



Brown's Economic Damages Newsletter

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2006 PALS: Wage deficits by education level & dealing with self-employed plaintiffs using the PALS data

In our February 2011 edition of **Brown's Economic Damages Newsletter**, we presented regression results from the **2006 Participation and Activity Limitation Survey** ("PALS"), which had been replicated from our **2001 PALS** analyses.¹ In this edition of the newsletter, we now present results from regression analysis as to the gap in earnings by education level, by *degree* of disability and *type* of severity. These results have been derived from the **2006 PALS "PUMF"** (public-use micro data file).² We also discuss how to adjust the PALS wage gaps for self-employed persons.

ERRATA: February 2011 edition (Table 2, p. 7)

In our February 2011 newsletter issue, we presented the wage deficits from the **2006 PALS** in Table 2 (p. 7), and compared them to the **2001 PALS** results. There was one small error in Table 2. From the 2001 PALS, for women, we reported that women with a "severe" disability would suffer a -49% deficit in earnings. This should have read **-40%** instead. The reader can confirm the -40% estimate from the published article in the *Journal of Legal Economics* by C.L. Brown and J.C.H. Emery, entitled "The Impact of Disability on Earnings and Labour Force Participation: Evidence from the 2001 PALS and from Canadian Case Law", vol. 16, no. 2, April 2010, Table 6 (p. 46).³

This author extends apologies to anyone whom this might have inconvenienced. We have corrected the February 2011 edition, so for users going forward, the revised newsletter edition can be obtained by emailing us at: help@browneconomic.com.

¹ To see further research on the HALS and PALS data, visit www.browneconomic.com and click on **HALS/PALS Analyses**. This web page gives a brief summary of our research, with links to prior newsletter issues on this topic.

² The PUMF, available from Statistics Canada for purchase upon signing a license agreement, gives the user the 'raw' data from the 2006 PALS survey, i.e., the actual responses from the survey respondents. The PUMF data are a set of anonymized records, organized according to a pre-arranged structure. Human eyes cannot read the data in a micro data file; they need to be read through specialized statistical software, like SAS or SPSS or STATA that are used to extract and process the data to provide recognizable results. This is a much different (and more complicated) analysis than simply requesting custom tabulations (which are excel spreadsheets) from Statistics Canada, as these are essentially high-level summaries, not results from the actual responses to the PALS survey.

³ The 2001 PALS regression results are shown under the column heading "PALS 2001 / Females / Heckman" across from the category "Severe".

RESULTS BY *degree* and type OF DISABILITY

As noted in our February 2011 newsletter edition, the sample of the PALS 2006 survey was 47,793: 8,954 children (persons under 15 years of age) and 38,939 adults.⁴ The response rate was 75.0%.⁵ (In 2001, 43,276 individuals were selected for PALS). The PALS 2006 included the territories and Aboriginal communities, which were previously excluded from the 2001 PALS target population. These changes resulted in an increase of 1.2% in the number of people included in the PALS 2006.⁶

Brown Economic has derived **specific wage deficits, as a percentage of income**,⁷ to apply based on gender and **SEVERITY OF DISABILITY**.⁸ We have also derived wage deficits based on **TYPE OF DISABILITY**,⁹ using percentages. These percentages have been calculated using sophisticated regression analysis, namely Heckman's two-stage process and correction for sample selection bias, as described in Berndt and Greene.¹⁰ *The usefulness of regression analysis to derive the percentage losses cannot be underestimated and are more accurate than simply calculating the "residual" income of disabled people.* Using "residual" incomes from the PALS surveys may **grossly overestimate the loss arising from disability** because other human capital factors are not controlled for, as they are in regression analysis. Moreover, using an average income for disabled people for a claimant's "residual earning capacity" is not specific enough to the plaintiff since it does not represent the plaintiff's *education level*, whereas applying wage deficits from regression analysis can be derived to be specific to the plaintiff's human capital characteristics.

The economics literature is clear on its consensus about how disability affects employment and income: it causes the injured person to work fewer hours or weeks per year; or s/he works less productivity or less efficiently than when s/he was not impaired. Brown Economic has computed wage deficits for disabled Canadians from both the **2001 PALS**¹¹ and the **2006 PALS**.¹²

The overall impact of disability is –33% on women and –21% on men, *across all levels of severity*, from the **2006 PALS PUMF**.

