child assumed in this report.

Note that teachers in Manitoba receive 10 administration days per school year and that the number of school days refers to the number of days for

which teachers are at work. So, while there are 192 school days reported by Manitoba Education, there are only 182 days for which a seven-year-old child will be in school and require before and after school care.

Single-parent families are also allocated funds for child supervision for 3.5 hours × 26 weeks to attend their adult education class (13 weeks is the approximate length of one semester). Assuming the child care provider is paid the minimum wage of \$11.95 per hour, the annual cost is \$1287.65 ($14.15 \times 3.5 \times 26 = 1287.65$).⁵

7. MSP Premiums

Medical services plan (MSP) premiums are mandatory contributions to the provincial health program. Manitoba does not utilise a premium system and raises the funds for provincial health care through general tax revenue. Other provinces in Canada may utilise MSP premiums and this should be considered in a calculation of the living wage in those provinces.

8. Private Health Care Expenses

Information needed:

- Insurance Rates for the “Plan B” from Manitoba Blue Cross. <https://www2.mb.bluecross.ca/plans/personal-plans/request-quote#w-tabs-o-data-w-pane-o>

In addition to the allocation for personal care expenses provided for in the MBM “Other” component, we budget for a private health insurance plan to help cover expenses not covered by Manitoba Health. The monthly rates for the “Plan B” are as follows:

- 4-year-old monthly premium: \$21.22
- 7-year-old monthly premium: \$42.90
- 25–34-year-old monthly premium: \$63.67
- 35–45-year-old premium: \$77.99.

Note that the single-parent single child family in this report must use the average of the adult plan $(63.67+77.99)/2$. The plan includes ambulance and hospital, prescription drug, and vision and dental coverage among other services.

9. Adult Education

Information needed:

- Statistics Canada's estimate for undergraduate tuition fees in Manitoba: <https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=3710004501>
- Estimates for textbooks and other materials and student fees from a local university or college. <https://umanitoba.ca/admissions/undergraduate-admissions/tuition-estimates>

The full-time student is assumed to take 30 credit hours per year. The living wage allocates the cost of two 3 credit hour courses each year (3 credit hours per regular session semester) for one adult. In the two-parent family, it is assumed that only one parent is enrolled in adult education.

The cost of full-time tuition in Manitoba as estimated by Statistics Canada for the 2022/2023 school year is \$5,259. This amounts to \$525.90 per three credit hour course, and thus an expense of \$1051.8 for 6 credit hours. Textbook and other materials expenses are estimated to be \$1,500 per year for a full-time, first-year undergraduate. This works out to \$300 for 6 credit hours. There are several other compulsory fees associated with university education. At the University of Manitoba (U of M) these fees are calculated as:

Endowment + Student Organisation + Student Services Fees + Technology Fee + Other Fees

Endowment fees vary according to faculty. The average endowment fee for the 2022–2023 school year at the U of M per credit hour (excluding dental hygiene, dentistry, law, and medicine, where fees are typically higher) was \$4.77, or \$28.62 for 6 credit hours.

Student organisation fees are also faculty specific. They are comprised of a flat fee per term, plus a faculty fee per credit hour. The average flat fee per term (excluding dental hygiene, dentistry, law, and medicine) in 2022–2023 at the U of M was \$254.74, while the average faculty fee per credit hour was \$0.62. For 6 credit hours (over two semesters) it is \$258.46.

The 2022/23 Student Services Fees and Technology Fee were obtained from the U of M website. The Student Services Fees include the Library Fee,

Registration Fee and Student Services Fee and are applied per each registered student, regardless of term or course load. To sum, all families are allocated an Adult Education expense of \$1,989.76. In this report, these amounts have been generalised to all communities (Winnipeg, Brandon and Thompson).

