



# Brown's Economic Damages Newsletter

January 2014

Volume Eleven Issue 1

Brown Economic offers 5 user-friendly, economic loss calculators for quick, accurate, and cost-effective damages estimates, available @ [www.browneconomic.com](http://www.browneconomic.com):

- Non-Pecuniary (free)
- Working Life / Life Expectancy (free)
- Present Value (free)
- Housekeeping (pay per use)
- Income Damages (pay per use)

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

## The Impact of Disability in Canada: Follow-up to the 2001/2006 PALS Surveys

By Cara L. Brown, M.A. & Rachel A. MacKenzie, B.A. (Economics), J.D.

### Prior issues of Brown's Economic Damages Newsletter

related to this month's topic:<sup>1</sup>

- ◆ "2006 PALS: Wage deficits by education level & dealing with self-employed plaintiffs using the PALS data", **May 2011**, vol. 8, issue #4
- ◆ "2006 PALS: Wage deficits by degree of severity (replicating the 2001 PALS regression results)", **February 2011**, vol. 8, issue #1
- ◆ "2006 *Participation and Activity Limitation Survey* ('PALS'): preliminary results" **January 2010**, vol. 7, issue #1
- ◆ "Facial disfigurement: How do you measure economic loss and is there a loss of marriage benefit to be claimed?" **December 2009**, vol. 6, issue #9
- ◆ "Proving economic loss when injury isn't obviously manifest & magnitude of impact unknown at settlement" **November/December 2007**, vol. 4, issue #8
- ◆ "*Participation and Activity Limitation Survey* ('PALS') – Profile of Disability in Canada" **March 2007**, vol. 4, issue #3
- ◆ "Reduction in housework due to disability (2001 PALS & 1991 HALS data)" **February 2007**, vol. 4, issue #2
- ◆ "Additional findings from the 2001 PALS, with comparisons to the 1991 HALS" **July/August 2005**, vol. 2, issue #7
- ◆ "2001 PALS (*Participation and Activity Limitation Survey*) Results: Wage gaps due to disability" **June 2005**, vol. 2, issue #6

Another source produced by Brown Economic is the article co-authored by Ms. Brown and Dr. Emery entitled "The Impact of Disability on Earnings and Labour Force Participation in Canada: Evidence from the 2001 PALS and from Canadian Case Law". Journal of Legal Economics April 2010 16(2): pp. 19-59.

Feel free to email us at [help@browneconomic.com](mailto:help@browneconomic.com) if you want a copy of one of the newsletter issues above or the JLE (2010) article.

<sup>1</sup> To request back issues of our newsletter, go to: [www.browneconomic.com](http://www.browneconomic.com) > **RESEARCH & PUBLICATIONS** > *Brown's Economic Damages Newsletter* > click on "Newsletter index" to view issues extending back to 2000, by topic. To request prior issues, click on the "Back issues" on the left-hand side menu and complete the email request.

## The 2012 Canadian Survey on Disability (“CSD”)

The 2012 *Canadian Survey on Disability* (“CSD”), successor to the 2001/2006 *Participation and Activity Limitation Surveys* (“PALS”), released its initial findings on December 3, 2013. The CSD was developed by Statistics Canada in collaboration with Employment and Social Development Canada (“ESDC”) (formerly Human Resources and Skills Development Canada). Input for the survey was acquired from the ESDC’s “Persons with Disabilities Technical Advisory Group”, which included experts in the field of disability, academics, and representatives from various community associations, as well as members from ESDC and Statistics Canada.<sup>2</sup>

The CSD, a voluntary survey, took place between September 24, 2012 to January 13, 2013 and gathered information about individuals aged 15 and over (as of Census/NHS day, May 10, 2011) whose daily activities are limited due to a long-term condition or health-related problem. One of the survey objectives was to allow for the estimation of the number of individuals with a disability by province/territory and of various age groups in the population (15 to 24 years old, 25 to 44 years old, 45 to 64 years old, 65 to 74 years old and 75 years and over).<sup>3</sup> The total sample size for the CSD was 45,443 individuals<sup>4</sup> with an overall response rate of 74.6%.<sup>5</sup> This compares favorably to the 2001 PALS and 2006 PALS samples: their sample sizes were 43,276 and 47,793, respectively.<sup>6</sup>

