



# Brown's Economic Damages Newsletter

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## Valuing Household Rates in Civil Litigation, and how they are used in the Housekeeping Damages Calculator™ (HDC) at [www.browneconomic.com](http://www.browneconomic.com)

By Cara L. Brown, M.A.

This edition updates the hourly replacement rates to be used for valuing time spent on unpaid household labour. In doing so, we explore the findings from Statistics Canada's *Estimating the economic value of unpaid household work in Canada* (2022), a landmark study that bridges the gap from their 1994 publication *The Value of Household Work in Canada 1992*. Then we show how Brown Economic's statistical wage benchmarks allows us to derive hourly replacement rates for each region in Canada to use in civil litigation that are within 2% of the hourly rates published in the 2022 Statistics Canada study. The discrepancy between these rates and rates promulgated by cost of care experts is also discussed. Special contingency factors which must be applied when valuing unpaid labour are described. Screens from the **Housekeeping Damages Calculator™ (HDC)** demonstrate how the replacement rates and special contingencies are used to derive housekeeping loss awards in either injury or fatality cases.

Although many precedents show that *housekeeping loss awards* in injury/fatality cases are typically lower than *wage loss awards*,<sup>1</sup> the quantum expert can assist counsel in properly assessing housekeeping loss awards by contrasting the plaintiff's or decedent's specific evidence on household chores with relevant time

<sup>1</sup> As per the findings published in Brown, C.L. (2003) "Valuable Services Trends in Housekeeping Quantum across Canada, 1990-2001" *The Advocates' Quarterly* 27(1) 71-109 and updated with case law since then in C.L. Brown, **Damages: Estimating Pecuniary Loss** (Toronto, Ontario: Canada Law Book, a Thomson Reuters business), 2024 (35<sup>th</sup> edition), pp. 9-38 to 9-42. The opposite result can occur in fatality cases: the loss of dependency on housekeeping by the family can exceed the loss of dependency on the decedent's income (for instance, see *Baker v. Poucette*, 2017 ABCA 334, in which the loss of housekeeping award plus tax gross-up equaled \$134,000 but the loss of dependency on the decedent's income was nil.) In *The Estate of Mary Fleury et al v. Olayiwola A. Kassim*, 2022 ONSC 2462 2022 CarswellOnt 5531, the court awarded \$517,000 for the survivor's loss of dependency on valuable services.

use data from Statistics Canada's *General Social Survey* (GSS) modules and investigating the appropriate replacement rates based on the earnings of people who carry out household tasks as defined by Statistics Canada.

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Prior issues of **Brown's Economic Damages Newsletter**<sup>2</sup> related to this this topic

- ◆ "2017 *Canadian Survey on Disability: Impact of Disability on Household Activities & Household Replacement Rates for 2022 (Part 5)*" January 2022, vol. 19, issue #1
- ◆ Forensic economic data: updates to the real discount rate, life expectancy, disability contingency, health contingency, and housekeeping rates" March 2020, vol. 17, issue #2
- ◆ "Housekeeping Capacity Awards: Unique aspects related to quantum (A User's Guide)" June/July 2018, vol. 15, issue #6
- ◆ "Housekeeping Claims: \*\*\* NEW \*\*\* Time Use Data from Statistics Canada's 2015 *General Social Survey (GSS)*, cycle 29" September 2017, vol. 14, issue #7
- ◆ "2017 Housekeeping hourly rates: used in court-ready assessments & in the online **Housekeeping Damages Calculator**™ @ [www.browneconomic.com](http://www.browneconomic.com)" January/February 2017, vol.14, issue #1
- ◆ "2016 Housekeeping hourly rates: used in court-ready assessments & in the online **Housekeeping Damages Calculator**™ @ [www.browneconomic.com](http://www.browneconomic.com) plus 4 recent cases" May 2016, vol.13, issue #5
- ◆ "2015 Housekeeping hourly rates: used in court-ready assessments & for the online **Housekeeping Damages Calculator**™ @ [www.browneconomic.com](http://www.browneconomic.com)" February 2015, vol. 12, issue #2
- ◆ "Housekeeping & Cost of Care Awards: 2013 hourly rates & 2012-13 cases", August 2013, vol. 10, issue #7
- ◆ "Time Use: Average Time spent on Activities & Utilization for the **Housekeeping Damages Calculator**™ ("HDC"), September/October 2012, vol. 9, issue #8
- ◆ "Housekeeping Claims: Time Use Data from Statistics Canada's 2010 *General Social Survey (GSS)*, cycle 24" July/August 2011, vol. 8, issue #6
- ◆ "Housekeeping claims: 2010 hourly replacement rates", March 2010, vol. 7, issue #3
- ◆ "Housekeeping award by Ontario Court of Appeal: *McIntyre v. Docherty* [2009]", May 2009, vol. 6, issue #4
- ◆ "Household Replacement Rates and the "Health" contingency in housekeeping claims", March 2008, vol. 5, issue #3
- ◆ "Housekeeping claims: Time use statistics from Statistics Canada's 2005 *General Social Survey (GSS)* cycle 19" October 2006, vol. 3, issue #9
- ◆ "Economic loss calculators [showcases the **Housekeeping Damages Calculator**™]", November 2005, vol. 2, issue #9
- ◆ "Housekeeping capacity replacement rates", September/October 2005, vol. 2, issue #8
- ◆ "Housekeeping awards & replacement rates, 2004", August 2004, vol. 1, issue #107
- ◆ "Valuable services trends & housekeeping replacement rates", September 2003, vol. 1, issue 97
- ◆ "Valuable services trends: 1990-2002 Atlantic perspective", May 2002, vol. 1, issue #82
- ◆ "Household Calculator for Personal Injury and Wrongful Death Claims", June 2001, vol. 1, no. 70

<sup>2</sup> To obtain a prior edition of **Brown's Economic Damages Newsletter**, send an email to [newsletter@browneconomic.com](mailto:newsletter@browneconomic.com).

## Methodology for Valuing Loss of Housekeeping Capacity (Injury or Wrongful Death Cases)

Cooper-Stephenson and Adjin-Tettey comment on the “replacement cost” method for quantifying housekeeping capacity awards:<sup>3</sup>

As regards future homemaking, the loss is patently pecuniary and may be classified as a sub-head of lost working capacity (as it is in this book) or else as a separate head of damages altogether, **with assessment in either case following the substitute homemaker/catalogue of services method.**

... **assessment is based on market replacement**, using the substitute homemaker/catalogue of services approach to determine the precise ambit of the loss (emphasis added).

The courts in Canada have long endorsed a “market replacement approach”, whereby the wages paid to people who do housework are used as the basis for compensation. (The only exception to this approach is the acceptance of wage rates advocated by cost of care experts embedded in their recommendations. I discuss below why these approaches differ and what each represents).

In *Estimating the economic value of unpaid household work in Canada* (2022), Statistics Canada acknowledges the challenge to valuing unpaid work while at the same time gauging its importance in Canadian society:<sup>4</sup>

There is no doubt that the day-to-day tasks that people do, such as cleaning, cooking, and caring for dependent children and adults, are productive activities. However, assigning economic importance to such activities can be challenging as they are often done outside of the market economy and therefore do not have an observable monetary value. *Taking effort to estimate monetary value for the unpaid household activities that we all do each day is important for understanding the true economic output or performance of a country and for highlighting inequalities within the society, such as pay gaps and differences in the contribution of various domestic and caregiving activities between sexes, which are often invisible to the broader society* (p. 4, emphasis added).

[This] paper provides estimates of the economic value of unpaid household work in Canada for 2015 to 2019. This study was completed by the National Economic Accounts Division at Statistics Canada and was funded by *Women and Gender Equality Canada* (WAGE) (p. 4).

According to this study, **the economic value of unpaid household work in Canada was between \$516.9 billion and \$860.2 billion in 2019** depending on the valuation method used. These values amounted to between 25.2% and 37.2% of Canada’s nominal *Gross Domestic Product* (GDP) in 2019, which is more than the contribution of all the manufacturing, wholesale and retail industries combined<sup>5</sup> (p. 4).

Measuring the economic performance or well-being of a country is not a simple task. While core economic measures, like *Gross Domestic Product* (GDP) and labour productivity often get a lot of attention in the news, researchers and economists have long been advocating for more comprehensive and nuanced measures that take into account issues such as income and wealth inequality, pay gaps, and the contribution of unpaid productive activities, like household work<sup>6</sup> (p. 4).

<sup>3</sup> K. Cooper-Stephenson and E. Adjin-Tettey, *Personal Injury Damages in Canada* (Toronto, Ontario: Carswell, a Thomson Reuters business), 2018 (3<sup>rd</sup> edition), at pp. 744-745.

<sup>4</sup> Statistics Canada. *Estimating the economic value of unpaid household work in Canada, 2015 to 2019*. Catalogue no. 13-605-X, March 17, 2022.

<sup>5</sup> This is based on the industries’ contribution to total gross value added based on the 2018 Supply and Use Tables.

<sup>6</sup> Stiglitz, J., A. Sen and J.-P. Fitoussi (2007), “Report on the Commission on the Measurement of Economic Performance and Social Progress”, Paris: Commission on the Measurement of Economic Performance and Social Progress, Paris <https://ec.europa.eu/eurostat/documents/8131721/8131772/>.

One of the most important issues to consider when estimating the value of unpaid household work is which valuation method(s) to use. Because household work is performed outside of the market, there are no directly observable prices or monetary values to assign to the activities. Therefore, one must infer or impute value using one of two general approaches: the **output-based method**, which assigns a purchase price to the final services being performed, or the **input-based method**, which values the labour costs (i.e., wage rates) required to perform the tasks (p. 6, emphasis added).

Due to a number of factors, including the lack of available data as well as the need to provide insight into the characteristics of the households and individuals performing unpaid work, this study uses the input-based valuation method. The input-based valuation method consists of imputing a monetary value to the labour inputs directly.<sup>7</sup> In other words, **the time spent doing unpaid household activities is valued using market-based wage rates** (p. 6, emphasis added).

The replacement cost [method] is intended to reflect the value of unpaid household activities had they been performed in the market by hiring someone to complete these activities. *Rather than using the wage rates of the individuals doing the unpaid activities, they are valued at the average wage rates of equivalent occupations in the market. The main assumption with this approach is that household members and their market-based 'replacements' are equally productive* (p. 6, emphasis added).

Statistics Canada describes the main characteristics of unpaid household work that assist in valuation:<sup>8</sup>

The concept of unpaid household work used in this study, which is consistent with international recommendations, includes two key elements: 1) services produced for 'own final use'; and 2) the third party criterion (p. 5).

**The concept of services produced for 'own final use'** is important because it distinguishes between services that individuals perform for themselves or other members of their household, and those performed through volunteer work, the latter of which are performed outside of the household. While volunteer work performed by households, both formal and informal, can generate both social and economic benefits, they are excluded from this study since they are not included within the definition of unpaid household work. However, Statistics Canada does measure the importance of volunteering in the Satellite Account of Non-profit Institutions and Volunteering<sup>9</sup> (p. 5, emphasis added).

The second important element of the definition of unpaid household work is the **third party criterion** which is described by Hawrylyshyn as: "those economic services produced in the household and outside the market, but which could be produced by a third person hired on the market without changing their utility to the members of the household".<sup>10</sup> The third party criterion distinguishes activities related to work, or productive activities, from those related to leisure. Productive activities are defined as those which could be delegated to another person, such as cleaning, cooking, or providing care to other household members. In contrast, activities benefit only the person performing them, such as watching a movie or sleeping, are not considered productive activities and are therefore excluded<sup>11</sup> (p. 5).

<sup>7</sup> Statistics Canada, 1995. *Households' Unpaid Work: Measurement and Valuation Studies in National Accounting*, Catalogue No. 13-603E, No. 3.

<sup>8</sup> Statistics Canada. *Estimating the economic value of unpaid household work in Canada, 2015 to 2019*. Catalogue no. 13-605-X, March 17, 2022. This publication updates Statistics Canada's landmark 1992 study entitled *The Value of Household Work in Canada 1992 Income and Expenditure Accounts* technical series, catalogue no. 13-604-MIB-No.27, 1994.

<sup>9</sup> Statistics Canada, Record Number 5110, *Satellite Account of Non-profit Institutions and Volunteering*, <https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=5110>.

<sup>10</sup> Hawrylyshyn, O. (1978), "Estimating the Value of Household Work in Canada", 1971, Catalogue No. 13-558.

<sup>11</sup> United Nations Economic Commission for Europe (UNECE), "Guide on Valuing Unpaid Household Service Work", ECE/CES/STAT/2017/3, 2017. A full list of unpaid household work activities and their corresponding occupational equivalency groups can be found in Appendix A the Statistics Canada's 2022 article (Statistics Canada. *Estimating the economic value of unpaid household work in Canada, 2015 to 2019*. Catalogue no. 13-605-X, March 17, 2022.)

