Brown's Economic Damages Newsletter

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Cara Brown, M.A., Principal
Maureen Mallmes, B.Sc., SEMC
Dan Clavelle, M.Ec.
Laura Dick, B.A.
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Cindy Ghitter
Elda Figueira, MLS
J.C.H. Emery, Ph.D.
Frank Strain, Ph.D.
Stephen Clark, Ph.D.
Emmanuel Yiridoe, Ph.D.

Housekeeping Claims: Time Use Data from Statistics Canada's 2010 *General Social Survey* (GSS), cycle 24

In this newsletter issue, we introduce 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. This data is from Statistics Canada's 2010 *General Social Survey* ("GSS") and updates the 2005 data (from GSS cycle 19).

We compare the 2010 data to prior survey years in this issue, as well as produce housekeeping replacement rates in 2011 for all provinces and territories. We also review the notion of a "health contingency" which Brown Economic applies in all housekeeping calculations, similar to a disability contingency in income loss claims.

The previous editions of **Brown's Economic Damages Newsletter** which address housekeeping losses include:

- *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*], November 2005, vol. 2, issue #9

Time Use Data for loss of housekeeping capacity awards

Every year since 1985, Statistics Canada has conducted the *General Social Survey* ("GSS") by interviewing Canadians aged 15 and over living in the 10 provinces on a wide range of social issues. Using a 24-hour diary, the GSS has collected detailed information on time use in five different years using varying sample sizes: 1986 (16400), 1992 (9800), 1998 (10700), 2005 (19600),[1] and 2010 (15390).[2] The 1986 survey provided time diary estimates, and the 1992 survey provided diary[3] and stylized[4] time use estimates. A major objective of the 1992 survey was to improve the quality and reliability of measures of unpaid work; this was accomplished by expanding the coding of diary activities into 167 categories, eliminating the seasonality of estimates,[5] and combining two methods of data collection (i.e., the diary and stylized approaches).

Statistics Canada divides domestic work into "core housework" (done daily and take the most time),"non-core housework", "shopping and services", and "primary child care":

Core housework: meal preparation, meal clean-up, indoor cleaning, and laundry.

Non-core housework: outdoor cleaning, mending or sewing, interior and exterior maintenance and repair, gardening, pet and plant care, household paperwork, unpacking groceries.

Shopping and services:[6] everyday shopping (groceries, take-out food, renting videos), shopping for durable household goods, personal care services, government and financial services, adult medical and dental care, other professional services (lawyer, veterinarian), repair services (cleaning, auto, appliance), queuing for purchase, other shopping, and travel for goods and services.

Primary child care: activities directly involving children, such as feeding, helping, teaching, reading to, talking or playing with, medical care, and any related travel such as taking children to school or driving them to sports or other activities.[7]

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[1] Katherine Marshall, "Converging gender roles" *Perspectives in Labour and Income*, published by Statistics Canada catalogue #75-001-XPE Autumn 2006, vol. 18, pp. 7-19. The initial 2005 sample was 33470 with a response rate of 58.6%, yielding a sample size of 19613 (source: Statistics Canada, *The 2005 General Social Survey – Cycle 19 Time Use Public Use Microdata File Documentation and User's Guide* November 2006 product no. 12M0019-GPE, pp. 10-11).

[2] Source: Statistics Canada, *General Social Survey – 2010 Overview of the Time Use of Canadians* July 2011 catalogue no. 89-647-X, p. 29.

[3] The 'diary' approach asks respondents to record all of their activities during a specific time period (i.e., for a 24-hour-day). Simultaneous activities are also reported, as is where the activity is done and who the respondent is with. This approach is considered to be the least difficult for respondents because the respondents describe activities in their own words.

[4] The 'stylized' approach involves asking respondents to estimate how much time they spent on various activities over a specified period of time. For example, respondents are asked: "Last week, how many hours did you spend looking after children who live in your household?" The reference period is usually for a week. A variant of this approach is to ask if the activity were done during some time period, and if so how frequently was it done (i.e., how many times per week).

[5] The survey accomplished this by conducting its poll monthly throughout the year.

[6] Includes activity codes 301 to 390.

[7] Includes activity codes 200, 210, 220, 230, 240, 250, 260, 281, 291.

