



Brown's Economic Damages Newsletter

September 2025

Volume Twenty Two Issue 2

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Housekeeping Capacity Claims

*** NEW ***

Time Use Data from Statistics Canada's 2022 General Social Survey (GSS)

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In this newsletter issue, we present the most recent time use data from Statistics Canada which can be used to measure time spent on housekeeping activities for housekeeping claims in civil litigation (both injury and fatality cases). This data has been purchased from Statistics Canada's **2022 General Social Survey** ("GSS"), which

ANNOUNCEMENT re: interest rates in civil litigation

On March 31, 2025, Brown Economic issued a **WHITE PAPER** entitled *Calculating Present Values in Civil Litigation: A Review of Past, Present & Future Interest Rates (UPDATES from 2020 and 2023)*, including commentary on the 'dumbest tariff war' started by the U.S. federal government. This paper was written over the November 2024 to March 2025 time period so addressed some of the pressures and uncertainty that could affect the Canadian economy that emanated from the U.S. since the 2024 election. As part of writing the 95-page **WHITE PAPER**, we drew the conclusion that interest rates would remain similar or decrease in the short-term, which is relevant for non-mandated discount rate regions (Alberta, Yukon territory, and Newfoundland and Labrador). This conclusion was based on a synthesis of many economic sources and has now been confirmed by the Bank of Canada's interest rate announcement on September 17, 2025 to cut the overnight rate from 2.75% to 2.50%.¹

To request a copy of Brown Economic's **WHITE PAPER** on real interest rates for civil litigation, please email us at info@browneconomic.com. The **WHITE PAPER** was also distributed by Canadian Defence Lawyers in their **HEARSAY** publication (Sept. 2, 2025).

¹ Bank of Canada. *Bank of Canada lowers policy rate to 2½%*. Press release, September 17, 2025.

was released in June 2024, and updates the previous cycle on time use from 2015. Brown Economic invests in 50 household “role groups” as defined by Statistics Canada, displaying time spent on unpaid work, varying by gender, age, employment status, partner’s employment status, presence or absence of children, and age of children. This is the most tailored time use data that is available to match to an individual claimant’s or widow(er)’s *Diary of Household Activities*[™], a form available at www.browneconomic.com > **CHECKLISTS & DIARIES** and affirmed by the Alberta court of appeal in *Baker v. Poucette* (2017) for use in quantifying housekeeping capacity claims. We also reproduce housekeeping replacement rates in 2025 dollars for all provinces and territories in Canada (see Table 4 below). These rates are utilized in our **Housekeeping Damages Calculator**[™] (“HDC”) at www.browneconomic.com. Screens from the **HDC** uses hourly replacement rates and special contingencies to derive housekeeping loss awards in either injury or fatality cases and an example is shown below. The charge for the **HDC** to assess housekeeping losses equals \$190 + GST (secure, encrypted credit card process). Brown Economic’s website summarizes the updates made to the **HDC** since its release in 2001.

We also review the notion of a negative yearly “health contingency” which Brown Economic applies in all housekeeping calculations, similar to a disability contingency in income loss claims. To our knowledge, we may be the only forensic expert who applies a negative “health contingency” in housekeeping loss calculations, although this notion is well accepted in U.S. forensic practice.² The application of a negative housekeeping contingency for failing health or age-related changes has been accepted in numerous cases in which this author has testified (for both plaintiff and defense); and Canadian Defence Lawyers published Ms. Brown’s article in 2020 entitled “*Warner v. Calgary Regional Health Authority (Rockyview General Hospital)* 2020 ABQB 172: A Negative Contingency for Pre-Existing Health Issues and Household Costs”.

² Michael L. Brookshire and Elizabeth A.W. Gunderson, “Estimating Lost Household Services: Persons Over 50” (2000) *Journal of Forensic Economics* 13(1), pp. 11-21.

Prior issues of **Brown Economic's Damages Newsletter**³ related to this topic:

- ◆ "Valuing Household Rates in Civil Litigation, and how they are used in the **Housekeeping Damages Calculator**TM @ www.browneconomic.com" May 2024, vol. 21, issue #2
- ◆ "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 and in the online **Housekeeping Damages Calculator**TM @ www.browneconomic.com", January/February 2017, vol. 14, issue 1
- ◆ "2016 Housekeeping Hourly Rates: used in court-ready assessments; used in the online **Housekeeping Damages Calculator**TM @ www.browneconomic.com; plus 4 recent cases awarding housekeeping damages", May 2016, vol. 13, issue 5
- ◆ "2015 Housekeeping hourly rates: used in court-ready assessments and for the online **Housekeeping Damages Calculator**TM @ 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**TM ("HDC")", September/October 2012, vol. 9, issue 8
- ◆ "Fatality Cases: Unique aspects related to quantum awards", Nov. 2011, vol. 8, issue 9
- ◆ "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
- ◆ "Cost of care/valuable services assessments: what role does a quantum expert fulfill in quantifying cost of care awards?", November 2008, vol. 5, issue 9
- ◆ "Household Replacement Rates and the 'Health' contingency in housekeeping claims", March 2008, vol. 5, issue 3
- ◆ "Reduction in housework due to disability (2001 PALS & 1991 HALS data)", February 2007, vol. 4, issue 2
- ◆ "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**TM]", 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

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Table of Contents

Time use data for loss of housekeeping capacity awards	4
<i>Table 1: Time Spent on Paid Work, Household Chores & Childcare, 1986 to 2022, Canada</i>	6
<i>Table 2: Time Spent on Household Chores, 1986 to 2022, Canada, by Role Groups</i>	8
<i>Table 3: Time Spent on Childcare, 1986 to 2022, Canada, by Role Groups</i>	9
<i>Social desirability bias</i>	10
Key components of loss of housekeeping capacity awards	14
(1) <i>Plaintiff's/Decedent's housekeeping hours</i>	14
(2) <i>Replacement rate</i>	15
<i>Table 4: Brown Economic's Housekeeping Rates Across Canada (2025 Dollars)</i>	17
(3) <i>"Health" contingency</i>	18
(4) <i>"Mortality" contingency</i>	19
(5) <i>Real Discount Rate</i>	19
What is the Housekeeping Damages Calculator™ @ www.browneconomic.com?	20

TIME USE DATA FOR LOSS OF HOUSEKEEPING CAPACITY AWARDS

Since 1985, Statistics Canada has gathered data on various social trends in Canada⁴ through the *General Social Survey* ("GSS") program. The *GSS Time Use Survey* was first conducted in 1986, has been repeated every five to six years, and has become a primary source of data on the "time use" of Canadians.⁵ Results from the most recent time use survey, 2022 GSS, conducted from July 2022 to July 2023, were released in 2024.⁶

The *GSS Time Use Survey* is designed to collect information (via telephone interviews) on activities performed by respondents over a specific period of time. The structure of the *GSS Time Use Survey* identifies four broad groups of

⁴ Including caregiving and care receiving, families, time use, social identity, victimization, and giving, volunteering and participating (see Statistics Canada. *General Social Survey: An Overview, 2019*. Catalogue no. 89F0115X-2019001, February 20, 2019).