Statistics Canada provides the following formula to derive the replacement cost for housekeeping services:<sup>12</sup>

$$\begin{array}{c}
 \textbf{Replacement cost valuation} \\
 = \\
 \text{hours of unpaid household work (by activity, province of residence)} \\
 \times \\
 \text{hourly wage rate (by occupation equivalency group, province of residence)}
 \end{array}$$

The formula above shows two main components: time spent by the claimant on household work and the replacement rate to value this time. We address both aspects of the formula below.

### Time Use Data from Statistics Canada (*General Social Survey*)

In Canada, time use data are collected every five to seven years via the *General Social Survey* (GSS). The *GSS on Time Use* collects information on how non-institutionalized persons 15 years of age or older, living in the 10 provinces, manage their time and perform their daily activities. The survey uses a retrospective 24-hour time diary to collect information on an individual's participation in and time spent on a wide variety of day-to-day activities. The survey also collects a variety of socio-demographic characteristics.<sup>13</sup>

Statistics Canada's *GSS Time Use Survey* was first conducted in 1986, and subsequent time use surveys have been performed in 1992, 1998, 2005, 2010 and 2015, becoming the primary source of data about Canadians' allocation of their day between paid and unpaid work, leisure, and other pursuits. Results from the 2015 *GSS Time Use Survey* (GSS cycle 29), conducted from April 2015 to April 2016, were initially released in 2017.<sup>14</sup> Shortly thereafter, Brown Economic procured a custom tabulation of time use data from the 2015 GSS, as had been done for all surveys since 1992. Statistics Canada has not yet performed a time use survey since the 2015 release.<sup>15</sup>

The *GSS Time Use Survey* datasets partition time use data for Canadian men and women by "role groups" and each role group distinguishes people based on gender, age group, each adult's employment or retirement status, marital status (with partner, living alone, or lone parent), their partner's employment status, and whether children over or under 5 years old are living in the household (or not). **Brown Economic's custom tabulation data from 2015 shows time use**

<sup>12</sup> Statistics Canada. *Estimating the economic value of unpaid household work in Canada, 2015 to 2019*. Catalogue no. 13-605-X, March 17, 2022.

<sup>13</sup> Statistics Canada, Record Number 4503, *General Social Survey - Time Use* (GSS), <https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=4503>.

<sup>14</sup> GSS findings from the 2015 GSS for household activity were reported in CANSIM Table 113-0004 and P. Houle, M. Turcotte and M. Ward, "Changes in parents' participation in domestic tasks and care for children from 1986 to 2015" (June 1, 2017) *Spotlight on Canadians: Results from the General Social Survey*, Statistics Canada catalogue 89-652-X2017001.

<sup>15</sup> *2015 Time Use Survey Technical Note* (June 2017) Statistics Canada catalogue 89-658-X, at p. 4. To date the *GSS Time Use Survey* has been conducted in 1986 (sample size = 16,400), 1992 (sample size = 9,000), 1998 (sample size = 10,700), 2005 (sample size = 19,600), 2010 (sample size = 15,400) and 2015 (sample size = 17,390). Brown Economic has obtained custom tabulations from Statistics Canada (for a fee) for 1998, 2005, 2010 and 2015. Data from the 2022 GSS cycle on time use have not been released as of the writing of this paper.



data for 50 separate “role groups”.<sup>16</sup> The advantage to using the “role group” data, which is compared to the claimant’s information if available, is that we are able to offer a comparison of the claimant’s data and the statistical data *by specific household chore* (i.e., meal preparation, indoor cleaning, outdoor cleaning, etc.). Courts have used this data to evaluate the usefulness of the plaintiff’s information.

Following the key principles of the definition of unpaid household work above, Statistics Canada has identified four broad groups of **unpaid work activity** from the 2015 GSS *Time Use Survey*: “household chores and maintenance”, “caring for household children” (under 18 years), “caring for household adults” and “shopping for goods and services”.

For the purpose of measuring the value of unpaid work in civil litigation cases, we must know which activities qualify as housekeeping or valuable services activities. Generally speaking, self-care (showering, dressing, eating or dining out, attending appointments, etc.) is not compensable as a household activity; rather, a better definition is how much time is spent on caring for others. Table 1 defines the “compensable” activities of unpaid work as per Statistics Canada’s 2022 study.

**Table 1: Unpaid Household Work Activities Categorized by Statistics Canada**

Category	Activity
Household chores and maintenance	Meal, lunch or snack preparation
	Preserving foods Baking, freezing, sealing, packing foods
	Indoor house cleaning, dish washing, tidying
	Taking out garbage, recycling, compost, unpacking goods
	Laundry, ironing, folding, sewing, shoe care
	Repair, painting or renovation
	Organizing, planning, paying bills
	Unpacking groceries, packing and unpacking luggage for travel and/or boxes for a move
	Outdoor maintenance > Car repair, ground maintenance, snow removal, cutting grass
	Planting (picking), maintaining, cleaning garden, caring for house plants
Caring for a child from your household (less than 15 years)	Pet care> Feeding, walking, grooming, playing
	Personal care, getting ready for school, supervising homework, reading, playing, reprimanding, educational, emotional help
Caring for a teenager from your household (15 to 17 years)	Accompanying to or from school, bus stop, sports, activities, parent school meetings or appointments
	Helping with homework, playing, reprimanding, educational, personal care, getting ready for school, emotional help
Caring for an adult from your household	Accompanying to or from school, bus stop, sports, activities, parent school meetings or appointments
	Washing, dressing, care giving, financial management
Shopping for goods or services	Accompanying to or from appointments, shopping
	Shopping for or buying goods > Gasoline, groceries, clothing, car
	Shopping for services > Legal services, financial services, vehicle maintenance
	Researching for goods or services

Source: Statistics Canada. *Estimating the economic value of unpaid household work in Canada, 2015 to 2019*. Catalogue no. 13-605-X, March 17, 2022, Table D.

<sup>16</sup> Time use data **by role groups** is only available through custom tabulations and is not available on the publicly disseminated Statistics Canada website. What is available online is Statistics Canada’s Data Table 45-10-0014-01 *Daily average time spent in hours on various activities by age group and sex, 15 years and over, Canada and provinces*, which allows users to estimate the average hours spent on household chores only by age and gender but does not include estimates based on various “role groups” (which provide variations based on both adults’ employment status, marital status, and presence/absence of children under and over age 5) and does not break down household work for specific chores (i.e., meal preparation, indoor cleaning, outdoor cleaning, etc.).

In its 2022 publication, Statistics Canada provided data on the average annual hours of household work performed per person based on data from the 2015 *General Social Survey on Time Use* (the most recent survey completed). We reproduce Statistics Canada's estimates in Figure 1 below.

**Figure 1: Statistics Canada's Average ANNUAL Hours of Household Work Per Person by Gender, 2015<sup>17</sup>**

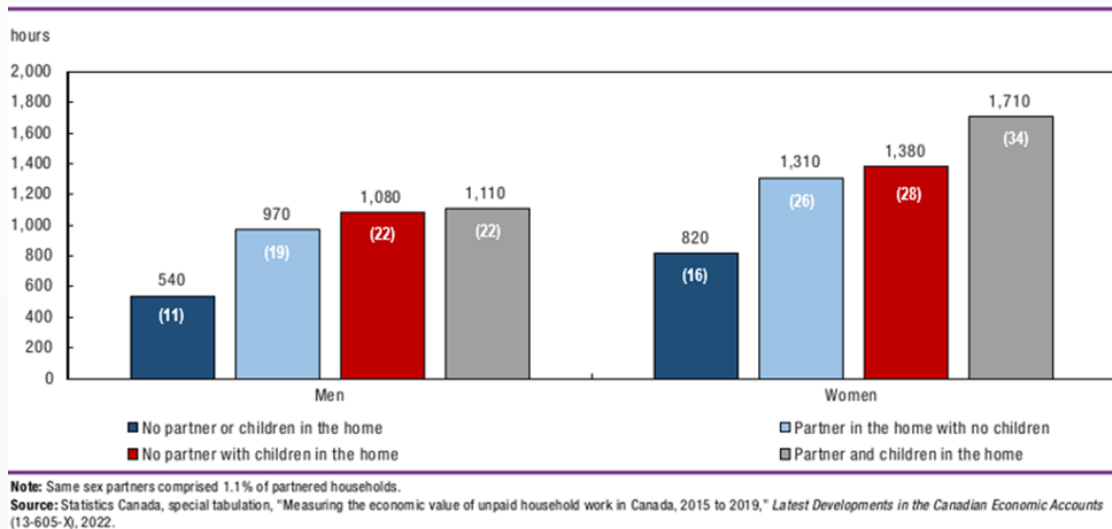


Figure 1 shows the following:

- Single people living at home with no partner or children do the *fewest* hours of household work (10.8 hours per week for men, 16.4 hours per week for women).<sup>18</sup>
- On the opposite end, men and women with a partner and children spend the *most* amount of time on household work (22 to 34 hours per week, respectively). In other words, the more people in the home, and more housework there is to do.
- Women do more housework than men within all types of households,<sup>19</sup> and the gap is largest in the 25 to 54-year-old group due to the proclivity of women to choose to be the family caregiver compared to men.<sup>20</sup>
- Women do almost the same amount of unpaid work whether they live with children (and no partner) than if they reside with a partner (and no children). In other words, women's partners receive (or require?) as much caregiving time as their children.

It is important to remember that the statistics in Figure 1 represent annual hours of household per year. However, most published estimates as well as Statistics Canada's time use data from the *General Social Survey* report time use by week. This is the typical metric used in economic loss assessments in civil litigation.

<sup>17</sup> The figures above each bar in Figure 1 represent the average annual hours of household work reported by Statistics Canada, whereas the numbers in parentheses denote the average weekly hours of household work. The usual metric by which time use is expressed is by hours per week.

<sup>18</sup> Assuming a 50-week year to allow at least 2 weeks of vacation.

<sup>19</sup> For example, Table 2 in Statistics Canada's 2022 article shows that, on average, women spent 51% more hours on household work than men (p. 11).

<sup>20</sup> See Chart 1 in Statistics Canada's 2022 article (p. 12).



## ***Men's housework time is valued at a greater rate than women's, despite women doing 50% more housework than men***

Following from Figure 1 above, the Statistics Canada's 2022 study found that despite the fact **women do 51% more housework than men** – even in couple households without children – the dollar values associated with housework are greater for men than for women. The authors comment as follows:

Several external studies looking into the reasons why women do more housework than men suggest that the differences are **not** due to men and women having different preferences or perceptions of cleanliness but *rather are driven by societal expectations placed on women to have clean homes* (p. 13, emphasis added).

Having said that, the study also finds that when households grow from two adults to including children, the gap between women's and men's *share of household work* widens. This is consistent with the *wage gap* that also grows once women have children. In economic terms, this is called the "wage penalty" for having children<sup>21</sup> – but only for women (not for men who choose to have children, unless they become single parents<sup>22</sup>).

Another intriguing finding by analyzing the gender of Canadians performing household work is that there is a vast difference between men and women and the *types of chores* performed:

Out of the 20 unpaid household work activities listed in Appendix A, **men completed the majority of hours spent on the following three activities:** outdoor maintenance; repair, painting or renovation; and taking out garbage/unpacking goods...

This indicates that occupations within the caregiving domain and tasks that women generally do more of in the home, are paid less in the market economy, as compared to the tasks or jobs more often performed by men in the home and in the economy. This again signals a fundamental difference in the value of unpaid work done by women in the household, but also to a market wage gap between the jobs done more by women than by men. (p. 14)

We can confirm that a wage gap between men and women still persists, ranging from 15% to 30%,<sup>23</sup> depending on study, universe of data, measurement methods, and theories as to the source of the wage gap.<sup>24</sup> As long as women exhibit more demand for children than men, the gap in unpaid and paid work will likely persist.