TABLE A: Comparison of paid work, housework & childcare, 1986 to 2010, Men & Women, Canada[8]

Gender / ages / year	Paid work (hours per day)	Housework (core & non-core) – hours per day	Child care (hours per day)
WOMEN, ages 25-54			
1986	6.7	3.1	2.1
1992	6.9	3.1	2.2
1998	7.1	2.8	2.3
2005	7.5	2.8	2.5
2010[9]	7.7	2.3	2.9
MEN, ages 25-54			
1986	7.7	1.9	1.5
1992	8.1	2.0	1.6
1998	8.1	1.8	1.8
2005	8.5	2.1	1.8
2010[10]	8.6	1.5	1.9

Source: Katherine Marshall, "Converging gender roles" *Perspectives in Labour and Income,* published by Statistics Canada catalogue #75-001-XPE Autumn 2006, vol. 18, no. 3, Table 1, p. 10; and Statistics Canada, *General Social Survey – 2010 Overview of the Time Use of Canadians* July 2011 catalogue no. 89-647-X, Table 1.1. From both sources, "participant" data is used, with the exception of the housework estimates in 2010.

Table A shows a progressively increasing *paid* workweek for women in the past two decades, but a slight decrease (10%) in housework, offset by a slight increase in childcare. Similarly, men's *paid* workweek has increased (exactly the same as women's workweek – 0.9 hours per day) although men work almost 1 more hour per day than women (8.6 versus 7.7). Men have steadily (albeit very slightly) have increased the time they spend on childcare, but have fluctuated in terms of time spent on housework (men spend approximately 2 hours per day, compared to women's 3 hours per day). Finally, although Table A purports to show a decline in both women's and men's time spent on "core" and "non-core" housework (by 0.5 or 0.6 hours per day, respectively), this trend is not definitive because it is based on a different data set than the previous years.[11] Accordingly, we do not place any confidence in this purported trend.

Instead, we report more specific data below in Tables B and C below for Canadian men and women by analyzing time spent per week by "role group". The "role groups" distinguish people by their employment status, partner's employment status, marital status, and if children under or over 5 years old are living at home. Brown Economic has purchased this custom data for the "court-ready" housekeeping loss assessments that are prepared. (It is not readily available in the public domain).[12]

[8] Hours per day for people who participate in the activity. Hours are higher than for the total population, which includes people who do not participate in the activity.
[9] The 2010 estimate for 'core' + 'non-core' housework is based on population data (all Canadians) over the age of 15, whereas the prior year's data is based on participants from ages 25 to 54, as shown in the heading in Table A above.
[10] The 2010 estimate for 'core' + 'non-core' housework is based on population data (all Canadians) over the age of 15, whereas the prior year's data is based on participants from ages 25 to 54, as shown in the heading in Table A above.
[11] Interestingly, the "participant" data for core and non-core housework in 2010 totaled 6.8 hours per day for males and females. These estimates are skewed upward by the time reported for "maintenance and repair" (2.5 to 2.8 hours per day) but only 10% of males and 3% of females reported doing such work. This is why we rely on the "population" data for this statistic in 2010 in Table A above (2.3 and 1.5 hours, respectively, for women and men). "Population" data includes in the average people who did not do any 'core' or 'non-core' housework.
[12] The custom tabulation procured by Brown Economic also shows data by age group, so that we can estimate housekeeping losses over the life cycle of the plaintiff. The data in Tables B and C are based on the entire population (ages 15 and over).

TABLE B: Average hours per week on domestic work, men & women (15 years and over), 2005 & 2010, Canada[13]

Role group	Year of GSS survey	
WOMEN: time spent on domestic work	**2005 cycle 19**	**2010 cycle 24**
Female employed, partner employed, no children	15.9	14.8
Female employed, partner employed, children < 5	14.6	14.2
Female employed, partner employed, children 5+ years old	18.2	17.7
Female keeping house, partner employed, no children	28.2	28.4
Female keeping house, partner employed, children < 5	23.0	19.7
Female keeping house, partner employed, children 5+ years old	27.7	27.3
Female employed, living alone	11.9	11.7
Female keeping house, lone parent, children < 5	18.4	19.8
Female keeping house, lone parent, children 5+ years old	25.3	26.0
Female retired, partner employed, no children	25.3	23.5
MEN: time spent on domestic work		
Male employed, partner employed, no children	11.0	10.7
Male employed, partner employed, children < 5	9.8	10.7
Male employed, partner employed, children 5+ years old	11.2	11.5
Male employed, partner keeping house, no children	9.3	7.4
Male employed, partner keeping house, children < 5	7.6	8.1
Male employed, partner keeping house, children 5+ years old	8.4	9.6
Male employed, living alone	8.7	9.7
Male retired, partner employed, no children	18.4	19.7

E: use with caution
F: too small to be published

The statistics in Table B above show remarkable consistency in time use for the role groups between 2005 and 2010. Most entries are within 1 to 1½ hours of each other. The exceptions to this pattern are: females keeping house, with a partner who is employed, with children under 5 (time use declined by 3.3 hours from 2005 to 2010); females retired, with employed partners and no children (time use declined by 1.8 hours from 2005 to 2010); and employed males with partners keeping house and no children (time use declined by 1.9 hours from 2005 to 2010). Overall, however, the similarity in the hours recorded for "domestic work" in both survey years lends a great deal of credibility to the estimates, even though they are based on household recall.