TABLE 3 Part-time Education Calculation

Fee Assessment	For 6 Credit Hours:
Tuition for 30 credit hours: \$5,259	\$1051.80
Average endowment fee: \$4.77/credit	\$28.62
Textbooks and materials for 30 credit hours: \$1500	\$300
Student organization fee: $(\$0.62 \times 6) + \254.74	\$258.46
Technology service fee: 7.44×6	\$44.64
Registration fee	\$52.38
Library fee	\$52.38
Student service fee	\$52.38
Sports & recreation fee	\$149.10
Total	\$1989.76

10. Contingency Amount

The Contingency Amount provides some cushion for unexpected events, such as serious illnesses, transitions between jobs, etc. It is provided as an expense for each adult, calculated as:

The living wage amount \times hours worked per week \times 2 weeks

Stage 2:

Government Transfers

THIS INFORMATION IS calculated in Table II of the Excel spreadsheet. The formulas for each of the government transfers are found to the right of Table II in the Excel spreadsheets. Be sure to update the formulas according to the specific rules for a given tax year.

Government transfers reduce the amount of the living wage by providing a source of income for family expenses. The possible transfers are:

- Canada Child Benefit (CCB)
- GST Rebate
- Provincial Child Care Subsidy
- Rent Assist
- Climate Action Incentive

The CCB and the GST Rebate are based on formulas set in July of each year and the amount remains the same until the following June. The amounts of government transfers that a family receives each year are calculated based on the family's income from the previous tax year. If the living wage for your community has been calculated previously, we suggest using last year's living wage family income to determine the government transfers for

which the family would be eligible. If this is the first time the living wage is being calculated for the community or it has been several years since the last calculation, use this year's family income to determine the government transfers amounts for the family.

1. The Canada Child Benefit (CCB)

Information needed:

- The Canada Revenue Agency (CRA) “Canada child tax benefit (CCB) – calculation sheet for the July 2022 to June 2023 payments (2021 base year) <https://www.canada.ca/en/revenue-agency/services/child-family-benefits/canada-child-benefit-overview/canada-child-benefit-ccb-calculation-sheet-july-2022-june-2023-payments-2021-tax-year.html>. The CCB is an income-tested benefit received for children under 18 years of age. The amount is affected by two factors:
- The number of children; and
- The family's net income.

The CCB formula has the following two major components:

- Basic Benefit, which is a monthly amount (An annual payment of \$6,997 for children under the age of 6 and \$5,903 for children between 6 and 17 years) multiplied by the number of children;
- Benefit Reduction, by means of which the CCB is reduced after a family's net income reaches a specified amount.

The Canada Child Benefit Reduction begins at a family net income of \$32,797.

- For a detailed calculation, visit: <https://www.canada.ca/en/revenue-agency/services/child-family-benefits/canada-child-benefit-overview/canada-child-benefit-we-calculate-your-ccb.html>

2. GST Rebate

Information needed:

- The CRA “GST/HST credit – calculation sheet for the July 2022 to June 2023 payments (2022 tax year),” <https://www.canada.ca/en/revenue-agency/>

[services/child-family-benefits/goods-services-tax-harmonized-sales-tax-gst-hst-credit/goods-services-tax-harmonized-sales-tax-credit-calculation-sheet-july-2022-june-2023-payments-2021-tax-year.html](https://web2.gov.mb.ca/laws/statutes/ccsm/pdf.php?cap=c158)

The GST/HST Credit is an income-tested benefit and is affected by three factors:

- Whether the parent has a spouse or common-law partner;
- The number of children; and
- The family's net income.

The GST credit is calculated differently for different family structures:

- For a married or common-law couple with children, each adult receives a \$306 credit, plus \$161 for each child.
- For a single person with children, the basic credit of \$306 is given for the adult, plus \$306 for the first child, plus \$161 for each additional child, plus \$161.

The GST credit reduction begins at a family net income of \$39,826

3. Provincial Child Care Subsidy

Information needed:

- The Community Child Care Standards Act (C158 de la C.P.L.M.) Child Care Regulation. <https://web2.gov.mb.ca/laws/statutes/ccsm/pdf.php?cap=c158>

The Government of Manitoba provides subsidies for families with children attending licensed childcare facilities. The subsidy calculation is outlined in the Manitoba Child Care Regulation (section 41). This is an income-tested benefit and is affected by four basic factors:

- Whether the parent has a spouse or common-law partner;
- The number of children;
- The number of children in child care;
- Manitoba child care fees with subsidy
- Whether the family lives north (Thompson) or south (Winnipeg, Brandon) of the 53rd parallel; and

TABLE 4 Childcare Subsidy Calculation

Family Net Income (FNI)	Fee Charged
FNI < TAD	Zero (full subsidy)
FNI < TAD + \$7,766 × (# of children in care)	(FNI – TAD) × 0.25
FNI > TAD + \$7,766 × (# of children in care)	[FNI – (TAD + \$7,766 × (# of children in care))] × 0.50 + \$1,942 × (# of children in care)

- The family’s net income (FNI).