<sup>21</sup>Y. Weiss and R. Gronau, "Expected Interruptions in Labour Force Participation and Sex-Related Differences in Earnings Growth" (1981), *XLVIII Review of Economic Studies* 607 at p. 607; Budig, Michelle, and Paula England. "The Wage Penalty for Motherhood". *American Sociological Review* Vol. 66, No. 2 (Apr., 2001), pp. 204-225; Drolet, Marie. *Motherhood and paycheques*. *Canadian Social Trends*. Statistics Canada Catalogue No. 11-008, Spring 2003; Correll, Shelley, Stephen Benard, and In Paik. "Getting a Job: Is There a Motherhood Penalty?". *American Journal of Sociology* Volume 112, Number 5 (March 2007): 1297-1338; U.N. Human Rights Committee, "Concluding observations on the sixth periodic report of Canada," Aug 2015; Linden, Amy. "The Motherhood Penalty and Maternity Leave Duration: Evidence from a Field Experiment". *Centre for Industrial Relations and Human Resources* University of Toronto, 2015; Moyser, Melissa. *Women and Paid Work*. Statistics Canada Catalogue no. 89-503-X, March 9, 2017; Florian, SM. "Racial variation in the effect of motherhood on women's employment: Temporary or enduring effect?" *Soc Sci Res.* 2018 Jul;73:80-91. doi: 10.1016/j.ssresearch.2018.02.012.

<sup>22</sup> Canadian men in households where they care for children without another adult are so scarce that this category has no time use data, because the sample size is not large enough to produce reliable results. (If an assessment were to be completed for a single father, the data for lone parents would be used).

<sup>23</sup>For more detailed discussion on this topic, see **Brown's Economic Damages Newsletter**, "The Gender Wage Gap: Dimensions (Part I)" October 2014, vol. 11, issue #9; and **Brown's Economic Damages Newsletter**, "The Gender Wage Gap: Economic Theories (Part II)" November/December 2014, vol. 11, issue #10.

<sup>24</sup>The two main theories posed by economists is either that women's wages are lower than men's because of labour market discrimination (i.e., once an occupation is designated "women's work", it is devalued for this characterization); or that socialization of women in western society to form and care for family members, along with the wage penalty exacted for doing so in the labour market, is the source of the gap.

**IF** it is not possible to obtain the plaintiff- or decedent-specific time use information, courts have accepted time use data from Statistics Canada's *General Social Surveys* (GSS).<sup>25</sup> The publicly available time use data on Statistics Canada's website is considerably *less* tailored to the plaintiff than the custom data from the GSS modules, which reports unpaid time by: gender, age group, employment status, marital status, partner's employment status (including retired folks), presence of children, over and under age 5, for each type of household chore. First, however, we compile individual-specific or family-specific information about the plaintiff's or decedent's without-incident housekeeping capacity.

### Evidence From the Plaintiff or Surviving Family Member About Household Work

Canadian judges (and juries) have preferred to hear specific evidence given by the plaintiff or the decedent's family as to his/her time spent on household activities rather than statistical averages from time use data (unless the individual-specific information is unavailable).

Brown Economic collects information on the number of hours per week the plaintiff or the decedent spent on the types of household activities described in Table 1 above. This is accomplished by having the plaintiff or the survivor complete a form such as the *Diary of Household Activities*<sup>™</sup>. The *Diary*<sup>26</sup> has been created by this author using research about time use diaries used by Statistics Canada and has gone through more than several iterations after feedback from numerous lawyers. The main asset of the *Diary* compared to many self-made forms is that **it constrains the user to a 168-hour week**. If instead you ask someone an open-ended question such as "How much time did you [or your spouse] spend on housework?" the user will often *overestimate* the housework time and on occasion will not leave enough time in the week for other activities, such as sleeping, eating, paid work, personal care, and leisure/spiritual activities.

In *Baker v. Poucette* (2016), Brown Economic estimated Mr. Baker's contribution to household services based on our usual form, the *Diary of Household Activities (Fatal Accident)*, which was completed by Mrs. Baker. The *Diary* was summarized in Brown Economic's report, Mrs. Baker testified at trial regarding her husband's contribution to household services, and this author testified about the information from the widow's *Diary*; the *Diary* itself was not formally entered into evidence at trial. The appellant (defendant) argued that the number of hours Mr. Baker contributed to the household was hearsay.<sup>27</sup> The Court of Appeal of Alberta affirmed the trial judge's decision as follows:

[40] It is fair to say that in one sense the Baker family was not a typical family arrangement. Mrs. Baker gave detailed evidence at trial regarding Mr. Baker's contributions to the household and child care. At para 173, the trial judge stated, in part, "I accept Mrs. Baker's estimates of the weekly amount of time Mr. Baker expended on household services, **even though her estimated [sic] exceeded the Canadian statistical averages by over 2 times**".

[41] While it is true that the diary prepared by Mrs. Baker at the behest of Cara Brown was not formally entered into evidence, the results were reproduced at Table 6.4 of the Cara Brown report. However, even if all the evidence relied upon by Cara Brown in coming to her conclusion on this point is not technically before the court,

<sup>25</sup> For example, see **Brown's Economic Damages Newsletter**, "Housekeeping Claims: \*\*\* NEW \*\*\* Time Use Data from Statistics Canada's 2015 *General Social Survey* (GSS), cycle 29" September 2017, vol. 14, issue #7, which is available upon request.

<sup>26</sup> To access the *Diary of Household Activities*<sup>™</sup> form, go to [www.browneconomic.com](http://www.browneconomic.com) > PRODUCTS & SERVICES > Checklists & Diaries > click on "Diaries" on the left-hand menu to download a *Diary* for an injury or fatality case. Alternatively, contact us at 1-888-BEC-ASST (1-888-232-2778) or email us at [info@browneconomic.com](mailto:info@browneconomic.com).

<sup>27</sup> *Baker v. Poucette*, 2017 ABCA 334, at para. 39.

this is not necessarily fatal. What is required is that there be at least some supporting evidence on the issue before the court. (emphasis added)

The appeal court affirmed the housekeeping award from the trial decision of *Baker v. Poucette* 2017 ABCA 334, which when valued equaled \$134,000 including tax gross-up.<sup>28</sup>

The following sections outline how Brown Economic's approach in determining housekeeping rates align with Statistics Canada's methodology described above. Importantly, as shown in Tables 2 and 3 below, Brown Economic's hourly replacement rates are consistent with Statistics Canada's replacement rates (see Table 4).

## Determining the Household Replacement Rate: Statistical Benchmarking

### Statistical sources for obtaining hourly replacement rates

Brown Economic regularly publishes hourly replacement rates used for quantifying loss of housekeeping capacity awards in **Damages: Estimating Pecuniary Loss** (chapter 9) and in several editions of **Brown's Economic Damages Newsletter** (see list of prior editions available above). These hourly replacement rates are also relied upon in the **Housekeeping Damages Calculator™ (HDC)** at [www.browneconomic.com](http://www.browneconomic.com).

Predicting hourly wages or annual salaries is not simply a matter of choosing one source – *no matter how reliable the one source is that has been chosen*. Why? Because one source cannot possibly capture all of the variables that affect earning capacity. Different sources produce estimates based on different variables.<sup>29</sup> This is the same principle that underlies selection of any sample when compiling data: no one individual can represent a population.<sup>30</sup> Similarly, no one survey can be relied upon to project a worker's salary<sup>31</sup> when it is derived from a complex dynamic of forces in the labour market. As Ciecka and Skoog state, "one of the benefits of more information is that the standard deviation of X (variable studied) declines as [the sample size] increases. In other words, more data points are better than fewer data points; more data points imply more accuracy".<sup>32</sup>

The wage data is gathered from several sources which publish wage data for *National Occupational Classification (NOC) 2021* code 65310, "light duty cleaners"<sup>33</sup> in each province and territory in Canada, based on the following sources:<sup>34</sup>

<sup>28</sup> Calculated by Brown Economic Consulting pursuant to direction from the trial judge (para. 209).

<sup>29</sup> For example, whereas Statistics Canada's Census data can be procured to reflect 6 characteristics simultaneously, it has two main drawbacks: it defines full-time work as 30 hours or more per week (which includes part-time workers and therefore may understate the annual full-time salary); and its occupation codes, which while sorted according to the official *National Occupational Classification (NOC)* paradigm, combine anywhere from 19 to 548 job titles in each occupation code, which can contain variability depending on the relativity of income levels between occupations in each code. Data from other types of sources not sorted by NOC can provide more realistic and accurate estimates of annual salaries paid by employers (versus the annual income earned by employees). For more information, see **Brown's Economic Damages Newsletter**, "Matching data sources to plaintiff salaries" March 2009, vol. 6, issue #2; **Brown's Economic Damages Newsletter**, "2016 Census Data & Income Sources available to Forensic Economists" April 2018, vol. 15, issue #4; and **Brown's Economic Damages Newsletter**, "2021 Census Data Available to Forensic Economists" October 2023, vol. 20, issue #4, all available upon request.

<sup>30</sup> See Statistics Canada. *Survey Methods and Practices*. Catalogue no. 12-587-X, October 2003, pp. 31-32; Brenner, Philip S., and John DeLamate. *Lies, Damned Lies, and Survey Self-Reports? Identity as a Cause of Measurement Bias*. *Soc Psychol Q.* 2016 December, 79(4): 333-354; and Angel, Stefan, Franziska Disslbacher and Stefan Humer. *What did you really earn last year?: explaining measurement error in survey income data*. *Journal of the Royal Statistical Society Series A* (2019) 182, Part 4, pp. 1411-1437.

<sup>31</sup> One clear exception to this is if employment is governed by an explicit (and sole) collective agreement generated by collective bargaining, such as the ones that govern annual salaries paid to teachers in the elementary and secondary school system, or the hourly rates paid to nurses and other healthcare workers.

<sup>32</sup> Ciecka, J.E. and G.R. Skoog. 2023 (released March of 2024). *A Note on the Gains in Accuracy of the Sample Mean with More Data*, *Journal of Legal Economics* 29 (102): pp. 129-137.

<sup>33</sup> The 2021 NOC code of 65310 was formerly classified as NOC 4412/6471 "Home support workers, housekeepers and related occupations" and NOC-S G811, "visiting housekeepers" in previous NOC/NOC-S classifications. The 2021 NOC is the first to establish even more specific job titles by using 5-digit codes, rather than the 4-digit codes used until the 2021 NOC was established.

<sup>34</sup> Data from the *2009 British Columbia Wage and Salary Survey*, *2003 New Brunswick Wage Report*, and *PEI Wage Survey 2006* are no longer used in our summary based on the analysis of more recently published data. Statistics Canada operates another wage survey, called the *Job Vacancy and Wage Survey (JVWS)*, but as of writing the most recent wage data is for 2016/2017, and several regions have no data available (Prince Edward Island, Nova Scotia, Yukon, Northwest Territories and Nunavut). Given the lapse of time between 2017 and 2024, and the omission of data for certain regions in Canada, we have omitted the JVWS data.

- Statistics Canada's **2001 Census**<sup>35</sup>
- Statistics Canada's **2006 Census**
- Statistics Canada's *2011 National Household Survey*<sup>36</sup>
- Statistics Canada's **2016 Census**<sup>37</sup>
- Statistics Canada's **2021 Census**<sup>38</sup>
- Government of Canada's **JOB BANK** website<sup>39</sup>
- *2021 Alberta Wage and Salary Survey*<sup>40</sup>
- *2013 Saskatchewan Wage Survey*

### **Statistics Canada's Censuses**<sup>41</sup>

The *Census* enumerates the entire Canadian population, which consists of Canadian citizens (by birth and by naturalization), landed immigrants, and non-permanent residents<sup>42</sup> and their families living with them in Canada. The 2021 *Census* counted 36,991,981 persons in 16,284,235 dwellings. Income data by occupation was compiled for 25% of the entire Canadian working population.

Since 2006, Statistics Canada has been accessing tax return information for respondents in order to improve the accuracy of the individual income information. In 2006 and 2011, respondents were able to *choose* to either have their income tax information linked up or provide the income data. In the 2016 *Census*, Statistics Canada made it mandatory for users to have their income tax data automatically retrieved; manual input was not permitted for this data. Even though *long-form* census questionnaire respondents are the only ones asked about income levels (that is, the *short-form* census questionnaire does not ask about income), Statistics Canada also used the *Canada Revenue Agency* (CRA) tax data to link up to short-form respondents to enlarge the samples for income levels. This change in methodology is important, as it moves the 2016 *Census* data *completely* out of the realm of self-reporting to independent corroboration, a feature retained in the 2021 *Census*. In 2021, 92% of the population 15 years of age and older, in private households, were linked to an administrative record from the CRA.

<sup>35</sup> This source is only used for the Northwest Territories because data from the 2006 Census was not available for this territory for this 4-digit NOC code.

<sup>36</sup> For a discussion on the statistical differences between Statistics Canada's 2011 *National Household Survey* (which was voluntary and therefore had a smaller response rate compared to Census surveys) than Statistics Canada's regular Census surveys conducted every 5 years (which are mandatory), see **Brown's Economic Damages Newsletter** entitled "2011 National Household Survey Data & Income Sources available to Forensic Economists" February 2014, vol. 11, issue #2.