⁵ 2015 *Time Use Survey Technical Note* (June 2017) Statistics Canada catalogue no. 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), 2015 (sample size = 17,390) and 2022 (sample size 12,336).

⁶ Preliminary results for household activity were reported in Statistics Canada. Table 45-10-0104-01, Table 45-10-0104-02 and Table 45-10-0104-03; and Dana Wray. *Telework, time use, and well-being: Evidence from the 2022 Time Use Survey*. Catalogue no. 89-652-X2024003, June 5, 2024.

unpaid work activity: “household chores”, “care of household children under 18 years”, “care of household adults” and “shopping for goods and services”. These four activity groups are composed of the following activities:⁷

- 1) **Household chores:** 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 such as car repair, ground maintenance, snow removal, cutting grass, planting (picking), maintaining, cleaning garden, caring for house plants, pet care such as feeding, walking, grooming, playing.
- 2) **Care of household children under 18 years:** personal care, getting ready for school, supervising or helping with homework, reading, playing, reprimanding, educational, emotional help, accompanying to or from school, bus stop, sports, activities, parent school meetings or appointments.
- 3) **Care of household adults:** washing, dressing, care giving, financial management, accompanying to or from appointments or shopping.
- 4) **Shopping for goods and services:** such as gasoline, groceries, clothing, car, legal services, financial services, vehicle maintenance, health professional visit, consultation, researching for goods or services.

The *GSS Time Use Survey* employs a retrospective 24-hour time diary to collect information on respondents’ participation in, and time spent on, a wide variety of day-to-day activities. In addition, information is collected on the location where these activities occurred (e.g., at home, at work, etc.) and, for non-personal activities, the people who were with the respondent at the time of the activity. In addition, *GSS Time Use Surveys* also include questions on household composition, labour force status, life satisfaction, unpaid work, time perceptions and pressures, and participation in sports and cultural activities along with numerous socioeconomic characteristics.

In 2010, simultaneous activity questions were introduced for the first time. These questions allow for a better understanding of multitasking, particularly in situations where passive childcare is combined with other activities (e.g., a parent cooking dinner while watching over the children).

The *GSS Time Use Survey* has made several changes for 2022 compared to previous iterations. The first change is the frame that is used to select the sample. The survey is now using a dwelling-based frame instead of a telephone-based frame. A number of content changes were also made. In the diary portion of the questionnaire, the number of activities available to choose from has increased and the organization of categories now takes the form of a two-level hierarchical tree to make searching for a specific activity easier. In 2022, only one simultaneous activity can be selected per episode. This discourages grouping multiple different activities together in one episode. In addition, two questions have been added to the diary:

⁷ Statistics Canada’s *Classification of time use activities (grouped)*, 2022 (www23.statcan.gc.ca/imdb/).

- A follow-up question for unpaid work activities, asking for whom the work or care was done;
- A follow-up question if no 'eating' activities are mentioned during the 24-hour period.

Additionally, the following content has been added to the rest of the survey:

- A question about gender identity, in addition to sex at birth;
- A module on childcare for households with at least one child aged 14 or under, and at least two household members aged 15 or older;
- A module on telework for respondents who worked for pay in the past week and who are employees;
- Additional questions about transportation and access to transportation.⁸

Table 1 shows the evolution of time spent on paid work, household chores and childcare in the past 40 years by core working-age men and women (ages 25-54) across Canada based on publicly available GSS *Time Use Survey* data.⁹ These categories do not reflect Statistics Canada's "role groups" but rather the total time spent working, per day, by Canadian women and men.

Table 1: Time Spent on Paid Work, Household Chores & Childcare, 1986 to 2022, Canada

Average Hours per Day			
Women (25 to 54 years)	Paid work	Household chores	Child care
GSS 1986	6.7	3.1	2.1
GSS 1992	6.9	3.1	2.2
GSS 1998	7.1	2.8	2.3
GSS 2005	7.5	2.8	2.5
GSS 2015	7.7	2.7	2.6
GSS 2022	7.7	2.9	3.9
MEN (25 to 54 years)	Paid work	Household chores	Child care
GSS 1986	7.7	1.9	1.5
GSS 1992	8.1	2.0	1.6
GSS 1998	8.1	1.8	1.8
GSS 2005	8.5	2.1	1.8
GSS 2015	8.4	2.2	1.9
GSS 2022	8.4	2.4	2.8

* The 2010 estimate for household chores is based on population data (all Canadians) over the age of 15. The estimates for all other years and categories are based on participants age 25 to 54. Hours per day for participants will be higher than for the total population, which includes people who do not participate in the activity.

⁸ As per information contained on the Statistics Canada's website (www23.statcan.gc.ca/imdb/p2SV.pl?).

⁹ Sources: For 1986 to 2005, we report data from K. Marshall, "Converging gender roles" (2006) *Perspectives in Labour and Income*, 18(3), Statistics Canada catalogue 75-001-XPE, Table 1, p. 10; for 2010, we report data from *General Social Survey – 2010: Overview of the Time Use of Canadians* (July 2011) Statistics Canada catalogue 89-647-X, Table 1.1, p. 10; for 2015, we report data from Statistics Canada's CANSIM Table 113-0004 – *Daily average time spent in hours on various activities by age group and sex, 15 years and over, Canada and provinces, occasional (hours)*; and for 2022, we report data from Table 45-10-0104-01 – *Daily average time spent on various activities, by age group and gender, 2022*.

Table 1 shows that the *paid* workweek for both men and women ages 25 to 54 in Canada has increased only slightly over the past 35 years, although men continue to work more hours per day than women. Time spent by 25- to 54-year-old women on household chores has fluctuated but remained similar overall from 1986 to 2022 (about three hours per day). With respect to childcare, time spent by women increased slightly from 1986 to 2015, and considerably between 2015 and 2022 (from 1.5 to 2.0 hours to almost 3.0 hours per day). Further discussion pertaining to the increase in childcare performed by women and men since 2015 is described below.

Research based on data from GSS *Time Use Surveys* indicates that married people *with* children do more household chores than married couples *without* children; men and women *living alone* do the least amount of household chores when contrasted with their counterparts. When genders are compared, however, women do more household chores than men no matter their marital status or childrearing status.¹⁰

In order to estimate time spent on household activity¹¹ by gender, marital status, and childrearing status/age of children, Brown Economic purchases custom GSS *Time Use Survey* datasets which partition time use data for Canadian men and women by “role group”.¹² The “role groups” distinguish people by their employment status, their marital status, their partner’s employment status, and whether children are living in the household *and* whether children are under or older than age 5. Table 2 below reports the average hours spent on household chores by Canadian men and women in 2010, 2015 and 2022, for select “role groups”. Note that Table 2 excludes time spent on childcare: this is presented separately in Table 3 below.

