Brown's Economic Damages Newsletter

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2017 *Canadian Survey on Disability:* Barriers to Employment & Education (Part 4)

By Cara L. Brown, M.A.

In the August 2021 issue of **Brown's Economic Damages Newsletter** (Part 1), we reviewed findings from the 2017 *Canadian Survey on Disability* ("CSD") relating to the unemployment and participation[1] rates displayed by persons with disabilities in Canada and compared them to rates for non-disabled persons in Canada. Predictably, we found from the 2017 CSD that persons with disabilities experience *higher* unemployment rates than non-disabled persons and *lower* participation rates than exhibited by non-disabled persons, both of which lead to reduced income.

Derivation of results from the **2017 CSD** (and prior years) is based on a careful and longstanding analysis of Statistics Canada's disability surveys from 1991, 2001, 2006, 2012 and 2017.[2] These disability surveys refer to Statistics Canada's 1991 *Health and Activity Limitation Survey* (HALS), 2001/2006 *Participation and Activity Limitation Surveys* (PALS), and the 2012/2017 *Canadian Surveys on Disability* (CSD).[3] In the September 2021 issue of the newsletter (Part 2), we published wage deficits by **SEVERITY** of disability (mild, moderate, severe and very severe) for men and women. In the October 2021 issue (Part 3), we revealed wage deficits by **TYPE** of disability (pain, mobility, flexibility, dexterity, hearing, seeing, mental/psychological, memory, learning and developmental). In this issue (Part 4), we present data from the 2017 *Canadian Survey on Disability* which pertains to barriers experienced by disabled Canadians with respect to employment and schooling.

[1] Participation rates reflect the voluntary choice to seek work and maintain employment. "Participants" in the labour force are either employed or unemployed. If an individual is neither employed nor seeking work, they are characterized as non-participants.

[2] Analysis of the 2012 and 2017 *Canadian Survey on Disability* datasets were performed at one of Statistics Canada's *Research Data Centers* (RDC) and output was vetted by Statistics Canada's RDC analysts before it could be released. In prior years, Brown Economic purchased the datasets from the 1991 *Health and Activity Limitation Survey* (HALS), 2001 *Participation and Activity Limitation Survey* (PALS), and the 2006 *Participation and Activity Limitation Survey* (PALS) to derive wage deficits.

[3] Results from all 5 survey years (1991, 2001, 2006, 2012 and 2017) are summarized and compared in C.L. Brown, *Damages: Estimating Pecuniary Loss,* loose-leaf (Toronto, Ontario: Canada Law Book, a Thomson Reuters business), 2021 (30th edition), chapter 5.

A peer-reviewed 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" was published in the April 2010 edition of the Journal of Legal Economics. This peer-reviewed article was cited in a Statistics Canada publication by Martin Turcotte entitled "Persons with disabilities and employment" published in the December 2014 edition of *Insights on Canadian Society*. Prior issues of **Brown's Economic Damages Newsletter** related to this topic include:[4]

- "2017 *Canadian Survey on Disability:* Wage Deficits by **TYPE** of Disability (Part 3)" October 2021, vol. 18, issue 5
- "2017 *Canadian Survey on Disability:* Wage Deficits by **SEVERITY** of Disability (Part 2)" September 2021, vol. 18, issue 4
- "2017 *Canadian Survey on Disability:* Unemployment rates & Participation Rates (Part 1)" August 2021, vol. 18, issue 3
- "The 'Wage Deficit' Approach—Straightforward & Reasonable Loss Estimates" December 2019, vol. 16, issue 4
- "2012 *Canadian Survey on Disability:* Wage Gaps by **Type** of Disability (Part III)" August 2017, vol. 14, issue 6
- "2012 *Canadian Survey on Disability:* Wage Gaps by **Severity** of Disability (Part II)" July 2017, vol. 14, issue 5
- "2012 *Canadian Survey on Disability:* Descriptive Statistics from the Actual Survey Data (Part I)" May/June 2017, vol. 14, issue 4
- "Assessing Impact of Disability by **TYPE:** impairments for seeing, hearing, speech, mobility, agility, pain and psychological/ development injuries" October 2016, vol. 13, issue #10
- "2012 Canadian Survey on Disability (CSD)", January 2015, vol. 12, issue 1
- "The Impact of Disability in Canada: Follow-up to the 2001/2006 PALS Surveys", January 2014, vol. 11, issue 1
- "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
- "*Robinson v. Williams* (2005) decision – excerpts from judgment" December 2005, vol. 2, issue #10
- "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

[4] To request back issues of our newsletter, go to: www.browneconomic.com > **RESEARCH & PUBLICATIONS** > *Brown's Economic Damages Newsletter* > click on "Newsletter index" to view issues extending back to 2000 by topic.