Table 1 reproduces the 2006 PALS wage deficits by *degree of severity of disability*.

⁴ As per Statistics Canada's *Participation and Activity Limitation Survey 2006: Technical and Methodological Report*. See <http://www.statcan.ca/english/freepub/89-628-XIE/89-628-XIE2007001.htm>.

⁵ As per Statistics Canada's *Participation and Activity Limitation Survey 2006: Analytical report*. See <http://www.statcan.ca/english/freepub/89-628-XIE/89-628-XIE2007002.htm>.

⁶ As per Statistics Canada's *Participation and Activity Limitation Survey 2006: Technical and Methodological Report*. See <http://www.statcan.ca/english/freepub/89-628-XIE/89-628-XIE2007001.htm>.

⁷ For the results showing percentage of wage deficits from the 2001 PALS, see **The Economics Editor**, "Proving economic loss when injury isn't obviously manifest & magnitude of impact unknown at settlement", November/December 2007, Vol. 4, Issue 8; Tables 1 and 2 on p. 2; or C.L. Brown and J.C.H. Emery, "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*, Vol. 16, no. 2, April 2010, Table 6, p. 46.

⁸ The percentages by severity of disability (mild, moderate, severe and very severe) are for average educational levels. These wage gaps were presented in **Brown's Economic Damages Newsletter**, entitled "2006 PALS: Wage deficits by *degree* of severity (Replicating the 2001 PALS regression results)", February 2011, vol. 8, issue #1, Tables 1 and 2 (pp. 6-7).

⁹ The "type" of disability include: agillity; hearing; mobility; pain; seeing; speech; and other. The "other" category consists of disabilities related to learning, memory, developmental, psychological, and unknown.

¹⁰ Ernst R. Berndt, *The Practice of Econometrics Classic and Contemporary* (Massachusetts: Addison-Wesley Publishing Company), 1991; and William H. Greene, *Econometric Analysis* 2nd edition (Englewood Cliffs, New Jersey: Prentice-Hall), 1993.

¹¹ As published in C.L. Brown and J.C.H. Emery, "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*, Vol. 16, no. 2, April 2010, Table A, p. 32; Table 6, p. 46.

¹² Only results that are statistically significant are shown, based on the 2-stage Heckman regression model, excluding high-income earners. Redoing the analysis with the high-income earners does not change the results in any significant way.

Table 1: Wage gaps by SEVERITY of disability from the 2006 PALS

Severity level	Women	Men
MILD	- 16%	- 16%
MODERATE	- 36%	- 22%
SEVERE	- 66%	- 42%
VERY SEVERE	- 66% ¹³	- 51%

The way in which these percentages are used is to apply the negative percentage directly to the income stream, like we would a negative contingency for unemployment. For instance, we could calculate a plaintiff's potential future loss of opportunity by assuming that he will experience a -21% impact on his income, *on average*, throughout his career. If the plaintiff completes the questionnaire (like the 2001 or 2006 PALS respondents), then we could apply a percentage consistent with whatever degree of severity is scored from the questionnaire (i.e., "mild" at -16%; "moderate" at -22%; "severe" at -42%; or "very severe" at -51%).

Table 2 shows the 2006 PALS wage deficits by *type of disability*, with comparisons in the adjacent column from the 2001 PALS survey. Results are only reported if the marginal coefficients were statistically significant using the t-test. If the coefficient was found *not* to be statistically significant, we show "n/a" in the cell.

Table 2: Wage gaps by TYPE of disability from the 2006 PALS
(2001 PALS¹⁴ results shown in adjacent column for comparison)

TYPE OF DISABILITY	WOMEN		MEN	
	2006 PALS	2001 PALS	2006 PALS	2001 PALS
Hearing	n/a	- 33%	n/a	- 15%
Sight	n/a [- 62%] ¹⁵	- 38%	n/a [- 27%] ¹⁶	- 26%
Communication (speech)	- 51%	- 35%	- 27%	- 41%
Mobility	- 16%	- 29%	- 16%	- 24%
Agility	- 12%	- 35%	n/a	- 22%
Pain	n/a [- 33%] ¹⁷	- 22%	n/a [- 33%] ¹⁸	- 17%
Other ¹⁹	- 44%	- 35%	- 27%	- 36%

¹³ This result is the impact on wages using OLS regression analysis rather than 2-stage Heckman analysis.