The initial observation to make is that whereas there is data for “females keeping house,” there is *no* corresponding category for males, because there are not enough of these households to create a reliable sample. Moreover, “females keeping house” spend almost twice as much time on household chores as employed females, especially with children at home.

¹⁰ Source: K. Marshall, “Converging gender roles” (2006) *Perspectives in Labour and Income* 18(3), Statistics Canada catalogue 75-001-XPE, Chart D, p. 12; and Statistics Canada. *Estimating the economic value of unpaid household work in Canada, 2015 to 2019*. Catalogue no. 13-605-X, March 17, 2022.

¹¹ Including household chores, care of household children and shopping for goods and services. We do not include care of household adults in our estimate of time spent on household activity.

¹² The Statistics Canada custom datasets purchased by Brown Economic also tabulate time use data by age group, so that we can estimate house-keeping losses over the life cycle of the plaintiff. The data in Table 2 and Table 3 are based on the entire population (ages 15 and over).

Table 2: Time Spent on Household Chores, 1986 to 2022, Canada,¹³ by Role Groups

Average Hours per Week Spent on Household Chores	General Social Survey		
Women (15 years and over)	2010	2015	2022
Female keeping house, partner employed, no children	28.4	29.4	29.7
Female retired, partner employed, no children	23.5	23.6	30.3
Female employed, partner employed, no children	14.8	14.9	16.5
Female employed, living alone	11.7	12.5	14.1
Female keeping house, partner employed, children < 5 years	19.7	22.7	15.4
Female keeping house, lone parent, children < 5 years	19.8	14.1 ^E	F
Female employed, partner employed, children < 5 years	14.2	14.4	12.4
Female keeping house, partner employed, children 5+ years	27.3	29.2	21.7
Female keeping house, lone parent, children 5+ years	26.0	23.8	F
Female employed, partner employed, children 5+ years	17.7	17.9	17.1
Men (15 years and over)			
Male retired, partner employed, no children	19.7	22.7	29.0
Male employed, partner employed, no children	10.7	12.2	13.4
Male employed, living alone	9.7	9.7	9.3
Male employed, partner keeping house, no children	7.4	8.9	11.2
Male employed, partner employed, children < 5 years	10.7	11.0	10.8
Male employed, partner keeping house, children < 5 years	8.1	10.1 ^E	3.2 ^E
Male employed, partner employed, children 5+ years	11.5	13.5	12.5
Male employed, partner keeping house, children 5+ years	9.6	11.1	11.4

The time use statistics in Table 2 above show remarkable consistency in time spent on household chores within each “role group” between 2010, 2015 and 2022. Most entries are within 1 to 2 hours of each other. Exceptions to this pattern are: females retired, with an employed partner and no children (time use *increased* by almost 7 hours per week from 2010/2015 to 2022); females keeping house, with an employed partner and children under 5 years of age (time use *decreased* by 4-7 hours per week from 2010/2015 to 2022); females keeping house, with an employed partner and children over 5 years of age (time use *decreased* by 6-8 hours from 2010/2015 to 2022); males retired, with an employed partner and no children (time use increased by almost 6-9 hours from 2010/2015 to 2022). Overall, however, the similarity in the hours recorded for household chores in the three survey years lends a great deal of credibility to the estimates, even though they are based on household recall.

One notable finding in Table 2 is that *retired* persons report spending more time on household chores than *employed* adults without children, a result which likely reflects three influences: (1) retired people generally *have more time* for household chores given the reduced time spent on paid work; (2) retired people change their composition of activities, i.e., they do less maintenance and repair and a *component of the time they do spend could be leisure* if concentrated

¹³ Sources: Statistics Canada custom tabulations of GSS 2010, 2015 and 2022 data prepared for Brown Economic Consulting. National data is reported. E = use with caution. F = too unreliable to be published.

on activities such as gardening or baking; (3) retired people may *do the activity more slowly* and hence it takes longer.¹⁴ To account for these influences in our estimates of household activity, we incorporate a negative “health contingency”, which *lowers* the compensation for valuable services every year, by as much as –30% per year by age 80.¹⁵

In Table 2 above we see that both men and women spend more time on **household chores** when children in the household are older (*5 years and over*) than when they are younger (*under 5 years*). In contrast, the most consistent finding in Table 3 below is that the time parents spend on **childcare** dramatically declines when the children are *5 years and over* (compared to when they are *under 5 years*), likely due, for the most part, to the enrolment of children in school.

Table 3: Time Spent on Childcare, 1986 to 2022, Canada,¹⁶ by Role Groups

Average Hours per Week Spent on Child Care	General Social Survey		
Women (15 years and over)	2010	2015	2022
Female, keeping house, lone parent, children < 5 years	35.5	26.9	F
Female, keeping house, partner employed, children < 5 years	32.9	25.1	42.8 ^E
Female, employed, partner employed, children < 5 years	14.9	14.6	30.9
Female, employed, partner keeping house, children < 5 years	14.6	F	F
Female, keeping house, lone parent, children 5+ years	14.9 ^E	14.6 ^E	F
Female, keeping house, partner employed, children 5+ years	13.8	10.4 ^E	18.8 ^E
Female, employed, partner employed, children 5+ years	5.6	5.2	7.7
Female, employed, partner keeping house, children 5+ years	3.5 ^E	F	F
Men (15 years and over)			
Male employed, partner employed, children < 5 years	11.5	12.5	18.5 ^E
Male employed, partner keeping house, children < 5 years	11.3	8.0	14.8 ^E
Male employed, partner employed, children 5+ years	2.9	2.9	6.5
Male employed, partner keeping house, children 5+ years	3.4 ^E	3.6 ^E	6.0 ^E

Table 3 shows a wide variance on time spent caring for children, depending on gender, marital status, and employment status. Women “keeping house”, employed women with children under age 5, and lone parents spend the most time caring for children. Women “keeping house” spend two to three more times caring for children than employed women.

Men whose partners are “keeping house” spend 50% less on childcare than men with employed spouses.

The 2022 cycle data shows an *increase* in time spent on child-rearing for all role groups, men and women, which differs from Table 2 data on time spent on household chores, except for retired women and men, and women keeping house, spouse employed, children under 5.

The observed increase in time spent on childcare by both women and men between 2015 and 2022 is likely related to the rise in remote work prompted by the COVID-19 pandemic. Statistics Canada reports that the proportion of

¹⁴ This is echoed in W. Augustus Richardson, *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), p. 16.

¹⁵ Our source for the yearly “health contingency” is Expectancy Data, *Healthy Life Expectancy: 2018 Tables*. Shawnee Mission, Kansas, 2020, Tables 2 & 3. No comparable Canadian data exists.

¹⁶ Sources: Statistics Canada custom tabulations of GSS 2010, 2015 and 2022 data prepared for Brown Economic Consulting. National data is reported. E = use with caution. F = too unreliable to be published.