<sup>37</sup> Income data for 4-digit NOC 2016 code 4412 from the 2016 Census (representing 2015 dollars) was released in 2018.

<sup>38</sup> Income data for 5-digit NOC 2021 code 65310 from the 2021 Census (representing 2020 dollars) was released in 2022.

<sup>39</sup> To view the hourly wages for NOC 65310 (light duty cleaners), click on [www.jobbank.gc.ca](http://www.jobbank.gc.ca), data for each respective province and territory (formerly known as "workingincanada.gc.ca" and "labourmarketinformation.ca"). This website posts wages from actual job postings in locations throughout Canada.

<sup>40</sup> Prior versions of the *Alberta Wage and Salary Survey* (2019, 2017, 2015, 2013, 2011, 2009, 2007, etc.) have been used in the applicable years, but in this year, only the most recent survey done in 2021 was included.

<sup>41</sup> As noted above, the 2011 *National Household Survey* differed from all other Census years. For instance, the 2016 and 2021 *Census* long-form questionnaire was sent to 25% of Canadian households, while the 2011 NHS was sent to a random sample of 4.5 million dwellings, slightly less than 30% of all private dwellings in Canada in 2011. The Canada-wide response rate (the ratio of the number of questionnaires completed as a proportion of the total number of occupied private dwellings in the sample) for the 2016 and 2021 *Census* long-form questionnaire was 96.9% and 95.7%, respectively, while the response rate for the 2011 NHS was 68.6%. Essentially, this means the 2011 NHS data is based on a smaller random sample than the Census surveys, and slightly less representative – but still administered in accordance with proper statistical procedures.

<sup>42</sup> Non-permanent residents are persons who have claimed refugee status [asylum claimants], or persons who hold a work or study permit and their family members living with them.

The reliability of the *Census* data, which is verified through tax information, is unquestionably greater than non-random internet canvasses of only a handful of agencies – from which information cannot be verified and may not even be available in subsequent years given the transitory nature of internet advertising. There is also a “social desirability bias”<sup>43</sup> that permeates all queries about income levels, which translates into exaggeration of wage levels and annual salaries. Online surveys who ask for input about earnings are not accurate, least of all because there is no attempt to follow standard protocols, such as ensuring the same users do not repeatedly enter data and analyzing the quality of response.<sup>44</sup>

When culling income data from the *Census* surveys, we use wage data for female full-time, full-year workers working as housekeepers (the majority of housekeepers are female<sup>45</sup>) across all education levels, but differentiated by region, given that substantial variations occur in wage levels across provinces and territories. This data includes housekeepers who are self-employed if they are paid wages, although 83% of workers in NOC 65310 work as employees.<sup>46</sup> All other wage sources report unisex data because they *combine* wages paid to men and women in this occupation.

### **Government of Canada’s JOB BANK**

The primary source of wages displayed on the **JOB BANK** website ([www.jobbank.gc.ca](http://www.jobbank.gc.ca)) is from Statistics Canada’s *Labour Force Survey* (LFS) when sufficient data is available for a particular occupation. The *Labour Force Survey* (LFS) is a monthly household survey that in addition to key unemployment indicators (such as employment levels and unemployment rates), provides information on the wage rates for employees broken down by a number of employment and socio-demographic characteristics.<sup>47</sup> The LFS is one of the most inclusive, timely and unbiased sources of wage data by occupational group.<sup>48</sup> The LFS is a cross-sectional survey that targets 56,000 households per month, resulting in the collection of labour market information for approximately 100,000 individuals. Responding to the survey is mandatory and the data is collected directly from survey respondents by LFS interviewers by telephone.<sup>49</sup>

While there are a number of limitations with the wage rate data from the LFS, such as inconsistency with wages from T4 tax data, they do publish wage rates for various occupations,<sup>50</sup> albeit for highly generalized occupational groups.<sup>51</sup>

If data from the LFS is not available other sources are considered, such as Employment Insurance survey data, provincial wage survey (for example, the *Alberta Wage and Salary Survey*), the *National Household Survey* and collective bargaining agreements. As per the Government of Canada’s **JOB BANK** website: “... wages are determined following a comparative analysis of Statistics Canada data and other data sources, based on a standard methodology.

<sup>43</sup> Social desirability bias is the tendency to underreport socially undesirable attitudes and behaviors and to over report more desirable attributes (source: Latkin, C. A., C. Edwards, Davey-Rothwell, and K. E. Tobin. “The relationship between social desirability bias and self-reports of health, substance use, and social network factors among urban substance users in Baltimore, Maryland”. *Addict Behav.* 2017 Oct; 73: 133–136).

<sup>44</sup> For guidance on how to maintain the data quality see Statistics Canada. *Quality Guidelines*. Catalogue no. 12-539-X, December 4, 2019. See also Statistics Canada. *Survey Methods and Practices*. Catalogue no. 12-587-X, October 2003; Brenner, Philip S., and John DeLamare. *Lies, Damned Lies, and Survey Self-Reports? Identity as a Cause of Measurement Bias*. *Soc Psychol Q.* 2016 December ; 79(4): 333–354; and Angel, Stefan, Franziska Disslbacher and Stefan Humer. *What did you really earn last year?: explaining measurement error in survey income data*. *Journal of the Royal Statistical Society Series A* (2019) 182, Part 4, pp. 1411–1437.

<sup>45</sup> For instance, of the total count of full-time housekeepers in NOC 65310 in Canada from the 2021 *Census* (74,765), 63% were female.

<sup>46</sup> According to the **Job Bank** website 17% of workers in NOC 65310 were self-employed (2022), see <https://www.jobbank.gc.ca/marketreport/outlook-occupation/20662/ca>.

<sup>47</sup> Statistics Canada, Record Number 3710, Labour Force Survey (LFS), <https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3701>.

<sup>48</sup> Government of Canada’s **JOB BANK**, *Wage Methodology*, available at [www.jobbank.gc.ca/trend-analysis/search-wages/wage-methodology](http://www.jobbank.gc.ca/trend-analysis/search-wages/wage-methodology).

<sup>49</sup> See ([www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3701](http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3701)).

<sup>50</sup> As per Statistics Canada. *Estimating the economic value of unpaid household work in Canada, 2015 to 2019*. Catalogue no. 13-605-X, March 17, 2022.

<sup>51</sup> The publicly accessible wage data from the LFS only reports wages by 2-digit NOC code, compared to all other sources, which produce wages or annual salaries by 4/5-digit NOC code. The importance of this distinction is that most salary benchmarks are much more tailored to the claimant’s occupation than the LFS data. In their 2022 study, Statistics Canada had available to them LFS data by 4-digit NOC code, but this appears to be drawn from internal information.



The methodology was developed in consultation with subject matter experts from Statistics Canada and uses a decision-tree approach to determine the wages. Using this methodology, wages are determined using the best source of data available for an occupation within a given region, while taking the historical trends into consideration. The wages published are intended to be representative of the earnings of a typical worker in a specific occupation, regardless of their industries.”<sup>52</sup>

Wage estimates are produced for Canada, the provinces, the territories and a large number of sub-provincial regions. For example, Canada’s **JOB BANK**, using data from the LFS, reports wages for 8 regions in Alberta, 11 regions in Ontario and 5 regions in Nova Scotia. In addition to the wage estimates, the **JOB BANK** website also advertises current available jobs postings by actual employers. A review of the **JOB BANK’s** current job postings indicates that, as of April 5, 2024, there are 161,706 job postings in Canada for a wide variety of occupations and wages such as baker in Jasper, AB (\$16.00 to \$18.00 per hour), mystery shopper in Hawkesbury, ON (\$16.55 to \$20.00 per hour) or registered nurse in Charlottetown, PE (\$31.25 to \$37.50 per hour) and includes 729 postings for housekeepers across Canada. The current postings for housekeepers in Alberta advertise hourly rates ranging from \$15.00 to \$21.91 per hour. Brown Economic’s current housekeeping rate for Alberta (\$23.87 per hour in 2024 dollars in Table 2) is consistent with the upper bound of this range.

The wage data used by Statistics Canada in their 2022 study relied on the LFS, like the **JOB BANK**.

### ***Alberta Wage and Salary Survey***

This provincial survey is one of the best available independent wage surveys in Canada and is relied upon by the Government of Canada’s **JOB BANK** website to supplement their synthesis of wage data. It has been published every two years since 1960 with the most recent data being released for 2021. The 2021 *Alberta Wage and Salary Survey* surveyed 6,500 employers covering 411,000 workers. The published data combines wages paid to both sexes.

Rates shown in Table 2 below are based on Statistics Canada’s *Census* (2001 to 2021) for NOC-S code G811 and NOC codes 4412/65310, housekeepers, females working full time for each province; wage estimates from the **JOB BANK**, NOC 65310, housekeepers, median wage for each province/region; 2021 *Alberta Wage and Salary Survey*, NOC 4412, housekeepers; and 2013 *Saskatchewan Wage Survey*, NOC 6471, housekeepers. Figures in Table 2 are adjusted to 2024 dollars using Statistics Canada’s *Survey of Employment, Payrolls and Hours* (SEPH), NAICS 5617 (services to buildings and dwellings),<sup>53</sup> the inflation level in 2023 (3.9%) and forecasts of inflation in 2024 by chartered banks in Canada.<sup>54</sup>

<sup>52</sup> Government of Canada’s **JOB BANK**, *Wage Methodology*, available at [www.jobbank.gc.ca/trend-analysis/search-wages/wage-methodology](http://www.jobbank.gc.ca/trend-analysis/search-wages/wage-methodology)<sup>49</sup> For an explanation as to why NAICS index 5617, “services to buildings and dwellings” is used from the SEPH wage data, see section 9:21 “Rate Used to Calculate Loss of Housekeeping Capacity” on pp. 9-77 to 9-85 in C.L. Brown, **Damages: Estimating Pecuniary Loss** (Toronto, Ontario: Canada Law Book, a Thomson Reuters business), 2024 (35<sup>th</sup> edition).

<sup>53</sup> For an explanation as to why NAICS index 5617, “services to buildings and dwellings” is used from the SEPH wage data, see section 9:21 “Rate Used to Calculate Loss of Housekeeping Capacity” on pp. 9-77 to 9-85 in C.L. Brown, **Damages: Estimating Pecuniary Loss** (Toronto, Ontario: Canada Law Book, a Thomson Reuters business), 2024 (35<sup>th</sup> edition).

<sup>54</sup> As per James Orlando, and Thomas Feltnate. *Long-Term Economic Forecast*. TD Economics, March 31, 2024; BMO Economics. *Inflation Monitor for January 2024*, January 29, 2024; CICB Economics. *Forecast Update*, April 5, 2024; RBC Economics. *Economic Forecast Detail – Canada*, March 2024; and Scotiabank. *Stronger Growth, Slower Cuts to Policy Rates*, February 6, 2024.



**Table 2: Hourly replacement rates for housekeeping awards (2024 \$)**

Northwest Territories	\$41.29
Yukon Territory	\$41.59
British Columbia	\$24.37
Ontario	\$22.76
Alberta	\$23.87
Saskatchewan	\$24.15
Manitoba	\$21.40
New Brunswick	\$19.48
Prince Edward Island	\$26.49
Nova Scotia	\$23.27
Newfoundland & Labrador	\$21.86

The hourly rates for the NWT and Yukon territory can be used for Nunavut. As expected, the rates in the northern territories are materially higher than in other parts of Canada given the remoteness of their location and the additional northern allowances paid to residents in these regions to offset the higher cost of living.

Brown Economic's **Housekeeping Damages Calculator™ (HDC)** relies on the hourly rates shown in Table 2.

Table 3 shows the **Canada-wide** hourly rate for every year from 1991 to 2024, and then shows the percentage adjustment each year corresponding to wage inflation or wage deflation as published by Statistics Canada's *Survey of Employment, Payroll and Hours (SEPH)*, Canada's main wage index.<sup>55</sup>

<sup>55</sup> Wages must be deflated or inflated by the SEPH index rather than price inflation (change in the *Consumer Price Index*). For further explanation, see **Brown Economic's Damages Newsletter**, "Wage Index (SEPH) versus the Consumer Price Index (CPI)" July 2022, vol. 19, issue #5.

