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Workplace and Employee Survey Compendium

2005

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Introduction

This compendium summarizes results from the Workplace and Employee Survey conducted by Statistics Canada from 1999 to 2005. The data provide a dynamic view of evolving workplaces and their employees through examples showing the use of the data in cross-sectional, longitudinal and linked analyses. The analyses presented are descriptive in nature and are meant to show the potential use of the WES data in a more complex analytical context.

This issue, the third and final in the Workplace and Employee Survey Compendium series, is organized in four sections covering labour market dynamics, market environments, workplace performance, and compensation practices. This structure is based on the notion that workplaces act upon and respond to their micro- and macro-environments using a wide array of business strategies, such as compensation strategies and innovative work practices. These interactions between workers, workplaces and environments give rise to labour dynamics as workplaces strive to achieve a desirable level of performance and productivity.

The 2005 data are used in all cross-sectional tables. A few longitudinal tables are included to provide comparisons between 1999 and 2005 for the workplace portion of the survey and comparisons involving the three employee panels—1999 to 2000, 2001 to 2002, and 2003 to 2004—for the employee portion of the survey. The linked tables provide employee data that incorporate workplace characteristics.

The sample sizes and estimated populations by industry, workplace size and region, as well as their corresponding distributions, are provided in Table A.1 in Appendix A.

In all tables, data with a coefficient of variation (CV) ranging from 25.0% to 33.0% are identified by a superscript *E* and should be interpreted with caution. Data with a CV greater than 33.0% are suppressed because of very high variability; their cells are identified by an *F.*

Section 1 Labour market dynamics

This section presents an organized set of indicators showing the relationships between job flows (i.e., job creation and job destruction) and worker flows (i.e., hirings and separations). These flows, which underlie aggregate changes in employment, capture the dynamics that take place as employers and workers interact in the economy. Indeed, any single employment change measure is associated with both a gamut of movements involving people moving in and out of jobs, occupations and industries, and movements in the workplaces themselves, namely openings, expansions, contractions and closures of workplaces. The Workplace and Employee Survey (WES), by design, allows the calculation of this set of interrelated job and worker flow indicators in a systematic manner. Similar analysis can be performed using annual data biennially—comparing two-year cumulative entry and exit rates with one another—to incorporate workplace flows. To help with the presentation of the labour market indicators, a few definitions are provided below.

For example, consider a workplace with no change in employment level between two points in time (10 employees in year 1 and 10 employees in year 2). Since there is no addition to the stock of employment, no job is created; therefore job creation rate is zero. Similarly, since there is no reduction in the stock of employment, no job is destroyed; therefore job destruction rate is zero. As a result, job turnover is zero. However, in this workplace, 5 people were hired and 5 left during the year. The hiring rate and the separation rate are greater than zero, giving rise to a labour turnover rate that is also greater than zero. The churning rate, which is the difference between labour and job turnover rates, will be equal to the labour turnover rate, reflecting only workers rotations on existing positions.

Net change in employment: The difference between the stocks of employment at two points in time. It is the result of four major components: openings of workplaces, existing workplaces expanding their employment, existing workplaces contracting their employment and closing of workplaces.

Job creation: The sum of employment gains in all workplaces between two points in time.

Job destruction: The sum of employment losses in all workplaces between two points in time.

Job turnover: The sum, without regard to sign, of all workplaces' employment gains and losses that occur between two points in time.

Labour turnover: The sum of all formations and dissolutions of employer–employee job matches (i.e., hirings and separations).

Hirings: New additions to the workforce at a location. They exclude the filling of positions through recalls from layoffs or the ending of labour disputes.

Separations: Permanent removals from the workforce at a location. These removals include quits, layoffs (no recall expected), special workforce reductions, dismissals for cause, retirement and other types of permanent separations.

Churning: The excess of labour turnover that is due to workers rotations in positions for reason other than job creation and job destruction.

Job vacancy: The number of unfilled positions for which the workplace is currently recruiting employees.

1.1 Job and worker flows

Over the 1999 to 2005 period, more jobs were created than destroyed and those who were hired outnumbered those who left their jobs, leading that way to positive changes in employment. (Table 1.1[1])

The job turnover rate was relatively constant, 11.0% to 13.0%, over the entire period. This means that about one in eight jobs was either created or destroyed. However, a much larger part of job turnover was accounted for by job creation (about 60.0% over the 1999 to 2005 period) than by job destruction.

Over this period, about 4 in 10 workers either were hired or left their jobs. The resulting churning rate, the rate of workers changing positions for reasons other than job destruction or job creation, also remained relatively constant. The overall amount of labour turnover caused by job turnover, remained around 30.0%, meaning that about 70.0% of observed labour turnover reflected employee rotations in existing positions.

Small workplaces (i.e. those with 1 to 19 employees) experienced the highest job creation and job turnover rates during these years.

Over the 1999 to 2005 period, labour turnover in workplaces that did not provide non-wage benefits was noticeably higher than that of workplaces where these benefits were provided. In 2005, where the least significant difference in labour turnover between workplaces with non-wage benefits coverage and workplaces without non-wage benefits coverage occurred, the rate was 48.0% in workplaces where non-wage benefits were not provided, compared with 38.0% in workplaces were they were. Undoubtedly, workplace size and age affect the relationship between labour turnover and non-wage benefits.

Industries characterized by high unemployment rates also showed low vacancy rates, well below the national average rates. Alberta had the lowest unemployment rate and the highest vacancy rate in 2005.

1. In Table 1.1, the employment level of the previous year, (*t – 1*), has been constrained to agree with reported employment, hirings and separations in the current year, (*t),* based on the following identity: Employment in (*t – 1)* ≡ Employment in (*t)* minus Hirings in (*t*) plus Separations in (*t*).Therefore, Net employment change rate ≡ Job creation rate minus Job destruction rate and Net employment change rate ≡ Hirings rate minus Separations rate.

The rates for job and worker flows were computed by using as their denominator the number of employees exposed to the risk of turnover. This number was calculated, in turn, as all those employed at the beginning of the current year plus the number of hires during the current year. Job vacancy rate was defined as the number of vacant positions divided by the total demand for labour, which is the sum of the number of employees at the end of the reference period plus the number of job vacancies during the year.

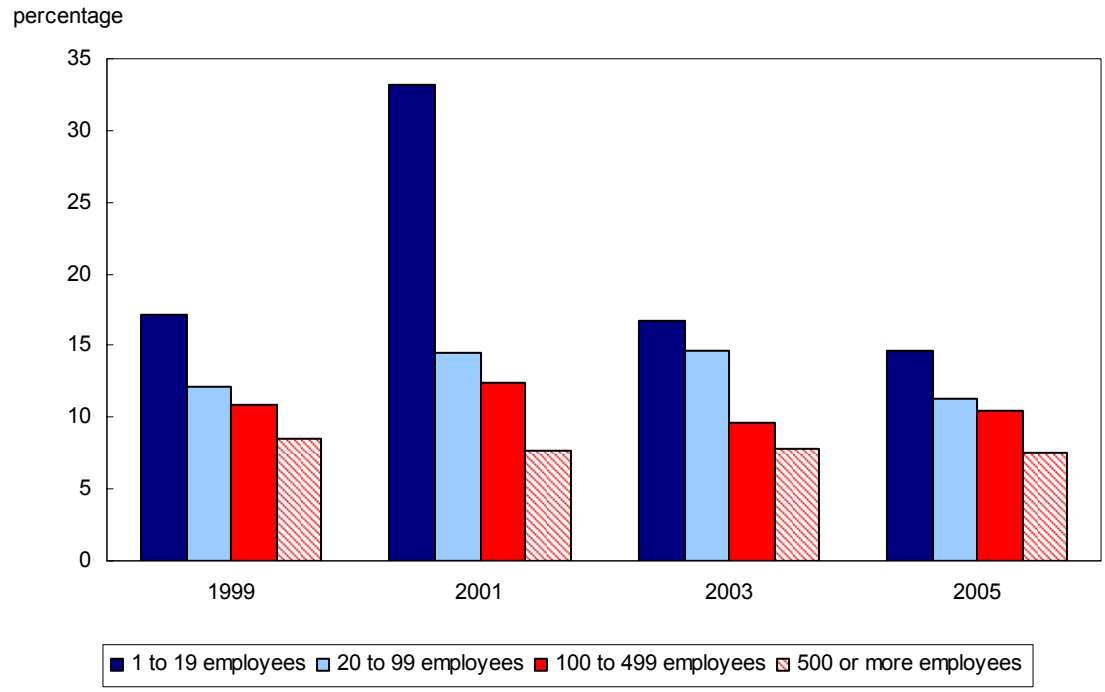
Table 1.1
Job and worker flows and job vacancy, by workplace size and non-wage benefits coverage, 1999, 2001, 2003 and 2005

		Workplace size				Non-wage benefit coverage	
	All workplaces	1 to 19 employees	20 to 99 employees	100 to 499 employees	500 or more employees	With non-wage benefits	Without non-wage benefits
	percent						
1999							
Job creation rate	8.1	10.6	7.4	6.5	6.5	7.4	10.4
Job destruction rate	4.8	6.6	4.7	4.4	2.0	4.4	6.0
Job turnover rate	12.9	17.1	12.1	10.9	8.5	11.8	16.5
Hirings rate	21.8	26.9	23.2	18.0	14.3	20.1	27.3
Separations rate	18.5	22.9	20.6	16.0	9.8	17.2	22.9
Labour turnover rate	40.3	49.9	43.8	34.0	24.1	37.3	50.2
Churning rate	27.4	32.7	31.7	23.0	15.7	25.5	33.7
Job vacancy rate	2.7	3.3	3.3 [E]	2.0	1.8	2.4	3.9
2001							
Job creation rate	8.6	27.2	8.4	8.1	5.4	7.8	23.6
Job destruction rate	4.0	6.0	6.1	4.3	2.2 [E]	3.6	11.2
Job turnover rate	12.6	33.2	14.5	12.4	7.6	11.5	34.8
Hirings rate	18.3	36.8	20.5	18.8	13.0	17.5	34.2
Separations rate	13.7	15.6	18.2	15.0	9.8	13.3	21.9
Labour turnover rate	32.0	52.3	38.7	33.8	22.8	30.7	56.1
Churning rate	19.4	19.2	24.2	21.4	15.2	19.3	21.3
Job vacancy rate	2.2	4.2	1.7 [E]	1.9	2.2	2.1	3.6
2003							
Job creation rate	8.0	13.6	11.3	6.4	5.8	7.1	23.7
Job destruction rate	2.8	3.1	3.4	3.2	2.0	2.7	3.0
Job turnover rate	10.7	16.7	14.7	9.6	7.8	9.8	26.7
Hirings rate	17.6	23.6	25.3	15.6	13.1	16.9	31.5
Separations rate	12.4	13.1	17.5	12.4	9.2	12.5	10.8
Labour turnover rate	30.1	36.7	42.8	28.0	22.3	29.4	42.2
Churning rate	19.4	20.0	28.1	18.5	14.5	19.6	15.6
Job vacancy rate	1.5	2.1	1.2	1.3	1.6	1.4	2.6
2005							
Job creation rate	7.1	8.3	6.8	7.5	5.7	6.7	8.8
Job destruction rate	4.2	6.3	4.5	3.0	1.8	3.5	7.3
Job turnover rate	11.3	14.6	11.3	10.5	7.5	10.2	16.1
Hirings rate	21.5	22.3	24.3	22.0	14.6	20.7	24.7
Separations rate	18.6	20.3	22.0	17.6	10.7	17.5	23.1
Labour turnover rate	40.1	42.6	46.3	39.5	25.4	38.3	47.8
Churning rate	28.7	28.0	35.0	29.1	17.8	28.0	31.8
Job vacancy rate	1.9	2.4	1.7	1.7	1.9	1.9	2.0

[E] use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)

Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Chart 1.1
Job turnover by workplace size in 1999, 2001, 2004 and 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

1.2 Job mobility

The WES tracks employees for a period of two years. Various employee flows were studied: employees working for the same employer and at the same job in both years; employees working for the same employer but at different jobs in the second year; employees working for a different employer from the one reported in the baseline year; and employees leaving paid employment in the follow-up year. These flows are compared and studied in relation to a wide array of job and worker characteristics.