Married people with children do more housework than married couples without children; men and women living alone do the least amount of housework when contrasted to their counterparts. When men and women are compared, however, women do more housework than men no matter their marital status or childrearing status: women living alone do the minimum of almost 2 hours per day of housework, whereas men – of any status – do only about 1 hour per day – even when they have children at home.[14]

[13] Special tabulation prepared for Brown Economic Consulting by Statistics Canada's *Labour and Household Surveys Analysis Division* from the 2005 GSS cycle 19 and from the 2010 GSS cycle 24.
[14] Katherine Marshall, "Converging gender roles" *Perspectives in Labour and Income*, published by Statistics Canada catalogue #75-001-XPE Autumn 2006, vol. 18, no. 3, Chart D, p. 12.

The other pattern that emerges in Table C below is that females "keeping house" – whether they have partners or are lone parents – spend twice as much time on childcare than do females who are employed (approximately 30 to 35 hours by females "keeping house" versus 13 to 15 hours by females who are employed, with children *under 5;* and approximately 10 to 15 hours by females "keeping house" versus 5 hours by females who are employed, with children *over* 5 years old).

When we compare the role groups to one another, a few patterns emerge in both survey years. In all cases (men and women), parents do more "domestic work" when the children are *over* 5 years old than when they are *younger* than 5 years old. Of course, this comparison does not take into account the time spent on childcare, as we see in Table C below. The one anomalous finding in Table B above pertains to the "females keeping house" role groups, because the females with *no* children report doing *more* "domestic work" than when there *are* children present (28 hours per week in both survey years for "females keeping house" and no children versus 23.0/27.7 hours (in 2005) and 19.7/27.3 hours (in 2010) for "females keeping house" with children under 5/over 5, respectively). Again, however, when we take into account the time spent on "childcare" in Table C below, we can see that the total housework[15] in the households *with* children exceeds the total housework in households *without* children.

TABLE C: Average hours per week on childcare, men & women (15 years and over), 2005 & 2010, Canada[16]

Role group	Year of GSS survey	
WOMEN: time spent on childcare	**2005 cycle 19**	**2010 cycle 24**
Female employed, partner employed, children < 5	15.6	14.9
Female employed, partner employed, children 5+ years old	5.3	5.6
Female employed, partner keeping house, children < 5	13.4 E	14.6
Female employed, partner keeping house, children 5+ years old	F	3.5E
Female keeping house, partner employed, children < 5	29.1	32.9
Female keeping house, partner employed, children 5+ years old	12.1	13.8
Female keeping house, lone parent, children < 5	24.2E	35.5
Female keeping house, lone parent, children 5+ years old	10.8	14.9E
MEN: time spent on childcare		
Male employed, partner employed, children < 5	11.6	11.5
Male employed, partner employed, children 5+ years old	3.4	2.9
Male employed, partner keeping house, children < 5	8.6	11.3
Male employed, partner keeping house, children 5+ years old	3.2	3.4E

E: use with caution
F: too small to be published

What is interesting about the 2010 data in Table C is that women who are employed spend the same time on child care when the children are under 5 years old (14.9 and 14.6 hours per week, respectively) regardless of whether their mates are employed or "keeping house". Another finding worth noting is that in 2010, female "lone parents" spent more time

[15] In this comparison, we exclude time spent on "shopping and services", and only sum together time use spent on "domestic work" and "childcare".
[16] Special tabulation prepared for Brown Economic Consulting by Statistics Canada's *Labour and Household Surveys Analysis Division* from the 2005 GSS cycle 19 and from the 2010 GSS cycle 24.

on childcare (with children under *or* over 5 years old) than "females keeping house" (although this trend was reversed in the 2005 data).

The most consistent finding in Table C is that the time parents spend on "childcare" dramatically declines when the children are *over* 5 years old (compared to when they are *under* 5 years old), likely due, for the most part, to the enrolment of children in school. This trend emerges for all role groups in Table C.