**Table 3: Hourly housekeeping rate and % change per year, CANADA, 1991 to 2024**

Year	Hourly replacement rate (CANADA)*	% change year-to-year**	
1991	\$10.31	1991-1992	4.10%
1992	\$10.74	1992-1993	-0.47%
1993	\$10.69	1993-1994	5.53%
1994	\$11.28	1994-1995	3.59%
1995	\$11.68	1995-1996	0.80%
1996	\$11.78	1996-1997	1.86%
1997	\$12.00	1997-1998	-0.61%
1998	\$11.92	1998-1999	-2.19%
1999	\$11.66	1999-2000	5.06%
2000	\$12.25	2000-2001	-7.13%
2001	\$11.38	2001-2002	-2.74%
2002	\$11.06	2002-2003	-3.26%
2003	\$10.70	2003-2004	6.61%
2004	\$11.41	2004-2005	8.06%
2005	\$12.33	2005-2006	7.61%
2006	\$13.27	2006-2007	9.92%
2007	\$14.59	2007-2008	3.79%
2008	\$15.14	2008-2009	2.06%
2009	\$15.45	2009-2010	0.58%
2010	\$15.54	2010-2011	6.63%
2011	\$16.57	2011-2012	-0.37%
2012	\$16.51	2012-2013	1.58%
2013	\$16.77	2013-2014	0.98%
2014	\$16.94	2014-2015	3.98%
2015	\$17.61	2015-2016	2.68%
2016	\$18.08	2016-2017	-0.80%
2017	\$17.94	2017-2018	4.79%
2018	\$18.80	2018-2019	7.34%
2019	\$20.18	2019-2020	11.42%
2020	\$22.48	2020-2021	2.84%
2021	\$23.12	2021-2022	4.02%
2022	\$23.98	2022-2023	5.99%
2023	\$25.42	2023-2024 (estimate)	3.90%
2024	\$26.41		

\* 2024 rate is shown to be the average of all rates in Table 3.

\*\* Wage index 5617: "Services to building and dwellings", Canada, SEPH data.

The reader can see from Table 3 that we do not only factor in adjustments that are *increases* – rather, when the wage index *decreases*, we apply the negative adjustments as well, so the rates decline – as they do in Table 3 above. Deflation occurred from 1992-93 (-0.47%), 1997-98 (-0.61%), 1998-99 (-2.19%), 2000-01 (-7.13%), 2001-02 (-2.74%), 2002-03 (-3.26%), 2011-12 (-0.37%) and 2016-17 (-0.80%).

The reader can apply the percentages shown in the “% change year-to-year” column in Table 3 to a regional rate from Table 2. For instance, the hourly rate in Newfoundland in Table 2 is shown as \$21.86 in **2024 dollars**. If the reader wanted to convert this figure to **2020 dollars**, s/he would use the percentages shown in Table 3:  $\{ \$21.86 \text{ divided by } [(1+0.039) \times (1+0.0599) \times (1+0.0402) \times (1+0.0284)] \} = \underline{\$18.56 \text{ in 2020 dollars}}$ .<sup>56</sup>

The hourly rates shown in Table 2 are used in our court-ready assessments, and in the online **Housekeeping Damages Calculator™ (HDC)** at [www.browneconomic.com](http://www.browneconomic.com),<sup>57</sup> an online tool for assessing the value of housekeeping claims in injury or fatality cases for **\$190 + GST**. See the section below showing input and output screens from the **HDC**.

In *Estimating the economic value of unpaid household work in Canada* (2022), Statistics Canada used the same statistical benchmarking as we have performed above to determine the appropriate hourly replacement rate for various types of household work. The rates in Table 4 below from Statistics Canada’s 2022 methodological paper were drawn from the *Labour Force Survey* (LFS) hourly wage data from 95 different occupation codes. Below Statistics Canada’s average rate (\$25.86 in 2024), we display Brown Economic’s average rate (across Canada) from Table 3 above (\$26.41), which differs by Statistics Canada’s rate by only 2%.

**Table 4: Statistics Canada’s Replacement Rates (2022 study)**

Category	Hourly Rates as Reported in Source (2015 Dollars)	Hourly Rates in 2024 Dollars*
Meal, lunch or snack preparation	\$13.89	\$20.83
Preserving foods (baking, freezing, sealing, packing foods)	\$13.53	\$20.29
Indoor house cleaning, dish washing, tidying	\$15.34	\$23.01
Taking out garbage, recycling, compost, unpacking goods	\$16.13	\$24.19
Laundry, ironing, folding, sewing, shoe care	\$15.29	\$22.93
Repair, painting or renovation	\$24.44	\$36.65
Organizing, planning, paying bills	\$21.54	\$32.30
Unpacking groceries, packing and unpacking luggage for travel and/or boxes for a move	\$13.58	\$20.37
Outdoor maintenance (car repair, ground maintenance, snow removal, cutting grass)	\$20.91	\$31.36
Planting (picking), maintaining, cleaning garden, caring for house plants	\$16.18	\$24.27
Pet care (feeding, walking, grooming, playing)	\$15.35	\$23.02
Personal care, getting ready for school, supervising homework, reading, playing, reprimanding, educational, emotional help (less than 15 years)	\$19.73	\$29.59
Accompanying to or from school, bus stop, sports, activities, parent school meetings or appointments (less than 15 years)	\$15.05	\$22.57
Personal care, getting ready for school, supervising homework, reading, playing, reprimanding, educational, emotional help (15 to 17 years)	\$19.73	\$29.59
Accompanying to or from school, bus stop, sports, activities, parent school meetings or appointments (15 to 17 years)	\$15.05	\$22.57
Washing, dressing, care giving, financial management (adult)	\$19.94	\$29.90
Accompanying to or from appointments, shopping (adult)	\$20.40	\$30.59
Shopping for or buying goods (gasoline, groceries, clothing, car)	\$15.07	\$22.60
Shopping for services (legal services, financial services, vehicle maintenance)	\$16.08	\$24.12
Researching for goods or services	\$17.65	\$26.47
<b>Statistics Canada's Average Replacement Rate</b>	<b>\$17.24</b>	<b>\$25.86</b>
<b>Brown Economic's Replacement Rate (2024 Dollars)</b>		<b>\$26.41</b>

Source: Statistics Canada. *Estimating the economic value of unpaid household work in Canada, 2015 to 2019*. Catalogue no. 13-605-X, March 17, 2022, Table B1.

Figures are adjusted to 2024 dollars using Statistics Canada’s *Estimates of Average Weekly Earnings* and *Survey of Employment, Payrolls and Hours*, NAICS 5617 (services to buildings and dwellings), Canada, the inflation level in 2023 (3.9%) and forecasts by chartered banks in Canada (as per James Orlando, and Thomas Feltmate. *Long-Term Economic Forecast*. TD Economics, March 31, 2024; BMO Economics. *Inflation Monitor for January 2024*, January 29, 2024; CICB Economics. *Forecast Update*, April 5, 2024; RBC Economics. *Economic Forecast Detail – Canada*, March 2024; and Scotiabank. *Stronger Growth, Slower Cuts to Policy Rates*, February 6, 2024).

<sup>56</sup> The forecast for 2023-2024 is based on the inflation level in 2023 (3.9%) and forecasts by chartered banks in Canada (as per James Orlando, and Thomas Feltmate. *Long-Term Economic Forecast*. TD Economics, March 31, 2024; BMO Economics. *Inflation Monitor for January 2024*, January 29, 2024; CICB Economics. *Forecast Update*, April 5, 2024; RBC Economics. *Economic Forecast Detail – Canada*, March 2024; and Scotiabank, *Stronger Growth, Slower Cuts to Policy Rates*, February 6, 2024).

<sup>57</sup> To access the hourly rates used in the **Housekeeping Damages Calculator™**, click on the “Housekeeping (pay per use)” link at [www.browneconomic.com](http://www.browneconomic.com), and then access the rates at “The calculator currently uses these [hourly replacement rates](#).”

### ***Contrasting Statistics Canada's rates vis-à-vis Brown Economic's rates***

The reader can see from Table 4 above that the overall average of Statistics Canada's hourly rates (in 2024 dollars) equals \$25.86. Brown Economic's average of rates across Canada in Table 3 show an average of \$26.41 across all geographical regions. This means that the two rates are within 2% of each other.

The main difference in the rates between Table 3 and Table 4 is that Statistics Canada's 2022 study reflected wages by 4-digit NOC code from the *Labour Force Survey* (not available online – only 2-digit NOC codes are published) in **APPENDIX A** (Table A-1) in their 2022 study. Using these 4-digit occupation (NOC) codes, Statistics Canada obtained hourly wage rates for 95 jobs related to "unpaid household work" to produce 20 separate wage rates shown in Table 4 above (see Table B-1). While this may be intuitively appealing, **it is time- and cost-prohibitive for forensic economists to research wages – from multiple wage sources, not just the LFS – for 95 job titles in every region in Canada.** Recall that in Table 2, we used the same approach as Statistics Canada, but we researched hourly rates from several salary benchmarks in each province and territory across Canada.

Not only is it cost-prohibitive to tabulate hourly wage rates for 95 NOCs in each geographical region, when information is provided by the claimant or his/her family member, the forensic economist is rarely, if ever, provided *time use data* for the 95 NOC codes identified by Statistics Canada. Rather, the litigant identifies the hours per week spent by the claimant or decedent, then are asked to divide the total hours per week amongst Statistics Canada's major household work categories.<sup>58</sup> Even then, litigants may include some categories but not others. If wage rates for only the tasks cited by the claimant are used, the result will render uneven compensation between plaintiffs.

Canadian courts have consistently preferred the application of **one hourly rate to value loss of housekeeping capacity.**<sup>59</sup>

### ***Why do forensic economists use a different replacement rate than cost of care experts?***

Cooper-Stephenson and Adjin-Tettey<sup>60</sup> distinguish between claims for loss of homemaking capacity and future cost of care recommendations:

The claim for loss of homemaking capacity is for the loss of the value of work which would have been rendered **by the plaintiff**, but which because of the injuries cannot now be performed. The plaintiff has lost the ability to work in a manner that would have been valuable to her- or himself as well as to others. The claim is not the same as that under future cost of care, which is for the value of services that must now be rendered **to the plaintiff**. It is true that the two claims may overlap...because the cost of care claim may include items which the plaintiff-homemaker would have performed but for the [incident]. However, a large portion of homemaking involves the performance of work for others, namely, the family unit, and in many cases the claim for loss of homemaking capacity is wholly distinguishable from that for cost of care, particularly if the plaintiff is hospitalized. (p. 441, emphasis added).

<sup>58</sup> These include meal preparation and clean-up; indoor cleaning; outdoor cleaning; laundry; indoor maintenance; outdoor maintenance; plant care; pet care; other household activities (paying bills, packing/unpacking); shopping and researching goods and services to purchase; caring for an adult in the household; and childcare (divided into 5 categories).

<sup>59</sup> K. Cooper-Stephenson and E. Adjin-Tettey, *Personal Injury Damages in Canada* (Toronto, Ontario: Carswell, a Thomson Reuters business), 2018 (3<sup>rd</sup> edition), at pp. 744-745; and Richardson, W. Augustus, *Claims for Loss of Housekeeping Capacity/Services in Personal Injury and Fatal Accident Cases* (Nova Scotia: The Continuing Legal Education Society of Nova Scotia), January 2001.

<sup>60</sup> K. Cooper-Stephenson and E. Adjin-Tettey, *Personal Injury Damages in Canada* (Toronto, Ontario: Carswell, a Thomson Reuters business), 2018 (3<sup>rd</sup> edition).

Cost of care experts, or life care planners, recommend reimbursement for housekeeping activities by contacting 3<sup>rd</sup>-party agencies who supply such services. These “agencies” are typically operated by business owners who contract out to individuals who perform the services requested. The “agency” rate charged reflects overhead costs, profit, and sales tax: none of which is counted in an individual or parent’s unpaid labour.

The life care planning approach reflects a hybrid “opportunity cost” approach, because instead of using an overall replacement rate for loss of housekeeping capacity, cost of care experts seek out market wages for individual tasks through a canvass. To our knowledge, cost of care experts do not use wage data from the sources identified above to place a value on the claimant’s unpaid time.

The approach used by cost of care/life planning experts versus quantum experts in establishing the appropriate replacement rate can be viewed within the prism of Statistics Canada’s valuation methods. The former relies on an “output-based” method, which assigns a purchase price to the final services being performed. The quantum expert uses an “input-based” method, which values the wage rates required to perform the tasks.

When a forensic economist is asked to value cost of care recommendations (including housekeeping assistance or other tasks), these are treated as inviolate. However, Brown Economic typically adds a comment on the impact on the cost of care sum if the rates in Table 2 above were to be used instead of the cost of care expert’s recommendation (if there is a difference between them). Some judges have awarded hourly replacement rates instead of agency rates: see *Thibert v. Zaw-Tun* (2006), *Malinowski v. Schneider* (2010), and *Kitching v. Devlin* (2016).<sup>61</sup> Brown Economic’s hourly replacement rates for housekeeping assistance have been explicitly accepted and used in several cases, such as *Mahe v. Boulianne* (2008), *Russell v. Turcott* (2009), and *Baker v. Poucette* (2016), though this is not an exhaustive list.

