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■ Age and earnings

■ Minimum wage



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.	not available for any reference period
..	not available for a specific reference period
...	not applicable
0	true zero or a value rounded to zero
0 ^s	value rounded to 0 (zero) where a meaningful distinction exists between true zero and the value rounded
P	preliminary
r	revised
x	suppressed to meet the confidentiality requirements of the <i>Statistics Act</i>
E	use with caution
F	too unreliable to be published

Highlights

In this issue

■ Age and earnings

- Among full-time full-year workers age 45 to 69 and not receiving a pension, age by itself is not significantly related to hourly earnings once other characteristics are controlled for.
- Hourly earnings increase with work experience and, on average, reach a maximum at 25 to 29 years of experience and stabilize thereafter. Overall, work experience is a better predictor of hourly earnings than age.
- Men with university degrees earn 36% more per hour than men with non-university postsecondary certificates. However, women of all education levels earn less than their male counterparts.

Perspectives

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Age and earnings

May Luong and Benoît-Paul Hébert

As people age and gain work experience, their earnings might be expected to continue to rise or at least remain stable until retirement. However, this appears not to be the case with traditional age-earnings profiles (Chart A). These show increases in earnings in the early years, a peak around middle age, and a decline thereafter. This inverted U-shaped pattern between age and earnings, based on the average earnings by age for all workers at a given time, is found in a wide range of data. For example, cross-sectional census data show that the earnings of men employed full time, full year declined after their mid-forties (Saint-Pierre 1996). The same pattern is found in cross-sectional data from the Survey of Labour and Income Dynamics (SLID).

The age-earnings profile is commonly used to describe the growth of earnings over the life cycle (Thornton et al. 1997). It is also widely used by forensic economists in the projection of future earnings when calculating earnings loss in personal litigations. The age-earnings profile also helps explain why older workers have a more difficult time adjusting to job loss since their higher earnings often reflect firm-specific skills.

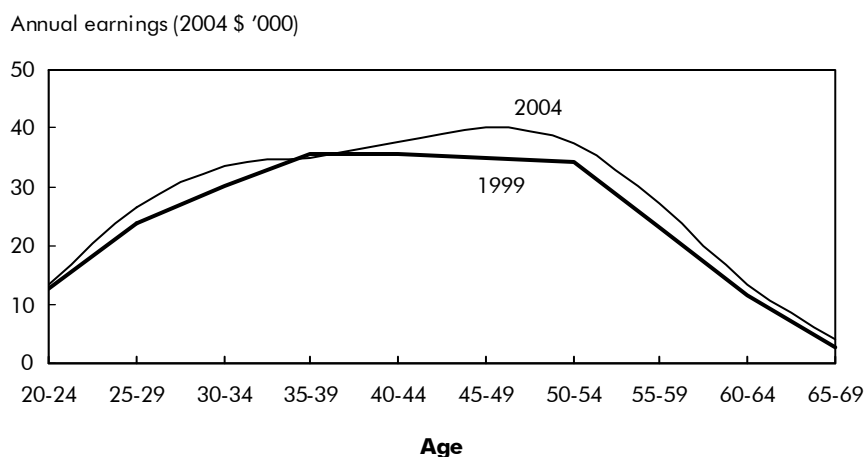
However, the traditional age-earnings profile has many problems, including the use and interpretation of cross-sectional data, selection problems, bias from voluntary changes in hours, and occupations of working retirees. This article addresses these problems in more detail and estimates a 'pure' age effect. Using the 1999 to 2004 SLID panel, the study re-examines the age effect on hourly rather than annual earnings in order to control

for changes in hours worked (see *Data source*). In addition, it uses multivariate analysis to test whether aging by itself results in lower hourly earnings when other related factors are controlled for.

Problems with traditional age-earnings profiles

One issue with the traditional age-earnings profile is that the effect attributed to age may also capture

Chart A Conventional cross-sectional profiles show annual earnings declines after age 50



Source: Statistics Canada, Survey of Labour and Income Dynamics.

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Data source

The **Survey of Labour and Income Dynamics** (SLID) covers roughly 97% of the Canadian population, excluding those in the territories, in institutions, on First Nations reserves or in military barracks. Each panel of respondents, approximately 15,000 households and 30,000 adults, is surveyed for six consecutive years. A new panel is introduced every three years, so two panels always overlap. This study used the third panel of SLID, which followed respondents from 1999 to 2004. The longitudinal nature of the survey allows for the tracking of hourly and annual earnings of individuals over a maximum of six consecutive years.

Since this study examines the age-earnings profile before retirement, the sample was restricted to individuals age 45 and over. As SLID does not collect labour-related information from individuals age 70 and over, the sample consists of individuals age 45 to 69.

Exploratory analysis with separate models for men and women indicated that differences between the sexes could easily be modelled as interactions in a single model for the pooled sample.