Job mobility rate is defined as the number of employees who have changed jobs between the two years of the panel divided by the total number of individuals employed in the first year of the panel.

Overall, job mobility decreased between 1999 and 2004. The proportion of workers changing jobs decreased by 5 percentage points in the 2003 to 2004 employee panel, compared to the 1999 to 2000 employee panel (14.6 % versus 19.7%).

Particularly noticeable was the decline in the proportion of workers changing jobs within their workplaces when the three panels were compared. From 10.9% in the 1999 to 2000 employee panel, intra-workplace mobility decreased by almost 5 percentage points in the 2003 to 2004 employee panel (10.9% versus 6.1%).

Data from the three WES employee panels showed that young workers were more likely to change employers than older ones. For example, 1 in 5 workers under 25 changed employers, versus for workers aged 45 or more about 1 in 20. Not surprisingly, as tenure increased, the likelihood of remaining with the same employer also increased. Of all occupations, marketing and sales, and production workers were most likely to have changed employers.

Table 1.2
Job mobility rates, 1999 to 2000, 2001 to 2002 and 2003 to 2004 employee panels, Canada by age group, sex and occupation

	Job-to-job movements			
	Same employer, Same job	Same employer, Different job	Different employer, Different job	Outflow from paid employment
	percent			
All workers				
1999 to 2000	73.4	10.9	8.8	6.8
2001 to 2002	76.2	6.0	8.8	9.1
2003 to 2004	76.8	6.1	8.5	8.6
Gender				
Men				
1999 to 2000	75.8	9.8	8.2	6.2
2001 to 2002	76.5	5.7	9.0	8.9
2003 to 2004	77.4	6.9	8.9	6.8
Women				
1999 to 2000	71.2	12.0	9.3	7.4
2001 to 2002	75.9	6.2	8.6	9.3
2003 to 2004	76.2	5.4	8.2	10.2
Age				
Less than 25				
1999 to 2000	55.9	10.4	24.4	9.3
2001 to 2002	56.2	6.8	18.1	18.9
2003 to 2004	55.3	6.1	22.1	16.5
25 to 44				
1999 to 2000	73.1	12.0	8.8	6.1
2001 to 2002	76.0	6.8	9.7	7.5
2003 to 2004	75.8	7.3	8.8	8.1
45 or more				
1999 to 2000	79.1	9.3	4.2	7.4
2001 to 2002	83.4	4.3	4.2	8.1
2003 to 2004	84.0	4.4	4.4	7.2
Occupation groups				
Managers				
1999 to 2000	72.7	11.6	9.2	6.6
2001 to 2002	83.0	4.6	7.0	5.4
2003 to 2004	82.6	4.6	6.6	6.1
Professionals				
1999 to 2000	75.8	11.2	6.8	6.2
2001 to 2002	78.6	6.6	7.9	6.9
2003 to 2004	81.9	5.0	6.6	6.5
Technical/Trades				
1999 to 2000	74.7	10.5	7.9	6.8
2001 to 2002	76.3	5.3	9.3	9.2
2003 to 2004	77.7	6.0	8.2	8.0

See footnotes at the end of the table.

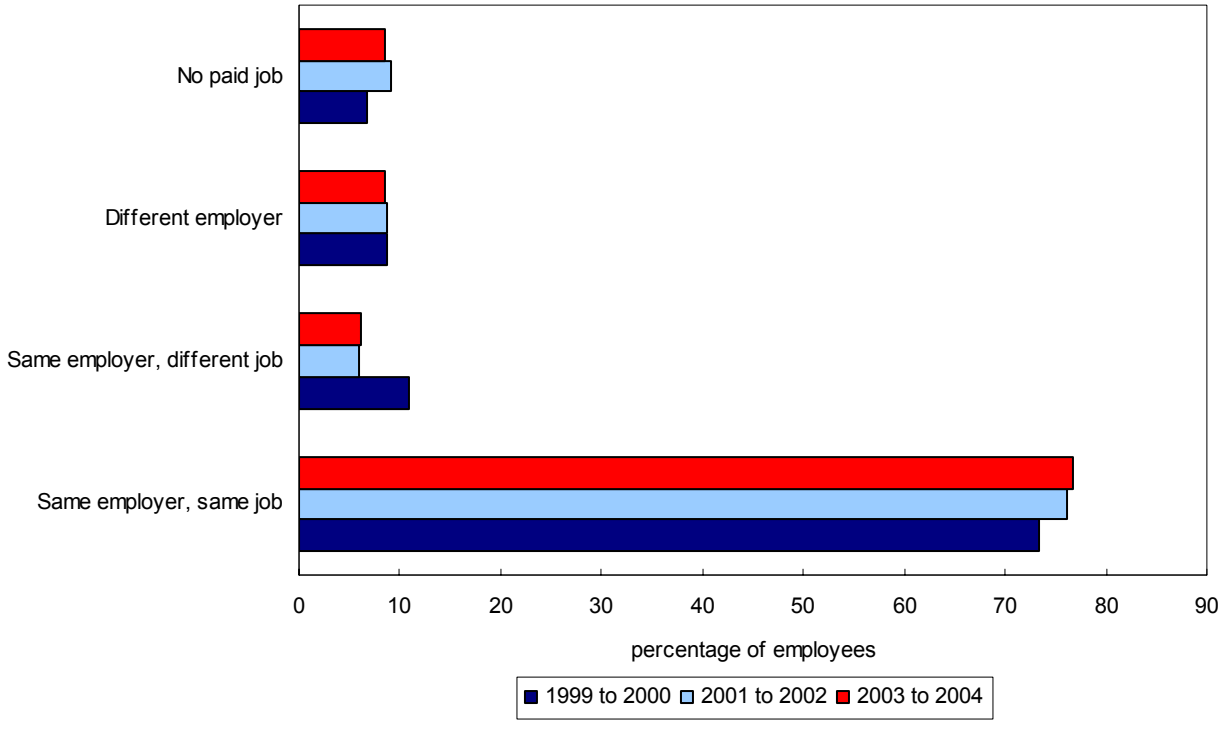
Table 1.2 (continued)
Job mobility rates, 1999 to 2000, 2001 to 2002 and 2003 to 2004 employee panels, Canada by age group, sex and occupation

	Job-to-job movements			
	Same employer, Same job	Same employer, Different job	Different employer, Different job	Outflow from paid employment
	percent			
Marketing/Sales				
1999 to 2000	72.5	6.7	12.6	8.2 [E]
2001 to 2002	69.1	4.7	11.9	14.2
2003 to 2004	68.8	4.4	13.0	13.8
Clerical/Administrative				
1999 to 2000	70.5	13.6	9.6	6.3
2001 to 2002	76.2	7.9	6.8	9.0
2003 to 2004	75.4	8.1	7.7	8.8
Production workers				
1999 to 2000	69.6	10.3	11.4	8.8 [E]
2001 to 2002	68.4	7.6	10.8	13.2
2003 to 2004	60.3	9.1	15.3	15.3

[E] use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)

Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Chart 1.2
Job mobility in the 1999 to 2000, 2001 to 2002 and 2003 to 2004 employee panels



Source: Statistics Canada, Workplace and Employee Survey, Employee component.

1.3 Occupational mobility

Workers occupations in the first year of the panel were compared to their occupations in the second year. The occupational mobility rate for each panel was calculated as the number of employees who changed occupations between the two years of the panel divided by the number of individuals with paid employment in both years. (Table 1.3)

As with overall job mobility, occupational mobility estimates show increased occupational stability for workers. Between 1999 and 2000, 9.4% of workers had changed occupation, falling to 8.4% between 2003 and 2004.

As age increases, occupational mobility rates decline. It may well be that younger workers, on average, were more willing to change occupations, whereas older workers, having completed their education and invested in training, were less willing to do so.

Turning to differences in occupational mobility by gender, occupational mobility rate was slightly higher for female than for male workers in the first employee panel (9.7% versus 9.0%). This difference grew in the second panel (8.7% versus 6.6%) and narrowed a little bit in the third employee panel (9.1% versus 7.5%). This indicates that female workers had greater occupational mobility rate (i.e., changed occupations more) than their male counterparts in all panels. This, in part, is due to the higher proportion of women engaged in part-time employment. Nevertheless, differences in occupational mobility rates were much larger by age than by sex.

Generally, as tenure and years of experience increase, occupational mobility rates decrease. As would be expected, part-time workers showed greater occupational mobility than their full-time counterparts in all three employee panels.

Table 1.3
Occupational mobility rates, 1999 to 2000, 2001 to 2002 and 2003 to 2004 employee panels

	Employee panels		
	1999 to 2000	2001 to 2002	2003 to 2004
	percent		
All workers	**9.4**	**7.6**	**8.4**
Gender			
Men	9.0	6.6	7.5
Women	9.7	8.7	9.1
Age			
Less than 25	19.7	19.5	17.2
25 to 44	9.3	7.6	9.9
45 or more	6.6	4.0	4.1
Educational attainment			
Less than high school	5.9	7.0	8.4
High school	13.9	7.7	8.7
Some post-secondary	8.6	9.5	6.3
Post-secondary or diploma	8.4	7.4	8.4
University	9.5	7.0	9.4

See footnotes at the end of the table.