## Replacement Rate Is Combined with Time Use Data to Ascertain The Value Represented by Unpaid Work

The housekeeping rates in Table 2 above are combined either with the plaintiff’s or decedent’s record of time spent on household activities before the incident *or* from time use studies by government agencies, like Statistics Canada’s GSS time use surveys. As Cushing and Rosebaum state:

“...time use surveys are the most popular method for recording the number of hours devoted to household production. After statistics are collected on time spent in nonmarket production, a dollar value is assigned to each activity and multiplied by the number of hours to estimate value.”<sup>62</sup>

Once the time use information is gathered, the mathematical exercise is, shown by the formula above, to multiply the number of hours by the statistics regarding replacement rates for “nonmarket production” (household work). That is the purpose of the rates in Table 2 above. Note that this procedure follows the **replacement cost method**, which is the accepted method in Canadian jurisprudence, and the most frequently used one by forensic economists in the US.<sup>63</sup>

<sup>61</sup> This author testified on behalf of the plaintiff in this matter. Jeffrey, J. relied on Brown Economic’s hourly replacement rate of \$18.42 instead of the \$20 to \$30 hourly rate for housekeeping assistance testified to by the opposing party (para. 380).

<sup>62</sup> Matthew J. Cushing and David I. Rosenbaum. 2012. “Valuing Household Services: A New Look at the Replacement Cost Approach.” *Journal of Legal Economics* 19(1): p. 38.

<sup>63</sup> Matthew J. Cushing and David I. Rosenbaum. 2012. “Valuing Household Services: A New Look at the Replacement Cost Approach.” *Journal of Legal Economics* 19(1): p. 39.

As the above authors remark,

“The replacement wage method values household production time at the wage of a hired worker who performs the work. *The replacement wage method compensates tort victims for the work they or their deceased would have performed as if they were domestic workers in their own employment.* This approach is more widely used in studies of household time.”<sup>64</sup> (emphasis added)

### What is the HOUSEKEEPING DAMAGES CALCULATOR™ (HDC) @ [www.browneconomic.com](http://www.browneconomic.com)?

The **Housekeeping Damages Calculator™ (HDC)** at [www.browneconomic.com](http://www.browneconomic.com) allows the user to enter the plaintiff's or decedent's time use on all activities, and then calculates the pre-trial housekeeping loss (from the date of incident to date of trial/settlement) and then estimates the future loss of housekeeping as a discounted lump sum value. A PDF report is generated by the **Housekeeping Damages Calculator™** which details all of the calculations, the yearly computations, and the main assumptions. The fee for the **Housekeeping Damages Calculator™** is **\$190.00 + GST** and is payable online at a secure, encrypted page.

A sensitivity analysis is offered (in the same session) whereby the user can alter different variables, i.e., the *number of hours per week* to replace or the *hourly replacement rate*. The screen below shows the first step undertaken by a user of the online calculator: there is only one screen, and it asks for the basic information about the plaintiff (date of birth, date of incident, province/territory of residence, and the province/territory in which the incident occurred); and then asks for the total weekly hours (168) to be divided amongst an individual's main activities. For injury cases, the final questions (#8 and #9) ask the user to enter a percentage for the plaintiff's capacity for housework after the incident, and then a final percentage capacity once the plaintiff's capacity plateaued (or will plateau in the future) once some or all recovery has taken place.<sup>65</sup>

<sup>64</sup> Matthew J. Cushing and David I. Rosenbaum. 2012. "Valuing Household Services: A New Look at the Replacement Cost Approach." *Journal of Legal Economics* 19(1): p. 38.

<sup>65</sup> For obvious reasons, these questions are not included if the estimate is required in a fatality case. Instead, the user is asked how many family members were/are dependent on the decedent's housekeeping work in order to subtract the decedent's "benefit" from his/her own housework (akin to the PCR used in the dependency loss on income calculations, but *not* drawn from the PCRs, which are derived from consumer expenditure data; expenditure data has no relationship to the segment of unpaid work (housework) the decedent may have done for his/her benefit, only the amount of household income consumed by the decedent which is now "saved" upon his/her passing).



Below, we show the “input” screen and “output” screen from the HDC using an example.

Brown
Quantifying economic damages when wages or profits are interrupted by the negligence of others

Economic Consulting Inc.
Head Office: Suite 216, 5718-1A Street S.W. Calgary, AB T2H 0E8 Help Line: 1-888-232-2778

### Diary of Housekeeping Activities (Personal Injury)

#### In the Absence of the Incident

Note that this record-keeping form pertains to the hours of work the plaintiff used to do or was capable of doing had the incident not occurred.

Name:

Gender:  Female  Male

Date of Birth (mm/dd/yyyy):  /  /

Date of Incident (mm/dd/yyyy):  /  /

Number of Children at Home:  None  One or more

Province of residence:

Date of Calculation:

Province in which incident occurred:

	Hours Per Day	Hours Per Week
1. How many hours did you spend at paid work PER WEEK (or planned to spend if you were not yet in the work force, were changing jobs, or were on a leave of absence)?		<input type="text" value="38.5"/>
2. How many hours did you sleep ON AVERAGE, per night?	<input type="text" value="7.0"/>	<input type="text" value="49.0"/>
3. How much time did you spend, PER DAY, on personal care (e.g., showering, dressing, eating meals, etc.), volunteering, spirituality, studying/learning, travel (commuting)?	<input type="text" value="2.5"/>	<input type="text" value="17.5"/>
4. How much time did you spend each WORKDAY (i.e., whatever days on which you worked, which could have been on a weekend or at night if you worked shift work) on all leisure activities (e.g., television, movies, sporting events, visiting friends and family, etc.)?	<input type="text" value="2.5"/> hours per day multiplied by <input type="text" value="5"/> days AT work	<input type="text" value="12.5"/>
5. How much time did you spend each DAY OFF (i.e., whatever days you had off work) on all leisure activities (e.g., television, movies, sporting events, visiting friends and family, etc.)?	<input type="text" value="5.5"/> hours per day multiplied by <input type="text" value="2"/> days OFF work	<input type="text" value="11"/>
6. TOTAL #1 to #5		<input type="text" value="128.5"/>
7. Regular housekeeping hours = 168 hours per week less total hours (in #6):		<input type="text" value="39.5"/>
8. Percentage of household work you could do immediately after the incident:		<input type="text" value="50"/> %
9. If you expect your condition to improve, when do you expect to reach a steady level, and what percentage of household work do you expect to be able to do at that time? (Please leave blank if you do not expect your condition to improve.)		Condition will reach a steady level on <input type="text" value="January 1, 2024"/> to <input type="text" value="80"/> %

We explain each question asked in the “input” screen above:

- 1) **The question about gender:** we know time spent on housework differs between men and women, as do the health rates and the mortality rates, so this question must be answered.
- 2) **Date of birth:** this question is necessary for the age-appropriate health and mortality contingencies to be applied.
- 3) **Date of incident:** this date divides the losses into pre-trial losses (date of incident to date of settlement/trial) and future losses (from the date of settlement/trial to age 80, or when capacity is set at 100%), and discounted to present value.
- 4) **Number of children at home:** if the user selects “One or more”, the calculator allows for an empty-nest adjustment at age 45, which reduces the expected hours of housework, consistent with data that shows parents do less housework for children as they age.
- 5) **Province of residence & province in which incident occurred:** This is distinguished because the **province of residence determines the hourly rate** to be used (see Table 3) whereas the **province in which the incident happened determines the discount rate** to be used in the future loss calculations, since many provinces and NWT/Nunavut have established mandated discount rates to use in civil litigation.
- 6) **Questions #8 and #9:** these two questions ask how much the plaintiff’s capacity for housework was reduced following the incident, and then if that capacity *has changed* since the incident or *will change* (improve or decline) sometime in the future after more treatment or time. In conjunction with stipulating the percentages, the user can enter the year in which the capacity changed in question #9 from that entered in question #8. As noted above, these questions are different in fatality cases – instead the number of people in the household is queried.

If plaintiff- or decedent-specific information is not yet available to use for the main input screen of the **Housekeeping Damages Calculator**<sup>TM</sup>, the user can rely on average time use estimates for various activities (sleeping, working, personal care, eating at home, socializing/dining out, television viewing & reading, attending entertainment events, and active leisure (sports, computer use, playing video games)) cited by Canadians.<sup>66</sup> For a summary of this information for the purpose of quantifying housekeeping awards in litigation cases, see *Table A: Time per day/week on Various Activities, Canadians, 2010* in **Brown’s Economic Damages Newsletter**, “Time Use: Average Time spent on Activities & Utilization for the **Housekeeping Damages Calculator**<sup>TM</sup> (“HDC”),” September/October 2012, vol. 9, issue #8, available upon request.

<sup>66</sup> Statistics Canada’s catalogue *General Social Survey – 2010 Overview of the Time Use of Canadians* (2012).

# Brown Economic Consulting Inc.

*Quantifying economic damages when wages or profits are interrupted by the negligence of others*

Head Office: Suite 216, 5718-1A Street S.W. Calgary, AB T2H 0E8 Help Line: 1-888-232-2778

1. **Print** this report by clicking on the print button of your browser. It is recommended that you preview the report (print preview) prior to printing to ensure that your print margins are not too large.
2. If you would like to adjust your input parameters and calculate additional scenarios, click on the "Revise Inputs & Recalculate" button below.
3. Closing this report page will end your session. If you would like to print this report page or revise your inputs and recalculate, do so prior to closing this page.

## Housekeeping Damages Calculator (Personal Injury)

Calculated on: Tuesday, April 30, 2024

Reference ID: 0-1714495051

Name:	<b>Newsletter sample</b>
Gender of the injured:	<b>Female</b>
Date of Birth :	<b>January 23, 1980</b>
Date of Incident:	<b>October 10, 2020</b>
Age at time of incident:	<b>40</b>
Age at time of calculation:	<b>44</b>
Province of residence:	<b>Ontario</b>
Province of incident:	<b>Alberta</b>
- Value at age 40 (2020 \$): (19.75 hours/week lost based on 50% capacity)	<b>\$18,994</b>
- Value at age 44 (2024 \$): (Changed to 80% capacity)	<b>\$8,105</b>
- Value at age 45 (2024 \$):	<b>\$6,890</b>

Past Loss (from date of incident to the date this calculation is made):	\$67,025
Present Value of Future Loss (from the date this calculation is made to when the plaintiff is 80 years old):	\$141,046
<b>Total Loss of Housekeeping Capacity</b>	<b>\$208,071</b>

View Details

The “output” screen from the **HDC** above shows how the “input” screen was used to provide an estimate of lost housekeeping capacity. The claimant’s date of birth and date of incident are repeated, and the claimant’s age on each date is shown. Then we see that although the litigant resides in Ontario, the interruption occurred in Alberta. Therefore, we rely on the Ontario hourly rate from Table 2 (\$22.76) to reflect the plaintiff’s replacement cost but use the prejudgment interest rates and discount rates applicable in Alberta to present value the claim for reasons of jurisdiction.

Annual replacement values are then shown at the plaintiff’s specific ages: at age 40, when the incident happened (\$18,994 based on a 50% capacity loss resulting in 19.75 lost hours); at age 44, when the plaintiff’s capacity to do housework increased from 50% to 80%, resulting in a lower annual replacement cost (\$8,105); and finally at age 45, when the reduction is applied for children aging out of housework (\$6,890). The pre-trial loss reflects all of these changes to the annual replacement cost. The future loss uses the annual cost of \$6,890 going forward to the plaintiff’s age 80 (the usual age to which housekeeping losses are calculated<sup>67</sup>), but inclusive of negative mortality and health contingencies. These values result in a total, discounted loss (net of negative contingencies) equal to **\$208,071**.

The **HDC** then offers two options. The first is to “**Revise Inputs & Recalculate**” which allows the user to modify how many hours the plaintiff spent on household chores; the replacement rate (if different from the **HDC**’s replacement rates); or the degree of recovery, which could change the capacity rate. These results do not form the **HDC** report but give counsel or the insurer an opportunity to implement modifications (for the same file, during the same session) if need be.

The second option is to check off “**View details**”. The screen shown above is the “output” screen but the details provide the main assumptions used in the calculation, such as the relevant hourly replacement rate, hours lost, and sources for economic assumptions along with year-by-year schedules showing the annual losses.