Canadians working most of their hours from home increased from 7% in May 2016 to approximately 24% in July 2022, before declining slightly to 21% in July 2023.¹⁷ According to Statistics Canada, working from home is associated with an increase in unpaid housework, including childcare. For example, Statistics Canada reports that teleworkers spent an average of 16 additional minutes per day on unpaid housework compared to **non-teleworkers**. This equates to approximately 21% more time spent on household tasks on paid workdays (and specifically, 82 minutes per day for teleworkers versus 66 minutes per day for those not working from home). Regardless of telework status, women still do more unpaid housework than men.

With respect to data specific to childcare, Statistics Canada reports that parents who teleworked from home spent 35 more minutes per day on childcare activities than non-teleworking parents, and 23 more minutes per day than on-site teleworkers.¹⁸ Statistics Canada further indicates that time spent on childcare as a primary activity may underestimate the total time parents spend interacting with (especially older children) or supervising children. For example, parents working from home (WFH) on a paid workday spent more “co-present”¹⁹ time on childcare – that is, time where children were present outside of formal childcare as a primary activity. On average, teleworking parents spent about 41 minutes more co-present time than non-teleworkers, and 56 minutes more than on-site teleworkers. Overall, WFH teleworkers are estimated to spend nearly one hour more caring for children on paid workdays, whether co-present with children or actively engaging in childcare, than non-teleworkers or on-site teleworker parents.²⁰

The second influence on time use data is the impact of societal norms and expectations relating to *unpaid* work, which operate differently for Canadian women versus Canadian men. We discuss this next.

Social desirability bias

Surveys which are routinely conducted by Statistics Canada (and thousands of other statistical agencies) are subject to a variety of errors. One of the common errors is called “measurement error” (or “response error”), which is the difference between the recorded response to a question and its ‘true’ value. It can be caused by the respondent, the interviewer, the questionnaire, the data collection method, or the measuring tool. As indicated by Sharma et al.,²¹ “time-use statistics are sensitive to measurement error.”

One of the main causes of measurement error is misunderstanding on the part of the respondent or interviewer. Misunderstanding may result from:²²

- the lack of clarity of the concepts (i.e., use of non-standard concepts);
- poorly worded questions from the survey questionnaire;

¹⁷ Statistics Canada. *Research to Insights: Working from home in Canada*. Catalogue no. 11-631-X, January 18, 2024; Statistics Canada. *Labour Force Survey, February 2024*. *The Daily*, March 8, 2024; and Dana Wray. *Telework, time use, and well-being: Evidence from the 2022 Time Use Survey*. Statistics Canada Catalogue no. 89-652-X2024002, June 5, 2024.

¹⁸ The 2022 *Time Use Survey* (TUS) collects a 24-hour diary that retrospectively collects all activities done by a respondent starting at 4 a.m. on a designated reference day (the “diary day”) and ending at 4 a.m. the next day. Statistics Canada uses time diary data from the 2022 TUS to compare time use of three groups of workers: non-teleworkers (did not telework last week and worked on-site on the diary day); on-site teleworkers (teleworked last week but worked on-site on the diary day); and work-from-home (WFH) teleworkers (teleworked last week and worked at home on the diary day). “Teleworkers” are defined as employees spending any time working from home, a co-working space, or elsewhere, while using telecommunications tools (e.g., laptop, phone, tablet), in the week preceding the survey (source: Dana Wray. *Telework, time use, and well-being: Evidence from the 2022 Time Use Survey*. Statistics Canada Catalogue no. 89-652-X2024002, June 5, 2024).

¹⁹ Co-present time is the sum of time reported as “with” a household child of any age, not including time in sleep, personal care, or childcare activities. Childcare time is the sum of time reported in childcare as a primary activity, not including travel, regardless of whether children were present (source: Dana Wray. *Telework, time use, and well-being: Evidence from the 2022 Time Use Survey*. Statistics Canada Catalogue no. 89-652-X2024002, June 5, 2024, p. 8).

²⁰ Dana Wray. *Telework, time use, and well-being: Evidence from the 2022 Time Use Survey*. Statistics Canada Catalogue no. 89-652-X2024002, June 5, 2024.

²¹ Deepti Sharma, Hema Swaminathan, and Rahul Lahoti. *Does it matter who you ask for time-use data?* *United Nations University World Institute for Development Economics Research*, Working paper 204/1, January 2024.

²² See Statistics Canada. *Survey Methods and Practices*. Catalogue no. 12-587-X, October 2003, pp. 31-32.

- inadequate interviewer training;
- false information given (i.e., recall error, or lack of ready sources of information);
- a language barrier;
- poor translation (when several languages are used).

As described above, when respondents provide false information, i.e., overreporting or underreporting, measurement errors occur. If the measurement errors are systematically skewed²³ to reflect certain values or categories, a bias will be introduced and the survey estimates will be misleading. In this regard, Brenner and DeLamate²⁴ found the following:

Underreporting of counternormative behaviors is primarily motivated by the ought self. The respondent reports lower rates of these behaviors to an interviewer than warranted in order to appear socially desirable ... Conversely, overreporting of normative behavior is primarily motivated by the ideal self, although not necessarily deliberately ... Rather than being motivated solely by self-presentational concerns, the respondent pragmatically reinterprets the question ... to be one about identity rather than behavior, a process influenced by a desire for consistency between the ideal self and the actual self. *This pragmatic interpretation of the survey question encourages the respondent to answer in a way that affirms strongly valued identities* (pp. 4-5, emphasis added).

Like self-verification, the identity process as applied to survey measurement allows the respondent to “create—both in the actual social environments and in their own minds—a social reality that verifies and confirms their self-conceptions” (Swann 1983:33). However, the verification process focuses on seeking and attending to others’ confirmatory feedback on prominent identities (Burke 1991; Swann, Pelham, and Krull 1989). Thus, the individual has a strong desire to ensure the consistency of others’ views, given their feedback, with his or her own (p.5).

According to Hou and Schimmele,²⁵ “social desirability bias refers to the tendency of respondents to provide positive answers about their well-being in the presence of an interviewer, which is based on a cultural expectation to provide favourable responses or to avoid divulging negative or stigmatizing experiences” (p. 7).

As found by the National Academy of Sciences, Engineering, and Medicine,²⁶ in stylized measures,²⁷ “people may overreport activities that are socially “good” activities. For example, Sandra Hofferth²⁸ reported on comparisons of stylized measures of time spent reading to children to time diary reports of time spent reading to children; she concluded that parents exaggerate the amount of time they spend reading to their children through stylized measures relative to the amount of time reported in a time diary. John Robinson²⁹ also described a study in which stylized reports of church-going were much higher than time spent at church as measured by diary data. Similarly, respondents may underreport socially “bad” activities, such as time spent watching television” (p. 44).

²³ Refer to errors that tend to go in the same direction and thus accumulate over the entire sample, leading to a bias in the final results. This type of bias is not reduced by increasing the size of the sample and are the principal cause of concern in terms of a survey’s data quality (source: Statistics Canada. *Survey Methods and Practices*. Catalogue no. 12-587-X, October 2003, p. 31).