Table 1.3 (continued)
Occupational mobility rates, 1999 to 2000, 2001 to 2002 and 2003 to 2004 employee panels

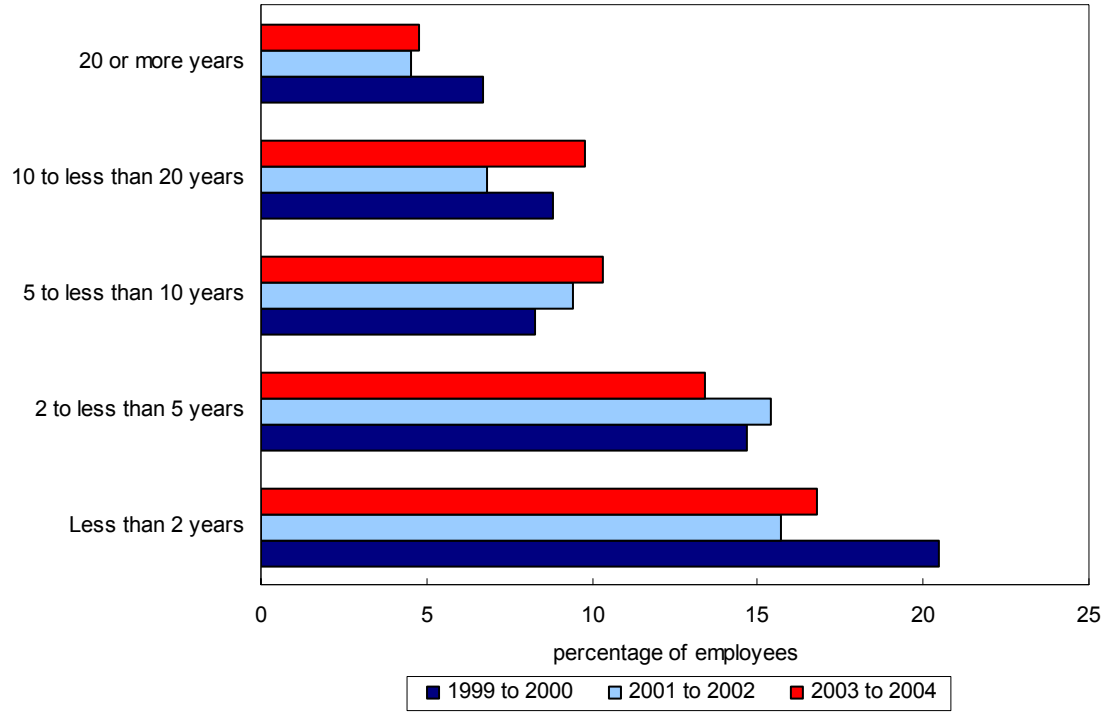
	Employee panels		
	1999 to 2000	2001 to 2002	2003 to 2004
	percent		
Work experience			
Less than 2 years	20.5	15.7	16.8
2 to less than 5 years	14.7	15.4	13.4
5 to less than 10 years	8.3	9.4	10.3
10 to less than 20 years	8.8	6.8	9.8
20 or more years	6.7	4.5	4.8
Job tenure			
Less than 1 year	15.7	10.2	16.8
1 to less than 5 years	11.3	10.7	9.4
5 to less than 10 years	6.0	3.6	6.0
10 to less than 20 years	6.3	2.4	2.5
20 or more years	1.7	3.6	2.6
Employment status			
Full-time	9.0	6.8	7.9
Part-time	11.2	12.3	11.0
Occupation groups[1]			
Managers	10.2	6.0	6.2
Professionals	7.0	6.3	4.9
Technical/Trades	6.8	6.2	6.2
Marketing/Sales	11.8	13.1	15.6
Clerical/Administrative	13.7	9.0	12.7
Production workers	15.2	13.0	17.7
Industry[2]			
Forestry, mining, oil and gas extraction	4.8	6.6	9.6
Labour-intensive tertiary manufacturing	9.4	8.0	10.2
Primary product manufacturing	8.3	5.8	5.4
Secondary product manufacturing	8.3	4.0	4.2
Capital-intensive tertiary manufacturing	6.5	5.9	9.9
Construction	4.2	4.6	3.4
Transportation, warehousing and wholesale trade	7.7	7.5	9.5
Communication and other utilities	7.0	5.3	6.8
Retail trade and consumer services	13.5	11.9	13.6
Finance and insurance	12.3	7.4	8.1
Real estate, rental and leasing operators	12.0	6.8	9.8
Business services	13.3	10.5	8.0
Education and health services, non-profit groups	5.6	3.8	3.7
Information and cultural industries	10.9	8.7	8.5

1. The basis for this grouping is the Standard Occupation Classification (SOC) 1991 - Canada.

2. On the basis of its principal activity, each establishment is assigned an industry code. For analytical purposes, these industry groupings are based on industry homogeneity and number of sampled records that in all cases, except in manufacturing, conformed to the 1997 and the 2002 North American Industry Classification System (NAICS).

Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Chart 1.3
Occupational mobility by work experience in the 1999 to 2000, 2001 to 2002 and 2003 to 2004 employee panels



Source: Statistics Canada, Workplace and Employee Survey, Employee component.

1.4 Work arrangements

Tables 1.4 and 1.5 provide data on the variety and extent of non-standard work arrangements such as reduced work weeks, compressed work weeks, flexible hours and weekend work. The extent of work done at home in the workplaces surveyed is also examined to shed light on issues related to the time pressures faced by employees.

In 2005, 84.0% of workers were full-time workers. Part-time employment was concentrated among women, youth and marketing and sales personnel. (Table 1.4)

The most common form of alternative work arrangement for both sexes was flexible hours. Overall, 37.0% of workers had some flexibility in their hours of work. One-quarter worked weekends.

More men than women reported flexible working hours, but more women tended to work Saturdays or Sundays. University-educated workers had the greatest incidence of flexible hours (43.5%) and seldom had regularly scheduled weekend work hours (17.0%). About 6 out of 10 workers in retail trade and consumer services industry usually worked weekends. This contrasted sharply with workers in the construction and capital-intensive tertiary manufacturing industries, who rarely worked weekends.

Reduced (e.g. job sharing, work sharing, etc.) and compressed work weeks were not widespread work arrangements. The groups with the highest incidence of reduced work weeks were youth, marketing and salespersons and retail trade and consumer services workers.

Table 1.4
Work schedule, 2005

	Employment type		Workers who usually work			
	Part-time	Full-time	Reduced work week	Compressed work week	Flexible hours	Saturdays or Sundays
	percent					
All workers	**15.7**	**84.3**	**8.0**	**6.9**	**36.6**	**27.9**
Gender						
Men	7.4	92.6	5.7	8.5	39.1	25.3
Women	23.3	76.7	10.2	5.5	34.4	30.3
Age						
Less than 25	43.0	57.0	19.5	6.6	49.5	60.5
25 or more	12.6	87.4	6.7	7.0	35.1	24.1
Education attainment						
Less than high school	20.7	79.3	11.8	7.7	33.7	34.7
High school	14.3	85.7	7.5	7.2	35.6	31.8
Some university or post-secondary	16.9	83.1	8.3	7.7	34.7	29.8
University	11.6	88.4	5.8	4.5	43.5	17.0
Occupation groups[1]						
Managers	3.9	96.1	F	3.2	49.1	17.8
Professionals	12.5	87.5	4.5	6.0	42.3	17.8
Technical/Trades	12.3	87.7	7.2	9.6	33.7	28.5
Marketing/Sales	45.6	54.4	15.5 [E]	5.2 [E]	46.1	70.2
Clerical/Administrative	19.4	80.6	11.3	5.1	25.5	16.1
Production workers	23.6	76.4	11.3	6.2	29.3	45.2
Industry[2]						
Forestry, mining, oil and gas extraction	F	97.4	4.2	12.8	35.0	22.8
Labour-intensive tertiary manufacturing	F	95.5	4.6	5.8	26.8	12.2
Primary product manufacturing	1.8 [E]	98.2	4.0	13.7	22.9	24.3
Secondary product manufacturing	F	98.9	3.6 [E]	10.7	29.0	14.0
Capital-intensive tertiary manufacturing	F	99.0	2.8 [E]	5.8	26.7	7.0 [E]
Construction	4.4 [E]	95.6	3.0	7.0	41.4	7.2
Transportation, warehousing and wholesale trade	8.1 [E]	91.9	6.0	6.0	33.6	14.2
Communication and other utilities	2.9	97.1	5.0	12.7	32.2	18.5
Retail trade and consumer services	29.0	71.0	13.7	6.1	44.6	59.3
Finance and insurance	11.3	88.7	7.8	4.8 [E]	33.3	10.6
Real estate, rental and leasing operators	17.6	82.4	10.9	8.2	42.8	22.6
Business services	9.8	90.2	9.3 [E]	4.3	40.0	13.3
Education and health services, non-profit groups	22.9	77.1	6.9	7.5	33.5	28.0
Information and cultural industries	10.4	89.6	4.1	8.7	41.0	15.6

[E] use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)

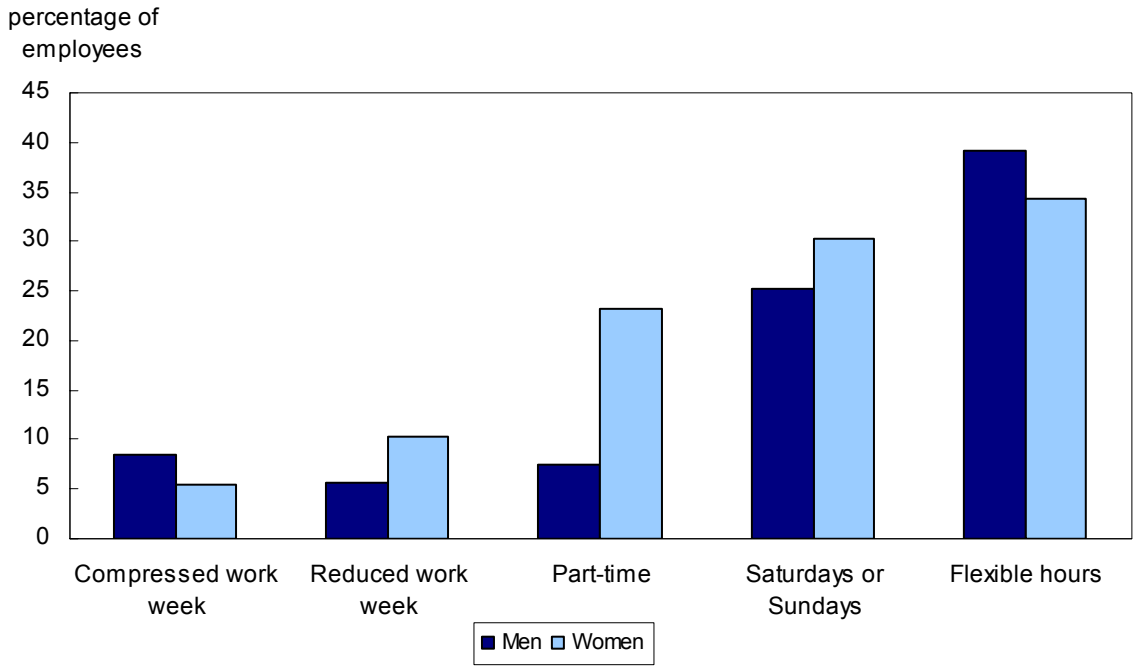
F too unreliable to be published because of CV>33.0%

1. The basis for this grouping is the Standard Occupation Classification (SOC) 1991 - Canada.

2. North American Industry Classification System (NAICS), 2002.

Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Chart 1.4
Work schedule by gender, 2005



Source: Statistics Canada, Workplace and Employee Survey, Employee component.