In order to overcome the issue of selection effect where older workers with higher earnings may be more likely to leave the labour market, only full-year, full-time workers

were included in the sample, which allowed for a fairly consistent cohort. Individuals were excluded when they began receiving pension benefits (from an employer-sponsored plan or the Canada/Quebec Pension Plan¹), since receipt of such benefits tends to occur after individuals have retired from their career job and the focus of this study was to understand earnings prior to retirement. In fact, the limitation of the sample to non-pensioners is crucial. Working pensioners are different from workers in their career job in that pensioners who return to the labour market typically work at a reduced capacity and these jobs are also, on average, lower in pay (Hébert and Luong 2008). However, since they are also receiving pension payouts, their total income may be equal to or exceed its pre-retirement level.²

The final sample consisted of 2,102 respondents for a total of 9,556 observations. The panel is unbalanced as the number of observations varied across respondents.

Nominal earnings were converted to 2004 dollars. For variables where information was missing for a large number of respondents, a distinct category for missing values was added to prevent these respondents from being dropped from the multivariate analysis.

the effects of other factors related to, but distinct from, age. The original human capital earnings function was used to explain the decline in earnings at older ages as reflecting declines in productivity due to deterioration in human capital (Mincer 1974). However, conclusions based on cross-sectional data may be confounding differences between individuals at different points in their lives and differences within persons over time. Detailed longitudinal data and quantitative methods measuring within-person differences are required in order to determine whether individuals' earnings rise or fall over time.

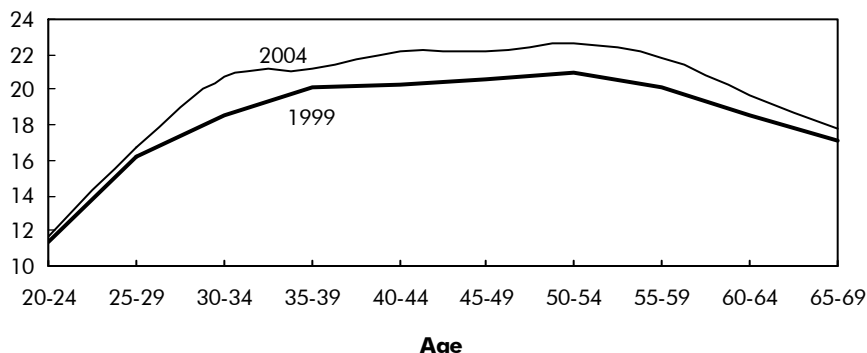
The second issue is the correlation between age and work experience—the older the individual, the more years of work experience likely gained. While age is not irrelevant and often is accompanied by health issues which depreciate human capital stock, work experience remains a dominant factor in earnings. However, early estimates of the age-earnings profile had to derive work experience by subtracting years of schooling from age since work experience was not available. Furthermore, the effects of age and work experience on earnings were estimated separately rather than within the same model (Mincer 1974). Indeed, age has commonly been used as a proxy for years of

work experience since information on work experience is typically unavailable in both longitudinal administrative data and cross-sectional survey data. In order to estimate the 'pure' age effect on earnings, work experience must be controlled for. In addition, the majority of research on the age-earnings profile controls only for education and sex. However, other personal and job characteristics may also be at play.

Thirdly, studies often do not consider that some workers may have started transitioning into retirement. For example, older workers may voluntarily reduce their work hours to gradually phase into retirement. In fact, between 1999 and 2004, 60% of workers age 45 to 69 who experienced a fall in their annual earnings had reduced their work hours. On the other hand, 44% of older workers with a rise in their annual earnings had increased their hours.³ Previous findings of lower annual earnings for older workers may thus reflect decreased work hours. Indeed, individuals' hourly earnings may remain stable or even rise over time and therefore provide a more accurate measure of true earnings potential. Even with cross-sectional data, the age-earnings profile shows a less pronounced slope at older ages using hourly figures (Chart B).

Chart B Conventional cross-sectional profiles based on hourly earnings show more moderate declines after age 50

Hourly earnings (2004 \$)



Source: Statistics Canada, Survey of Labour and Income Dynamics.

Another issue pertaining to the transition to retirement and its effect on earnings involves working pensioners. With pension benefits, these older workers can afford to either reduce their hours of work or take up a new job paying less than their pre-retirement one. Indeed, a study based on longitudinal data and a fixed-effects model found that hourly earnings declines begin only after age 60 and are attributable to pension benefits—that is, individuals receiving pension benefits but continuing to work would reduce their earnings in part by switching from full-time to part-time jobs (Johnson and Neumark 1996). Estimates for workers not receiving pension benefits reveal even weaker evidence of earnings declines at older ages.