¹⁴ Reproduced from C.L. Brown and J.C.H. Emery, "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*, Vol. 16, no. 2, April 2010, Table A, p. 32. The "less severe" results are shown from the 2001 PALS results from Table A. The 2006 PALS results by type of disability are shown to be an overall level of severity, neither less nor more severe.

¹⁵ The statistically significant coefficient for a "more severe" sight disability for females is -62%. The coefficient for all levels of severity for a sight disability was not statistically significant.

¹⁶ The statistically significant coefficient for a "more severe" sight disability for males is -27%. The coefficient for all levels of severity for a sight disability was not statistically significant.

¹⁷ The statistically significant coefficient for a "more severe" pain disability for females is -33%. The coefficient for all levels of severity for a pain disability was not statistically significant.

¹⁸ The statistically significant coefficient for a "more severe" pain disability for males is -33%. The coefficient for all levels of severity for a pain disability was not statistically significant.

¹⁹ The "other" category consists of disabilities related to learning, memory, developmental, psychological, and unknown.

All of the coefficients reported from the regression analysis, from both survey years, are what is to be expected: they are negative, and hence if applied, result in a reduction in earnings. Note that the percentages in square parentheses can be used if it is determined that the plaintiff suffers from a “sight” or “pain” disability that can be categorized as “more severe”.²⁰

2006 PALS RESULTS BY *education level*

Tables 3 and 4 below summarize the wage gaps by severity of disability for males and females, from the 2006 PALS, but disaggregated by education level. This is important, because the analysis attempts to discern the impact of disability for people of *different* education levels – whereas the results from our February 2011 edition, and reproduced in Tables 1 and 2 above, are for males and females across *all* education levels. Since many researchers have reported that increased educational attainment causes wages to rise and unemployment to decline, we would expect the wage gaps by education level to be smaller as education levels rise. For the most part, this is what Tables 3 and 4 show from the 2006 PALS database.

One of the cautionary notes we reported in the February 2011 newsletter issue, when reporting the wage gaps for *all* levels of education, was the following: “When sample sizes are divided up by gender and education level and severity of disability, many of the samples are too small to derive results for specific education levels.”²¹ This was true for the 2001 PALS sample. Fortunately, we are able to retain large enough sample sizes from the 2006 PALS sample to generate wage gaps by education level that were statistically significant for many of the categories.

Table 3: Wage gaps for MALES by education level and degree of severity, 2006 PALS

Education Level	Overall	Degree			
		Mild	Moderate	Severe	Very Severe
Non-high school graduate	-20%	-14%	n/a [^]	-48%	n/a [^]
High school graduate	-23%	-12%	-32%	-39%	-68%
Trade school graduate	-25%	-18%	-24%	-45%	-45%
College graduate	-25%	-22%	-27%	-31%	-63%
University (one or more degrees)	-14%	n/a [^]	n/a [^]	-31%	-56%

[^] Not reported because not statistically significant

While the percentages are not precisely uniform, we do see, on average, that with higher levels of education, the impact of disability is lesser than for males with lower levels of education. This impact appears to be greater for university-educated males than males with lower levels of education. The only exception to this trend is for the “mildly” disabled males, where the percentages are up and down as educational attainment rises.

²⁰ The PALS surveys identify types of disability by “less severe” or “more severe”. We assume that to use the “more severe” wage gaps that the plaintiff would experience the specific type of disability in question to an extent greater than 50% of the population with the same type of disability.

²¹ **Brown’s Economic Damages Newsletter**, entitled “2006 PALS: Wage deficits by degree of severity (Replicating the 2001 PALS regression results)”, February 2011, vol. 8, issue #1, p. 5, footnote #18.