Employed men spend the same amount of time on childcare whether their partners are employed or keeping house (about 11 hours when the children are *under* 5 years old, and about 3 hours when the children are *over* 5 years old) (Table C); but they do 2 hours less of "domestic work" when their partners are "keeping house" compared to when their partners are employed (Table B), regardless of the children's ages.

As with Table B, when the "childcare" data are compared from 2005 to 2010, there is a great deal of consistency shown in Table C, though somewhat less than with the "domestic work" estimates. The estimates that show the most discrepancy between the survey years are the "female keeping house, lone parent" estimates: a difference of more than 10 hours per week for the lone parents with children *under* 5 years old (24.2 hours in 2005 versus 35.5 hours in 2010); and a difference of 4 hours per week for the lone parents with children *over* 5 years old (10.8 hours in 2005 versus 14.9 hours in 2010). Note, however, in making this comparison the notation of "E" beside two of the estimates (which means "use with caution"). As a result, it would be premature to say that there is an upward trend in hours spent by female lone parents on childcare from 2005 to 2010.

Information from Statistics Canada's 2006 Census on unpaid housework

The Census survey, a mandatory survey that is conducted every 5 years, also asks questions about participation in unpaid work. This source is separate from the *General Social Survey* time use modules, but the information gathered from the Census is much more general, because it simply asks Canadians to select the "block" of hours that describes one's participation in unpaid work. As such, there are no specific point estimates for men and women; there are simply distributions of the population by time spent on unpaid work, by gender and age group.

An analysis of the distribution of unpaid work from the 2006 Census revealed the following:

- The proportion of core-age women (ages 25 to 65) who did not report doing any housework was only 3 to 5%. For men of the same age group, the proportion who did not do housework ranged from 7 to 10%
- The largest segment of the Canadian population who did not do any housework were the 15 to 24-year-olds (14 to 21%) and those 75 years and older (21 to 22%)
- Canadians between the ages of 15 and 24 do not do much housework. 14 to 20% of this age group do none at all (women and men, respectively); 50% of this age group do 5 hours or less of housework per week. This is likely due to the number of persons in this age group who are both living at home, attending school, and possibly working part-time
- 11 to 23% of women between the ages of 25 to 75+ spend 30 to 59 hours per week on housework. In comparison, except for the 65- to 74-year-old age group, less than 10% of men spend this much time on housework
- The largest proportions of Canadians do 5 to 14 hours per week of housework (25 to 40%)
- 20 to 30% of women spend 15 to 29 hours per week on housework between the ages of 25 and 75

- Of those who spend 15 to 29 hours per week on housework, slightly more than 10% of women do so compared to men
- Of the 65 to 74-year-olds, the largest share does between 5 and 29 hours of housework per week.
- Almost 50% of Canadian seniors over the age of 75 still do anywhere from 5 to 29 hours of housework per week

It should be remembered that these statistics *only* describe time spent on unpaid housework and as such *exclude* hours spent looking after children without pay. Any comparison or analysis conducted using the Census data must subsequently include an analysis of time spent on childcare.

Analysis of individuals aged 20 to 29: GSS data from 1986, 1998 & 2010

Statistics Canada published an analysis of cohort differences toward unpaid work using the GSS modules from 1986, 1998 and 2010 which allowed them to compare three different generations of Canadians: the 'late' baby boomers (born from 1957 to 1966 and between 20 and 30 years old in 1986); Generation 'X' (born from 1967 to 1979 and between 20 and 30 years old in 1998); and Generation 'Y' (born from 1981 to 1990 and between 20 and 30 years old in 2010). Note that all groups of Canadians studied in this article are between the ages of 20 and 29 years old.

The main observations and findings from this study are:

- Findings for the total population show that there has been an overall decline in time spent on housework in Canada and the United States;
- Time spent on housework by participants has narrowed between men and women – due entirely to a decrease in the time women spend on housework;
- Paid work hours for married men *with* children tended to be higher than those for single men and married men *without* children, but the opposite was true for women;
- After controls for other factors were applied, married women with children from all 3 generations did significantly fewer paid work hours than single women;
- Again, after controlling for other factors, in 1986 and 2010 women with higher education did significantly less housework than women with a high school diploma.[17] This finding was *not* due to the higher income households who were more likely to hire domestic help;[18]
- Research has shown that married men who had grown up in households with an employed mother spend more time on housework than married men who did not have an employed mother; and
- Despite the finding that more Canadians are involved in doing housework, overall they spend less time on it – from 2.1 hours per day in 1986 to 1.7 hours in 2010.