## What Are the Special Contingency Factors for Housekeeping Losses?

### **Health Contingency (Negative)**

As in loss of income cases, we apply negative contingencies for the possibility that the person would have done less housework as she or he aged, due to four possible factors:

- a) **The “hobby” factor:** People change the distribution of activities such that some tasks become hobbies, thus blurring the definition of “housework”. This can be the case for tasks such as gardening, pet care, baking and renovating. It is our understanding that time spent on hobbies (i.e., leisure) is compensated by non-pecuniary claims, so should not be included in pecuniary claims for loss of housekeeping capacity.
- b) **The decline in “heavy” chores:** Many seniors decrease their involvement in “heavy” household chores, and particularly in childcare, other than babysitting grandchildren. There are participation rates available for males and females in Canada, under and over age 65, which show a decline in some housekeeping activities.

<sup>67</sup> C.L. Brown, **Damages: Estimating Pecuniary Loss** (Toronto, Ontario: Canada Law Book, a Thomson Reuters business), 2024 (35<sup>th</sup> edition), chapter 9 “Valuation of Housekeeping Capacity”, section 9:26 “Cease at Age 80”, pp. 9-95 to 9-99. This does not mean that extending the valuable services calculation to age 80 implies valuing household work to the end of life. Mortality statistics extend to age 109, the latest age for which we have mortality data. The time use data from Statistics Canada shows that Canadians over age 65 consistently report performing household chores long past the age of retirement.

- c) **The interpretation of “time”:** Data on hours spent on housekeeping chores shows consistently that seniors spend more time on household work. However, this could be because they either *have more time* to do the chores; or they *take more time* to do them. The data obscures these impacts.
- d) **Ailing health:** just as in the case of working at a paid job, ill health can interfere with performing unpaid work.

None of these effects can be captured by the time use data, which on its face merely collects the time people say they spend on an activity.

In *Mahe v. Boulianne* (2008),<sup>68</sup> Marshall J. commented on the inclusion of negative contingencies after retirement age for failing health (the “health” contingency) and mortality:

...with respect to future impairment of the Plaintiff's capacity to carry out such work, I find Ms. Brown's use of statistics from Statistics Canada to be helpful. I accept her views respecting the likely hours an individual spends on housekeeping after retirement and the onset of advancing years. She has also considered contingencies for failing health and mortality. In this case I find it is probable that some tasks that the Plaintiff presently carries out with pain, such as gardening, will probably be affected in the future. Due to the compromised situation of his spine and the normal aging processes, he will probably be unable to carry out some of these tasks at all in the future, when he would otherwise have been able to do so. (para. 115)

In *Palmquist v. Ziegler* (2010),<sup>69</sup> Read, J. accepted Brown Economic's negative health contingency:

The assumptions made by Ms. Brown at paragraph 6.6 of her original report, *respecting such other negative contingencies as the health* of Mr. Palmquist...are, in my view, *all valid contingencies to consider* and I direct that these be included in the calculations to be done in respect to the housekeeping loss. (para. [272], emphasis added)

In *Warner v. Calgary Regional Health Authority (Rockyview General Hospital)* (2020),<sup>70</sup> Macleod, J. also commented on the negative health contingency in the context of awarding housekeeping costs contained in cost of care recommendations:

[87] The amount of damages claimed for future cost of care by the Plaintiffs does not include a health contingency for Ms. Warner's future household services. I find that Ms. Brown's proposed reduction is helpful and I accept her views that this reduction must be calculated into the future household services. *I reduce the cost of those services by 20% to reflect health contingencies* (emphasis added).

Our source for the negative “health” contingency is from Expectancy Data, *Healthy Life Expectancy: 2018 Tables*. Shawnee Mission, Kansas, 2020. Age- and gender-specific data such as published in this catalogue are not yet available for Canadian individuals (but accepted nonetheless by Macleod, J. in *Warner* (2020) when this objection was raised).

<sup>68</sup> (2008) ABQB 680, filed Dec. 17, 2008. The author testified on behalf of the plaintiff in this matter.

<sup>69</sup> 2010 ABQB 337. This author testified on behalf of the plaintiff in this case.

<sup>70</sup> 2020 ABQB 172, para. [87]. This author testified on behalf of the defendant in this case.



**ASIDE:** The “health” contingency will **reduce** housekeeping loss estimates by as much as -11% to -35% **each year**. Quantum experts who fail to include this contingency therefore overstate the award accordingly, depending on how old the plaintiff/decedent is/was.

### ***Mortality Contingency (Negative)***

In all cases, quantum experts routinely incorporate a mortality contingency for the possibility that the person might pass away and thus not do housework. For most of the years of the calculation, this is a small negative contingency but does become important in the calculation after retirement age and until age 80 (when the housekeeping calculations cease). Our main sources for the negative “mortality” contingency are: Statistics Canada’s *Life Tables, Canada, Provinces and Territories, 2020 to 2022* catalogue no. 84-537-X (Minister of Industry: 2023) and Statistics Canada, *Methods for Constructing Life Tables for Canada, Provinces and Territories* catalogue no. 84-538-X (Minister of Industry: 2023).

We tailor the mortality contingency to the plaintiff or decedent based on **age, gender and province/territory** – the only variables by which the mortality rates are published. For information on sub-standard mortality and how it can be reflected in interrupted earnings cases, see Brown, C.L. (2021) “Sub-Standard Mortality: Serious Implications for Injury & Fatality Cases” **HEARSAY Canadian Defence Lawyers** December 2021 edition.

### ***Contingencies Specific to Fatality Cases***

These contingencies refer to either the probability that the original couple might have divorced or dissolved their common-law relationship, had the decedent not died in the incident in question; or, that the survivor might now remarry, or re-couple, given the decedent has passed on. It is important to remember that one of these contingencies (**divorce**) pertains to the “but-for” scenario: that is, *what would have happened to the marriage/common-law union if the incident had not occurred*. The other contingency (**remarriage**) pertains to the fact situation *now that the incident has occurred and the decedent has passed on*.

In virtually all fatality cases, it is incumbent upon the quantum expert to present loss of dependency awards (on income and valuable services) *without* remarriage and divorce contingencies; and then *with* remarriage and divorce contingencies (separately and together). The reason for this is that the **courts (or parties to the negotiations) determine whether or not these contingencies should be applied**, given the facts at hand – not the quantum expert. The quantum expert merely supplies the mathematical impact of these contingencies.

It is also important to remember that although contingencies for remarriage and divorce are available, they are only applicable by gender, age and marital status (the latter in the case of remarriage). In other words, there are no statistics for remarriage or divorce that take into account qualitative factors, such as the presence of minor children, appearance, differing religions, pre-marital birth, or wealth of a possible suitor.<sup>71</sup> However, the applicability of these

<sup>71</sup> There are studies that have attempted to assess the impact of various factors on the probability of divorce and remarriage. These studies, however, do not permit the quantum expert to convert these findings into age- and gender-specific conditional probabilities that are needed for damage assessments. For instance, see Battams, Nathan. *Divorce in Canada: A Tale of Two Trends*. *The Vanier Institute of the Family*, March 22, 2022; Statistics Canada. *A fifty-year look at divorces in Canada, 1970 to 2020*. *The Daily*, released March 9, 2022; Bureau of Labor Statistics, *Marriage and divorce: patterns by gender, race, and educational attainment*. October 2013. Accessed at <https://www.bls.gov/opub/mlr/2013/article/>; Scott, Shelby, *et al.* “Reasons for Divorce and Recollections of Premarital Intervention: Implications for Improving Relationship Education”. *Couple Family Psychol.* 2013 Jun;2(2):131-145.



statistics by age *can* act as a proxy for the length of the marriage. For instance, statistics show that the longer a couple remains married and the older they are, the less likely they are to divorce as time elapses. Statistics demonstrate vividly that divorce rates rise steeply during the first few years of marriage (1 to 9 years), then drop off to less than 5% for couples who have been together for 30-34 years.<sup>72</sup> These are overall divorce rates, however. The actual annual rate of divorce hovers around 1 to 2% per year. It is the *cumulative* nature of this contingency that decreases dependency and housekeeping estimates in fatality cases by 3% to 30% overall.<sup>73</sup>

A final caveat concerns whether or not the survivor has remarried or cohabited with a partner since the incident before the quantum expert calculates the prospective dependency loss. In such cases, it is possible – using Brown Economic’s software – to compare, year-by-year, the decedent’s household contribution to the new partner’s household contribution. All that is needed is for the survivor to complete two, separate forms such as our *Diary of Household Activities*: one that itemizes the decedent’s time use, and the second that itemizes the new partner’s time use. At the same time, if the survivor gave birth to more children with the new partner since the interruption, the configuration of the pre-incident and post-incident households must be known in order to properly assess dependency losses on valuable services (and on income).

### **Remarriage Contingency (Negative)**

The main aspect of the remarriage contingency is to ensure your quantum expert has applied probabilities that are based on widow(ers) only – and that they exclude divorcees. The reason for this is apparent from casual observation and corroborated by statistics in North America: widowers are far less likely to eventually remarry than are divorcees; and when they do, they take longer than divorced persons, so a period of dependency in a fatality case still exists prior to any remarriage or cohabitation date.

Statistics Canada does not release remarriage rates that are for widow(ers) only as a standard practice. The published rates combine both widow(ers) and divorcees. Experts who use the published rates will **OVERSTATE** the propensity and timing of remarriage, and as a result will **UNDERSTATE** the fatality awards. The quantum expert must obtain a custom tabulation from Statistics Canada in order to incorporate remarriage rates for widow(ers) only. Justice Read in *Palmquist v. Ziegler* (2010) accepted Brown Economic’s remarriage contingency over the defense expert’s contingency primarily because of this distinction, i.e., Brown Economic’s contingency was based strictly on widow(ers) whereas the defense expert’s data included divorcees – and as a consequence, reduced the dependency loss awards unnecessarily.

Of course, the remarriage rates must be applied separately for women and men, since the propensity to remarry differs for women than for men: women are less likely to remarry once widowed, and when they do, take longer to remarry than men. Remarriage rates are also, as we would expect, lower for older people than for younger people; this contingency will have a large impact in cases where the decedent and survivor were young (i.e., in their 20s or 30s) but will have a smaller impact in cases where the decedent and survivor are older (mid- to late-40s and above).

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<sup>72</sup> See Figure 1 in **Brown’s Economic Damages Newsletter**, “Divorce rates in fatality cases” April 2006, vol. 3, issue #4.

<sup>73</sup> It is important to note that the total or global impact of the divorce contingency on quantum loss estimates cannot be reported until the annual probabilities are applied. The specific impact of this contingency differs according to the case-specific facts.

## Divorce Contingency (Negative)

The most important aspect of integrating a divorce contingency in fatality cases depends on the *nature of the couple's union prior to the incident*. In cases where the spouses in question were legally married, Statistics Canada publishes divorce rates by gender, age and province<sup>74</sup> that are readily available. The most recent divorce rates are from 2020 and are available for each province and territory.<sup>75</sup> Note that divorce rates by number of previous marriages are not published.

If the couple in question had been common-law partners rather than legal spouses, it is more appropriate to use rates of common-law dissolution ("CLU" rates) than divorce rates. This is due to the fact that the rate of CLU dissolution is considerably higher than the rate of divorce, at least for younger couples.<sup>76</sup> Brown Economic purchased CLU rates from Statistics Canada to use in fatality cases when the couple cohabited rather than married. Same-sex couples can also be handled in our software.

## Is the Housekeeping Award a Pecuniary or Non-Pecuniary One?

Some lawyers argue that a simple way of accounting for loss of housekeeping capacity is to fold it into the non-pecuniary award for pain and suffering. Cooper-Stephenson and Adjin-Tettey state the following with regard to this idea in 2018:

**The claim for loss of homemaking capacity is *prima facie* a pecuniary loss.** If a replacement expense has actually been incurred, or other pecuniary gains have been lost by lack of homemaking work, these losses are *de facto* pecuniary, and are now recognized as such *de jure*. They were always treated this way in fatal accident cases.

As for actually quantifying pre-trial homemaking, it was held in *Fobel v. Dean*:<sup>77</sup> (1) that while the loss should be assessed as a loss of amenity, "the replacement cost is a relevant component or element in arriving at [its] dollar value", and (2) that the **number ultimately calculated should be separated from the conventional award for traditional non-pecuniary loss, so that both could be adequately reviewed on appeal.**<sup>78</sup> (emphasis added)

Cooper-Stephenson and Adjin-Tettey observe the necessity for separating out the housekeeping loss award as a pecuniary subtotal in its own right in the event the trial decision is appealed.<sup>79</sup>

<sup>74</sup> This is important, as the national average obscures some important differences between provinces and territories in Canada. For instance, although the total divorce rate (by the 30<sup>th</sup> year of marriage) was 32% in 2020 – meaning that for every 100 divorces, 32 of them end in divorce by the 30<sup>th</sup> year of marriage – this obscures the fact that the overall divorce rate is much lower in Newfoundland and Labrador (16%) and much higher in Nova Scotia, New Brunswick and Alberta (42%). The "average" rate of roughly 33% (33 out of 100 marriages) describes couples in Prince Edward Island (30%), Quebec (34%), Manitoba (31%), Saskatchewan (34%) and British Columbia (38%). Lower-than-average divorce rates are prevalent in Ontario (27%) and Northwest Territories including Nunavut (0%). (Source: Statistics Canada. Table 39-10-0054-01 – *Number of divorces and divorce rate per 1,000 marriages, by duration of marriage*, released November 14, 2022).