This study excludes workers from the sample when they began receiving pension benefits from an employer-sponsored plan or the Canada/Quebec Pension Plan (C/QPP). Benefits from Old Age Security (OAS) and the Guaranteed

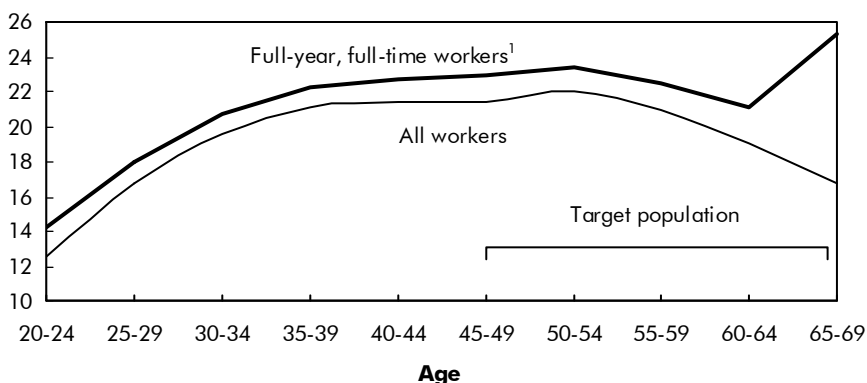
Income Supplement (GIS) are not taken into account. While a sample of non-retired workers likely reduces the biases induced by working pensioners, some selection

effect may well remain since the C/QPP provides reduced benefits starting at age 60, full benefits at 65, and increased benefits up to age 70.

The selection effect involves the movement into and out of employment and changes in the cohort composition of older workers. Indeed, one longitudinal study (Myck 2007) suggested that the propensity of those with higher earnings to leave employment earlier contributes to the inverted U-shaped age-earnings profile. In order to account for this type of selection effect, the model was estimated for older adults working full year, full time to restrict the sample to a fairly consistent cohort (Chart C). Full-year full-time workers have higher hourly earnings on average than all workers, and the highest is for those age 65 to 69⁴ (due to the small number of observations in this age category, however, that average should be used with

Chart C Longitudinal profiles show only a modest drop in hourly earnings for older workers with no pension benefits

Hourly earnings (\$)



1. Excluding working retirees.

Source: Statistics Canada, Survey of Labour and Income Dynamics, 2004.

caution). Nevertheless, the data suggest that the lower earnings found for older workers in the traditional age-earnings profiles are likely a result of older workers retiring from their career job, activating their pension, and continuing to work at lower pay, which ultimately drags down the average for older workers. Older workers continuing uninterrupted work will, on average, maintain high earnings according to the sample used.

A new approach using multivariate analysis

In order to account for the many personal, job, and demographic factors that may affect earnings, a random-effects model (Frees 2004) was used to estimate the age-earnings relationship. As suggested by other studies (Robinson 2003, and Murphy and Welch 1990), the model included different functions to test for linear or non-linear relationships between age and earnings (see *Statistical model*).

Overall, coefficients for age and its powers were close to zero (Table). While the coefficients for age squared and age to the fourth were statistically significant on their own, the age variables, when tested as a whole, were not statistically different from zero, which indicates that when other personal and job-related characteristics are taken into account, a worker's age does not appear to be related to earnings. This is in contrast to many studies that used cross-sectional data to illustrate declining earnings for older workers prior to retirement. This difference arises in part because older workers are excluded from the longitudinal sample as soon as they start to receive a pension, contrary to previous studies.⁵ Another contributing factor is the use of longitudinal data.

While the results suggest that age is not significantly related to hourly earnings, they indicate that work experience, defined as years working full time for at least six months, is important in explaining variations. Indeed, the results show that, compared with workers having 30 to 34 years of work experience, those with 0 to 4 years earned almost 15% less, those with 5 to 14 years, 10% less, and those with 15 to 24 years, 5% less.⁶ However, contrary to previous research that indicated decreasing earnings for those with the most experience, this study showed that workers with either 25 to 29, or 35 and more years of experience were not statistically different from those with 30 to 34 years of work experience, which suggests that hourly earnings stabilize after more than 25 years of experience.

Statistical Model

SLID panel data for the years 1999 to 2004 were used to estimate variants of the random-effects model

$$\ln(y_{it}) = \beta_0 + \beta_1 \text{Age}_{it} + \beta_2 \text{Age}_{it}^2 + \beta_3 \text{Age}_{it}^3 + \beta_4 \text{Age}_{it}^4 + \gamma' x_{it} + T_i + v_i + \varepsilon_{it}$$

where y_{it} is the composite hourly earnings of individual i in year t , Age is the individual's age (centred at age 55), β_1 to β_4 are coefficients affecting Age and its powers, x_{it} is a vector of personal and employment characteristics (including work experience) that may or may not vary over time, and γ is a vector of regression coefficients. A series of dummy variables (T_i) is used to account for year-specific effects. Individual-specific effects are accounted for by the time-constant v_i , and ε_{it} is the error term. Standard errors for parameter estimates were calculated with the bootstrap method.