²⁴ 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.

²⁵ Feng Hou and Christoph Schimmele. *How Survey Mode and Survey Context Affect the Measurement of Self-Perceived Racial Discrimination across Cycles of the General Social Survey*. Statistics Canada Catalogue no. 11-633-X — No. 043, August 9, 2022.

²⁶ National Academies of Sciences, Engineering, and Medicine. *Time-Use Measurement and Research: Report of a Workshop*. Washington, DC: *The National Academies Press*, 2000.

²⁷ Stylized questions are a method to measure time use, asking respondents how much time they spend in certain activities. Some examples are: About how much time do you spend cooking in your home during the week? About how much time do you spend caring for you child on a daily basis? Questions can be open-ended, where respondents can fill in a number of hours, or they can have a range of answers, where respondents choose one answer from categories such as “never,” “once a week,” “several times a week,” or “every day.” Many surveys with goals other than measuring time use have used these types of questions, usually as indicators of behavior patterns (source: National Academies of Sciences, Engineering, and Medicine. *Time-Use Measurement and Research: Report of a Workshop*. Washington, DC: *The National Academies Press*, 2000, pp. 43-44).

²⁸ Hofferth, S.L. *Family Reading to Young Children: Social Desirability and Cultural Biases in Reporting*. Paper presented at the Workshop on Measurement of and Research on Time Use, May 27-28, 1999.

²⁹ Robinson, J.P. *The validity and reliability of diaries versus alternative time use measures*. Pp. 33-62 in F.T. Juster and F.P. Stafford, eds., *Time Goods and Well-Being*. Ann Arbor, MI: Institute for Social Research, University of Michigan, 1985.

In examining individuals' reporting behavior in housework surveys, Press and Townsley found the following:³⁰

... It is concluded that changing and uneven social perceptions of the appropriate domestic roles of women and men have resulted in reporting biases that do not necessarily correspond to actual changes in housework behavior (p. 188).

The idea that propensities to overreport are gendered is also supported ... *that the effects of attitudes toward gender roles in the family on the reporting gap operate inversely for wives and husbands* (p. 208, emphasis added).

... husbands' overreport are shown to be predicted by the interaction of gender attitudes and total weekly housework (p. 210, emphasis added).

The proposition that overreporting is gendered is also confirmed by comparing the wide variety of factors affecting *wives' propensity to inflate their reports* in the direct-question context, relative to husbands ... The number of paid work hours in the labor market, the number of children at home, household income, gender ideology, education, socioeconomic status, and total housework all affect the size of wives' overreport. By contrast, *in the same model for husbands (model 3), only gender ideology and total housework contribution affect the report gap*. And, as discussed above, when interactions between husbands' gender attitude and total housework are included (model 4), they are the only significant factors found to determine husbands' overreports. These findings suggest that the overreport may be structured very differently for wives and husbands (p. 210, emphasis added).

... *gender attitudes, which are our best measure of respondents' social perceptions about housework*, affect husbands' and wives' reporting behavior in opposite directions; traditional attitudes reduce husbands' reporting gap while they increase wives'. There are also significant gender differences in the effect of information on husbands' and wives' overreports: Higher levels of information reflected by higher levels of total housework lead to much lower overreports for wives than husbands. Differences in the effects of the number of children at home on overreporting are also gendered; the presence of children increases wives' overreports but has no significant effect on husbands' reporting behavior. Finally, we found that while more privileged husbands with egalitarian gender attitudes tended to overreport at a higher rate than more traditional husbands, more privileged working mothers were likely to report more accurately than poorer "supermoms." ... social desirability in the face of gendered social expectations appears to structure reporting bias (pp. 212-213, emphasis added).

According to Statistics Canada, the agency "does everything possible to eliminate bias in its surveys even from the initial planning stages of the survey: for example, for the 2015 TUS [GSS on Time Use] significant effort was made to minimize bias by using a well-tested questionnaire, a proven methodology, specialized interviewers and strict quality control, and by following up with households that did not initially respond to the survey. In addition, extra measures were taken to offset the risk of nonresponse bias and to ensure that 2015 TUS data would be fit to provide quality estimates at the national and regional (Atlantic, Quebec, Ontario, Prairies, British Columbia) levels. The main method used to reduce nonresponse bias for the 2015 TUS involved a series of adjustments to the survey weights to account for nonresponse as much as possible. For all GSS cycles, weighting adjustments make use of known characteristics about the non-respondents, from the survey frame for example, to create response homogeneity groups that are used

³⁰ Julie E. Press, and Eleanor Townsley. "Wives' and Husbands' Housework Reporting: Gender, Class, and Social Desirability." *Gender and Society*, vol. 12, no. 2, 1998, pp. 188-218.

to adjust initial design weights for nonresponse. For the 2015 TUS, an additional adjustment was added where basic characteristics of non-responding households, such as income and household composition, were extracted from administrative sources and then used to model and adjust nonresponse.”³¹ Statistics Canada further indicates that:³²

Statistics Canada validated the survey estimates in accordance with Statistics Canada’s standards on data validation and quality assurance. Key estimates were examined at the national and provincial levels by comparing them with internal and external benchmarks. This exercise was used to assess the fitness for use of the data and potential nonresponse bias. Nonresponse bias occurs in statistical surveys if the answers of respondents differ from the potential answers of those who did not answer. The first step of the validation exercise determined that 2015 TUS results were consistent with findings from the last three GSS Time Use Surveys for variables such as perception of time, general health, main activity and life satisfaction. Household and respondent characteristics from the 2015 TUS were next compared with data from the 2014 General Social Survey (GSS) on Victimization. This validation showed that, at both the national and provincial levels, the 2015 TUS and the 2014 GSS on Victimization were consistent with respect to the proportion of Aboriginal persons and immigrants and location of residence (Census Metropolitan Area/non-Census Metropolitan Area) and living arrangements of the population. 2015 TUS data were also validated against data from other Statistics Canada surveys, including the 2015 cycle of the Canadian Community Health Survey (CCHS). Again, at both the national and provincial levels, there was a consistency in results across several variables, including marital status, dwelling type, household size and the respondent’s main activity (p. 8).

By applying appropriate nonresponse adjustments to survey weights and validating key survey estimates against several other data sources, Statistics Canada has endeavoured to ensure that data from the 2015 Time Use Survey are fit-for-use. Nevertheless, data users must be aware that estimates for small subpopulations, including those for some provincial regions and lower levels of geography, may be subject to higher sampling error and higher risks of nonresponse bias (p. 8).