The main applicability of the percentages in Table 3 would be for university-educated males, and to some extent, college-educated males (for the "severely" disabled category) to account for the likelihood that if the plaintiff were to retrain, the impact of the disability would be lessened, as shown in Table 3 (i.e., the overall impact would decrease from 25% to 14%, almost a -50% reduction in impact of the disability). This accords with common sense, since many educated persons hold jobs that are sedentary, so the impact of a physical disability, at least, would be expected to be lesser in these types of jobs.

In terms of the wage gaps by *type* of disability for educated *males*, in most cases the sample sizes were too small to produce statistically reliable results. For the "mobility" and "other" type categories, it was found that the wage gaps declined for males once they obtained a college education: from 36% at lower education levels to 16% (type: "mobility"); or from 24% or 32% at lower education levels to 15%, respectively (type: "other"). For the "other" type of disability, we also found that at low levels of education (non-high school graduate and high school graduate), males suffered a -24% and -32% reduction, respectively. These results were found to be statistically significant.

Table 4: Wage gaps for FEMALES by education level and degree of severity, 2006 PALS

Education Level	Overall	Degree			
		Mild	Moderate	Severe	Very Severe
Non-high school graduate	-26%	-20%	n/a^	-43%	-56%
High school graduate	-25%	-18%	-26%	-36%	-64%
Trade school graduate	-14%	n/a^	n/a^	-47%	n/a^
College graduate	-23%	-11%	-29%	-33%	-71%
University (one or more degrees)	-13%	n/a^	-19%	-43%	n/a^

^ Not reported because not statistically significant

As with the male population from the 2006 PALS, the effect of university education appears to either lessen the impact of the disability (if the plaintiff had already completed schooling *before* the impairment) or somehow reduces the impact of disability through retraining *after* the incident. Similar to the male population, the impact overall is from 23% to 13%: almost a -50% reduction. Similar reductions in the impact of disability at the university level occur for the "moderately" disabled females.

In terms of the wage gaps by *type* of disability for educated *females*, in most cases the sample sizes were too small to produce statistically reliable results. For the "other" type category, the wage gaps declined uniformly as education increased: from -53% for non-high school graduates to -43% for high school graduates to -41% for trade school graduates, to -27% and -21% for female college- or university-educated graduates, respectively. These were the main statistically reliable results for females by educational level and *type* of disability.

USE OF PALS DATA IN CIVIL LITIGATION

The usefulness of the HALS and PALS surveys is that they provide a statistical basis to formulate a future "loss of earning capacity" or "loss of opportunity" award. **When there exists medical and/or vocational evidence indicating that the 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 the HALS and PALS surveys allow us to estimate a

future loss of income by applying wage deficits in percentage terms. An example of a difficult case might be where the plaintiff has resumed his or her pre-incident employment, and is also earning a salary similar to his or her pre-incident income. This does not always imply that the plaintiff will suffer no future impairment or impediment that could affect his or her employability and/or earnings. This will be especially true if the plaintiff is working for a sympathetic or accommodating employer.

Another example might be in a case involving a child or young adult. The accident may not have clearly impacted the plaintiff's educational attainment in the absence of the incident. In such cases, PALS wage gaps can be used to project a future "loss of earning capacity" award once the child or young adult enters the labour market.

What counsel needs to do in HALS/PALS cases

If the medical or vocational reports find the plaintiff will suffer an ongoing disability in the future of, say -25%, then the HALS/PALS data can be used to substantiate that the plaintiff has a disability that is affecting his or her earning capacity to this degree. 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. Research 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 HALS and PALS respondents to determine his/her level of severity 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 HALS and PALS data ((2) above) so we know what percentage wage deficits to apply to the plaintiff's earning capacity in the future (as per the 2010 *Journal of Legal Economics* published article). The plaintiff subsequently completes the HALS/PALS questionnaires to provide a determination of his/her severity of disability under (3) above. To obtain the HALS and PALS questionnaires, please contact our firm at **1-888-BEC-ASST** (1-888-232-2778) or email us at: help@browneconomic.com.