About one-quarter of employees reported doing some work at home in 2005, for the most part without pay and in addition to normal work hours. Receiving pay for overtime worked at home, was uncommon. (Table 1.5)

Workers aged 25 years or more, and those in managerial and professional occupations were most likely to work additional unpaid hours. Unpaid hours worked at home were most common among employees in the education, health services and non-profit organizations, and information and cultural industries.

Over the 1999 to 2005 period, the proportion of workers doing some work at home was consistently higher in workplaces with 500 employees or more. Over the same period work at home also remained preponderant among workers in managerial and professional occupations.

Table 1.5
Work at home, 2005

	Paid and within normally scheduled work hours	Paid and in addition to normal hours	Unpaid and in addition to normal hours	Never work at home
		percent		
All workers	**5.5**	**3.0**	**15.9**	**75.6**
Gender				
Men	5.8	3.1	17.6	73.6
Women	5.2	2.9	14.3	77.5
Age				
Less than 25	2.3	0.9	4.4	92.4
25 to 44	5.7	3.4	18.0	73.0
45 or more	6.1	3.1	16.3	74.6
Occupation groups[1]				
Managers	10.7	5.2	38.7	45.4
Professionals	10.6	5.3	30.1	54.0
Other non managers	3.3	2.1	8.3	86.4
Industry[2]				
Forestry, mining, oil and gas extraction	3.1 [E]	F	16.9	76.2
Labour-intensive tertiary manufacturing	2.1 [E]	1.5 [E]	8.8	87.7
Primary product manufacturing	1.5 [E]	2.3	9.0	87.2
Secondary product manufacturing	3.0	2.2 [E]	15.6	79.1
Capital-intensive tertiary manufacturing	2.6	2.9 [E]	14.2	80.4
Construction	4.7	3.7	12.8	78.8
Transportation, warehousing and wholesale trade	7.5	3.5	18.2	70.7
Communication and other utilities	3.7 [E]	4.1	13.8	78.3
Retail trade and consumer services	2.8 [E]	1.2	9.2	86.7
Finance and insurance	9.0	3.9 [E]	18.6	68.5
Real estate, rental and leasing operators	8.1	F	16.2 [E]	71.8
Business services	8.5	6.4	16.5	68.6
Education and health services, non-profit groups	7.0	2.8	23.8	66.5
Information and cultural industries	11.4	4.9	22.9	60.8

[E] use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)

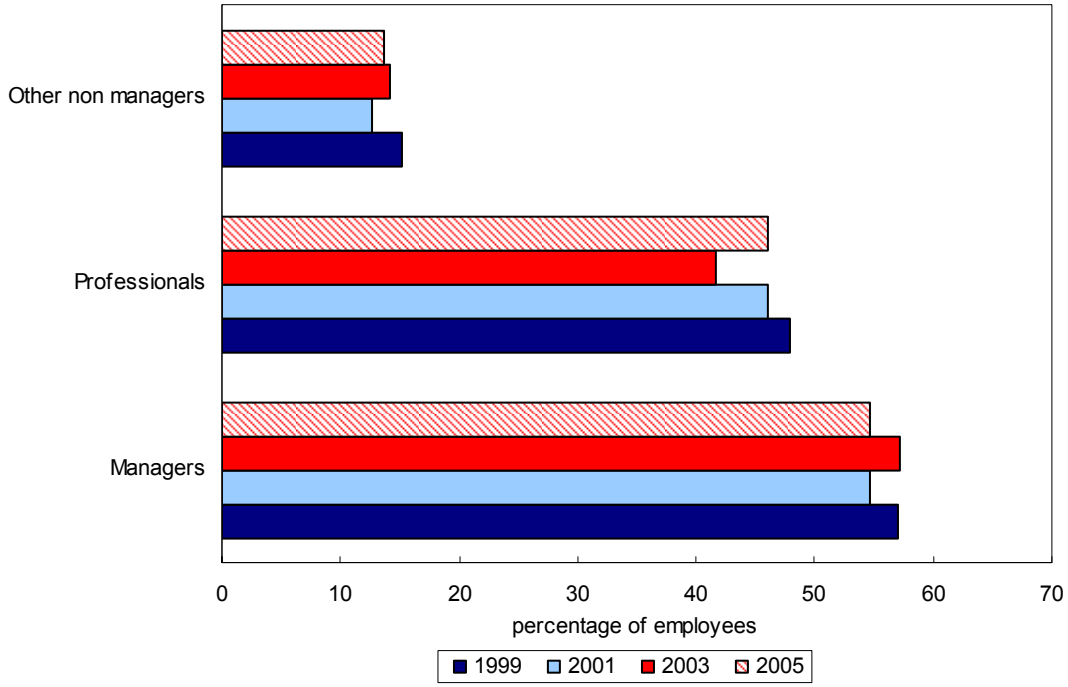
F too unreliable to be published because of CV>33.0%

1. The basis for this grouping is the Standard Occupation Classification (SOC) 1991 - Canada.

2. North American Industry Classification System (NAICS), 2002.

Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Chart 1.5
Work at home by occupation, 1999, 2001, 2003 and 2005



Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Section 2 Market environments

This section describes the market environments in which workplaces operate. In addition to focusing on market geographic scope, shares of sales from all products and services, number of competing firms and intensity of market competition, it provides various indicators of market performance.

2.1 Conditions of the market

In the Workplace and Employee Survey (WES), workplaces were asked to indicate the market areas (local, rest of Canada, United States and rest of the world) in which they sell their products, services or both.

The most striking feature of Table 2.1 is that most workplaces had a predominantly local market scope. The market geographic scope, irrespective of industry and workplace sizes, was most commonly local, followed by the rest of Canada, then United States, and, least commonly, the rest of the world. As workplace size increased, the relative importance of the local market decreased and the relative importance of other markets increased. Larger workplaces tended to engage more in international trade than smaller ones.

Of all workplaces, more than two-thirds sold their products and services in the local market only, whereas almost 30.0% sold their products and services in more than one market.

Workplaces in the manufacturing sector industries, business services, and information and cultural industries tended to compete in all markets, whereas the construction sector was predominantly local.

Turning now to workplaces that were in the sample both in 1999 and 2005, 15.8% reported export activities in 1999. By 2005, this proportion had increased to 18.0 %. Workplaces that did not export in 1999 but reported some export activity in 2005 (8.5%) outnumbered those that had exported in 1999 but were not in 2005 (6.3%). Expansion into international market was more likely than retrenchment.

Table 2.1
Geographic scope of the market, 2005

	Products and services in			
	Local market	Rest of Canada	United States	Rest of the world
	percent			
All workplaces	**95.8**	**27.8**	**15.5**	**8.6**
Industry[1]				
Forestry, mining, oil and gas extraction	86.9	24.0 [E]	9.0 [E]	F
Labour-intensive tertiary manufacturing	89.6	49.4	24.9	13.2
Primary product manufacturing	81.1	58.6	54.9	15.4
Secondary product manufacturing	87.1	62.0	55.8	20.9
Capital-intensive tertiary manufacturing	85.7	67.0	54.3	33.8
Construction	97.8	14.1	F	F
Transportation, warehousing and wholesale trade	90.4	41.6	23.7	10.9
Communication and other utilities	95.8	16.3	8.8	F
Retail trade and consumer services	99.8	21.8	14.7	8.3
Finance and insurance	94.9	32.3	9.1	6.7
Real estate, rental and leasing operators	96.8	22.5	F	F
Business services	93.4	32.7	15.6	12.6
Education and health services, non-profit groups	99.3	12.8	F	F
Information and cultural industries	88.6	45.4	31.2	12.9 [E]

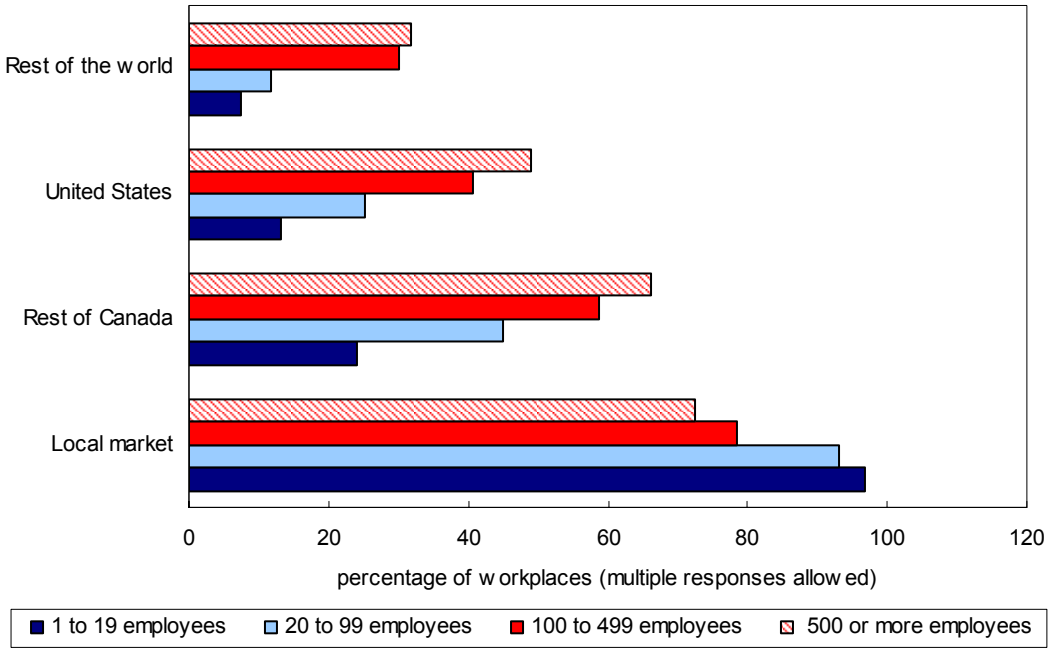
See footnotes at the end of the table.