For the 2022 *GSS on Time Use*, Statistics Canada has made significant effort to minimize bias by using a well-tested questionnaire, a proven methodology, specialized interviewers and strict quality control, and by following up with households that did not initially respond to the survey.³³

Brown Economic’s method for valuing housekeeping claims reflects various aspects which avoid over-reporting by claimant. The first of these is the creation of an official *Diary of Household Activities*TM, which requires the user to allocate, first, time spent on sleeping, paid work, and leisure activities; second, it constrains the claimant to a maximum 168-hour week. The second way we accomplish accuracy is to use Statistics Canada’s time use data to compare it to the claimant’s information in the *Diary* form. The third mechanism we employ is to challenge the surface result that retired people do *more* housework than women keeping house and employed parents. Other factors affect the provision of unpaid work by older claimants. To offset these factors, we apply a negative “health” contingency and mortality contingency.

³¹ Statistics Canada. *2015 Time Use Survey Technical Note*. Catalogue no. 89-658-X, June 1, 2017, p. 7.

³² Statistics Canada. *2015 Time Use Survey Technical Note*. Catalogue no. 89-658-X, June 1, 2017.

³³ See (www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&Id=1400713).

KEY COMPONENTS OF LOSS OF HOUSEKEEPING CAPACITY AWARDS

To quantify a loss of housekeeping award, the key components are as follows:

- 1) Evidence regarding the plaintiff's or decedent's pre-incident weekly hours spent on housework and childcare versus an injured person's post-incident hours;
- 2) Replacement rate to attach to the deficit of hours (if any) as determined in (1);
- 3) A negative "health" contingency;
- 4) A negative "mortality" contingency; and
- 5) A real discount rate assumption to calculate the future loss of housekeeping capacity award.

Once these components are identified, the forensic economist can assess the past and future housekeeping losses, adding pre-judgment interest to the past losses and discounting to present value the future losses. Unlike income loss estimates that usually cease at retirement age, housekeeping assessments extend to age 80 – which is *not* the end of a Canadian's life span, but assumes Canadians over age 80 are receiving help and/or are in homes not requiring such work.

(1) Plaintiff's/Decedent's housekeeping hours

With respect to evidence about housekeeping hours, a quantum expert's assessment begins with the plaintiff's/ decedent's evidence and usually compares this to statistical averages, matching the plaintiff's/decedent's demographic characteristics in terms of gender, age, employment status, marital status, and presence or absence of children. Special tabulations are available from Statistics Canada's *GSS Time Use Surveys*. As described above, the most recent *GSS Time Use Survey* was conducted in 2022.³⁴

Brown Economic has created a *Diary of Household Activities*TM that has been used for many years and which went through several iterations with the help of feedback from counsel and the courts. This form was also designed while keeping in mind the biases that can result from, say, asking an open-ended question such as "How many hours do you spend on housekeeping per week?" Such an open-ended question invariably leads to an overstatement of such hours because the respondent is not constrained to a 168-hour week.

The usefulness of a form like the *Diary of Household Activities*TM is that it achieves what the courts dictate: a link between the plaintiff's or family's evidence as to the plaintiff's or decedent's household activities and the statistics published as to the 'average' hours performed by Canadians. It also asks the plaintiff or family to allocate his/her time to other activities (paid work, sleeping, personal care, leisure), not just housework, and constrains all activities to a 168-hour week.

³⁴ The Census also asks questions about housekeeping hours but typically only asks the respondent to identify the *range of hours* done each week, i.e., 5 to 10 hours, 10 to 20 hours, etc. This is insufficient for our purposes.

To access our *Diary of Household Activities*TM online, please visit www.browneconomic.com > PRODUCTS & SERVICES > **Diaries & Checklists**.

To access our **Housekeeping Damages Calculator**TM (“HDC”), visit www.browneconomic.com > **Housekeeping (pay per use)**. The HDC calculates past and future housekeeping losses for \$190 + GST. An online video (3-4 minutes) is available to show the user how to input data into the HDC. See below for a sample HDC “run”.

(2) Replacement rate

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**TM at 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.³⁵ This is the same principle that underlies selection of any sample when compiling data: no one individual can represent a population.³⁶ Similarly, no one survey can be relied upon to project a worker’s salary³⁷ 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”.³⁸

³⁵ 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.

³⁶ See Statistics Canada. *Survey Methods and Practices*. Catalogue no. 12-587-X, October 2003, pp. 31-32; 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.

³⁷ 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.

³⁸ 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.

The wage data shown in Table 4 below is gathered for *National Occupation Classification (NOC) 2021* code 65310, “light duty cleaners”³⁹ in each province and territory in Canada, based on the following sources:⁴⁰

- Statistics Canada’s **2001 Census**⁴¹
- Statistics Canada’s **2006 Census**
- Statistics Canada’s *2011 National Household Survey*⁴²
- Statistics Canada’s **2016 Census**⁴³
- Statistics Canada’s **2021 Census**⁴⁴
- Government of Canada’s **JOB BANK** website⁴⁵
- *2023 Alberta Wage and Salary Survey*⁴⁶
- *2013 Saskatchewan Wage Survey*

[continued page 17]

³⁹ 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.

⁴⁰ 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.

⁴¹ 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.

⁴² 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.

⁴³ Income data for 4-digit NOC 2016 code 4412 from the 2016 Census (representing 2015 dollars) was released in 2018.

⁴⁴ Income data for 5-digit NOC 2021 code 65310 from the 2021 Census (representing 2020 dollars) was released in 2022.

⁴⁵ To view the hourly wages for NOC 65310 (light duty cleaners), click on 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.

⁴⁶ Prior versions of the *Alberta Wage and Salary Survey* (2021, 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 2023 was included.

Table 4: Brown Economic's Housekeeping Rates Across Canada (2025 Dollars)

Province/Territory	Source(s) of data	Average rate in 2025 Dollars ¹
Northwest Territories*	Statistics Canada's 2001, 2016 and 2021 Census, and 2011 National Household Survey (NOC-S G811, NOC 4412/65310), Job Bank ² (NOC 65310)	\$42.09
Yukon*	Statistics Canada's 2006, 2016 and 2021 Census (NOC-S G811, NOC 4412/65310), Job Bank ² (NOC 65310)	\$42.51
Average NWT & Yukon		\$42.30
British Columbia	Statistics Canada's 2006, 2016 and 2021 Census, 2011 National Household Survey (NOC-S G811, NOC 4412/65310), Job Bank ² (NOC 65310)	\$24.63
Ontario	Statistics Canada's 2006, 2016 and 2021 Census, 2011 National Household Survey (NOC-S G811, NOC 4412/65310), Job Bank ² (NOC 65310)	\$23.06
Alberta	Statistics Canada's 2006, 2016 and 2021 Census, 2011 National Household Survey (NOC-S G811, NOC 4412/65310), Job Bank ² (NOC 65310), 2023 Alberta Wage and Salary Survey (NOC 65310)	\$23.79
Saskatchewan	Statistics Canada's 2006, 2016 and 2021 Census, 2011 National Household Survey (NOC-S G811, NOC 4412/65310), Job Bank ² (NOC 65310), 2013 Saskatchewan Wage Survey (NOC 6471)	\$23.74
Manitoba	Statistics Canada's 2006, 2016 and 2021 Census, 2011 National Household Survey (NOC-S G811, NOC 4412/65310), Job Bank ² (NOC 65310)	\$21.78
Average Prairies		\$23.10
New Brunswick	Statistics Canada's 2006, 2016 and 2021 Census, 2011 National Household Survey (NOC-S G811, NOC 4412/65310), Job Bank ² (NOC 65310)	\$19.76
Prince Edward Island	Statistics Canada's 2006, 2016 and 2021 Census, 2011 National Household Survey (NOC-S G811, NOC 4412/65310), Job Bank ² (NOC 65310)	\$27.17
Nova Scotia	Statistics Canada's 2006, 2016 and 2021 Census, 2011 National Household Survey (NOC-S G811, NOC 4412/65310), Job Bank ² (NOC 65310)	\$23.64
Newfoundland	Statistics Canada's 2006, 2016 and 2021 Census, 2011 National Household Survey (NOC-S G811, NOC 4412/65310), Job Bank ² (NOC 65310)	\$21.45
Average Atlantic Canada		\$23.00