Dealing with self-employed plaintiffs

In our 2010 *Journal of Legal Economics* article, we included a section entitled **VIII. Using the PALS Wage Gaps When Plaintiffs are Self-Employed** (p. 37). The reason we did this was to recognize that with some entrepreneurs,²² his/her income could be earned not just from his/her direct efforts and acumen, but also from the investment of the company's capital or returns from the efforts of other workers. While these are legitimate sources of income for the entrepreneur, it may be that the entrepreneur's impairment might not affect these sources of income. In other words, the business owner may be able to still earn income from the investment of capital and (other) labour after the incident. As a result, the quantum expert would want to apply the PALS wage gap *only* to the portion of the entrepreneur's income that is affected by his/her direct efforts and acumen.

We *do* know that both the 2001 and 2006 PALS surveys included self-employed persons. In the **2001** PALS, we found that 11% of the respondents had answered affirmatively to questions E13, E54 and E80, which asked the respondent if s/he was mainly "self-employed alone or in a partnership".²³ In the **2006** PALS survey, again we investigated what percentage of the respondents identified themselves as being self-employed. This percentage was 11.7% as a proportion of the employed persons surveyed.²⁴

In order to identify which portion of the entrepreneur's income could be earned from the investment of capital and/or labour of other employees, we rely on Statistics Canada's *Financial Performance Indicators 2007-09*. These statistics report return to equity ratios²⁵ for organizations by province, gross revenue, industry sector (by 2-digit NAICS²⁶ codes), and year. Although this ratio may not be the exact measure of the portion of the entrepreneur's income arising from investing in capital or labour, it is the closest measure to be found by province, industry sector and establishment revenue that may have been earned separate and apart from the owner's own physical efforts.

In the example data given in the 2010 *Journal of Legal Economics* article, we used 28.53% for Alberta construction industry firms with firm revenue under \$5 million (Table B, p. 39). This percentage would be directly applied to the plaintiff's total income to reduce it *before* the PALS reductions are used. In other words, the PALS reductions would be applied to only 71.47% of the owner's total income. The end result is the loss estimates are lower for entrepreneurs than for wage-earners or contractors.

²² This section deals primarily with self-employed persons who have paid workers. There are many self-employed persons who operate as contractors *without* paid help. This latter group would be affected like a wage earner, as typically the impairment directly affects the contractor's time and effort.

²³ Statistics Canada, *Participation and Activity Limitation Survey (PALS) 2001: User's Guide to the Public Use Microdata File* (Minister of Industry, 2004), *Appendix C: Dictionary of Data File*, p. 157.

²⁴ Statistics Canada, *Participation and Activity Limitation Survey: Public Use Microdata File User Guide* (Minister of Industry, 2009), catalogue no. 89M0023XCB2006, variable name AEDE_Q07 for LFSTAT=1 (p. 153).

²⁵ Return on equity as defined in *Financial Performance Indicators 2007-09* as the ratio that "measures the level of return to the owners (investors) and it represents their measure of profitability. The earnings figure is the after-tax profits, including a deduction for interest expense (payments to lenders). It is the net profit available to the owners (investors). The ratio indicates how many cents are returned to every dollar invested by the owners."


²⁶ NAICS = Northern American Industrial Classification System.