Other possible models for longitudinal or panel data include fixed-effects, random-coefficients, and population-averaged models. The fixed-effects model was not ideal for this study as it cannot estimate the effect of time-constant variables. Using generalized estimating equations, the population-averaged model roughly corresponding to the random-effects specification above yielded very similar results. A fully specified random-coefficients model proved difficult to estimate, but results from models including limited subsets of variables were in agreement with the results from the random-effects and population-averaged models. Also, an ordinary least squares (OLS) regression using 2004 data only was estimated for comparison purposes. Overall, the results from the OLS model were in agreement with the results from the random-effects and population-averaged models.

Overall, the results suggest that work experience is a better predictor of hourly earnings than age. This is plausible, since work experience, rather than age, is more directly tied to accomplishments, which are typically assessed when determining promotions and job offers.

Similar to other research, this study found sex and education to be significantly related to earnings. Results of the random-effects model suggest that men with university degrees earned 36% more than those with a non-university postsecondary certificate. On the other hand, men who completed high school did not have significantly different hourly earnings than men with non-university postsecondary education, but men with less than high school earned 11% less per hour. An earnings gap between men and women was also apparent. Women of all educational levels earned less than their male counterparts. For example, women with a non-university postsecondary certificate earned 15% less than their male counterparts.

Table Results of log-linear random effects

	Random effects model	
	Coefficient	Exponential coefficient
Age		%
Age squared	-0.005	-0.5
Age cubed	-0.002**	-0.2
Age to the fourth power	0.000	0.0
	0.000**	0.0
Sex and education (ref. men, non-university postsecondary)		
Men, less than high school	-0.116***	-10.9
Men, high school	0.048	5.0
Men, university	0.310***	36.3
Women, less than high school	-0.403***	-33.2
Women, high school	-0.278***	-24.3
Women, non-university postsecondary	-0.162***	-14.9
Women, university	0.048	4.9
Work experience (ref. 30 to 34 years)		
0 to 4 years	-0.158***	-14.7
5 to 14 years	-0.107***	-10.2
15 to 24 years	-0.047**	-4.5
25 to 29 years	-0.011	-1.1
35 or more years	-0.006	-0.6
Immigrant status (ref. non-immigrant)		
Immigrant	-0.018	-1.7
Visible minority status (ref. non-visible minority)		
Visible minority	-0.231***	-20.6
Disability status (ref. no disability reported)		
Disability reported	0.002	0.2
Job status (ref. permanent)		
Non-permanent job	0.004	0.4

** statistically significant or significantly different from the reference group (ref.) at 0.05

*** significantly different from the reference group (ref.) at 0.01
Note: Some variables had missing values. Other variables used, but not shown, comprise occupation, industry, region, area of residence size and year effects.

Source: Statistics Canada, Survey of Labour and Income Dynamics, 1999 to 2004.

Job permanency is another indicator of job quality. However, the results indicate that older workers with non-permanent jobs (i.e. seasonal, temporary, term or contract, casual, or through a temporary help agency) did not have significantly different earnings than older workers with permanent jobs. While permanent jobs

in theory are more likely to be unionized, which typically leads to better pay, the non-significant finding here likely resulted from restricting the sample to full-year, full-time workers. In fact, only about 4% of the sample had non-permanent positions.

Immigrants and visible minorities may also earn less due to different starting levels and growth rates for reasons such as language barriers, lack of social networks, lack of recognition of credentials by employers, and discrimination. However, immigrants' earnings were not statistically different than earnings of non-immigrants. While existing research indicates a gap in earnings between *recent* immigrants and non-immigrants (Statistics Canada 2008, and Frenette and Morissette 2003), the sample also included immigrants who had arrived earlier and perhaps from different countries. However, earnings of visible minority individuals were estimated to be almost 21% less than for other workers.⁷

As individuals age, they have a higher likelihood of developing disabilities that may affect their ability to continue working in their job. They may then choose to reduce their hours of work, change jobs, or withdraw from the labour force, which would likely have a negative impact on their earnings. However, the results in the sample used here do not support this hypothesis, which could be related to a selection effect. For example, workers with a disability may have switched to another job or they may have withdrawn from the labour market (Pyper 2006). Therefore, only those whose disability did not affect job performance may have remained. Since SLID does not have detailed information on the type and severity of a disability,⁸ those in the sample who reported having a disability may have had minor or less limiting disabilities.