¹ 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 (when provincial or territorial data not available for index 5617) and inflation forecasts of 2.3% for 2025. We rely on Canada data for all provinces

² www.jobbank.gc.ca, data for each respective province and territory (formerly "workingincanada.gc.ca" and "labourmarketinformation.ca").

* Note that the only relevant case we are aware of in the territories is Fullowka et al (2004). The hourly housekeeping rate in the judge's decision in this case was \$14.91 (equivalent to \$32.67 in 2025 dollars).

For a detailed discussions on methods of valuing household rates in civil litigation and how they are used in the **Housekeeping Damages Calculator™** at www.browneconomic.com, see **Brown's Economic Damages Newsletter**, "Valuing Household Rates in Civil Litigation, and how they are used in the **Housekeeping Damages Calculator™** @ www.browneconomic.com," May 2024, available upon request.

(3) “Health” contingency

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) 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) 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.
- c) 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, 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.

Brown Economic’s negative health contingency has been considered and accepted in three Alberta cases: *Warner v. Calgary Regional Health Authority (Rockyview General Hospital)* in 2020;⁴⁷ *Palmquist v. Ziegler* in 2010;⁴⁸ and *Mahe v. Boulianne* (2008) ABQB 680, para. (115).⁴⁹ Below, we reproduce the excerpts from these cases.

In *Mahe v. Boulianne* (2008), 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, emphasis added)

In *Palmquist v. Ziegler* (2010),⁵⁰ 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)

⁴⁷ 2020 ABQB 172. Ms. Brown testified on behalf of the defendant in this case.

⁴⁸ 2010 ABQB 337. Ms. Brown testified on behalf of the plaintiff’s estate in this case.

⁴⁹ Ms. Brown author testified on behalf of the plaintiff in this case.

⁵⁰ 2010 ABQB 337. Ms. Brown testified on behalf of the plaintiff’s estate in this case.

In *Warner v. Calgary Regional Health Authority (Rockyview General Hospital)* (2020),⁵¹ 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, the same source relied upon by American forensic economists.

(4) Mortality contingency

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 source for the negative “mortality” contingency is Statistics Canada’s *Life Tables, Canada, Provinces and Territories, 2021 to 2023*.⁵²

(5) Real Discount Rate

In all cases, quantum experts typically quantify both a past loss and future loss of housekeeping capacity. To accurately quantify the future loss award, the replacement cost in the future must be discounted to present value, just as with a loss of income or loss of dependency award.

Most provinces and territories in Canada stipulate a mandated discount rate⁵³ for calculating present value in civil litigation. For those provinces and territories that do not mandate a real discount rate, see our discussion in Brown Economic’s **WHITE PAPER Series**, *Calculating Present Values in Civil Litigation: A Review of Past, Present & Future Interest Rates (UPDATES from 2020 and 2023)*, including commentary on the ‘dumbest tariff war’ started by the U.S. federal government, March 31, 2025, available upon request.

⁵¹ 2020 ABQB 172, para. [87]. Ms. Brown testified on behalf of the defendant in this case.

⁵² Statistics Canada Catalogue no. 84-537-X No. 001.

⁵³ For a summary of mandated real discount rates in Canada, see C.L. Brown, **Damages: Estimating Pecuniary Loss** (Toronto, Ontario: Canada Law Book, a Thomson Reuters business), 2025 (37th edition), Table 8-2.

WHAT IS THE HOUSEKEEPING DAMAGES CALCULATOR™ @ www.browneconomic.com?

The **Housekeeping Damages Calculator™ (HDC)** at 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.⁵⁴

Below, we show the "input" screen and "output" screen from the **HDC** using an example.

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 4) 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.

⁵⁴ 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).

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Economic Consulting Inc.

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

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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: Tuesday, September 23, 2025

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)?		38.5
2. How many hours did you sleep ON AVERAGE, per night?	7.0	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)?	2.5	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.)?	2.5 hours per day multiplied by 5 days AT work	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.)?	5.5 hours per day multiplied by 2 days OFF work	11
6. TOTAL #1 to #5		128.5
7. Regular housekeeping hours = 168 hours per week less total hours (in #6):		39.5
8. Percentage of household work you could do immediately after the incident:		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 January 1, 2027 to 80 %

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If plaintiff- or decedent-specific information is not yet available to use for the main input screen of the **Housekeeping Damages Calculator™**, 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.⁵⁵ 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™ ("HDC"), September/October 2012, vol. 9, issue #8, available upon request.

⁵⁵ Statistics Canada's *Classification of time use activities (grouped)*, 2022 (www23.statcan.gc.ca/imdb/).

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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, September 23, 2025

Reference ID: 0-0250977314

Name: Gender of the injured: Date of Birth : Date of Incident: Age at time of incident: Age at time of calculation: Province of residence: Province of incident: - Value at age 40 (2020 \$): (19.75 hours/week lost based on 50% capacity) - Value at age 45 (2025 \$): - Value at age 47 (2025 \$): (Changed to 80% capacity)	Newsletter example Female January 23, 1980 October 10, 2020 40 45 Ontario Alberta \$19,909 \$22,772 \$9,109
---	---

Past Loss (from date of incident to the date this calculation is made):	\$108,042
Present Value of Future Loss (from the date this calculation is made to when the plaintiff is 80 years old):	\$191,495
Total Loss of Housekeeping Capacity	\$299,538

☐ 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 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 (\$19,909 based on a 50% capacity loss resulting in 19.75 lost hours); at age 45, when the plaintiff's capacity to do housework increased from 50% to 80%, resulting in a lower annual replacement cost (\$22,772); and finally at age 47, when the reduction is applied for children aging out of housework (\$9,109). The pre-trial loss reflects all of these changes to the annual replacement cost. The future loss uses the annual cost of (\$9,109 going forward to the plaintiff's aged 80 (the usual age to which housekeeping losses are calculated⁵⁶), but inclusive of negative mortality and health contingencies. These values result in a total, discounted loss (net of negative contingencies) equal to **\$299,538**.

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.