Rather than a *medical* model, the CSD is based on a *social* model premised around the idea that disability is the result of the interaction between a person’s functional limitations and barriers in the environment, including social and physical barriers that make it harder to function day-to-day.<sup>7</sup> Under the CSD, disability is a social disadvantage that an unsupportive environment imposes on top of an individual’s impairment.<sup>8</sup> The move more fully towards a social model came after Canada ratified the *United Nations Convention on the Rights of Persons with Disabilities* in 2010. Consistent with Article 31 on Statistics and Data Collection, ESDC introduced the New Disability Data Strategy and started developing a new set of questions to identify persons with disabilities, the Disability Screening Questions (“DSQ”). The DSQ seeks to achieve greater consistency in disability identification by type, and to improve coverage of the full range of disability types, especially mental/psychological, learning and memory disabilities.<sup>9</sup>

According to Statistics Canada, “an estimated 3.8 million adult Canadian reported being limited in their daily activities due to a disability in 2012. This represents 13.7% of the adult population.”<sup>10</sup> This percentage is almost identical to the

<sup>2</sup> Statistics Canada, *Canadian Survey on Disability, 2012: Concepts and Methods Guide*, Social and Aboriginal Statistics Division, (Minister of Industry: 2013), catalogue no. 89-654-X, no. 2014001, at p. 5.

<sup>3</sup> Statistics Canada, *Canadian Survey on Disability (CSD)*, December 3, 2013, accessed online at <<http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&db=imdb&adm=8&dis=2&SDDS=3251&lang=en>>. For each of the three territories, the estimation domain includes a single age group (15 years and over) and for Prince Edward Island, the first two age groups were combined because of very small population sizes.

<sup>4</sup> The 2012 CSD was based on a sample of persons who reported an activity limitation on the 2011 *National Household Survey* (NHS) and who were 15 years of age or older as of the date of the NHS (May 10, 2011). The NHS excluded the institutionalized population and “for operational reasons”, excluded populations living on First Nation reserves.

<sup>5</sup> Statistics Canada, *Canadian Survey on Disability, 2012: Concepts and Methods Guide*, Social and Aboriginal Statistics Division, (Minister of Industry: 2013), catalogue no. 89-654-X, no. 2014001, at p. 5.

<sup>6</sup> As per Statistics Canada’s *Participation and Activity Limitation Survey 2006: Tables*. Catalogue no. 89-628-XIE – No. 003 (Ottawa: Minister of Industry, 2007); and Statistics Canada’s *Participation and Activity Limitation Survey 2006: Technical and Methodological Report*. Catalogue no. 89-628-XIE – No. 001 (Ottawa: Minister of Industry, 2007).

<sup>7</sup> Statistics Canada, *Canadian Survey on Disability, 2012: Concepts and Methods Guide*, Social and Aboriginal Statistics Division, (Minister of Industry: 2013), catalogue no. 89-654-X, no. 2014001, at p. 5.

<sup>8</sup> Mackenzie, A., Hurst, M., and Crompton, S., “Defining disability in the Participation and Activity Limitation Survey”, *Canadian Social Trends*, (Statistics Canada: 2009/2012), catalogue no. 11-008-X.

<sup>9</sup> Statistics Canada, *Canadian Survey on Disability, 2012: Concepts and Methods Guide*, Social and Aboriginal Statistics Division, (Minister of Industry: 2013), catalogue no. 89-654-X, no. 2014001, at p. 6.

<sup>10</sup> Statistics Canada, *Disability in Canada: Initial findings from the Canadian Survey on Disability*, Social and Aboriginal Statistics Division, (Minister of Industry: 2013), catalogue no. 89-654-X, no. 002, at p. 3.

population surveyed in the 2001 PALS and 2006 PALS surveys: in the 2001 PALS, 12.4% of the total Canadian population reported being disabled; in the 2006 PALS, this rate changed to 14.3% overall.<sup>11</sup>

### ***Differences between the 2012 CSD on the 2006 PALS***

Before exploring the results of the 2012 CSD it is important to note the differences between the 2012 CSD and the 2006 PALS, as the concepts and methods used to determine disability in the 2012 CSD represent a significant departure from those used in the 2006 PALS; specifically, the most important change is that the two surveys used a different definition of disability.<sup>12</sup> The PALS screening questions used a hybrid approach to identify types of disabilities and a medical model for other types, whereas the CSD screening questions (described as the disability screening questions, or “DSQ”) were designed to provide **greater consistency in disability identification by type**. According to Statistics Canada’s *Canadian Survey on Disability, 2012: Concepts and Methods Guide*:

Based on their responses to the DSQ, **respondents are identified as having a disability only if their activities are limited<sup>13</sup> as a result of any impairment or difficulty with particular tasks** (p. 44, emphasis added).