Statistics Canada's Disability Surveys

At the *National Conference on Disability and Work in Canada* (December 4-5, 2018),[5] an overview of the evolution of Canada's Disability Data Strategy was conducted, which commenced with Statistics Canada's 1986 and 1991 *Health and Activity Limitation Surveys* (HALS). After that, the 2001 and 2006 *Participation and Activity Limitation Surveys* (PALS) were conducted. Following the 2006 PALS, Statistics Canada conducted the *Canadian Survey on Disability* (CSD) in 2012 and 2017.[6]

The HALS/PALS/CSD surveys are Statistics Canada's "flagship" surveys about the impact of disability in Canada. Much of the results from these surveys have been used and quoted widely within Canada and in other countries. This is because these surveys are massive (almost 50,000 persons per sample), randomly drawn, and are associated with higher-than-average response rates,[7] all of which ensure that results can be reliably extrapolated to the disabled Canadian population.

To analyze the 1991 HALS, 2001 PALS, and 2006 PALS data, Brown Economic purchased the **Public-Use Microdata Files (PUMF)** from Statistics Canada and as such are governed by Statistics Canada's copyright and licensing rules. The data contained in the PUMF files cannot be read by human eyes; the data is comprised of anonymized records from the original surveys.

To access the 2012 and 2017 CSD data, a formal written proposal, along with fingerprinting and a substantial fee, is required before a researcher can enter Statistics Canada's **Research Data Centers (RDC)** at university campuses across Canada to access these datasets. Results which Brown Economic generated from working with both the 2012 and 2017 CSD datasets were vetted by Statistics Canada analysts at the RDC centers at the University of Calgary (2012 CSD) and University of New Brunswick (2017 CSD) before they were released, as per Statistics Canada's protocols.

According to the 2017 *Canadian Survey on Disability* (CSD), 22% of Canadians reported having one or more disabilities that limited them in their daily activities.[8] Of the 22% of the Canadian population with disabilities, two-fifths (2/5) of them were classified as having a "mild" disability whereas one-fifth of them had either a moderate, severe, or very severe disability.[9] Persons with disabilities are at higher risk to be unemployed or live-in poverty or have lower educational attainment levels.[10]

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[5] This conference was held under the auspices of the Government of Canada's Employment and Social Development Canada, division of Social Research, Employment and Social Development Canada.
[6] *Canadian Survey on Disability, 2012: Concepts and Methods Guide* (February 2014) Statistics Canada catalogue no. 89-654-X – No. 2014001).
[7] Sources: Statistics Canada's *A Profile of Disability in Canada, 2001.* Catalogue no. 89-577-XIE (Ottawa: Minister of Industry, 2002), p. 6; 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), p. 12; Statistics Canada's *Participation and Activity Limitation Survey 2006: Analytical Report.* Catalogue no. 89-628-XIE - No. 002 (Ottawa: Minister of Industry, 2007), p. 8; and *Canadian Survey on Disability, 2012: Concepts and Methods Guide* (February 2014) Statistics Canada Catalogue no. 89-654-X - No. 2014001, at p. 22.
[8] Statistics Canada, *A demographic, employment and income profile of Canadians with disabilities aged 15 years and over, 2017* released Nov. 28, 2018; and Statistics Canada, *Canadian Survey on Disability, 2017: Concepts and Method Guide* (November 2018) Statistics Canada catalogue no. 89-65f4-X2018001, p. 6.
[9] Statistics Canada's Table 13-10-0375-01 - *Severity of disability for persons with disabilities aged 15 years and over, by age group and sex, Canada, provinces and territories*; and Brown Economic's evaluation of Statistics Canada's 2017 *Canadian Survey on Disability* data.
[10] As per Statistics Canada, *Canadian Survey on Disability, 2017*. The Daily, released Wednesday, November 28, 2018.