The first step to determine the subsidy amount is to calculate the total allowable deduction (TAD).

- For married couples south of the 53rd parallel that live together, the deduction is equal to \$15,924 for one parent plus \$7,885 for the other. \$4,441 is added for each child under 18 years of age.
- For a single parent or for a married couple that do not live together and who resides south of the 53rd parallel, the deduction is \$15,924 for the parent, plus \$7,885 for the first child under 18, plus \$4,411 for each additional child.
- For married couples north of the 53rd parallel that live together, the deduction is equal to \$17,520 for one parent plus \$9,503 for the other. \$5,627 is added for each child under 18 years of age.
- For a single parent or for a married couple that do not live together and who resides north of the 53rd parallel, the deduction is \$17,520 for the parent, plus \$9,503 for the first child under 18, plus \$5,627 for each additional child.

The formula for determining the family’s subsidy amount depends on which of the three possible categories the family falls into with respect to its family net income (FNI).

- If the family net income is less than its total allowable deduction (TAD), the family gets a full subsidy.
- If the family’s net income is above its TAD but less than the TAD plus \$7,766 for each child in care, the family pays 25 percent of the difference between their family net income and the TAD.
- If the family’s net income is greater than its TAD plus \$7,766 for each child in care, the family pays 50 percent of the difference between

its family net income and the TAD plus \$7,766 for each child in care, plus \$1,942 for each child in care.

Use Column 3 of Schedule B in The Community Child Care Standards Act Child Care Regulation along with the child care expense table in the Family Expenses section of this report to determine the actual fees paid.

The formulas for calculating the child care subsidy are found in cells E35, F35 and C31 of the Excel spreadsheet.

4. Rent Assist

Information needed:

- Rent Assist thresholds and formula for families, from the Manitoba Assistance Act (C.C.S.M.c.A150) Assistance Regulation, <https://web2.gov.mb.ca/laws/regs/current/pdf-regs.php?reg=404/88%20R>

The Province of Manitoba has a rental assistance program for low-income families, seniors and persons with disabilities. This benefit is income-tested (based on the previous year's income tax return) and non-taxable. There are different thresholds depending on family size and composition. The annual income thresholds for our relevant family types for 2023 is \$41,400.

Benefits are calculated based on the difference between 80 percent of Median Market Rent as listed in the Assistance Regulation (listed in monthly amounts as the maximum monthly shelter benefit available), and 30% of net family income. The Median Market Rent used for a two-bedroom apartment, the associated unit size for both 2P2C and 1P1C households by the Rent Assist program, was \$1392.

5. Climate Action Incentive⁶

Information needed:

- The CRA “Climate Action Incentive payment – calculation sheet for the 2022 base year for residents of Manitoba (quarterly amounts)”, <https://www.canada.ca/en/revenue-agency/services/child-family-benefits/cai-payment/climate-action-incentive-payment-calculation-sheet-2022-manitoba.html>

The Climate Action Incentive payment is calculated differently for different family structures:

- For a married or common-law couple with children, the first adult receives a \$416 credit, plus \$208 for the second adult, plus \$104 for each child
- For a single person with children, the basic credit of \$416 is given for the adult, plus \$208 for the first child, plus \$104 for each additional child.

The Climate Action Incentive payment is not subject to a reduction based on income.

The payment includes a rural supplement of 10 percent of the base amount for residents of small and rural communities.

Stage 3:

Government Deductions and Taxes

Information needed:

- General Income Tax and Benefit Guide 2022, as well as Schedules and Forms for Manitoba

This information is calculated in Table IV of the Excel spreadsheets. The government deduction and tax formulas can change each year. For current information, consult the main Canada Revenue Agency webpage (<https://www.canada.ca/en/revenue-agency.html>).