The CSD (adopting the DSQ) allows respondents to determine whether they face activity limitations as a result of these difficulties or impairments. Some people who indicate that they have some difficulty with certain tasks or have an impairment of some type go on to indicate that this never interferes with their daily activities. **In PALS, these individuals were considered to have a disability, but in the CSD, they are not** (p. 44).

In other words, the social model of disability implies that the presence of a difficulty alone is not sufficient for the identification of a disability – **a limitation in daily activities must also be declared**. It appears this change will have the largest impact on identifying persons with sensory and physical disabilities because the 2006 PALS identified persons as having a sensory or physical disability based solely on an indication of some difficulty with certain tasks. Additional changes to screening questions that may impact the results include added examples of more prevalent mental/psychological disabilities (such as depression, anxiety, and bipolar disorder) and excluding examples of less prevalent conditions that are more highly stigmatized (such as schizophrenia).<sup>14</sup>

Two further differences between the two surveys is that the identification of communication disabilities was done in the PALS but not in the CSD; and the concept of an “agility” disability used in the PALS was split into two types in the CSD: flexibility and dexterity, as qualitative tests showed that people found these two tasks to be quite different from each other and relate to different underlying conditions.<sup>15</sup> In an article found on the Statistics Canada website, they

<sup>11</sup> Statistics Canada, “A New Approach to Disability Data: Changes between the 1991 *Health and Activity Limitation Survey* (HALS) and the 2001 *Participation and Activity Limitation Survey* (PALS)”. Catalogue no. 89-578-XIE (Ottawa: Minister of Industry, 2002); and Statistics Canada’s *Participation and Activity Limitation Survey 2006: Tables*. Catalogue no. 89-628-XIE – No. 003 (Ottawa: Minister of Industry, 2007).

<sup>12</sup> Statistics Canada, *Canadian Survey on Disability, 2012: Concepts and Methods Guide*, Social and Aboriginal Statistics Division, (Minister of Industry: 2013), catalogue no. 89-654-X, no. 2014001, at p. 6.

<sup>13</sup> The only exception to this is for developmental disabilities where a person is considered to be disabled if the respondent has been diagnosed with this condition. Source: Statistics Canada, *Canadian Survey on Disability, 2012: Concepts and Methods Guide*, Social and Aboriginal Statistics Division, (Minister of Industry: 2013), catalogue no. 89-654-X, no. 2014001, at p. 44.

<sup>14</sup> Statistics Canada, *Canadian Survey on Disability, 2012: Concepts and Methods Guide*, Social and Aboriginal Statistics Division, (Minister of Industry: 2013), catalogue no. 89-654-X, no. 2014001, at p. 44.

<sup>15</sup> Statistics Canada, *Canadian Survey on Disability, 2012: Concepts and Methods Guide*, Social and Aboriginal Statistics Division, (Minister of Industry: 2013), catalogue no. 89-654-X, no. 2014001, at pp. 44-45.

summarize the differences as follows:<sup>16</sup>

- The definition of disability differs: the CSD has adopted the newly developed DSQ to identify disability in Canada
- Screening questions in the CSD (i.e. the DSQ) more “closely reflect the social model of disability” and are consistent across all types of disabilities
- Questionnaire content has been streamlined and updated to reflect current technology and “correct weaknesses in question wording”
- Calculation weighting is slightly different for the CSD than the PALS because of the longer lag time between the NHS and the CSD follow-up
- The sampling frame for the CSD was derived from the 2011 NHS rather than the 2001 or 2006 Census<sup>17</sup>

Statistics Canada concluded the comparison of the CSD to the PALS with the following statement: “All of these changes should be assumed to affect comparability of the surveys. Comparison of CSD data to PALS data is, therefore, neither possible nor recommended.”

With due respect, however, the CSD and PALS surveys share significant common denominators, the **most important being that they survey the experiences of disabled Canadians**. Moreover, both the response rate and the sample sizes of the surveys are robust and similar. Finally, it should be remembered that even if the CSD should not technically be compared to the PALS surveys, this does not lessen the importance of the CSD data on its own, and the usefulness of the results from it, with or without comparisons to the PALS surveys.