Barriers to Employment & Education for Disabled Canadians

The consensus in the economics literature is that **disability decreases earnings**.[11] Deviations in earnings from the plaintiff's potential *without*-incident earning capacity could result from impacts such as the following:

- an inability to work full-time hours ("full-time" work is defined by Statistics Canada as 30 hours or more per week[12])
- change or limit to the amount or kind of work previously done
- change in job
- change in location of where job is fulfilled (i.e., remotely)
- reduced productivity
- inability to undertake overtime work
- extraordinary workplace absences
- reduced scope of job tasks due to disability
- foregone promotions or job advancement

From Statistics Canada's disability survey questionnaires, we have identified important questions put to respondents about how his/her impairments affect his/her labour market performance. Key questions are reproduced from the **2017** CSD questionnaire in Table 2 below,[13] along with the proportion of disabled Canadians who answered "YES" to each question, differentiated by gender.

[11] **Studies from Canada:** Statistics Canada, *Canadian Survey on Disability, 2017*. The Daily, Wednesday, November 28, 2018, p. 2; S. Morris, G. Fawcett, L. Brisebois and J. Hughes. *A demographic, employment and income profile of Canadians with disabilities aged 15 years and over, 2017*. Statistics Canada catalogue no. 89-654-X2018002, p. 13; M. Turcotte. *Persons with disabilities and employment*. Statistics Canada Catalogue no. 75-006-X, December 3, 2014, p. 6; D. Galarneau and M. Radulescu. *Employment among the disabled*. Statistics Canada catalogue no. 75-001-X, May 2009, p. 8; Statistics Canada. 2008. *Participation and Activity Limitation Survey 2006: Labour Force Experience of People with Disabilities in Canada*, catalogue no. 89-628-X – No. 007; Statistics Canada. 2008. *Participation and Activity Limitation Survey 2006: Tables (Part III)*, catalogue no. 89-628-X – No. 008; Statistics Canada. 2008. *Participation and Activity Limitation Survey 2006: Tables (Part V)*, catalogue no. 89-628-X – No. 011; Statistics Canada. 2007. *Participation and Activity Limitation Survey 2006: Tables*. Catalogue no. 89-628-XIE – No. 003; Statistics Canada. 2007. *Participation and Activity Limitation Survey 2006: Technical and Methodological Report*, catalogue no. 89-628-XIE; Statistics Canada. 2004. *Participation and Activity Limitation Survey (PALS) 2001: User's Guide to the Public Use Microdata File*. Ottawa: Minister of Industry; Hum D. and W. Simpson. 1996. "Canadians with Disabilities and the Labour Market." Canadian Public Policy 22: pp. 285-299; Shain, A. 1995. "Employment of People with Disabilities", Canadian Social Trends 38: pp. 8-13; Bergob, M. 1995. *A Portrait of Persons with Disabilities* (Ottawa: Statistics Canada) Catalogue no. 89-542-XPE; Harkness, J. 1993. "Labor Force Participation by Disabled Males in Canada." Canadian Journal of Economics 26: pp. 878-889; Statistics Canada. 1991. *Selected Socio-Economic Consequences of Disability for Women in Canada*. Ottawa: Minister of Industry, Catalogue no. 82-615; Nessner, K. 1990. "Profile of Canadians with Disabilities." Canadian Social Trends 18: pp. 2-5; and Gower, D. 1988. "Employment of Disabled Persons in Canada." Canadian Social Trends 9: pp. 30-32. **Studies from the US:** Barnow, Burt S. 2008. "The employment rate of people with disabilities." Monthly Labor Review: pp. 44-50; Schur, Lisa A. 2003. "Barriers or Opportunities? The Causes of Contingent and Part-time Work Among People with Disabilities." Industrial Relations 42(4): 589-622; Charles, K.K. 2003. "The Longitudinal Structure of Earnings Losses among Work-Limited Disabled Workers." Journal of Human Resources 38(3): pp. 618-46; Hale T.W., H.V. Hayghe and J.M. McNeil. 1998. "Persons with Disabilities: Labor Market Activity, 1994." Monthly Labor Review 121(9): pp. 3-12; Stern, S. 1996. "Semiparametric Estimates of Supply and Demand Effects of Disability on Labor Force Participation." Journal of Econometrics 71: pp. 49-70; Baldwin, Marjorie L., Lester A. Zeager, and Paul R. Flacco. 1994. "Gender Differences in Wage Losses from Impairments: Estimates from the Survey of Income and Program Participation" Journal of Human Resources 29(3): pp. 865-887; Baldwin, M. and Johnson W.G. 1994. "Labor Market Discrimination Against Men with Disabilities." Journal of Human Resources 29: pp.1-19; Haveman, R. and B. Wolfe. 1990. "The Economic Well-Being of the Disabled 1962-84." Journal of Human Resources 25: pp. 32 –54; Luft, H. S. 1975. "The Impact of Poor Health on Earnings." Review of Economics and Statistics 57: pp. 43-57; and Davis J.M. 1972. "Impact of Health on Earnings and Labor Market Activity." Monthly Labor Review 95(10): pp. 46. **Studies from Australia:** Wilkins, R. 2004. "The Effects of Disability on Labour Force Status in Australia." The Australian Economic Review 37(4): pp. 359-382; and Brazenor, R. 2002. "Disability and Labour Market Earnings in Australia." Australian Journal of Labour Economics 5: pp. 319-34. **Studies from Europe:** Dano, Anne Moller. 2005. "Road injuries and long-run effects on income and employment." Health Economics 14: pp. 955-970; Gannon, Brenda. 2005. "A dynamic analysis of disability and labour force participation in Ireland 1995-2000." Health Economics 14: pp. 925-938; Thoursie, P. S. 2004. "Occupational Attainment and Earnings: The Case of the Disabled." Labour 18(3) pp.415-442.