Table 2.1 (continued)
Geographic scope of the market, 2005

	Products and services in			
	Local market	Rest of Canada	United States	Rest of the world
	percent			
Workplace size				
1 to 19 employees	96.7	24.0	13.1	7.5
20 to 99 employees	93.0	45.1	25.3	11.7
100 to 499 employees	78.4	58.6	40.6	30.0
500 or more employees	72.5	66.2	49.1	31.7

[E] use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)
F too unreliable to be published because of CV>33.0%
1. North American Industry Classification System (NAICS), 2002.
Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Chart 2.1
Market geographic scope, by workplace size, 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

In the WES, workplaces are asked to provide their share of total sales from all products and services, broken down by market area. The most important market is defined as the market that provides the highest percentage of the workplace total sales from all products and services.

The local market was most important, regardless of industry, region or size, providing 85.0% of total sales from all products and services (Table 2.2). The rest of Canada was the second most important (9.2% of total

sales). As workplace size increased, the relative importance of the local market decreased and the importance of the other markets increased.

Workplaces with fewer than 20 employees obtained 87.4% of their total sales from the local market and about 5.0% from the United States and the rest of the world markets, whereas workplaces with 500 or more employees obtained about half of their total sales from the local market and about one fourth from other Canadian markets.

Workplaces in the manufacturing, transportation, warehousing and wholesale trade, and, information and cultural industries differed from the other industries as they had larger shares of sales resulting from selling their products and services in the rest of Canada and in the United States. The primary, secondary and capital-intensive tertiary manufacturing industries were among those with the highest shares in the United States market; whereas the construction, education and health services, non-profit groups industries had the lowest market shares in those markets.

Table 2.2
Share of total sales from all products and services, all market areas, by industry and workplace size, 2005

	Products and services in			
	Local market	Rest of Canada	United States	Rest of the world
	percent			
All workplaces	**84.9**	**9.2**	**3.6**	**2.3**
Industry[1]				
Forestry, mining, oil and gas extraction	82.4	14.4	1.8 E	1.4
Labour-intensive tertiary manufacturing	68.8	19.5	10.5	F
Primary product manufacturing	52.5	27.5	17.3	F
Secondary product manufacturing	55.8	23.5	16.7	F
Capital-intensive tertiary manufacturing	52.7	23.4	16.5	7.3
Construction	92.8	6.7	F	F
Transportation, warehousing and wholesale trade	70.1	19.6	6.3	F
Communication and other utilities	91.9	5.0 E	2.3 E	F
Retail trade and consumer services	90.9	4.8	2.4 E	1.9 E
Finance and insurance	84.8	12.4	F	0.7 E
Real estate, rental and leasing operators	90.5	6.2	F	2.2
Business services	82.5	9.3	3.3 E	4.8
Education and health services, non-profit groups	97.5	2.0 E	F	F
Information and cultural industries	71.7	15.0	11.0	F
Workplace size				
1 to 19 employees	87.4	7.4	2.8	2.3
20 to 99 employees	75.0	17.0	6.5	1.5
100 to 499 employees	54.6	25.5	14.4	5.4 E
500 or more employees	50.4	24.8	18.4	6.4

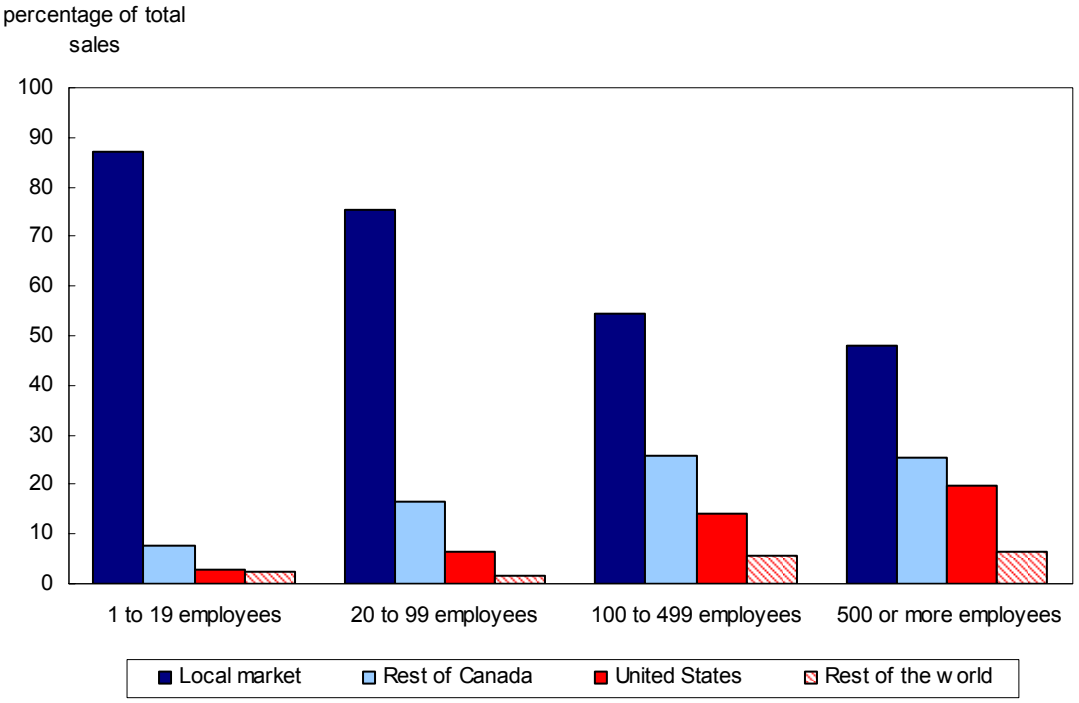
E use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)

F too unreliable to be published because of CV>33.0%

1. North American Industry Classification System (NAICS), 2002.

Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Chart 2.2
Share of sales from all products and services, by market area and workplace size, 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Looking at the data for workplaces that were in the sample in 1999 and that were still in the sample in 2005 allows us to focus on changes in market performance as measured by change in shares of sales from all products and services in all markets between these two years among the same workplaces. (Table 2.3)

The overall distributions of shares of sales from all products and services showed some noticeable changes between 1999 and 2005. The share of sales in local markets dropped and the share in international markets increased. Still, the local market provided the highest percentage of sales. The market constituted by the rest of Canada remained the second most important. As observed previously, as workplace size increased, the relative importance of the local market decreased and the relative importance of the other markets increased.

From 1999 to 2005, the relative share of sales for workplaces with 20 employees or less decreased in the local market and increased in all other markets. Workplaces with 500 employees or more saw sales increasing in the local and the rest of the world markets, and decreasing in the rest of Canada and the United S markets.

Of all industries, business services industries had the highest gain in share of sales in the rest of the world market. Information and cultural industries had the highest gain in share of sales in the United States market.

Table 2.3
Share of total sales from all products and services, all market areas, by industry and workplace size, 1999 and 2005

	Local market		Rest of Canada		United States		Rest of the world	
	1999	2005	1999	2005	1999	2005	1999	2005
	percent							
All workplaces	**86.4**	**84.0**	**9.4**	**9.9**	**2.6**	**3.7**	**1.6**	**2.4**
Industry[1]								
Forestry, mining, oil and gas extraction	68.7	78.4	18.6	16.7	5.4	3.1	7.3	1.8
Labour intensive tertiary manufacturing	70.2	68.8	17.9	17.7	9.7	12.2	2.2 E	1.3 E
Primary product manufacturing	58.6	51.6	20.9	27.1	13.9	16.2	6.6 E	5.1 E
Secondary product manufacturing	65.0	56.0	21.0	24.2	11.4	16.2	2.5 E	F
Capital intensive tertiary manufacturing	56.5	56.3	20.5	20.5	15.5	14.3	7.5 E	F
Construction	92.3	89.6	7.1	10.2	F	F	F	F
Transportation, warehousing and wholesale trade	76.8	71.9	18.9	22.4	F	4.4	F	F
Communication and other utilities	88.1	90.3	9.3	5.3	F	2.8	F	F
Retail trade and consumer services	93.0	89.8	4.5	4.7	F	F	F	F
Finance and insurance	86.8	84.4	11.6	12.4	F	F	F	F
Real estate, rental and leasing operators	91.9	90.7	7.6 E	7.8 E	F	F	F	F
Business services	86.7	84.5	8.4 E	6.8	2.8	F	F	F
Education and health services, non-profit groups	95.8	96.7	F	F	F	F	F	F
Information and cultural industries	74.3	77.5	18.2	9.5 E	6.1 E	11.9 E	F	F
Region								
Atlantic	86.6	90.1	10.3 E	7.1 E	1.8 E	1.6	F	F
Québec	86.2	79.3	7.9	10.9	2.3 E	3.0	F	F
Ontario	85.3	84.0	10.2	10.1	3.5	5.0	1.0	0.9
Alberta	87.2	85.0	10.0 E	10.0	F	2.5 E	F	F
British Columbia	88.9	87.4	7.3	8.1	2.6	3.1	1.2	1.4
Manitoba	83.2	83.0	13.0	13.8 E	3.4	2.4	0.4 E	F
Saskatchewan	87.9	83.2	F	F	F	F	F	F
Workplace size								
1 to 19 employees	88.6	86.0	8.2	8.6	1.8	2.9	1.5 E	2.5
20 to 99 employees	78.0	77.0	14.5	15.5	5.7	6.1	1.6	1.4
100 to 499 employees	57.3	53.7	21.0	25.7	15.3	15.3	6.4	5.3
500 or more employees	38.6	41.6	26.9	25.6 E	28.6	24.9	5.8	7.9

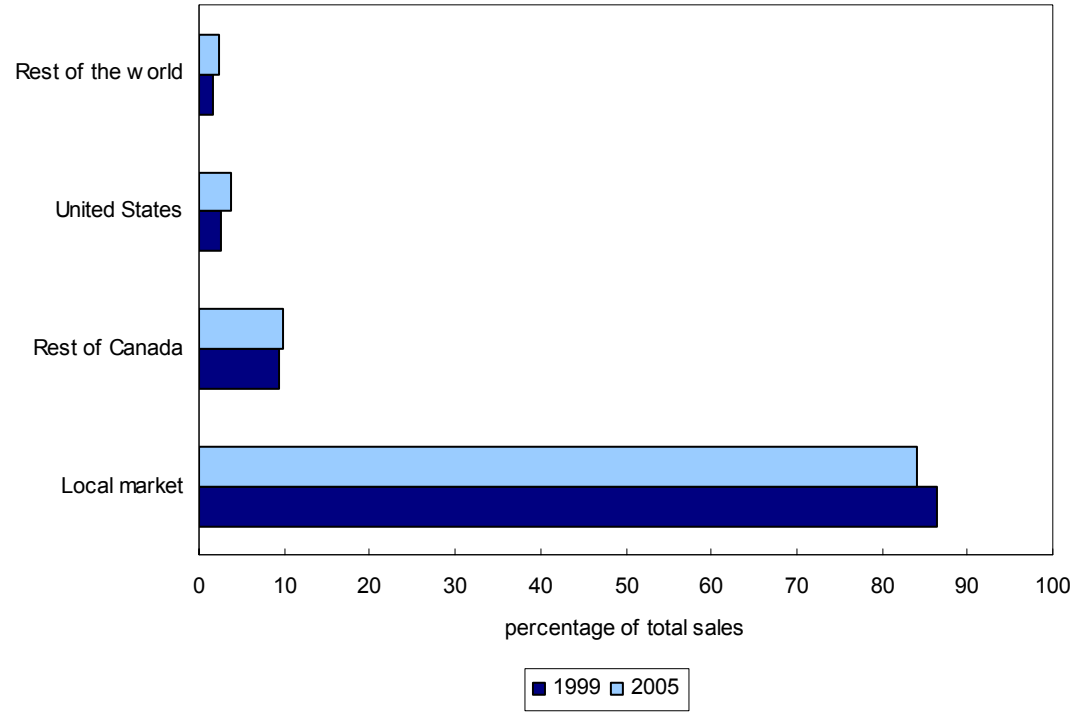
E use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)