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

Year of Accident/ Year of Settlement or Trial	"Inflationary" Factors*	Non-Pecuniary Damages - Sample Awards				
		\$10,000	\$25,000	\$50,000	\$75,000	\$100,000
April 2010-April 2011	1.021	\$10,214	\$25,534	\$51,069	\$76,603	\$102,138
Avg. 2009-April 2011	1.027	\$10,271	\$25,677	\$51,355	\$77,032	\$102,709
Avg. 2008-April 2011	1.032	\$10,320	\$25,799	\$51,598	\$77,397	\$103,196
Avg. 2007-April 2011	1.055	\$10,546	\$26,364	\$52,728	\$79,092	\$105,455
Avg. 2006-April 2011	1.077	\$10,771	\$26,927	\$53,854	\$80,780	\$107,707
Avg. 2005-April 2011	1.099	\$10,986	\$27,465	\$54,931	\$82,396	\$109,862
Avg. 2004-April 2011	1.123	\$11,230	\$28,074	\$56,148	\$84,223	\$112,297
Avg. 2003-April 2011	1.144	\$11,438	\$28,596	\$57,192	\$85,788	\$114,384
Avg. 2002-April 2011	1.175	\$11,754	\$29,385	\$58,771	\$88,156	\$117,542
Avg. 2001-April 2011	1.202	\$12,020	\$30,050	\$60,099	\$90,149	\$120,198
Avg. 2000-April 2011	1.232	\$12,322	\$30,806	\$61,611	\$92,417	\$123,223
Avg. 1999-April 2011	1.266	\$12,658	\$31,645	\$63,290	\$94,935	\$126,581
Avg. 1998-April 2011	1.288	\$12,877	\$32,193	\$64,386	\$96,579	\$128,772
Avg. 1997-April 2011	1.301	\$13,005	\$32,514	\$65,027	\$97,541	\$130,054
Avg. 1996-April 2011	1.322	\$13,216	\$33,040	\$66,080	\$99,120	\$132,160
Avg. 1995-April 2011	1.342	\$13,424	\$33,561	\$67,122	\$100,682	\$134,243
Avg. 1994-April 2011	1.371	\$13,713	\$34,281	\$68,563	\$102,844	\$137,125
Avg. 1993-April 2011	1.373	\$13,735	\$34,337	\$68,675	\$103,012	\$137,350
Avg. 1992-April 2011	1.399	\$13,992	\$34,979	\$69,958	\$104,938	\$139,917
Avg. 1991-April 2011	1.420	\$14,200	\$35,499	\$70,998	\$106,497	\$141,996
Avg. 1990-April 2011	1.500	\$14,999	\$37,497	\$74,994	\$112,490	\$149,987
Avg. 1989-April 2011	1.572	\$15,717	\$39,292	\$78,584	\$117,876	\$157,168
Avg. 1988-April 2011	1.650	\$16,500	\$41,250	\$82,500	\$123,751	\$165,001
Avg. 1987-April 2011	1.716	\$17,163	\$42,907	\$85,813	\$128,720	\$171,627
Avg. 1986-April 2011	1.791	\$17,911	\$44,777	\$89,553	\$134,330	\$179,107
Avg. 1985-April 2011	1.866	\$18,661	\$46,654	\$93,307	\$139,961	\$186,615
Avg. 1984-April 2011	1.940	\$19,401	\$48,502	\$97,004	\$145,506	\$194,008
Avg. 1983-April 2011	2.024	\$20,236	\$50,590	\$101,179	\$151,769	\$202,359
Avg. 1982-April 2011	2.142	\$21,424	\$53,559	\$107,118	\$160,677	\$214,236
Avg. 1981-April 2011	2.373	\$23,729	\$59,323	\$118,645	\$177,968	\$237,291
Avg. 1980-April 2011	2.669	\$26,693	\$66,733	\$133,466	\$200,199	\$266,932
Avg. 1979-April 2011	2.940	\$29,397	\$73,493	\$146,986	\$220,479	\$293,972
Jan. 1978-April 2011	3.348	\$33,484	\$83,711	\$167,422	\$251,132	\$334,843

\$85,813 = \$50,000 x 1.716 represents the dollar equivalent in April 2011 of \$50,000 based on inflation increases since 1987. Similarly, \$334,843 (= \$100,000 x 3.348) represents the dollar equivalent in April 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 Apr 2010 to Apr 2011*		For the month of April 2011	
(rates of inflation)			
Canada**	3.3%	Canada:	7.6%
Vancouver:	2.6%	Vancouver:	8.4%
Toronto:	3.5%	Toronto:	8.5%
Edmonton:	2.9%	Edmonton:	5.7%
Calgary:	2.6%	Calgary:	5.9%
Halifax:	3.9%	Halifax:	6.6%
St. John's, NF:	3.7%	St. John's, NF:	5.7%
Saint John, NB:	3.5%	Saint John, NB:	6.8%
Charlottetown:	3.3%	Charlottetown (PEI):	11.2%
* Using month-over-month indices. Source: Statistics Canada			
** 12 month rolling average up to April 2011 is 2.1% (see table above).			



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