Conclusion

Age-earnings profiles have been important in the understanding of individuals' earnings over the life cycle. However, they are often created using cross-sectional data that compare earnings of workers at different ages rather than following the earnings trajectory of workers over time. Since this method does not examine the year-to-year earnings of older workers, its capacity for assessing whether earnings fall as workers age is limited. Rather, the interpretation can suggest at best that older workers of a certain age earn less, on average, than workers in their 40s.

This study builds on previous work by using longitudinal data, which allows for the examination of earnings over time while controlling for differences in educational, personal, demographic, and job characteristics. In addition, hourly instead of annual earnings were used in order to account for changes in work hours over time, which would affect annual but not hourly earnings. In general, the findings show that age had no significant effect on hourly earnings after controlling for other factors. This result is attributable to the exclusion of working pensioners in combination with the use of longitudinal data. The results are mostly in line with those of an earlier study which found a very weak relationship between age and earnings after pensioners had been excluded (Johnson and Neumark 1996).

The results show that hourly earnings increase with work experience, reaching a maximum for those with 25 to 29 years of experience and essentially plateauing after that. Therefore, experience-hourly-earnings profiles would be more accurate in estimating the earnings trajectory of individuals over the life cycle.

Perspectives

Notes

1. Although Old Age Security is also considered a public pension, it is received by all Canadians regardless of whether they had ever entered the labour force. Excluding OAS recipients would exclude almost everyone over 65 from the sample.
2. Using data from SLID, the average hourly earnings of working pensioners were not statistically different from the previous year (while they were still in career employment). However, their annual earnings fell from \$46,500 to \$38,400 while their total annual income increased from \$47,300 to \$57,500 during the survey period. These differences in annual earnings and total income were statistically significant at the 5% level.
3. Survey of Labour and Income Dynamics, panel 3, 1999 to 2004.
4. The average hourly earnings for full-year, full-time workers age 65 to 69, excluding working pensioners, were statistically different from those age 60 to 64.
5. The OLS model yielded similar results when working pensioners were excluded from the sample. When working pensioners were included in the sample, the age effect was not significant in the random effects model but was in the OLS model using 2004 cross-sectional data, suggesting that the combination of the presence of working pensioners in the sample and the use of longitudinal data results in a negative relationship between age and hourly earnings.
6. Differences in percentage terms were obtained by exponentiating the coefficients.
7. While it would be interesting to explore an interaction between immigrant and visible minority status, it was not possible due to inadequate sample size in each of the cells.
8. In SLID, respondents are flagged as having a disability if they answer positively to at least one of a series of questions inquiring about difficulty carrying out activities related to daily living, or about having physical or mental conditions or health problems that reduce the amount or kind of activity they can do in any of a few different types of situations (e.g. at home or at work).

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PERSPECTIVES

ON LABOUR AND INCOME

Minimum wage

Minimum-wage legislation exists in every province and territory as part of provincial employment standards legislation. The minimum wage is the lowest wage employers can pay employees covered by the legisla-

tion (see *Data source and definitions*). To evaluate the potential impact of any changes, it is important to understand who works for minimum wage and what types of jobs they hold.

Data source and definitions

The Labour Force Survey (LFS) is a monthly household survey of about 53,000 households across Canada. Demographic and labour force information is obtained for all civilian household members 15 years of age and older. Excluded are persons living in institutions, on Indian reserves, or in the territories.

Every province and territory stipulates a minimum wage in its employment standards legislation. It is an offence for employers to pay eligible employees less than the set rate, regardless of how remuneration is calculated (hourly, daily, weekly, monthly, or on a piecework basis). Likewise, employees are prohibited from accepting pay that is less than the applicable minimum. The minimum wage rate varies from province to province, and a change can become effective at any time of the year.

The self-employed are not covered by minimum wage legislation and as such are not included in the analysis. Unpaid family workers are also excluded.

Other exclusions and special coverage provisions vary and include young workers (Ontario and Newfoundland and Labrador), workers with disabilities (Alberta, Manitoba and Saskatchewan—rarely used), domestic and live-in care workers (New Brunswick, Prince Edward Island, Manitoba and Quebec), farm labour (Alberta, Manitoba, Ontario and Saskatchewan), and home-based workers (for example, teleworkers, and pieceworkers in the clothing and textile industry). Other specific minimums cover non-hourly and

tip-related wage rates (for example, Ontario has a special minimum wage rate for employees who serve alcoholic beverages in licensed establishments). A more complete description of exclusions and special rates is available from Human Resources and Social Development Canada's database on minimum wages (<http://srv116.services.gc.ca/wid-dimt/mwa/>).

The number of employees working for minimum wage was calculated using the applicable **minimum wage for experienced adult workers** (also known as the **general adult rate**) for each province for each month of 2008. The average of these 12 monthly observations provides the annual estimate for each province and for Canada.