⁵⁶ C.L. Brown, **Damages: Estimating Pecuniary Loss** (Toronto, Ontario: Canada Law Book, a Thomson Reuters business), 2025 (37th 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.

**Consumer Price Index****Unemployment Rate**

From August 2024 to August 2025*		For the month of August 2025	
(rates of inflation)			
Canada**	1.9%	Canada:	6.9%
Vancouver:	2.1%	Vancouver:	6.1%
Toronto:	1.4%	Toronto:	8.9%
Ottawa:	1.7%	Ottawa:	6.8%
Montréal:	2.8%	Montréal:	6.8%
Edmonton:	1.3%	Edmonton:	8.5%
Calgary:	1.4%	Calgary:	7.7%
Halifax:	2.4%	Halifax:	5.7%
St. John's, NF:	1.2%	St. John's, NF:	7.0%
Saint John, NB:	1.7%	Saint John, NB:	7.6%
Charlottetown (PEI):	1.1%	Charlottetown (PEI):	8.5%
* Using month-over-month indices. Source: Statistics Canada.			
** 12 month rolling average up to August 2025 is 1.9% (see non-pecuniary awards table).			

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UPDATING NON-PECUNIARY AWARDS FOR INFLATION (AUG. 2025, 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
August 2024-August 2025	1.019	\$10,193	\$25,482	\$50,963	\$76,445	\$101,926
Avg. 2023-August 2025	1.037	\$10,372	\$25,931	\$51,862	\$77,793	\$103,724
Avg. 2022-August 2025	1.077	\$10,775	\$26,937	\$53,875	\$80,812	\$107,749
Avg. 2021-August 2025	1.151	\$11,508	\$28,769	\$57,538	\$86,307	\$115,077
Avg. 2020-August 2025	1.190	\$11,898	\$29,746	\$59,492	\$89,238	\$118,984
Avg. 2019-August 2025	1.198	\$11,984	\$29,960	\$59,921	\$89,881	\$119,841
Avg. 2018-August 2025	1.222	\$12,218	\$30,544	\$61,089	\$91,633	\$122,177
Avg. 2017-August 2025	1.249	\$12,494	\$31,235	\$62,470	\$93,705	\$124,941
Avg. 2016-August 2025	1.269	\$12,694	\$31,734	\$63,468	\$95,202	\$126,936
Avg. 2015-August 2025	1.288	\$12,875	\$32,188	\$64,375	\$96,563	\$128,751
Avg. 2014-August 2025	1.302	\$13,020	\$32,550	\$65,101	\$97,651	\$130,201
Avg. 2013-August 2025	1.327	\$13,268	\$33,170	\$66,341	\$99,511	\$132,682
Avg. 2012-August 2025	1.339	\$13,393	\$33,481	\$66,963	\$100,444	\$133,925
Avg. 2011-August 2025	1.360	\$13,596	\$33,990	\$67,979	\$101,969	\$135,959
Avg. 2010-August 2025	1.399	\$13,992	\$34,979	\$69,958	\$104,937	\$139,916
Avg. 2009-August 2025	1.424	\$14,241	\$35,603	\$71,205	\$106,808	\$142,410
Avg. 2008-August 2025	1.431	\$14,309	\$35,771	\$71,543	\$107,314	\$143,085
Avg. 2007-August 2025	1.462	\$14,622	\$36,555	\$73,109	\$109,664	\$146,218
Avg. 2006-August 2025	1.493	\$14,934	\$37,335	\$74,670	\$112,005	\$149,340
Avg. 2005-August 2025	1.523	\$15,233	\$38,082	\$76,164	\$114,246	\$152,328
Avg. 2004-August 2025	1.557	\$15,570	\$38,926	\$77,852	\$116,778	\$155,704
Avg. 2003-August 2025	1.586	\$15,860	\$39,650	\$79,299	\$118,949	\$158,599
Avg. 2002-August 2025	1.630	\$16,298	\$40,744	\$81,488	\$122,232	\$162,976
Avg. 2001-August 2025	1.667	\$16,666	\$41,665	\$83,330	\$124,995	\$166,660
Avg. 2000-August 2025	1.709	\$17,085	\$42,713	\$85,427	\$128,140	\$170,853
Avg. 1999-August 2025	1.755	\$17,551	\$43,877	\$87,754	\$131,632	\$175,509
Avg. 1998-August 2025	1.785	\$17,855	\$44,637	\$89,274	\$133,910	\$178,547
Avg. 1997-August 2025	1.803	\$18,033	\$45,081	\$90,163	\$135,244	\$180,325
Avg. 1996-August 2025	1.832	\$18,325	\$45,811	\$91,623	\$137,434	\$183,245
Avg. 1995-August 2025	1.861	\$18,613	\$46,533	\$93,067	\$139,600	\$186,134
Avg. 1994-August 2025	1.901	\$19,013	\$47,532	\$95,065	\$142,597	\$190,130
Avg. 1993-August 2025	1.904	\$19,044	\$47,610	\$95,220	\$142,830	\$190,441
Avg. 1992-August 2025	1.940	\$19,400	\$48,500	\$97,000	\$145,500	\$194,000
Avg. 1991-August 2025	1.969	\$19,688	\$49,221	\$98,441	\$147,662	\$196,883
Avg. 1990-August 2025	2.080	\$20,796	\$51,991	\$103,982	\$155,972	\$207,963
Avg. 1989-August 2025	2.179	\$21,792	\$54,480	\$108,960	\$163,439	\$217,919
Avg. 1988-August 2025	2.288	\$22,878	\$57,195	\$114,390	\$171,585	\$228,780
Avg. 1987-August 2025	2.380	\$23,797	\$59,492	\$118,984	\$178,475	\$237,967
Avg. 1986-August 2025	2.483	\$24,834	\$62,085	\$124,169	\$186,254	\$248,339
Avg. 1985-August 2025	2.587	\$25,875	\$64,687	\$129,374	\$194,062	\$258,749
Avg. 1984-August 2025	2.690	\$26,900	\$67,250	\$134,500	\$201,750	\$269,000
Avg. 1983-August 2025	2.806	\$28,058	\$70,145	\$140,289	\$210,434	\$280,579
Avg. 1982-August 2025	2.970	\$29,705	\$74,262	\$148,524	\$222,785	\$297,047
Avg. 1981-August 2025	3.290	\$32,901	\$82,253	\$164,506	\$246,760	\$329,013
Avg. 1980-August 2025	3.701	\$37,011	\$92,528	\$185,056	\$277,583	\$370,111
Avg. 1979-August 2025	4.076	\$40,760	\$101,901	\$203,802	\$305,703	\$407,604
Jan. 1978-August 2025	4.643	\$46,427	\$116,068	\$232,137	\$348,205	\$464,274

\$118,984 = \$50,000 x 2.380 represents the dollar equivalent in August 2025 of \$50,000 based on inflation increases since 1987. Similarly, \$464,274 (= \$100,000 x 4.643) represents the dollar equivalent in August 2025 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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