F too unreliable to be published because of CV>33.0%

1. North American Industry Classification System (NAICS), 2002.

Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Chart 2.3
Share of sales from all products and services, by market area, 1999 and 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Workplaces were also asked to indicate the number of firms, whether based in Canada or not, that offer products and services directly competing with them in their most important market. The most important market is represented by the market that provides the highest percentage of sales from all products and services. (Table 2.4)

Over a third of the workplaces in the following industries reported they operated in markets with 20 or more competing firms: real estate, rental and leasing operators (38.0%), business services (37.6%), construction (35.6%) and finance and insurance (35.4%), whereas information and cultural, primary product manufacturing and capital intensive tertiary manufacturing industries had a large number of workplaces operating in markets with few competitors (60.8%, 55.8% and 46.8% respectively).

Some noticeable changes in the workplaces competitive environment were observed between 1999 and 2005. Of all workplaces that were in an environment characterized by the absence of competition in 1999 (13.1%), only 39.5% remained in that same environment in 2005, indicating a decrease in market power for about 6 out of 10 of these workplaces.

Similarly, of all workplaces that faced direct competition in at least one market in 1999 (87.0%), the majority (89.0%) remained in that the same environment in 2005, indicating a shift toward markets characterized by lack of competition for only 1 out of 10 of these workplaces.

While the majority (82.0 %) of workplaces that were in the sample both in 1999 and 2005 remained in markets characterized by the same number of competing firms, 10.0% made a shift toward markets where there was no competition, indicating some gains in market power and 8.0% made a shift toward markets where they experienced varying degrees of competition.

Table 2.4
Direct competition and number of firms operating in most important market, 2005

	Without direct competition in any market	With direct competition in at least one market	Number of firms directly competing in most important market			
			0 firms	1 to 5 firms	6 to 20 firms	Over 20 firms
	percentage of workplaces					
All workplaces	**15.1**	**84.9**	**6.1**	**37.3**	**29.3**	**27.3**
Industry[1]						
Forestry, mining, oil and gas extraction	23.4	76.6	F	37.6	32.5	20.0 [E]
Labour intensive tertiary manufacturing	8.1 [E]	91.9	F	49.1	19.1	29.5
Primary product manufacturing	8.5 [E]	91.5	F	55.8	21.6	19.7
Secondary product manufacturing	6.6	93.4	F	44.9	35.7	13.7
Capital intensive tertiary manufacturing	F	92.8	F	46.0	28.7	21.0
Construction	F	93.8	F	33.4	26.3	35.6
Transportation, warehousing and wholesale trade	12.4 [E]	87.6	4.9	38.5	30.4	26.2
Communication and other utilities	21.2	78.8	8.9	38.5	31.6	20.9
Retail trade and consumer services	10.7 [E]	89.3	7.2	40.3	29.0	23.5
Finance and insurance	14.1 [E]	85.9	F	28.8	31.1	35.4
Real estate, rental and leasing operators	19.2	80.8	3.3	29.1	29.6	38.0
Business services	18.3	81.7	F	24.2	34.4	37.6
Education and health services, non-profit groups	37.6	62.4	13.8	40.6	27.9	17.7
Information and cultural industries	18.8	81.2	F	60.8	20.2 [E]	17.8 [E]
Workplace size						
1 to 19 employees	16.5	83.5	6.5	37.9	28.4	27.2
20 to 99 employees	8.6	91.4	4.4 [E]	34.5	33.2	27.9
100 to 499 employees	5.2	94.8	2.1	36.0	33.8	28.2
500 or more employees	10.1	89.9	3.0 [E]	29.4 [E]	41.6	26.0

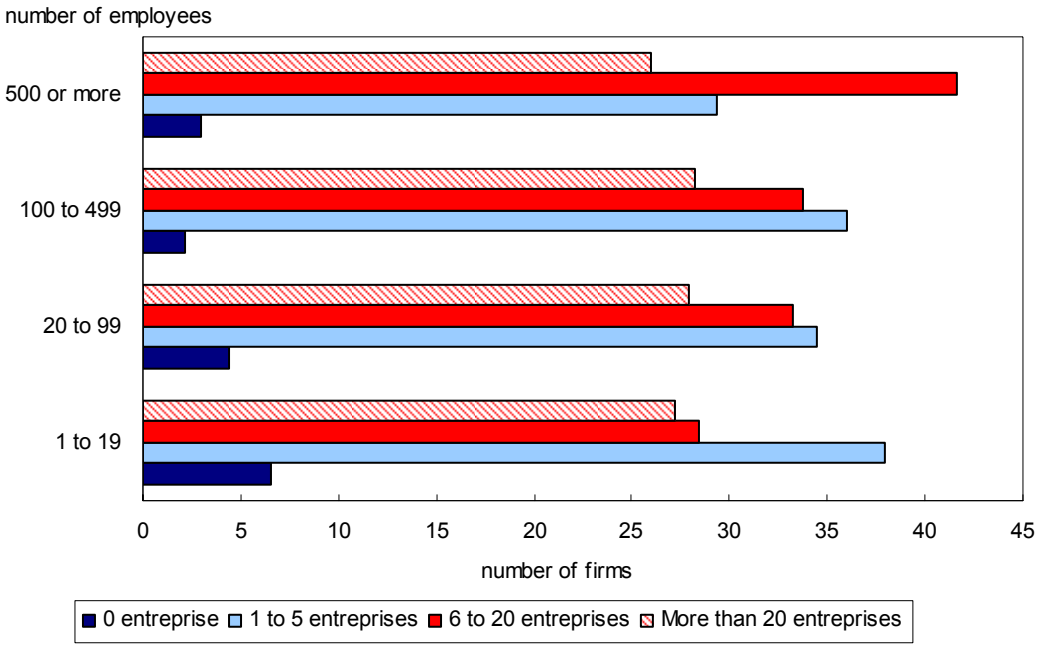
[E] use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)

F too unreliable to be published because of CV>33.0%

1. North American Industry Classification System (NAICS), 2002.

Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Chart 2.4
Number of firms directly competing in most important markets, by workplace size, 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

2.2 Competition and market performance

Next, we examine how the intensity of market competition affects market performance. WES respondents were asked about the importance of competition using a 5-point importance scale with (1) being not important and (5) being crucial. This scale reflects the intensity of market competition. The maximum reported value was used, irrespective of the source of the competition. Significant competition refers to a situation where another firms' products and services similar to a workplace's products and services could be purchased by the same customers.

Almost all (95.7%) workplaces reported facing competition varying from slightly important to crucial in their products-markets and almost one in five indicated that competition was crucial.

As the perceived degree of competitive pressures increased from important to crucial, more workplaces reported having productivity, profitability and sales growth levels higher than their main competitors.

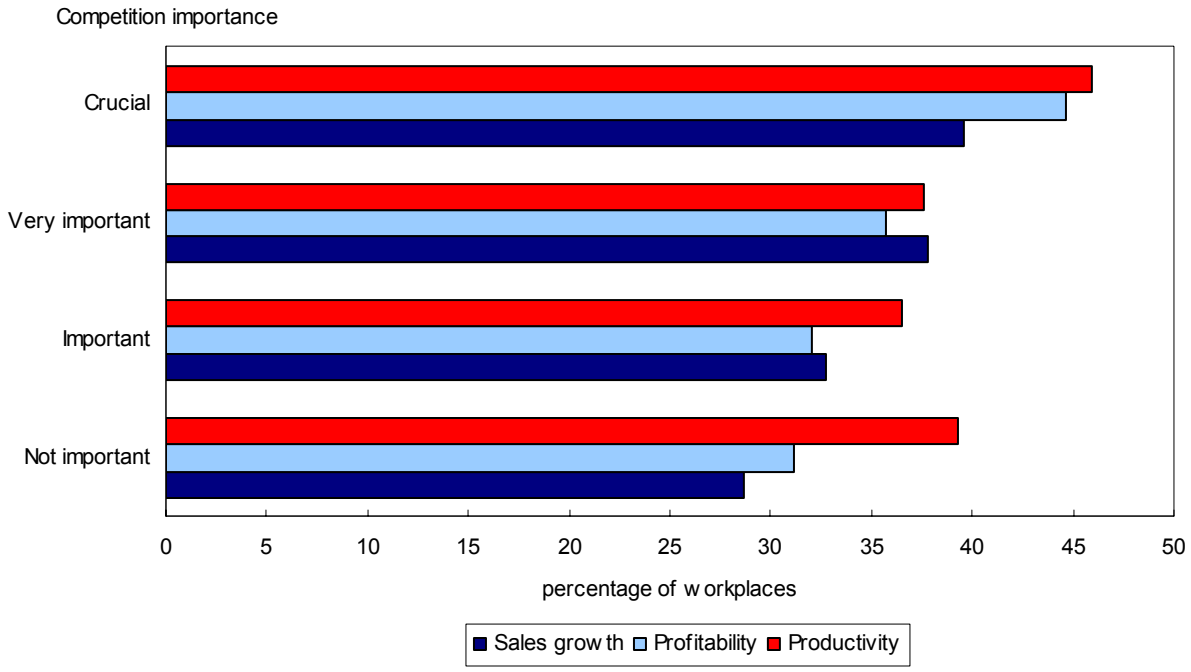
Workplaces that reported higher levels of profitability than their main competitors were fewer than those reporting higher productivity levels than their main competitors.