To determine whether an employee worked at or below the general adult rate wage for each province, usual hourly earnings were used based on the reported wage or salary before taxes and other deductions, including tips, commissions and bonuses. In principle, tips, commissions and bonuses should have been excluded to capture only those whose true base hourly wage was at or below the provincial general adult rate, but the required information is not collected. The result is a slight downward bias in the number of employees working at or below the official general adult rate set by each province. However, none of the exclusions or special minimum wage rates (such as special minimum wage rates for tip earners and young workers) were used, which introduces an upward bias.



In 2008, some 751,400 individuals worked at or below the minimum wage set by their province. This represented 5.2% of all employees in Canada, up slightly from 5.0% the previous year. Minimum wages ranged from \$7.75 per hour in New Brunswick to \$8.75 per hour in Ontario. Newfoundland and Labrador had the highest proportion of employees (7.7%) working at or below the minimum wage. Alberta continued to have by far the lowest proportion of

employees working at or below minimum wage (1.6%). Alberta's average hourly wages were highest at \$23.68, while Ontario's were \$22.15, and its unemployment rate was by far the lowest (3.6%). Newfoundland and Labrador had one of the lowest average hourly wages at \$18.85 (only Nova Scotia, New Brunswick and Prince Edward Island posted lower averages), and by far the highest unemployment rate (13.2%).

Table 1 Lowest proportion in Alberta

	Total employees	Minimum wage		General adult minimum wage	Date	Average hourly wage	Unemployment rate
		Total	Incidence				
	'000	'000	%	\$/hour		\$/hour	%
Province							
Newfoundland and Labrador	197.0	15.1	7.7	8.00	April 2008	18.85	13.2
Ontario	5,684.9	374.3	6.6	8.75	March 2008	22.15	6.5
Nova Scotia	396.1	25.4	6.4	8.10	May 2008	18.12	7.7
Quebec	3,339.3	195.6	5.9	8.50	May 2008	20.03	7.2
Prince Edward Island	60.9	3.4	5.6	8.00	October 2008	16.96	10.7
Manitoba	521.3	27.7	5.3	8.50	April 2008	19.24	4.2
Canada	14,496.2	751.4	5.2	21.32	6.1
New Brunswick	324.2	15.6	4.8	7.75	March 2008	17.79	8.6
Saskatchewan	419.2	16.1	3.8	8.60	May 2008	20.34	4.1
British Columbia	1,886.0	50.8	2.7	8.00	November 2001	21.46	4.6
Alberta	1,667.3	27.4	1.6	8.40	April 2008	23.68	3.6

Source: Statistics Canada, Labour Force Survey, 2008.

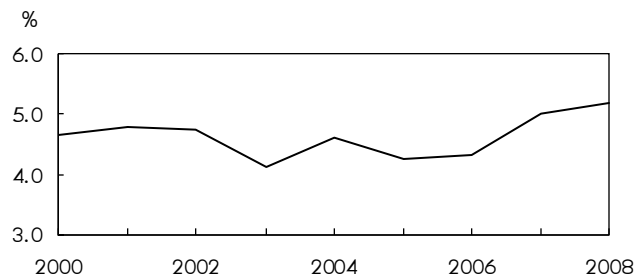
Table 2 Share of employees working for minimum wage or less, by province

	2000	2001	2002	2003	2004	2005	2006	2007	2008
	%								
Canada	4.7	4.8	4.8	4.1	4.6	4.3	4.3	5.0	5.2
Newfoundland and Labrador	8.7	5.7	7.4	8.4	6.5	6.1	7.6	7.4	7.7
Prince Edward Island	3.7	3.2	4.4	4.0	4.4	5.1	4.7	6.9	5.6
Nova Scotia	4.9	4.1	4.6	5.9	5.6	5.1	5.9	6.2	6.4
New Brunswick	6.0	4.2	4.2	4.1	2.5	3.1	4.1	5.6	4.8
Quebec	5.4	7.0	6.1	5.1	4.4	4.6	4.2	5.4	5.9
Ontario	4.6	4.1	3.9	3.5	5.3	4.3	4.7	6.3	6.6
Manitoba	5.1	4.5	4.8	4.5	4.9	4.9	4.8	5.5	5.3
Saskatchewan	5.9	4.4	4.8	5.0	3.3	3.9	5.4	3.2	3.8
Alberta	2.0	1.5	1.1	1.1	0.9	1.3	1.7	1.0	1.6
British Columbia	4.5	6.0	7.7	5.6	6.2	5.6	4.6	3.4	2.7

Source: Statistics Canada, Labour Force Survey.

All provinces except British Columbia raised their minimum-wage rates in 2008. The proportion of minimum-wage workers increased in six provinces: Newfoundland and Labrador, Nova Scotia, Quebec, Ontario, Saskatchewan and Alberta, while decreasing in four: Prince Edward Island, New Brunswick, Manitoba and British Columbia.