[12] Statistics Canada's catalogue No. 92-378-XIE, *2001 Census Dictionary* (Ottawa, Ontario: Minister of Industry), 2003, p. 57; Statistics Canada's catalogue No. 92-566-X, *2006 Census Dictionary* – Census year 2006 (Ottawa, Ontario: Minister of Industry), January 2010, p. 56; Statistics Canada – Catalogue No. 99-000-X2011001, *National Household Survey Dictionary, 2011* (Ottawa, Ontario: Minister of Industry), 2013, p. 68; and Statistics Canada – Catalogue No. 98-301-X2016001, *Dictionary, Census of Population, 2016* (Ottawa, Ontario: Minister of Industry), 2018, p. 235.

[13] Statistics Canada. *2017 Canadian Survey on Disability Questionnaire(s)*. (Minister of Industry: Ottawa). Effective period: March 01, 2017 to August 31, 2017.

Table 1: 2017 CSD Survey Questions about the Impact of Disability on Respondents' Education & Labour Market Activities

Question Number	Survey Question	Percentage of Disabled Canadians Who Answered "Yes"	
		Men	Women
EDE_Q05	Because of your condition, have you ever:		
	1. changed the kind of work you do?	17%	15%
	2. changed the amount of work you do?	17%	19%
	3. changed jobs?	12%	12%
	4. began working from home?	4%	6%
	5. taken an absence from work of one month or more?	16%	20%
EDE_Q10	Does your condition limit the amount or kind of work you can do at your present job or business?*	36%	39%
EDE_Q25	Is your condition the reason you are now doing a different kind of work?	74%	74%
EDE_Q30	Do you believe that your condition makes it difficult for you to change jobs or to advance at your present job?	36%	38%
RDE_Q05	Did you retire because of your condition?	66%	67%
LFD_Q10	In the past five years, do you believe that because of your condition, you have been: refused a job?	13%	11%
LFD_A15	In the past five years, do you believe that because of your condition, you have been: refused a job promotion?	9%	10%
EDU_Q30	Are/Were you studying part-time because of your condition?	21%	19%
EEX_Q10	Have you ever discontinued/Did you discontinue your formal education or training because of your condition?	29%	23%
EEX_Q20A	Because of your condition, did it take you longer to achieve your present level of education?	42%	35%

* Repeated in other parts of the questionnaire for unemployed persons, people not working (or seeking work), or retired respondents.

The first set of questions in Table 1 show that just under 20% of disabled Canadians altered the kind or amount of work, changed jobs, reverted to working from home, or embarked on a lengthy absence from work because of their impairments. Presumably in part because the 2017 CSD was conducted before the 2020 pandemic, only a very small percentage (4% to 6%) answered that they began working at home because of their disability.

The next question, which asks if one's condition limits the amount of kind of work s/he can do in their present job, almost 40% answered affirmatively. This is precisely the type of impact that can be hard to measure but which the econometric (regression) analysis of the survey data can reflect in the wage deficits shown in the September 2021 issue (wage deficits by **SEVERITY** of disability) and the October 2021 issue (wage deficits by **TYPE** of disability).