To complete Table IV you will need the following information:

- EI Premium rate and formula
- CPP Premium rate and formula
- Federal taxes:
 - Tax rates
 - Tax brackets and corresponding tax rates
- Tax credits:
 - Basic personal amount

- EI Premiums
- CPP Premiums
- Medical expenses
- Employment Tax Credit
- Canada Workers Benefit
- Federal Tuition Amount

Provincial taxes:

- Basic personal amount
- Tax rates
- Tax brackets and corresponding tax rates
- Tax credits:
 - EI Premiums
 - CPP Premiums
 - Tuition, education and textbook amount
 - Medical expenses

TABLE 5 The Living Wage and Government Deductions and Taxes Explanation

Line	Explanation
Hours / Week	35 hours per week
Wage	This amount is determined after all the tables have been completed
Employment (Pre-Tax) Income	This is total earnings = hourly wage × hours per week × weeks per year
Adjustments (dollar-for-dollar reductions to employment income)	= the child care subsidy – child care expenses claimed (these amounts must be claimed by the spouse with lower income)
Net Income	= “Employment Income” plus “Adjustments”
Taxable income	= Net income – Northern Allowance
EI Premiums	= “Employment Income” × premium rate (0.0158 in 2022, to a maximum of \$952.74)
CPP Premiums	= (“Employment Income” – \$3,500) × premium rate (0.057 in 2022, to a maximum of \$3,499.80)
Federal Income Tax	See below
Federal Refundable Tax Credit	See below
Provincial Income Tax	See below
After Tax Income	= “Employment Income” – “EI Premiums” – “CPP Premiums” – “Federal Income Tax” – “Provincial Income Tax”
Monthly After Tax Income	= “After Tax Income” / 12

Note: To calculate the living wage, you need to determine both employment income and taxable income.

- Personal Tax Credit
- Family Tax Credit
- Education Property Tax Credit

In addition, for two-parent families you will need to allocate federal and provincial tax credits between the parents in the way that is most advantageous to the family. The formulas in the Excel spreadsheets indicate how these credits have been assigned for the living wage calculations for Winnipeg, Brandon and Thompson.

The following table explains the lines in Table IV of the Excel spreadsheet.

Calculating Taxable Income from Employment Income

The following adjustments are made in calculating Net Income and Taxable Income from Total or Employment Income for the model family:

- To get Net Income, child care expenses are deducted from Total Income; and
- The Northern Allowance is deducted from Net Income to get Taxable Income.

Therefore:

Taxable Income = Net Income – Northern Allowance

Regarding this calculation, there are two relevant tax rules:

- The spouse with the lower income must claim the child care expenses.
- The amount of child care expenses that can be claimed is limited as follows:
 - For children under the age of seven, \$8,000;
 - For children between seven and sixteen years, \$5,000.

The Northern Allowance is based on the zone of residency and has three parts: The basic residency amount, the additional residency amount and the travel deduction. To be eligible, one must have lived, on a permanent basis in a prescribed zone for at least six consecutive months. For details see the following Revenue Canada publications:

- Northern Residents Deductions – Places in Prescribed Zones. <https://www.canada.ca/en/revenue-agency/services/tax/individuals/topics/>

[about-your-tax-return/tax-return/completing-a-tax-return/deductions-credits-expenses/line-25500-northern-residents-deductions.html](https://www.cra-arc.gc.ca/tx/abt-you/tax-rt/comp-tax-rt/deductions-credits-expenses/line-25500-northern-residents-deductions.html)

- T2222: Northern Residents Deductions,

For the living wage calculations for Thompson, the basic residency amount and the additional residency amount are each equal to the number of days of residency in the relevant zone multiplied by \$5.50. Each adult in the family can claim the basic amount. However, if more than one person claims the basic amount, nobody can claim the additional amount. Single-parents claim the basic and additional amounts while coupled parents each claim the basic amount or have only one person claim the basic amount and the additional amount. Since this report assumes that both parents work for a living wage and their incomes from employment are therefore the same, we have assigned the basic amount to each parent.

At this point, you should adjust the formulas for EI Premiums and CPP Premiums if necessary. As you work through the Federal and Provincial tax sections, be sure to update the formulas in the cells to the right of Table IV in the Excel spreadsheets according to the specific tax rules for the year in which you are working.