Chart Proportion of employees earning minimum wage or less increased for the second consecutive year



Source: Statistics Canada, Labour Force Survey.

Women accounted for 60% of all minimum-wage workers, but just under half of all employees. This translated into a higher proportion of women working for minimum wage: nearly 1 in 16 compared with nearly 1 in 25 men. The overrepresentation of women was observed for all age groups.

Nearly 35% of teenagers age 15 to 19 worked for minimum wage. This age group traditionally has, by far, the highest rate of minimum-wage workers—almost half of all minimum-wage workers were teenagers. Another 17% were age 20 to 24. In total, more than 60% of minimum-wage workers were under 25, while this age group represented only 17% of all employees. This translates into an incidence rate eight times that of those 25 and older—18.9% versus 2.3% respectively. A very large number of these young minimum-wage employees attend school full time or part time.

A sizeable proportion (29%) of minimum-wage workers were age 25 to 54. As was the case for the other age groups, women remained the majority of these workers. For these individuals in their core working and peak earning years, minimum-wage work may be less temporary.

The incidence of working for minimum wage declines sharply with age before rising slightly among those 55 and older. The latter could reflect some of the low-wage occupations in which a number of working seniors tend to be concentrated: retail salespersons and sales clerks; general office clerks; janitors, caretakers and building superintendents; babysitters, nannies and parents' helpers; and light duty cleaners.

The proportion of employees earning minimum wage or less increased for the second consecutive year in 2008. The increase from 2007 to 2008 was less (0.2 percentage points) than that from 2006 to 2007 (0.7 percentage points).

Table 3 Most minimum-wage workers are women and young

	Total employees	Minimum wage	
		Total	Incidence
	'000	'000	%
Both sexes			
15 and over	14,496.2	751.4	5.2
15 to 24	2,522.1	476.2	18.9
15 to 19	992.7	345.4	34.8
20 to 24	1,529.5	130.7	8.5
25 and over	11,974.1	275.2	2.3
25 to 34	3,275.2	73.2	2.2
35 to 44	3,334.8	68.0	2.0
45 to 54	3,439.9	76.8	2.2
55 and over	1,924.3	57.3	3.0
Men			
15 and over	7,301.6	299.9	4.1
15 to 24	1,262.5	205.0	16.2
15 to 19	485.2	150.3	31.0
20 to 24	777.3	54.7	7.0
25 and over	6,039.0	94.9	1.6
25 to 34	1,695.4	29.8	1.8
35 to 44	1,692.5	21.5	1.3
45 to 54	1,685.8	22.0	1.3
55 and over	965.3	21.6	2.2
Women			
15 and over	7,194.6	451.5	6.3
15 to 24	1,259.6	271.2	21.5
15 to 19	507.4	195.1	38.4
20 to 24	752.1	76.1	10.1
25 and over	5,935.1	180.3	3.0
25 to 34	1,579.7	43.4	2.7
35 to 44	1,642.3	46.5	2.8
45 to 54	1,754.1	54.8	3.1
55 and over	959.0	35.6	3.7

Source: Statistics Canada, Labour Force Survey, 2008.

Table 4 Education makes a difference

	Total employees	Minimum wage	
		Total	Incidence
	'000	'000	%
Education	14,496.2	751.4	5.2
Less than high school	1,818.7	294.0	16.2
Less than grade 9	312.7	37.2	11.9
Some high school	1,506.0	256.9	17.1
High school graduate	2,906.3	163.2	5.6
At least some postsecondary	9,771.2	294.2	3.0
Some postsecondary	1,299.5	107.8	8.3
Postsecondary certificate or diploma	4,706.3	110.8	2.4
University degree	3,765.3	75.6	2.0

Source: Statistics Canada, Labour Force Survey, 2008.

Minimum-wage work is concentrated in the service sector. Accommodation and food services had by far the highest incidence, with more than 1 in 5 workers at or below minimum wage. Working for minimum wage is also very prevalent in trade where the proportion was 1 in 9. These industries are characterized by high concentrations of youth and part-time workers, both of whom often have less work experience and weaker attachment to the labour force. Also, these industries generally do not require specialized skills or postsecondary education, and have low levels of unionization. Many jobs are part time, which may favour a higher presence of women or young people.

Agriculture continues to have an increased incidence of minimum-wage workers—more than 1 in 8. Farm labour has traditionally been excluded from minimum-wage provisions. Workers in this industry are not often unionized, but may profit from non-wage benefits such as free room and board as compensation for lower wages.

Highly unionized industries such as construction, public administration and manufacturing were among those with the lowest shares of minimum-wage workers.

Those with less than a high school diploma were five times more likely than those with at least some post-secondary training to be working for minimum wage or less—1 in 6 compared with 1 in 33. Four in 10 minimum-wage workers did not have a high school diploma compared with 1 in 8 employees in general. This is in line with the high rates of minimum-wage work among young people, many of whom have not yet completed their studies.