All of these conclusions must be tempered with the realization that they pertain strictly to Canadians between the ages of 20 and 29. Despite the narrowing of differences between Canadian men and women in this age group, men continue to have an overall greater involvement in paid work and a lesser involvement in housework. Moreover, as with past trends, dependent children at home tend to increase the division of labour within young dual-earner couples. For instance, analysis of the GSS 2010 data found that "regardless of the child's age, women spent more than twice as

[17] More women from Generation 'Y' had higher education than 'late baby boomer' women in 1986: 83% of Generation 'Y' women had more than a high school education, compared with 56% of 'late baby boomer' women in 1986.
[18] Marshall notes, "Only a small percentage of employed women aged 20 to 29 were in households that purchased cleaning services (7% in 2010)". (p. 21) Given the notion that expenditures are a function of income, this proportion does not reveal much about the propensity to use cleaning services, as older households would be more likely to do so given their income levels are higher than younger households.

much time on their care as did men", and this difference was only partially attributable to employment status. The GSS 2010 survey reports that "Women with young children who worked full time (30 or more hours a week) spent a total of 5 hours 13 minutes a day on childcare. In comparison, men in the same situation spent 2 hours 59 minutes taking care of their children."[19]

Hourly Replacement Rates for loss of housekeeping capacity awards

Table D shows the hourly replacement rates to use for quantifying loss of housekeeping capacity awards. This data is shown for each province and territory in Canada, based on the 2006 Census data, and the federal government's **Working in Canada** website.[20]

Table D: Hourly replacement rates for housekeeping / valuable services, by province and territory (rates expressed in 2011 dollars)

Province/Territory	Source(s) of data	Average rate in 2011 Dollars[1]
Northwest Territories[2]	Statistics Canada's 2001/2006 Census (NOC-S G811)	$27.46
Yukon[2]	Statistics Canada's 2006 Census (NOC-S G811), WIC[3] (NOC 6471)	$21.75
Average NWT & Yukon		$24.60
British Columbia	Statistics Canada's 2006 Census (NOC-S G811), WIC[3] (NOC 6471)	$15.46
Ontario	Statistics Canada's 2006 Census (NOC-S G811), WIC[3] (NOC 6471)	$16.22
Alberta	Statistics Canada's 2006 Census (NOC-S G811), WIC[3] (NOC 6471), 2009 *Alberta Wage and Salary Survey* (NOC 6471)	$15.35
Saskatchewan	Statistics Canada's 2006 Census (NOC-S G811), WIC[3] (NOC 6471), *Saskatchewan Job Futures* (NOC 6471), 2009 *Saskatchewan Wage Survey* (NOC 6471)	$14.34
Manitoba	Statistics Canada's 2006 Census (NOC-S G811), WIC[3] (NOC 6471)	$14.18
Average Prairies		$14.62
New Brunswick	Statistics Canada's 2006 Census (NOC-S G811), WIC[3] (NOC 6471), *2003 New Brunswick Wage Survey* (NOC 6471)	$11.96
Prince Edward Island	Statistics Canada's 2006 Census (NOC-S G811), WIC[3] (NOC 6471), Service Canada's *PEI Wage Survey 2006* (NOC 6471)	$14.72
Nova Scotia	Statistics Canada's 2006 Census (NOC-S G811), WIC[3] (NOC 6471)	$14.79
Newfoundland	Statistics Canada's 2006 Census (NOC-S G811), WIC[3] (NOC 6471)	$13.34
Average Atlantic Canada		$13.70

[1] Figures are adjusted to 2010 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), Ontario, Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, and Saskatchewan. We assume 2.0% wage inflation from 2010 to 2011 based on the Bank of Canada's inflation target of 2.0%.

[2] 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 $20.72 in 2011 dollars).

[3] www.workingincanada.gc.ca, data for each respective province and territory (formerly "labourmarketinformation.ca").

[19] Statistics Canada, *General Social Survey – 2010 Overview of the Time Use of Canadians* July 2011 catalogue no. 89-647-X, p. 8.

[20] To view the hourly wages for NOC-S G811/NOC 6471 (visiting housekeepers), click on www.workingincanada.gc.ca > click on "Compare wages or outlooks" and search either by NOC code or job title. (This Internet site was formerly known as "www.labourmarketinformation.ca").

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 pre-incident weekly hours spent on housework and childcare versus post-incident hours (or the decedent's pre-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 quantum expert 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.

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

With respect to evidence about housekeeping hours, a quantum expert's assessment begins with the plaintiff's evidence and usually compares this to statistical averages, matching the plaintiff'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 using their *General Social Surveys.* The most recent one done by Statistics Canada was in 2010. (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.)