Even though only 12% of men and women changed jobs due to their condition, an overwhelming 74% stated that their condition was the reason s/he was doing different work by the time of the survey. This points to either job changes before the survey, or experiences the disabled have with accommodating employers or union-governed environments.

Another two-thirds of respondents (66-67%) had retired because of their condition. This supports the research that indicates it is a poor investment for older workers to retrain,[14] especially if the individual has an existing disability that functionally prevents or inhibits them from working. This impact can be measured by the economic expert in "early retirement" scenarios, or by using the **wage deficit approach.**

More than one-third of respondents (36% to 38%) stated that their condition makes it difficult for them to change jobs or advance at their present job. Again, because such impacts are so challenging to predict – both in terms of timing and quantifiable outcomes – the **wage deficit approach** can mirror this type of impact.

Only small numbers of respondents had either been refused a job or refused a promotion (around 10%) due to disability. With respect to the impact on education, however, we see much larger effects. One-fifth (1/5) of respondents claimed to be studying part-time because of their condition; 23% to 29% of disabled men and women discontinued their formal schooling because of their condition. A larger share of respondents answered affirmatively (35% to 42%) that their condition meant that it was taking longer to complete their education. Such an impact can be directly reflected in the age-earnings profile contemplated by the economic expert.

Using the "Wage Deficit Approach" (WDA) in interrupted earnings cases

The usefulness of the 2001/2006 PALS and 2012/2017 CSD data is that they provide a statistical basis to formulate a future "loss of earning capacity" or "loss of opportunity" award. **When medical and/or vocational evidence indicates that a claimant will suffer impediments in the future, but the precise nature of such impairments is unknown (or difficult to quantify) at the time of settlement or trial**, the data from Statistics Canada's PALS and CSD surveys allow us to estimate a future *with*-incident income stream based on the plaintiff's assumed *without*-incident earnings profile by applying wage deficits consistent with the statistically significant negative relationship between disability and income (as the level of disability increases, income declines).

Examples of when the WDA can be used

In some cases involving children and young adults, the injury has not necessarily affected the plaintiff's educational achievement, that is, s/he may still be able to complete some form of college or university education which is no different than what the young plaintiff might have done in the absence of the interruption. If this is the case, then the quantum expert will not be able to do the usual comparison of earnings by education level. This is where PALS/CSD deficits can be helpful.

[14] For instance, in an article entitled, *Remain, Retrain or Retire: Options for older workers following job loss* presented at the John Deutsch Institute Conference, "Retirement Policy Issues in Canada", October 26-27, 2007 at Queen's University, in which authors C. Neill and T. Schirle conclude that since older workers have a shorter expected remaining working life, their "responses to displacement will systematically involve a higher retirement rate and lower rate of participation in training and education" (p. 21). In particular, training and education is not likely to help displaced, older workers because the "lifetime income increase due to the training would only just cover the costs for a worker aged 50 at displacement, and would have ***negative*** returns for older workers" (p. 12, emphasis added). Indeed, the fact that a large upfront investment in both time and money is required makes retraining a less viable alternative the older an individual becomes (p. 13). Additionally, a number of statistical studies have linked disability and early retirement, and in particular, indicate that poor health is one of the main reasons people stop working. According to Pyper, 54% of men in the age 50 to 54 category who were not working had health related reasons and reported poor and declining health more often than those working (Pyper, Wendy, "*Aging, health and work*," Perspectives on Labour and Income, volume 7, no. 2, February 2006). The *2002 General Social Survey* reports that 30% and 29% of males who retired between ages 50 to 54 and 55 to 59 respectively did so for health reasons, and it is estimated that 40% of males retired before the age of 59 because of poor health.

In other cases, the adult plaintiff has continued in the same job (or same type of job) and/or has continued to work full-time; but s/he is not working any overtime, or working as efficiently or productively, and it is feared that the plaintiff will lag behind his or her peers in the future. In such cases, the **wage deficit approach** can be used.

In still other cases, a plaintiff might have kept working, and a 'boom' in the plaintiff's industry (whether it be oil & gas, construction, fishing, etc.) obscures the fewer hours or jobs worked by the plaintiff since the incident. In this case, the plaintiff might be earning *more* since the incident, *not* less; but it is only because the 'boom' in the industry is providing more seasonal work or paying higher wages, but the plaintiff is still working fewer hours or weeks than before the incident (or would have worked *more* hours or *more* weeks if s/he had not been injured, and would have earned an even higher income). In such cases, the **wage deficit approach** can be used to compute a potential loss of income.