Federal Income Tax

The structure of the federal income tax calculation is as follows:

$$\text{Federal Income Tax} = (\text{Taxable Income} \times \text{tax rate}) - (\text{Non-refundable Tax Credits} \times \text{tax credit rate}) - (\text{Refundable Tax Credits} \times \text{tax credit rate})$$

Federal Non-refundable Tax Credits

*Note: In addition to the basic personal amount for self, single-parent families can claim the basic personal amount for an eligible dependant for their first child. This is reflected in the formula in Cell L53 of the Excel spreadsheet for the single-parent families. See the tax rules for more details.

Non-refundable tax credits reduce the amount of tax an individual has to pay, but only up to the amount of tax owed. If the amount of non-refundable tax credits exceeds the amount of tax owed, the person does not benefit from these extra tax credits (they either lose them or, in some rare cases, as with the tuition amount, these can be carried over for future years or transferred to a spouse or common-law partner).

TABLE 6 Non-Refundable Tax Credits

Tax Credits	Comments	Claimed by Parent
Basic Personal Amount	= \$14,398 in 2022	Both
EI Premiums	= Employment Income × premium rate; 2022 premium rate is 0.0158, up to a maximum of \$952.74	Both
CPP Premiums	= (Employment Income – \$3,500) × premium rate; 2022 premium rate is 0.057, up to a maximum of \$3,499.80	Both
Canada Employment Amount	= \$1,287 in 2022 (see Schedule 1)	Both
Tuition, education and textbook amount	For part time adults: = Eligible tuition fees and other fees + Education amount (\$120/month × 8 months)	‘1’
Medical expenses	= Family medical expenses (Non-MSP [Private] Health Care Expenses; C17 in the Excel spreadsheet) – [Net Income (B52 in the Excel spreadsheet) × 0.03]	“1”

Note: To be eligible to claim medical expenses, the family’s annual medical expenses must be greater than 3% of the net (taxable) income of the person claiming the expenses.

TABLE 7 Federal Refundable Tax Credits

Tax Credits	Comments	Claimed by Parent
Refundable Medical Expense Supplement	$0.25 \times [\text{Family medical expenses (C17 in the Excel spreadsheet)} - \text{Net Income (B53 in the Excel spreadsheet)} \times 0.03] - 0.05 \times [\text{Family Net Income}]$	“1”
Canada Worker Benefit	= [Net Income (B53 in the Excel spreadsheet) – 3000] × 0.27, or \$2,461, whichever is less – Adjusted family net income × 0.15 (if negative, use 0)	“1”

Note: To be eligible to claim the refundable medical expense supplement, the person must be eligible for the non-refundable medical expenses tax credit.

Federal Tax Brackets

For 2022, the tax rate on taxable income less than \$55,867 is 15 percent. For taxable income between \$55,867 and \$111,733 it is 20.5 percent. Therefore, if the taxable income of either parent increases above \$49,020, the formula for “Taxable Income × tax rate” becomes: Taxable Income × tax rate = (\$55,867 × 0.15) + ((Taxable Income – \$55,867) × 0.205)

Provincial Income Tax

The structure of the provincial income tax calculation for Manitoba is as follows:

TABLE 8 Non-Refundable Manitoba Tax Credits

Tax Credits	Comments	Claimed by Parent
Basic Personal Amount	= \$10,145 in 2022	Both
EI Premiums	= Employment Income × premium rate; 2022 premium rate is 0.0158, up to a maximum of \$952.74	Both
CPP Premiums	= (Employment Income – \$3,500) × premium rate; 2022 premium rate is 0.057, up to a maximum of \$3,499.80	Both
Tuition, education and textbook amount	For part time adults: = Eligible tuition fees and other fees + Education amount (\$120/month × 8 months)	“2”
Family Tax Benefit	= \$2,065 – (Net Income × 0.09)	“1”
Family Tax Benefit	= \$2,065 + \$2,752 per child – (Net Income × 0.09)	“2” (parent “2” claims the children’s amount as they have a higher taxable income)
Medical expenses	= Family medical expenses (C17 in the Excel spreadsheet) – Net Income (B53 in the Excel spreadsheet) × 0.03 Note: To be eligible to claim medical expenses, the family’s annual medical expenses must be greater than 3% of the taxable income of the person claiming the expenses.	“1” (the parent with the lower taxable income should claim this amount as the expense amount is reduced by net income times 3%)

Note: In addition to the basic personal amount for self, single-parent families can claim the basic personal amount for an eligible dependant. This is reflected in the formula in Cell H57 of the Excel spreadsheet for the single-parent families.