### ***Preliminary Findings from the 2012 CSD***

In this issue of **Brown’s Economic Damages Newsletter**, we present preliminary findings from several catalogues released by Statistics Canada using the 2012 CSD data. Note that these findings fall into the category of “descriptive statistics”, in that they are simple medians or average statistics. No attempt yet has been made to analyze this data in terms of regression analysis, which allows us to control for the impact of other variables than disability on earnings and employment. Nonetheless, these “descriptive statistics” are a starting point in observing the experience of disabled persons in the Canadian labour force.

Figure 1 shows the breakdown of **severity of disability** from the 2012 CSD between mild, moderate, severe and very severe in the total Canadian population.<sup>18</sup> The comparison to the 2006 PALS is as follows: the CSD has fewer mildly disabled persons (almost 4.5% versus 6.0% from the 2006 PALS); fewer moderately disabled persons (2.75% versus 4.0% from the 2006 PALS); fewer severely disabled persons (3.0% versus 4.2% from the 2006 PALS); and more “very

<sup>16</sup> Statistics Canada, “The 2012 Canadian Survey on Disability (CSD) and the 2006 Participation and Activity Limitation Survey (PALS)” accessed at [http://www23.statcan.gc.ca/imdb-bmdi/document/3251\\_D6\\_T9\\_V1-eng.pdf](http://www23.statcan.gc.ca/imdb-bmdi/document/3251_D6_T9_V1-eng.pdf).

<sup>17</sup> The main difference between the 2001/2006 Census and the 2011 NHS is that the former were mandatory to complete and thus the income data was drawn from a random 20% of the population. The 2011 NHS, instead, was issued as a voluntary survey. We expect this will reduce the sample size of the NHS (and lessen the “randomness” factor) but in point of fact the CSD population is similar to the 2001/2006 PALS populations.

<sup>18</sup> Statistics Canada, *Canadian Survey on Disability* December, 2013. Catalogue no. 89-654-X – No. 001 (Ottawa: Minister of Industry), Tables 1.1 and 4.1. Note that this data combines both genders.

severe” disabled persons (3.5% from the 2012 CSD versus 2.0% from the 2006 PALS).<sup>19</sup> These findings are consistent with the change in definition in the 2012 CSD, which identifies people as disabled not only if they have been diagnosed with a condition or illness, but that it has to affect their lives (i.e., impose limitations on activity).

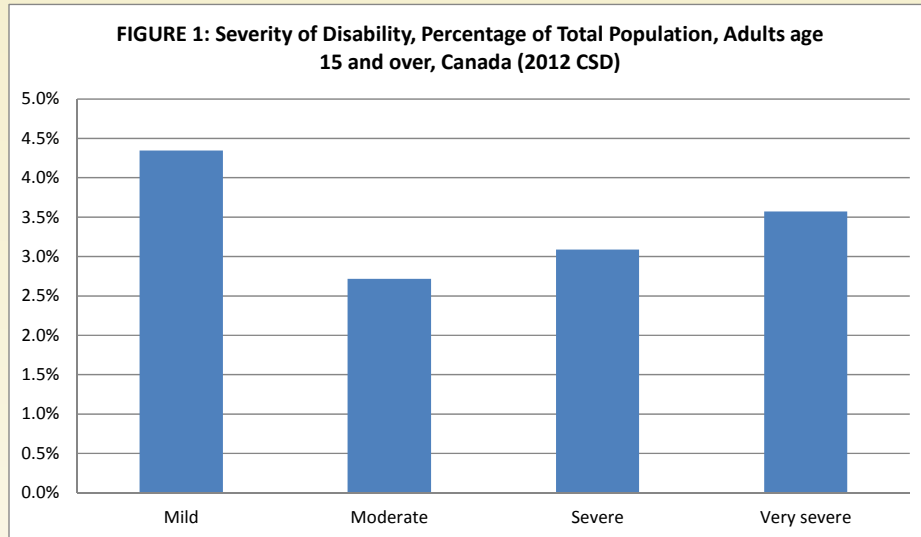
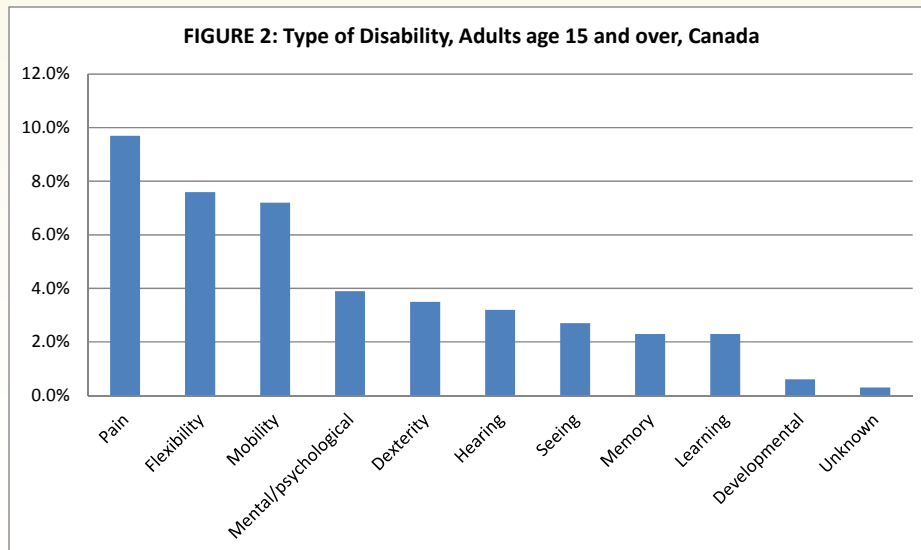