In essence, our calculations reflect the concept that *if* the trier of fact concludes that the plaintiff has and will continue to experience some of the impacts that similarly-injured individuals in Canada experience, then the **wage deficit approach (WDA)** can quantify the plaintiff's potential income loss based on the actual experiences of disabled Canadians. The wage deficit approach is not suggested as a panacea; it is simply an alternative way to estimate a plaintiff's losses when a concrete "career A" versus "career B" approach is not feasible due to fact circumstances or lack of information, or because the information that does exist obscures the true impact of the impairments. The latter occurs often in self-employed cases where there are many variables affecting the person's income, and the opportunity to withdraw dividends from retained earnings earned in prior years overshadows the impact of reduced capacity.

What counsel needs to do in cases where the wage deficit approach (WDA) may be helpful

If the court finds the plaintiff will suffer an ongoing disability in the future and that such disability will negatively affect the individual's work capacity, then the **wage deficit approach** and Statistics Canada's disability data can be used to generate estimates of the degree to which this disability will affect his or her earning capacity. There are three steps in this process:

1) Medical and/or vocational evidence is adduced to attest to the claimant's impairments and that these impairments will affect his or her earning capacity in the future;
2) Regression analysis shows that people with disabilities, depending on severity or type of disability, experience wage gaps compared to non-disabled people; and
3) The plaintiff completes the same questionnaire as filled out by PALS/CSD respondents to determine his/her level of **severity** and **type** of disability.

Counsel for the plaintiff is responsible for assembling the documentation in (1) if it exists. Brown Economic has already done the research on wage gaps with the PALS and CSD data ((2) above) so we know what percentage wage deficits to apply to the plaintiff's earning capacity in the future.[15] The plaintiff subsequently completes the 2017/2012 CSD questionnaire to provide a determination of his/her **severity** and **type** of disability under (3) above[16] and match the claimant's level and type of disability to that of disabled Canadians. To obtain the CSD questionnaire, please contact our firm at the HELP line: **1-888-BEC-ASST** (1-888-232-2778) or email us at info@browneconomic.com. Please note the completed questionnaire must be returned to Brown Economic for scoring.

[15] To view the wage deficits estimated by regression analysis from the 2001 PALS, 2006 PALS, 2012 CSD, and 2017 CSD, see **Brown's Economic Damages Newsletter,** "2017 *Canadian Survey on Disability:* Wage Gaps by **SEVERITY** of Disability (Part 2)" September 2021, vol. 18, issue #4, Tables 1 and 2; **Brown's Economic Damages Newsletter,** "2017 *Canadian Survey on Disability:* Wage Gaps by **TYPE** of Disability (Part 3)" October 2021, vol. 18, issue #5, Table 1.

[16] This questionnaire includes the *Disability Screening Questions* (DSQ) excerpted directly from Statistics Canada's 2012/2017 questionnaires.

Consumer Price Index — Unemployment Rate

From November 2020 to November 2021* (rates of inflation)		For the month of November 2021	
Canada**	4.7%	Canada:	6.0%
Vancouver:	3.2%	Vancouver:	5.9%
Toronto:	4.3%	Toronto:	7.7%
Ottawa:	5.5%	Ottawa:	4.6%
Montréal:	5.0%	Montréal:	5.8%
Edmonton:	3.9%	Edmonton:	7.6%
Calgary:	4.4%	Calgary:	8.1%
Halifax:	4.8%	Halifax:	6.4%
St. John's, NF:	3.3%	St. John's, NF:	6.9%
Saint John, NB:	5.3%	Saint John, NB:	8.5%
Charlottetown (PEI):	7.0%	Charlottetown (PEI):	8.0%
* Using month-over-month indices. Source: Statistics Canada			
** 12 month rolling average up to November 2021 is 3.1% (see non-pecuniary awards table).			