The plaintiff's evidence is gathered in terms of a survey, but this survey should be especially designed keeping in mind the biases that can be introduced by persons who have no experience in creating surveys. Statistics Canada has published various articles about such biases, especially with regard to asking respondents about time use recall.

Brown Economic has created a *Diary of Household Activities* ™ 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* ™ 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.

To access our *Diary of Household Activities* ™ online, please visit www.browneconomic.com > Products and services menu > Diaries & Checklists.

To access our *Housekeeping Damages Calculator* ™ (HDC), visit www.browneconomic.com > **Economic Loss Calculators** > Housekeeping (pay per use).

(2) Replacement rate

Table D above shows the hourly rates we assign to the plaintiff's or decedent's unpaid housework/childcare time. In conjunction with the hours per week and the rate per hour, an annual estimate is derived.[21]

Table D shows rates expressed in 2011 currency. We use wage index NAICS[22] 5617 ("services to buildings and dwellings")[23] to inflate or deflate the hourly replacement rates to years prior to 2011. Not only it is inappropriate to use the consumer price index ("CPI")[24] it would also be inappropriate to use the industrial *aggregate* wage index (which aggregates wages across *all* industries) from NAICS.

There are some experts who claim that they use replacement rates based on a 'survey' of rates charged by cleaning agencies within a province. However, quantum experts who claim to "survey the whole population" of housekeepers using the telephone book cannot possibly contact the "whole population" because this is impossible to do unless you have government resources available to you.[25]

Another aspect of 'surveying' is that it is not possible to phone a contact and simply ask how much they charge, or phone a household and ask how much they pay a housekeeper. One of the well known polling agencies in the country, the *IPSOS/Reid Omnibus* organization, conducted a sample of people in Alberta about whether they hired housekeepers and what they paid them in 2005 at the behest of the Occupational Therapists' Association of Alberta. In explaining the method they employed, the authors of the survey had this to say:

> It is not possible to ask a survey respondent, in a telephone based survey, how much they pay per cleaning person per hour. *The respondent simply would not be able to reliably respond.* Therefore the respondents were pre-screened to ensure that they used cleaners. They were then asked how many cleaners, how frequently the cleaners come, how much they pay in total and how many hours it takes for the cleaners to do their work.[26]

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[21] An exception to this might occur in a report by a cost of care or rehabilitation expert. If these expert reports are available, typically the quantum expert will defer to these assessments, because the cost of care or rehabilitation expert will have interviewed and evaluated the plaintiff's functional abilities and/or interviewed the family about the deceased. In some cases, calculations using both rates can be supplied.

[22] NAICS = North American Industry Classification Sector.

[23] NAICS 5617 refers to the industry sector "services to buildings and dwellings". Although the 'ideal' code may well be NAICS 814, "Private households" (which tracks workers employed in the operation of private households) but data for this disaggregated 3-digit NAICS code is not available either for Canada or any of the provinces or territories. The reason for this is that the SEPH data is derived from payroll data supplied by businesses to Canada Revenue Agency for the purpose of source deductions, which often families who are hiring private individuals do not submit. In the documentation for the SEPH data, they publish a caveat that says "The target population is composed of all the employers in Canada who remit amounts deducted at source such as income tax, QPP, CPP, and EI to Canada Revenue Agency for their employees and for whom they will issue a T-4 form at the end of the year. All industries are included except those primarily involved in agriculture, fishing and trapping, private household services, religious organizations and the military personnel of the defence services." The NAICS code 5617 includes establishments primarily engaged in "cleaning buildings interiors and windows" and "landscaping installation, care and maintenance". It also includes code 561722 Janitorial services (except window cleaning) and code 561730 landscaping services. It also includes code 561799, "all other services to buildings and dwellings" which include the cleaning of swimming pools, drains and gutters, light maintenance, and snow ploughing. These services are consistent with many of the activity codes collected in Statistics Canada's *General Social Survey* ("GSS"), the main time use survey for information on Canadians who devote time to unpaid activities around the home.

[24] For discussion on the difference between wage inflation and price inflation see *Brown's Economic Damages Newsletter* "Wage inflation data: CPI versus SEPH" April 2009, vol. 6, issue 3.