Figure 2 shows the breakdown of disabled Canadians in terms of the **type of disability** reported<sup>20</sup> from the 2012 CSD.



The findings from Figure 2 are consistent with the 2006 PALS distribution of disability by type, with exceptions. The findings that are similar include the fact that those with pain, flexibility/dexterity (agility in the 2006 PALS), and mobility limitations form the largest group of disabled Canadians. The hearing population is slightly smaller in the 2012

<sup>19</sup> Statistics Canada, *Participation and Activity Limitation Survey 2006: Analytical Report*. Catalogue no. 89-628-XIE – No. 002 (Ottawa: Minister of Industry, December 2007), Table 12 for the 2006 PALS results. The 2012 CSD results are from the source in footnote [18].

<sup>20</sup> Statistics Canada, *Disability in Canada: Initial findings from the Canadian Survey on Disability*, Social and Aboriginal Statistics Division, (Minister of Industry: 2013), catalogue no. 89-654-X, no. 002, Table 1, p. 3. Note that this data combines both genders.

CSD (3.5% versus 5.0% in the 2006 PALS). The 2012 CSD was able to identify more disabled Canadians that suffer from “mental/psychological”, “memory”, and “developmental” limitations than was the 2006 PALS.<sup>21</sup>

### ***Next Steps for the 2012 CSD survey***

The next step to analyze the data from the 2012 CSD is to obtain the public use micro-data file (“PUMF”) and review the actual records from the population of 45,443 disabled Canadians. This is a large survey and one that can provide rich results as to the experiences of disabled Canadians in the labour force. While the CSD results may not be entirely “comparable” to the 2006 PALS results, they will still provide a wealth of information about disabled Canadians on its own.

---

<sup>21</sup> Statistics Canada, *Participation and Activity Limitation Survey 2006: Analytical Report*. Catalogue no. 89-628-XIE – No. 002 (Ottawa: Minister of Industry, December 2007), Table 9 for the 2006 PALS results. The 2012 CSD results are from the source in footnote [20].