Table 5 Where do they work?

	Total employees	Minimum wage	
		Total	Incidence
	'000	'000	%
Industry	14,496.2	751.4	5.2
Goods-producing	3,296.3	56.9	1.7
Agriculture	123.5	14.5	11.8
Forestry, fishing, mining, oil and gas	291.9	4.1	1.4
Utilities	151.6	F	F
Construction	859.9	11.1	1.3
Manufacturing	1,869.4	26.3	1.4
Service-producing	11,199.9	694.6	6.2
Trade	2,388.7	258.0	10.8
Transportation and warehousing	711.0	14.8	2.1
Finance, insurance, real estate and leasing	896.6	19.8	2.2
Professional, scientific and technical	801.8	11.5	1.4
Management, administrative and other support	520.5	28.9	5.6
Education	1,140.9	24.5	2.1
Health care and social assistance	1,669.7	31.3	1.9
Information, culture and recreation	635.6	41.3	6.5
Accommodation and food	983.4	212.1	21.6
Public administration	925.7	11.3	1.2
Other services	525.9	41.0	7.8

Source: Statistics Canada, Labour Force Survey, 2008.

Table 6 Part-time employment prominent

	Total employees	Minimum wage	
		Total	Incidence
	'000	'000	%
Both sexes	14,496.2	751.4	5.2
Men	7,301.6	299.9	4.1
Women	7,194.6	451.5	6.3
Full-time	11,910.6	306.5	2.6
Men	6,511.9	132.4	2.0
Women	5,398.7	174.1	3.2
Part-time	2,585.6	445.0	17.2
Men	789.7	167.5	21.2
Women	1,795.9	277.4	15.4

Source: Statistics Canada, Labour Force Survey, 2008.

More than half of minimum-wage workers had been in their current job for one year or less, compared with less than one-quarter of all employees. Working for minimum wage was most prevalent among those who had held a job for three months or less (1 in 7), and least common among those in a job for more than five years (1 in 71).

Four in 10 minimum-wage workers were employed by large firms (more than 500 employees) and another 32% by small firms (less than 20 employees). The incidence of working for minimum wage was highest in small firms—more than double that of large firms. Very few minimum-wage workers (9%) belonged to a union or were covered by a collective agreement, compared with almost one-third of all employees. Only 2% of union members worked for minimum wage or less, versus 7% of non-union members. The large number of part-time workers, as well as students and other young people working for minimum wage, combined with their sizeable presence in smaller firms, tends to limit the ability of these workers to organize, making unionization more difficult.

Minimum-wage work among part-time workers was almost seven times higher than among full-time workers (17.2% versus 2.6%). Almost 60% of minimum-wage workers worked part time, compared with less than 20% of all employees.

Table 7 Most minimum-wage jobs are short term, in both large and small firms, and rarely unionized

	Total employees	Minimum wage	
		Total	Incidence
	'000	'000	%
Job tenure	14,496.2	751.4	5.2
1 to 3 months	1,140.9	154.7	13.6
4 to 6 months	978.4	116.5	11.9
7 to 12 months	1,351.1	138.9	10.3
13 to 60 months	4,639.9	250.3	5.4
61 months or more	6,385.9	91.1	1.4
Firm size	14,496.2	751.4	5.2
Less than 20 employees	2,806.9	243.2	8.7
20 to 99 employees	2,321.1	116.3	5.0
100 to 500 employees	2,061.1	77.2	3.7
More than 500 employees	7,307.0	314.8	4.3
Union membership	14,496.2	751.4	5.2
Union member or covered by collective agreement	4,527.0	69.1	1.5
Non-member and not covered by collective agreement	9,969.2	682.3	6.8

Source: Statistics Canada, Labour Force Survey, 2008.

Table 8 Most minimum-wage workers do not live with a spouse

	Total employees	Minimum wage	
		Total	Incidence
	'000	'000	%
Member of a couple	8,341.2	183.8	2.2
Spouse not employed	1,553.9	42.9	2.8
Spouse unemployed	287.9	9.2	3.2
Spouse not in the labour force	1,266.0	33.7	2.7
Less than 55	771.9	19.8	2.6
55 and over	494.1	13.9	2.8
Spouse employed	6,787.3	140.9	2.1
Earning minimum wage or less	115.9	10.8	9.3
Earning more than minimum wage	5,715.7	105.2	1.8
Self-employed	955.7	25.0	2.6

Source: Statistics Canada, Labour Force Survey, 2008.

The vast majority of minimum-wage workers lived with their parents, alone or were the head of a household without a spouse. Only one-quarter of minimum-wage workers lived with a spouse. On the other hand, more than 75% had a spouse who earned more than the minimum wage.

Perspectives

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