[25] Confirmed in communication with a representative who uses the IPSOS/Reid Omnibus organization to conduct random surveys in Alberta. The only "survey" that comprises the entire population in Canada is the Census, and it is conducted every 5 years, and law assures compliance. No other organizations ever claim to survey the 'whole population'. Indeed, this representative indicated that only 800 persons (randomly selected) in Alberta are required to obtain survey results that are statistically reliable. (In other words, surveying more than 800 persons does not improve the reliability or accuracy of the survey – the same results are obtained). Choosing survey participants from a directory is not random. If the participants are not randomly selected, the survey is not statistically representative.

[26] IPSOS/Reid Omnibus, *Cleaning Survey: A report on the findings of a province wide survey to determine the average hourly cost of having a home cleaned,* Profit Matters: November 2005.

There are other problems with this kind of 'survey':

> …a simple telephone survey of agencies selected from the *Yellow Pages* does not qualify as a statistically reliable survey. For instance, some consultants have self-published the results of contacting a mere 6 organizations for their agency cleaning rates. This would be on par with what we call 'anecdotal' information, which is on the farthest end of the statistical spectrum in terms of representativeness or reliability. Precisely because the consulting company chose the source of the survey information, the results of their "survey" are biased, not statistically representative, and incomplete. It excludes key information: rates from individuals and nannies that perform housekeeping services who do not advertise in the *Yellow Pages* are not contacted. It is a 'self-selected' survey: it depends on the preferences and biases of whoever chooses the names from the *Yellow Pages.* It also depends on who from the agencies in the *Yellow Pages* answers the call from the consulting company on the particular "survey" day; if they are asked identical questions or not; and how the survey intaker reports the information. Individuals who are not trained and versed in survey-taking (unlike the *IPSOS/ Reid Omnibus* survey organization) ask leading questions, neglect to ask other questions, and bias the responses by the way they frame the questions. That is why the *IPSOS/Reid Omnibus* survey had to ask five questions in order to calculate a statistically reliable housecleaning rate…
>
> It is also important to note the use of agencies in these *Yellow Pages* "surveys". ALL agencies charge higher rates than *individuals* who clean houses. We know this because: (1) they pay to advertise in the *Yellow Pages;* (2) the term "agency" denotes an organization with overhead (cleaning supplies); and (3) agencies likely incur payroll costs (employer contributions to CPP, EI and benefit plans) and GST.[27]

Justice Rooke stated in *Thibert v. Zaw-Tun*[28] about the housekeeping rate that:

> "To the extent that the cost of commercial housekeeping services is used as a reference point, *some discount is appropriate to reflect* greater efficiency on the part of professional housekeepers and the *inclusion of overhead and profit* items in the commercial cost." (emphasis added)

(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.

[27] C.L. Brown, *Damages: Estimating Pecuniary Loss* loose-leaf (Aurora, Ontario), 2011 forthcoming, chapter 9.
[28] (2006), 64 Alta. L.R. (4th) 41, 151 A.C.W.S. (3d) 232 (Q.B.).

(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.

In *Mahe v. Boulianne* (2008),[29] 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)

Our source for the negative "health" contingency is from Expectancy Data's *Healthy Life Expectancy Mortality & Morbidity Analysis 2006 Tables* (Shawnee Mission, Kansas: 2010).

(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). Statistics Canada's *Life Tables, Canada and Provinces, 2000-02* are the main source for this assumption.

(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 award.

Most provinces and territories in Canada stipulate a mandated discount rate[30] 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's Economic Damages Newsletter,** *Real Discount Rate: what is the best interest rate for civil litigation?* December 2010/ January 2011, vol. 7, issue #12.

[29] (2008) ABQB 680, filed Dec. 17, 2008. The author testified on behalf of the plaintiff in this matter.
[30] For a summary of mandated real discount rates in Canada, see Table B-1 in **Brown's Economic Damages Newsletter,** *Real Discount Rate: what is the best interest rate for civil litigation?* December 2010/January 2011, vol. 7, issue #12, p. 5.

UPDATING NON-PECUNIARY AWARDS FOR INFLATION (JULY 2011, CANADA)