## UPDATING NON-PECUNIARY AWARDS FOR INFLATION (DECEMBER 2013, 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
December 2012-December 2013	1.009	\$10,094	\$25,234	\$50,468	\$75,703	\$100,937
Avg. 2011-December 2013	1.025	\$10,247	\$25,617	\$51,235	\$76,852	\$102,470
Avg. 2010-December 2013	1.055	\$10,545	\$26,363	\$52,726	\$79,089	\$105,452
Avg. 2009-December 2013	1.073	\$10,733	\$26,833	\$53,666	\$80,499	\$107,332
Avg. 2008-December 2013	1.078	\$10,784	\$26,960	\$53,920	\$80,881	\$107,841
Avg. 2007-December 2013	1.102	\$11,020	\$27,550	\$55,101	\$82,651	\$110,202
Avg. 2006-December 2013	1.126	\$11,255	\$28,139	\$56,277	\$84,416	\$112,555
Avg. 2005-December 2013	1.148	\$11,481	\$28,702	\$57,403	\$86,105	\$114,807
Avg. 2004-December 2013	1.174	\$11,735	\$29,338	\$58,676	\$88,014	\$117,351
Avg. 2003-December 2013	1.195	\$11,953	\$29,883	\$59,766	\$89,650	\$119,533
Avg. 2002-December 2013	1.228	\$12,283	\$30,708	\$61,416	\$92,124	\$122,832
Avg. 2001-December 2013	1.256	\$12,561	\$31,402	\$62,804	\$94,206	\$125,609
Avg. 2000-December 2013	1.288	\$12,877	\$32,192	\$64,385	\$96,577	\$128,769
Avg. 1999-December 2013	1.323	\$13,228	\$33,069	\$66,139	\$99,208	\$132,278
Avg. 1998-December 2013	1.346	\$13,457	\$33,642	\$67,284	\$100,926	\$134,568
Avg. 1997-December 2013	1.359	\$13,591	\$33,977	\$67,954	\$101,931	\$135,908
Avg. 1996-December 2013	1.381	\$13,811	\$34,527	\$69,054	\$103,581	\$138,109
Avg. 1995-December 2013	1.403	\$14,029	\$35,071	\$70,143	\$105,214	\$140,286
Avg. 1994-December 2013	1.433	\$14,330	\$35,824	\$71,649	\$107,473	\$143,297
Avg. 1993-December 2013	1.435	\$14,353	\$35,883	\$71,766	\$107,649	\$143,532
Avg. 1992-December 2013	1.462	\$14,621	\$36,554	\$73,107	\$109,661	\$146,214
Avg. 1991-December 2013	1.484	\$14,839	\$37,097	\$74,194	\$111,290	\$148,387
Avg. 1990-December 2013	1.567	\$15,674	\$39,185	\$78,369	\$117,554	\$156,738
Avg. 1989-December 2013	1.642	\$16,424	\$41,060	\$82,121	\$123,181	\$164,242
Avg. 1988-December 2013	1.724	\$17,243	\$43,107	\$86,214	\$129,321	\$172,427
Avg. 1987-December 2013	<b>1.794</b>	\$17,935	\$44,838	<b>\$89,676</b>	\$134,514	\$179,352
Avg. 1986-December 2013	1.872	\$18,717	\$46,792	\$93,584	\$140,376	\$187,169
Avg. 1985-December 2013	1.950	\$19,501	\$48,754	\$97,507	\$146,261	\$195,014
Avg. 1984-December 2013	2.027	\$20,274	\$50,685	\$101,370	\$152,055	\$202,740
Avg. 1983-December 2013	2.115	\$21,147	\$52,867	\$105,733	\$158,600	\$211,467
Avg. 1982-December 2013	2.239	\$22,388	\$55,970	\$111,939	\$167,909	\$223,879
Avg. 1981-December 2013	2.480	\$24,797	\$61,993	\$123,985	\$185,978	\$247,971
Avg. 1980-December 2013	2.789	\$27,895	\$69,737	\$139,473	\$209,210	\$278,946
Avg. 1979-December 2013	3.072	\$30,720	\$76,801	\$153,602	\$230,403	\$307,204
Jan. 1978-December 2013	<b>3.499</b>	\$34,991	\$87,479	\$174,957	\$262,436	<b>\$349,915</b>

\$89,676 = \$50,000 x 1.794 represents the dollar equivalent in December 2013 of \$50,000 based on inflation increases since 1987. Similarly, \$349,915 (= \$100,000 x 3.499) represents the dollar equivalent in December 2013 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 Dec 2012 to Dec 2013* (rates of inflation)		For the month of Dec 2013	
Canada**	1.2%	Canada:	7.2%
Vancouver:	0.2%	Vancouver:	6.4%
Toronto:	1.6%	Toronto:	8.4%
Edmonton:	1.5%	Edmonton:	5.5%
Calgary:	2.6%	Calgary:	4.7%
Halifax:	1.4%	Halifax:	6.8%
St. John's, NF:	2.4%	St. John's, NF:	5.9%
Saint John, NB:	1.6%	Saint John, NB:	7.0%
Charlottetown:	2.9%	Charlottetown (PEI):	11.5%

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

\*\* 12 month rolling average up to December 2013 is 0.9% (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

1701 Hollis Street, Suite 800  
Halifax, NS B3J 3M8  
Toll 1.800.301.8801

Email [help@browneconomic.com](mailto:help@browneconomic.com)  
Web [www.browneconomic.com](http://www.browneconomic.com)