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Updating Non-Pecuniary Awards for Inflation (November 2021, 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
November 2020-November 2021	1.031	$10,305	$25,763	$51,527	$77,290	$103,054
Avg. 2019-November 2021	1.037	$10,374	$25,934	$51,868	$77,802	$103,736
Avg. 2018-November 2021	1.058	$10,576	$26,439	$52,879	$79,318	$105,758
Avg. 2017-November 2021	1.081	$10,815	$27,037	$54,075	$81,112	$108,150
Avg. 2016-November 2021	1.099	$10,988	$27,469	$54,938	$82,408	$109,877
Avg. 2015-November 2021	1.114	$11,145	$27,862	$55,724	$83,586	$111,448
Avg. 2014-November 2021	1.127	$11,270	$28,176	$56,352	$84,528	$112,704
Avg. 2013-November 2021	1.149	$11,485	$28,713	$57,426	$86,138	$114,851
Avg. 2012-November 2021	1.159	$11,593	$28,982	$57,964	$86,945	$115,927
Avg. 2011-November 2021	1.177	$11,769	$29,422	$58,844	$88,265	$117,687
Avg. 2010-November 2021	1.211	$12,111	$30,278	$60,556	$90,835	$121,113
Avg. 2009-November 2021	1.233	$12,327	$30,818	$61,636	$92,454	$123,272
Avg. 2008-November 2021	1.239	$12,386	$30,964	$61,928	$92,892	$123,856
Avg. 2007-November 2021	1.266	$12,657	$31,642	$63,284	$94,926	$126,568
Avg. 2006-November 2021	1.293	$12,927	$32,318	$64,635	$96,953	$129,271
Avg. 2005-November 2021	1.319	$13,186	$32,964	$65,928	$98,892	$131,856
Avg. 2004-November 2021	1.348	$13,478	$33,695	$67,390	$101,084	$134,779
Avg. 2003-November 2021	1.373	$13,728	$34,321	$68,642	$102,964	$137,285
Avg. 2002-November 2021	1.411	$14,107	$35,269	$70,537	$105,806	$141,074
Avg. 2001-November 2021	1.443	$14,426	$36,066	$72,131	$108,197	$144,263
Avg. 2000-November 2021	1.479	$14,789	$36,973	$73,946	$110,919	$147,893
Avg. 1999-November 2021	1.519	$15,192	$37,981	$75,961	$113,942	$151,922
Avg. 1998-November 2021	1.546	$15,455	$38,638	$77,276	$115,914	$154,552
Avg. 1997-November 2021	1.561	$15,609	$39,023	$78,046	$117,069	$156,092
Avg. 1996-November 2021	1.586	$15,862	$39,655	$79,310	$118,964	$158,619
Avg. 1995-November 2021	1.611	$16,112	$40,280	$80,560	$120,840	$161,119
Avg. 1994-November 2021	1.646	$16,458	$41,145	$82,289	$123,434	$164,578
Avg. 1993-November 2021	1.648	$16,485	$41,212	$82,424	$123,636	$164,847
Avg. 1992-November 2021	1.679	$16,793	$41,982	$83,964	$125,946	$167,929
Avg. 1991-November 2021	1.704	$17,042	$42,606	$85,212	$127,818	$170,424
Avg. 1990-November 2021	1.800	$18,002	$45,004	$90,008	$135,011	$180,015
Avg. 1989-November 2021	1.886	$18,863	$47,158	$94,317	$141,475	$188,633
Avg. 1988-November 2021	1.980	$19,803	$49,509	$99,017	$148,526	$198,035
Avg. 1987-November 2021	**2.060**	$20,599	$51,497	**$102,994**	$154,490	$205,987
Avg. 1986-November 2021	2.150	$21,496	$53,741	$107,482	$161,224	$214,965
Avg. 1985-November 2021	2.240	$22,398	$55,994	$111,988	$167,982	$223,976
Avg. 1984-November 2021	2.328	$23,285	$58,212	$116,425	$174,637	$232,849
Avg. 1983-November 2021	2.429	$24,287	$60,718	$121,436	$182,154	$242,872
Avg. 1982-November 2021	2.571	$25,713	$64,282	$128,564	$192,845	$257,127
Avg. 1981-November 2021	2.848	$28,480	$71,199	$142,399	$213,598	$284,797
Avg. 1980-November 2021	3.204	$32,037	$80,093	$160,186	$240,279	$320,372
Avg. 1979-November 2021	3.528	$35,283	$88,207	$176,413	$264,620	$352,826
Jan. 1978-November 2021	**4.019**	$40,188	$100,470	$200,940	$301,410	**$401,880**

$102,994= $50,000 x 2.060 represents the dollar equivalent in November 2021 of $50,000 based on inflation increases since 1987. Similarly, $401,880 (=$100,000 x 4.019) represents the dollar equivalent in November 2021 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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