		Non-Pecuniary Damages - Sample Awards				
Year of Accident/ Year of Settlement or Trial	"Inflationary" Factors*	$10,000	$25,000	$50,000	$75,000	$100,000
July 2010-July 2011	1.026	$10,259	$25,647	$51,295	$76,942	$102,589
Avg. 2009-July 2011	1.035	$10,352	$25,880	$51,761	$77,641	$103,522
Avg. 2008-July 2011	1.040	$10,401	$26,003	$52,006	$78,009	$104,013
Avg. 2007-July 2011	1.063	$10,629	$26,572	$53,145	$79,717	$106,290
Avg. 2006-July 2011	1.086	$10,856	$27,140	$54,280	$81,420	$108,559
Avg. 2005-July 2011	1.107	$11,073	$27,683	$55,365	$83,048	$110,731
Avg. 2004-July 2011	1.132	$11,319	$28,296	$56,593	$84,889	$113,186
Avg. 2003-July 2011	1.153	$11,529	$28,822	$57,645	$86,467	$115,290
Avg. 2002-July 2011	1.185	$11,847	$29,618	$59,236	$88,854	$118,472
Avg. 2001-July 2011	1.211	$12,115	$30,287	$60,575	$90,862	$121,150
Avg. 2000-July 2011	1.242	$12,420	$31,049	$62,099	$93,148	$124,198
Avg. 1999-July 2011	1.276	$12,758	$31,896	$63,791	$95,687	$127,582
Avg. 1998-July 2011	1.298	$12,979	$32,448	$64,895	$97,343	$129,791
Avg. 1997-July 2011	1.311	$13,108	$32,771	$65,542	$98,312	$131,083
Avg. 1996-July 2011	1.332	$13,321	$33,301	$66,603	$99,904	$133,206
Avg. 1995-July 2011	1.353	$13,531	$33,826	$67,653	$101,479	$135,306
Avg. 1994-July 2011	1.382	$13,821	$34,553	$69,105	$103,658	$138,210
Avg. 1993-July 2011	1.384	$13,844	$34,609	$69,218	$103,827	$138,436
Avg. 1992-July 2011	1.410	$14,102	$35,256	$70,512	$105,768	$141,024
Avg. 1991-July 2011	1.431	$14,312	$35,780	$71,560	$107,340	$143,119
Avg. 1990-July 2011	1.512	$15,117	$37,794	$75,587	$113,381	$151,174
Avg. 1989-July 2011	1.584	$15,841	$39,603	$79,206	$118,809	$158,411
Avg. 1988-July 2011	1.663	$16,631	$41,577	$83,153	$124,730	$166,306
Avg. 1987-July 2011	**1.730**	$17,298	$43,246	**$86,492**	$129,739	$172,985
Avg. 1986-July 2011	1.805	$18,052	$45,131	$90,262	$135,393	$180,524
Avg. 1985-July 2011	1.881	$18,809	$47,023	$94,046	$141,069	$188,091
Avg. 1984-July 2011	1.955	$19,554	$48,886	$97,772	$146,657	$195,543
Avg. 1983-July 2011	2.040	$20,396	$50,990	$101,980	$152,970	$203,960
Avg. 1982-July 2011	2.159	$21,593	$53,983	$107,966	$161,949	$215,931
Avg. 1981-July 2011	2.392	$23,917	$59,792	$119,584	$179,376	$239,168
Avg. 1980-July 2011	2.690	$26,904	$67,261	$134,522	$201,783	$269,044
Avg. 1979-July 2011	2.963	$29,630	$74,075	$148,149	$222,224	$296,298
Jan. 1978-July 2011	**3.375**	$33,749	$84,373	$168,746	$253,120	**$337,493**

$86,492= $50,000 x 1.730 represents the dollar equivalent in July 2011 of $50,000 based on inflation increases since 1987. Similarly, $337,493 (=$100,000 x 3.375) represents the dollar equivalent in July 2011 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).

Consumer Price Index — Unemployment Rate

From July 2010 to July 2011* (rates of inflation)		For the month of July 2011	
Canada**	2.7%	Canada:	7.2%
Vancouver:	1.6%	Vancouver:	7.0%
Toronto:	2.8%	Toronto:	8.3%
Edmonton:	1.9%	Edmonton:	5.3%
Calgary:	1.8%	Calgary:	5.8%
Halifax:	3.2%	Halifax:	6.3%
St. John's, NF:	3.2%	St. John's, NF:	6.0%
Saint John, NB:	3.8%	Saint John, NB:	6.3%
Charlottetown:	2.8%	Charlottetown (PEI):	11.6%

* Using month-over-month indices. Source: Statistics Canada

** 12 month rolling average up to July 2011 is 2.6% (see table above).

Brown Economic Consulting Inc.

HEAD OFFICE
#216, 5718-1A Street South West
Calgary, AB T2H 0E8
T 403.571.0115 F 403.571.0932

#907, 1128 Sunset Drive
Kelowna, B.C. V1Y 9W7
Toll 1.800.301.8801

1791 Barrington St., Suite 300
Halifax, NS B3J 3R7
Toll 1.800.301.8801

Email help@browneconomic.com
Web www.browneconomic.com