TABLE 9 Refundable Manitoba Tax Credits

Tax Credits	Comments
Basic Credit	= \$195 in 2022
Basic Credit for spouse or common-law partner	= \$195 in 2022
Credit for dependent children	= \$26 per child in 2022
Renters Tax Credit	= \$525 in 2022

Note: Only one parent in the family can claim Refundable Manitoba Tax Credits (or simply, Manitoba Credits).

Provincial Income Tax = (Taxable Income × tax rate) – (Non-Refundable Tax Credits × Non-Refundable tax credit rate) – Manitoba Credits
Taxable Income is the same as for the Federal tax calculation.

Provincial Tax Brackets

For 2021, the tax rate on taxable income of \$34,431 or less is 10.8 percent. For taxable income greater than \$34,431, it is 12.75 percent up to an income of \$74,416). Therefore, if the taxable income of either parent increases above \$34,431, the formula for “Taxable income × tax rate” becomes:

$$\text{Taxable Income} \times \text{tax rate} = (\$34,431 \times 0.108) + ((\text{Taxable Income} - \$34,431) \times 0.1275)$$

As noted, formulas and tax rates may change each year. Thus, at this point, ensure that all Federal and Provincial tax formulas and rates are current to the year for which you are doing the study.

Stage 4:

Determining the Living Wage Amount

THIS STEP IS the easiest. Examine Table III in the Excel spreadsheet. Cell C42 represents the gap between Available Annual Income and Annual Family Expenses. The Living Wage amount is the wage at which the gap is as small as possible while still being greater than \$0.00.

Therefore, if the gap line is negative, increase the Living Wage amount in Cell B49. If the gap is positive, reduce the Living Wage amount in Cell B49 until the gap is negative, and then increase it until the gap line has its lowest possible positive amount. Each time you change the living wage amount all formulas in the spreadsheet need to be recalculated. The shortcut for this is F9 in Excel for Windows and Command+= in Excel for Mac. You may have to repeatedly recalculate until all of the calculations stabilize. Alternatively you can go into Excel options > Formula, and select “Automatic” under “Workbook Calculations”. You will also need to select “Enable iterative calculations” if you are using the current year’s living wage income for income tested benefit calculation.

Stage 5:

Verifying the Calculations

SOME OF THE calculations that are part of the living wage calculation can be verified through online calculators on the Canada Revenue Agency and Manitoba Government (child care subsidy) websites. Note, however, that the calculators that are typically available are for the current tax year.

You are finished!

Endnotes

1 Authors' calculation based on Statistics Canada Government of Canada, "Profile Table, Census Profile, 2021 Census of Population - Manitoba [Province]," February 9, 2022, <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E>.

2 Michael Hatfield, Wendy Pyper and Burton Gustajtis. *First Comprehensive Review of the Market Basket Measure of Low Income*. Human Resources and Skills Development Canada, 2010, accessed September 15, 2013, http://publications.gc.ca/collections/collection_2011/rhdcc-hrsdc/HS28-1782010-eng.pdf, p. 1.

3 Available at <http://winnipegharvest.org/wp-content/uploads/2012/02/2012-A.L.L.-REPORT.pdf>.

4 Manitoba Hydro. *2009 Residential Energy Use Survey Report: Low Income Cut-Off (LICO) Sector*. Winnipeg, 2010. Accessed September 21, 2013, http://www.hydro.mb.ca/regulatory_affairs/electric/gra_2010_2012/Appendix_50.pdf, p. 40. 11 Ibid., p. 21.

5 From October 1st, 2021 to March 31st, 2022, the minimum wage was \$14.15 per hour.

6 As of 2024, the Climate Action Incentive payment is renamed to the Canada Carbon Rebate (CCR)..



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