Table 2.5
Market performance, by importance of competition and workplace size , 2005

	Productivity		Sales growth		Profitability	
	Better than main competitors	About the same as main competitors	Better than main competitors	About the same as main competitors	Better than main competitors	About the same as main competitors
	percentage of workplaces					
All workplaces	**38.9**	**58.0**	**35.8**	**54.4**	**35.8**	**51.7**
Importance of competition						
Not important	39.3	60.7	28.7	51.9	31.2	47.7
Important[1]	36.5	60.0	32.7	57.7	32.0	54.1
Very important	37.6	60.3	37.8	53.3	35.7	55.2
Crucial	45.9	49.2	39.6	50.3	44.6	40.7
Workplace size						
1 to 19 employees	37.2	59.9	33.2	56.8	34.0	53.3
20 to 99 employees	46.0	50.1	46.9	43.6	43.3	44.8
100 to 499 employees	46.7	48.0	49.1	43.3	47.3	42.4
500 or more employees	52.1	44.5	52.1	40.9	47.6	43.0

1. The important and slightly important categories were collapsed.
Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Chart 2.5
Market performance, by competition importance, 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Section 3 Workplace performance

This section focuses primarily on workplace performance measures based on employers' perceptions of labour productivity, sales growth, product quality, customer satisfaction and profitability improvements.

3.1 Performance indicators

In the WES, workplaces were asked to state how their performance in productivity, sales, product quality, customer satisfaction and profitability improved between April 1, 2004, and March 31, 2005. Generally, workplaces reported improved performance during the year across all indicators, with sales growth being the highest (44.0%) and product quality (30.0%) the lowest.

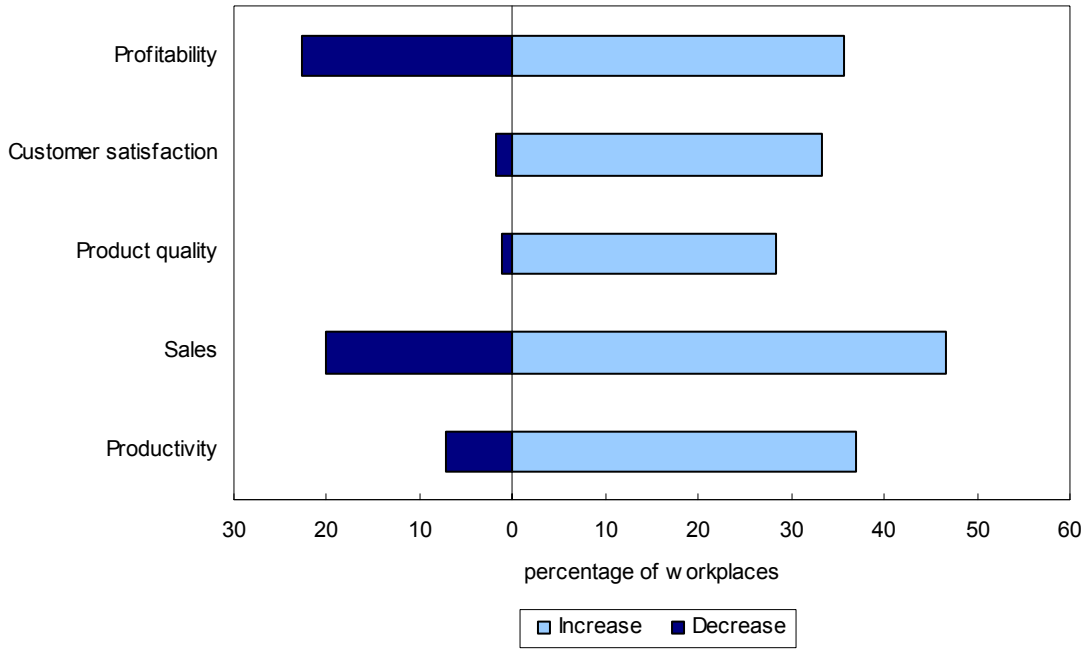
Information and cultural industries outperformed all other industries on improvement in product quality and customer satisfaction. Finance and insurance outperformed all other industries on improvement in sales growth and profitability. As workplaces increased in size, so did the proportion of workplaces reporting improved productivity, product quality and customer satisfaction.

Table 3.1
Performance indicators, 2005

	Workplaces reporting improvements in				
	Productivity	Sales	Product quality	Customer satisfaction	Profitability
			percent		
All workplaces	**38.6**	**44.1**	**30.3**	**32.0**	**36.0**
Industry[1]					
Forestry, mining, oil and gas extraction	54.2	45.8	40.2	34.8	47.6
Primary product manufacturing	44.3	44.0	40.4	30.2	40.1
Secondary product manufacturing	57.7	52.2	32.9	33.4	36.5
Labour-intensive tertiary manufacturing	47.2	51.2	29.5	33.0	40.1
Capital-intensive tertiary manufacturing	42.4	43.4	29.2	23.0	26.3
Construction	39.2	42.6	23.4	28.9	34.4
Transportation, warehousing and wholesale trade	32.9	44.1	23.0	27.3	37.4
Communication and other utilities	39.2	41.7	27.1	29.9	35.5
Retail trade and consumer services	37.3	45.9	37.2	37.9	35.3
Finance and insurance	54.9	62.1	30.5	41.1	54.5
Real estate, rental and leasing operators	32.2	37.0	32.1	32.7	39.0
Business services	42.4	45.0	24.6	27.4	35.6
Education and health services, non-profit groups	29.6	28.0	22.8	21.2	26.6
Information and cultural industries	42.3	58.3	42.1	46.8	38.7
Workplace size					
1 to 19 employees	36.8	41.3	28.8	30.6	34.8
20 to 99 employees	45.9	57.8	36.9	38.1	40.7
100 to 499 employees	56.0	55.1	42.9	44.0	49.6
500 or more employees	51.2	58.4	49.5	40.5	47.3

1. North American Industry Classification System (NAICS), 2002.
Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Chart 3.1
Change in selected performance indicators, 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

3.2 Innovative work practices

In 2005, employers with over 10 employees were asked which of the following work practices existed on a formal basis for non-managerial employees.

A. Employees' suggestion program: includes employee survey feedback
B. Flexible job design: include job rotation, job enrichment/redesign (broadened job definitions), job enrichment (increased skills, variety or autonomy of work).
C. Information sharing with employees: For example, with respect to firm's performance, colleagues' wages, technological or organizational changes, etc. This implies that employees can provide feedback on policies.
D. Problem-solving teams: Responsibilities of teams are limited to specific areas such as quality of work flow (i.e. narrower range of responsibilities than F).
E. Joint labour-management committees: Include non-legislated joint labour-management committees and task teams that generally cover a broad range of issues, yet tend to be consultative in nature.
F. Self-directed work groups: Semi-autonomous work groups or mini-enterprise work groups that have a high level of responsibility for a wide range of decisions/issues.

Of all work organization practices, information sharing was, as in 2001 and 2003, the most common in 2005, with more than one-third of workplaces reporting having a formal mechanism for sharing information. This would include the sharing of information on the firm's performance, technological or organizational changes. The least common practice was, as in 2001 and 2003, self-directed work groups, used by only 8.0% of the workplaces. Large workplaces (500 or more employees) were far more likely to use every formal work organization practice than smaller ones (less than 20 employees).

As workplaces increased in size, the use of work practices such as employee suggestion programs, problem-solving team and joint labour-management committees also increased.

Table 3.2
Use of innovative work practices, 2005

	Workplaces using					
	Employee's suggestion program	Flexible job design	Information sharing with employees	Problem-solving team	Joint labour-management committees	Self-directed work groups
	percent					
All workplaces	**28.3**	**14.4**	**35.9**	**17.4**	**15.1**	**7.8**
Industry[1]						
Forestry, mining, oil and gas extraction	12.3 [E]	F	25.1	F	9.5 [E]	F
Primary product manufacturing	16.7	17.4	24.0	14.2 [E]	20.8	F
Secondary product manufacturing	33.2	19.5	48.6	30.1	31.8	12.9 [E]
Labour-intensive tertiary manufacturing	42.4	20.8 [E]	48.6	41.6	26.6	F
Capital-intensive tertiary manufacturing	24.9	10.2 [E]	29.7	23.4	15.0	10.7 [E]
Construction	17.4	6.4 [E]	22.7	21.1	15.1	F
Transportation, warehousing and wholesale trade	23.3	14.5	44.1	13.1	17.2	F
Communication and other utilities	37.7	F	43.3	11.5	35.4	F
Retail trade and consumer services	28.7	12.6 [E]	32.0	16.8 [E]	11.0 [E]	F
Finance and insurance	37.7	F	44.3	13.4 [E]	14.6 [E]	12.4 [E]
Real estate, rental and leasing operators	22.1 [E]	F	21.5 [E]	19.4 [E]	F	12.7 [E]
Business services	34.5	17.7	33.2	9.8 [E]	F	14.9 [E]
Education and health services, non-profit groups	33.6 [E]	30.4	56.7	27.7 [E]	26.9 [E]	21.3 [E]
Information and cultural industries	34.3	F	40.5	21.8 [E]	11.6	F
Workplace size						
10 to 19 employees	22.5	15.3	31.3	12.8	7.0	7.1
20 to 99 employees	31.6	13.4	38.0	19.6	19.9	7.5
100 to 499 employees	42.8	15.4	51.0	32.5	31.8	14.3
500 or more employees	43.1	17.5	49.0	37.0	51.6	12.0

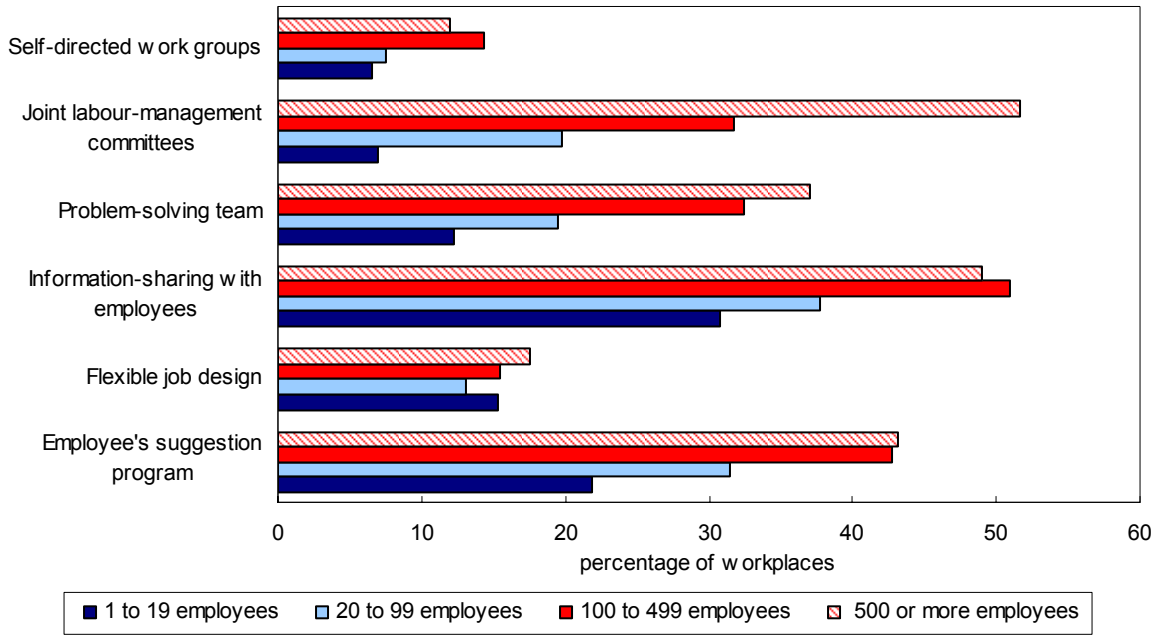
[E] use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)