<sup>75</sup> The 2020 age- and gender-specific divorce rates for most provinces and territories are available from Statistics Canada (**Statistics Canada. Table 39-10-0053-01 – Number of persons who divorced in a given year and divorce rate per 1,000 married persons, by age group and sex or gender) by province and territory.** (The most recent age- and gender-specific divorce rates for Canada and Ontario are from 2017).

<sup>76</sup> For additional commentary on divorce rates vis-à-vis CLU rates, see **Brown's Economic Damages Newsletter**, "The Divorce Contingency: negative contingency in fatality cases – update with 2005 data" May 2010, vol. 7, issue #5.

<sup>77</sup> 1991, 83 D.L.R. (4<sup>th</sup>) 385, 1991 CarswellSask 216, 9 C.C.L.T. (2d) 87, [1991] 6 W.W.R. 408, 93 Sask. R. 103, 4 W.A.C. 103, [1991] S.J. No. 374 (Sask. C.A.), at 402, leave to appeal refused (1992), 138 N.R. 404 (note), [1992] 1 S.C.R. vii (note), 87 D.L.R. (4<sup>th</sup>) vii (note), [1992] 2 W.W.R. lxxii (note), 97 Sask. R. 240 (note), 12 W.A.C. 240 (note), [1991] S.C.C.A. No. 433 (S.C.C.).

<sup>78</sup> K. Cooper-Stephenson and E. Adjin-Tettey, *Personal Injury Damages in Canada* (Toronto, Ontario: Carswell, a Thomson Reuters business), 2018 (3<sup>rd</sup> edition), at pp. 207 & 746.

<sup>79</sup> This issue was commented upon by the Court of Appeal in *Beam v. Pittman* (1997), 147 Nfld. & P.E.I.R. 166 (C.A.), affd 122 Nfld. & P.E.I.R. 181 (S.C.) trial decision at para. 38.

Reported cases that have considered this issue specifically are reviewed in section 9.2 of this author's text. These cases include:<sup>80</sup>

- *Carter v. Anderson* (1998), 160 D.L.R. (4<sup>th</sup>) 464 at p. 473, 168 N.S.R. (2d) 297 (C.A.)
- *Bertin v. Kristoffersen* (2001), 244 (N.B.R. (2d) 315 (C.A.)
- *Beam v. Pittman* (1997), 147 Nfld. & P.E.I.R. 166 (C.A.), affd 122 Nfld. & P.E.I.R. 181 (S.C.).
- *Cairns v. Harris* (1994), 117 Nfld. & P.E.I.R. 216 (S.C.)
- *Thibert v. Zaw-Tun* (2006), 64 Alta. L.R. (4<sup>th</sup>) 41, 151 A.C.W.S. (3d) 232 (Q.B.)
- *Russell v. Turcott* (2009), 64 C.C.L.T. (3d) 11, 2009 ABQB 19
- *McIntyre v. Docherty* (2009) 308 D.L.R. (4<sup>th</sup>) 213, 2009 ONCA 448
- *Riehl v. Hamilton (City)* 2012 CarswellOnt 6964, 2012 ONSC 3333
- *Kim v. Lin*, 2018 CarswellBC 471, 2018 BCCA 77
- *St. Marthe v. O'Connor*, 2019 CarswellOnt 3497, 2019 ONSC 1585

Cooper-Stephenson and Adjin-Tettey also remark on the relatively common situation when family members or friends provide the housekeeping services formerly done by the plaintiff:

... compensation is now recognized where such substitute homemaking work, or homemaking/family business work, has been carried out voluntarily by third parties, even where there was no agreement for reimbursement.

**...The old approach, that no damages should be awarded because the family helped out, has now been clearly rejected.**<sup>81</sup> (emphasis added)

This was affirmed in *McIntyre v. Docherty*,<sup>82</sup> a 2009 landmark decision in Ontario that was “ground-breaking” and “responsible for a widespread cultural shift” with its recognition of how important housework is.<sup>83</sup> The appeal court confirmed that plaintiffs are not required to incur out-of-pocket expenses for housekeepers in order to be successful in being awarded a housekeeping claim, an observation that arose many years ago (in 1979) in *Daly v. General Steam Navigation Col. Ltd.*<sup>84</sup>

<sup>80</sup> C.L. Brown, **Damages: Estimating Pecuniary Loss** (Toronto, Ontario: Canada Law Book, a Thomson Reuters business), 2024 (35<sup>th</sup> edition), pp. 9-4 to 9-33. This is not purported to be an exhaustive list of cases on this point.

<sup>81</sup> K. Cooper-Stephenson and E. Adjin-Tettey, *Personal Injury Damages in Canada* (Toronto, Ontario: Carswell, a Thomson Reuters business), 2018 (3<sup>rd</sup> edition), at pp. 210-212.

<sup>82</sup> (2009), 308 D.L.R. (4<sup>th</sup>) 213, 2009 ONCA 448.

<sup>83</sup> Kathryn Blaze Carlson, “A clean fight. A court ruling on housework recognizes its worth, but gets mixed reaction” *National Post*, June 13, 2009.

<sup>84</sup> [1979] 1 Lloyd's Rep. 257 (Q.B. (Adm. Ct.)).

**Consumer Price Index**



**Unemployment Rate**

From April 2023 to April 2024*		For the month of April 2024	
(rates of inflation)			
Canada**	2.7%	Canada:	6.1%
Vancouver:	2.7%	Vancouver:	5.3%
Toronto:	3.2%	Toronto:	7.7%
Ottawa:	2.5%	Ottawa:	5.3%
Montréal:	3.1%	Montréal:	5.7%
Edmonton:	2.8%	Edmonton:	6.4%
Calgary:	3.6%	Calgary:	7.7%
Halifax:	3.4%	Halifax:	5.1%
St. John's, NF:	2.9%	St. John's, NF:	7.1%
Saint John, NB:	3.1%	Saint John, NB:	6.5%
Charlottetown (PEI):	2.7%	Charlottetown (PEI):	6.8%
* Using month-over-month indices. Source: Statistics Canada.			
** 12 month rolling average up to April 2024 is 3.2% (see non-pecuniary awards table).			

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# UPDATING NON-PECUNIARY AWARDS FOR INFLATION (APRIL 2024, CANADA)

Year of Accident/ Year of Settlement or Trial	"Inflationary" Factors*	Non-Pecuniary Damages - Sample Awards				
		\$10,000	\$25,000	\$50,000	\$75,000	\$100,000
April 2023-April 2024	1.032	\$10,318	\$25,794	\$51,588	\$77,382	\$103,175
Avg. 2022-April 2024	1.048	\$10,484	\$26,210	\$52,420	\$78,630	\$104,840
Avg. 2021-April 2024	1.120	\$11,197	\$27,992	\$55,985	\$83,977	\$111,969
Avg. 2020-April 2024	1.158	\$11,577	\$28,943	\$57,886	\$86,828	\$115,771
Avg. 2019-April 2024	1.166	\$11,661	\$29,151	\$58,303	\$87,454	\$116,605
Avg. 2018-April 2024	1.189	\$11,888	\$29,720	\$59,439	\$89,159	\$118,878
Avg. 2017-April 2024	1.216	\$12,157	\$30,392	\$60,784	\$91,175	\$121,567
Avg. 2016-April 2024	1.235	\$12,351	\$30,877	\$61,754	\$92,631	\$123,508
Avg. 2015-April 2024	1.253	\$12,527	\$31,319	\$62,637	\$93,956	\$125,275
Avg. 2014-April 2024	1.267	\$12,669	\$31,671	\$63,343	\$95,014	\$126,686
Avg. 2013-April 2024	1.291	\$12,910	\$32,275	\$64,550	\$96,825	\$129,099
Avg. 2012-April 2024	1.303	\$13,031	\$32,577	\$65,155	\$97,732	\$130,309
Avg. 2011-April 2024	1.323	\$13,229	\$33,072	\$66,144	\$99,216	\$132,288
Avg. 2010-April 2024	1.361	\$13,614	\$34,035	\$68,069	\$102,104	\$136,138
Avg. 2009-April 2024	1.386	\$13,857	\$34,641	\$69,283	\$103,924	\$138,565
Avg. 2008-April 2024	1.392	\$13,922	\$34,806	\$69,611	\$104,417	\$139,222
Avg. 2007-April 2024	1.423	\$14,227	\$35,568	\$71,135	\$106,703	\$142,270
Avg. 2006-April 2024	1.453	\$14,531	\$36,327	\$72,654	\$108,981	\$145,308
Avg. 2005-April 2024	1.482	\$14,821	\$37,054	\$74,107	\$111,161	\$148,215
Avg. 2004-April 2024	1.515	\$15,150	\$37,875	\$75,750	\$113,625	\$151,500
Avg. 2003-April 2024	1.543	\$15,432	\$38,579	\$77,158	\$115,737	\$154,316
Avg. 2002-April 2024	1.586	\$15,858	\$39,644	\$79,288	\$118,932	\$158,576
Avg. 2001-April 2024	1.622	\$16,216	\$40,540	\$81,080	\$121,620	\$162,160
Avg. 2000-April 2024	1.662	\$16,624	\$41,560	\$83,120	\$124,680	\$166,240
Avg. 1999-April 2024	1.708	\$17,077	\$42,693	\$85,385	\$128,078	\$170,770
Avg. 1998-April 2024	1.737	\$17,373	\$43,432	\$86,863	\$130,295	\$173,726
Avg. 1997-April 2024	1.755	\$17,546	\$43,864	\$87,728	\$131,592	\$175,456
Avg. 1996-April 2024	1.783	\$17,830	\$44,574	\$89,149	\$133,723	\$178,298
Avg. 1995-April 2024	1.811	\$18,111	\$45,277	\$90,554	\$135,831	\$181,108
Avg. 1994-April 2024	1.850	\$18,500	\$46,249	\$92,498	\$138,747	\$184,996
Avg. 1993-April 2024	1.853	\$18,530	\$46,325	\$92,649	\$138,974	\$185,299
Avg. 1992-April 2024	1.888	\$18,876	\$47,190	\$94,381	\$141,571	\$188,762
Avg. 1991-April 2024	1.916	\$19,157	\$47,892	\$95,783	\$143,675	\$191,567
Avg. 1990-April 2024	2.023	\$20,235	\$50,587	\$101,174	\$151,761	\$202,348
Avg. 1989-April 2024	2.120	\$21,204	\$53,009	\$106,018	\$159,026	\$212,035
Avg. 1988-April 2024	2.226	\$22,260	\$55,651	\$111,301	\$166,952	\$222,603
Avg. 1987-April 2024	<b>2.315</b>	\$23,154	\$57,886	<b>\$115,771</b>	\$173,657	\$231,542
Avg. 1986-April 2024	2.416	\$24,163	\$60,408	\$120,817	\$181,225	\$241,634
Avg. 1985-April 2024	2.518	\$25,176	\$62,941	\$125,881	\$188,822	\$251,762
Avg. 1984-April 2024	2.617	\$26,174	\$65,434	\$130,868	\$196,302	\$261,737
Avg. 1983-April 2024	2.730	\$27,300	\$68,251	\$136,501	\$204,752	\$273,003
Avg. 1982-April 2024	2.890	\$28,903	\$72,257	\$144,513	\$216,770	\$289,027
Avg. 1981-April 2024	3.201	\$32,013	\$80,032	\$160,065	\$240,097	\$320,129
Avg. 1980-April 2024	3.601	\$36,012	\$90,030	\$180,059	\$270,089	\$360,118
Avg. 1979-April 2024	3.966	\$39,660	\$99,150	\$198,299	\$297,449	\$396,598
Jan. 1978-April 2024	<b>4.517</b>	\$45,174	\$112,934	\$225,869	\$338,803	<b>\$451,738</b>

\$115,771 = \$50,000 x 2.315 represents the dollar equivalent in April 2024 of \$50,000 based on inflation increases since 1987. Similarly, \$451,738 (= \$100,000 x 4.517) represents the dollar equivalent in April 2024 of \$100,000 in 1978 based on inflationary increases since the month of January 1978.

\* Source: Statistics Canada, Consumer Price Index, monthly CPI release, rolling average (except for Jan. 1978).



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