F too unreliable to be published because of CV>33.0%

1. North American Industry Classification System (NAICS), 2002.

Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Chart 3.2
Incidence of high performance work practices, by workplace size, 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Workplaces that had implemented innovative work practices had a more positive assessment of their performance. For example, slightly more than half of workplaces that had implemented self-directed work groups reported improvement in product quality compared to one-third for those that had not. (Table 3.3)

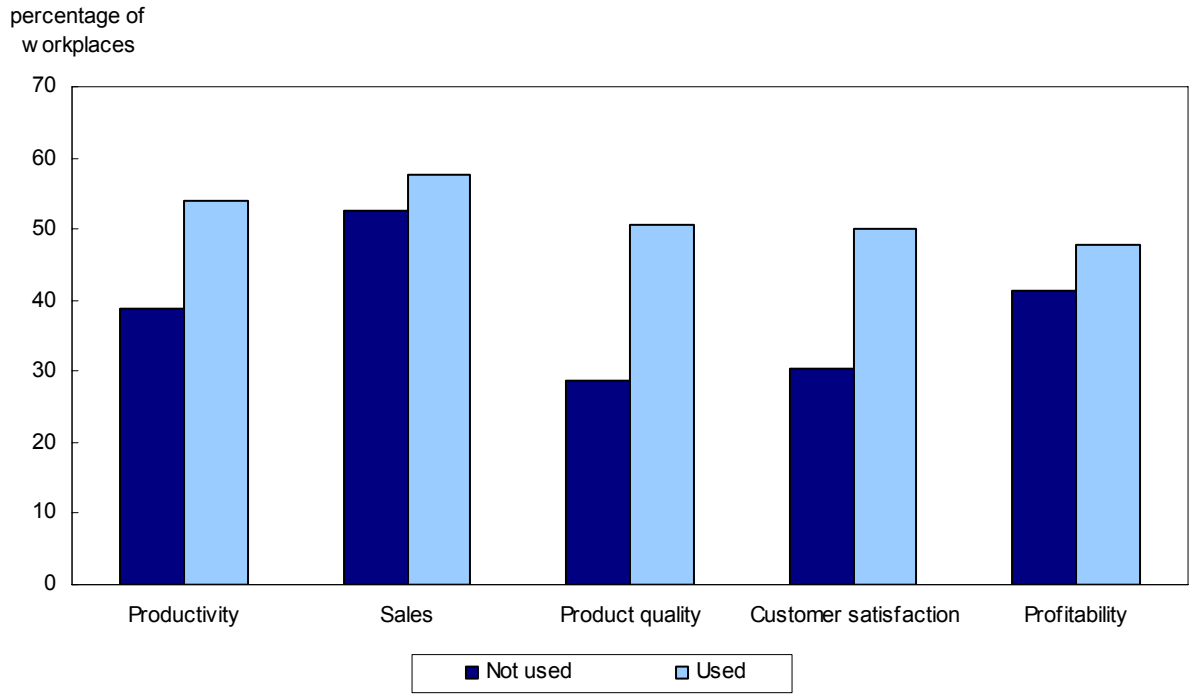
This more positive assessment of performance also occurred when workplaces reported the use of innovative work practices and performance pay practices.

Table 3.3
High-performance work practices and workplace performance, 2005

	Workplaces reporting an increase in				
	Productivity	Sales	Product quality	Customer satisfaction	Profitability
			percent		
All workplaces	**43.1**	**53.9**	**34.8**	**35.8**	**43.2**
Employee's suggestion program					
Not used	38.8	52.5	28.6	30.3	41.4
Used	54.0	57.6	50.6	49.9	47.9
Flexible job design					
Not used	41.5	52.8	32.0	33.4	41.2
Used	52.9	60.5	51.1	50.0	55.3
Information sharing with employees					
Not used	39.1	51.6	29.2	29.9	41.1
Used	50.3	58.0	44.8	46.4	47.0
Problem-solving team					
Not used	42.0	54.4	31.5	32.3	42.7
Used	48.3	51.6	50.1	52.5	45.7
Joint labour-management committees					
Not used	41.4	54.0	33.2	34.6	42.7
Used	52.8	53.5	43.7	42.7	46.0
Self-directed work groups					
Not used	42.0	53.5	33.4	34.3	42.5
Used	56.6	59.4	50.9	53.6	51.6
Individual incentive systems					
Not used	39.0	49.1	32.8	31.6	37.8
Used	50.0	61.8	38.0	42.7	52.2
Group incentive systems					
Not used	40.8	53.2	32.2	33.0	42.1
Used	55.4	57.6	48.1	50.6	49.3
Profit-sharing plan					
Not used	42.0	52.7	35.6	36.1	40.5
Used	49.4	60.7	30.4	34.4	58.6
Merit pay or skill-based pay					
Not used	38.2	49.8	32.4	33.0	40.8
Used	58.0	66.3	42.0	44.2	50.5
Performance pay systems					
None	35.8	46.3	29.0	28.6	37.1
Used at least one	49.2	60.3	39.6	41.8	48.4
Performance pay and new work practices					
Not used	39.0	51.0	29.5	30.3	42.0
Used both	51.4	60.0	45.4	47.0	45.9

Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Chart 3.3
Selected performance indicators, by use of employee's suggestion programs, 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

3.3 Hours worked

To address the issue of whether the implementation of these innovative work practices created an environment leading to greater effort and greater commitment from workers, we looked at annual hours worked per worker. (Table 3.4)

The number of annual hours worked per worker is presented in relation to various workplace characteristics and outcomes. The estimation procedure used usual or average weekly hours worked. The distribution of annual hours by industry was similar to published data from other comparable sources, although the WES annual hours were slightly higher. No adjustments, however, were made for holidays or vacation days taken by workers or days lost because of labour conflicts.

Overall, the annual number of hours worked per person remained quite stable from 1999 to 2005.

Workers in workplaces that implemented organizational changes, performance pay practices or introduced new products worked more hours than their counterparts in workplaces that have not implemented any of these practices. Where non-wage benefits were provided, the number of hours worked per person was higher. Workers employed in workplaces without collective bargaining agreement coverage worked far more hours than their counterparts employed in workplaces with collective bargaining agreement coverage.

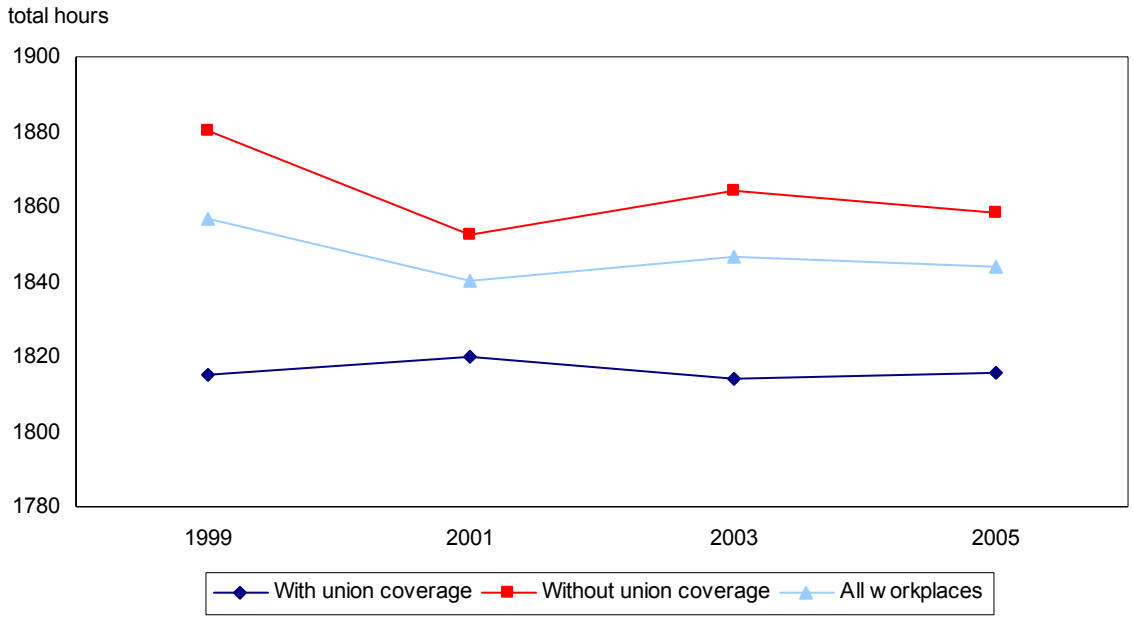
Workers in manufacturing industries consistently worked more hours than their counterparts working in the service industries.

Table 3.4
Total annual hours worked per person in 1999, 2001, 2003 and 2005

	1999	2001	2003	2005
	number			
All workplaces	**1857.0**	**1840.2**	**1846.5**	**1843.8**
Non-wage benefits				
Not offered	1767.1	1699.2	1740.0	1696.8
Offered	1881.8	1877.6	1871.8	1875.7
Performance pay practices				
Not used	1788.1	1766.5	1796.5	1779.7
Used	1906.6	1897.2	1888.4	1894.9
Union coverage				
Without union coverage	1880.2	1852.5	1864.4	1858.5
With union coverage	1815.3	1819.8	1813.9	1815.9
Industry[1]				
Forestry, mining, oil and gas extraction	2034.2	2037.5	2091.2	2064.0
Labour-intensive tertiary manufacturing	2002.4	1997.6	2077.8	2039.1
Primary product manufacturing	2073.2	2062.5	2119.6	2054.1
Secondary product manufacturing	2058.3	2054.2	2045.7	2070.6
Capital-intensive tertiary manufacturing	2045.6	2029.8	2038.0	2020.0
Construction	2001.9	1946.4	2027.5	2002.0
Transportation, warehousing and wholesale trade	2062.7	2048.8	1981.7	2027.5
Communication and other utilities	1970.7	2004.3	2003.2	1999.9
Retail trade and consumer services	1733.5	1703.1	1702.0	1708.9
Finance and insurance	1854.9	1891.3	1890.3	1860.3
Real estate, rental and leasing operators	1797.0	1783.8	1801.2	1822.7
Business services	1940.4	1914.0	1925.6	1913.1
Education and health services, non-profit groups	1666.4	1647.9	1650.7	1676.5
Information and cultural industries	1863.0	1772.3	1875.3	1811.7

1. North American Industry Classification System (NAICS), 2002.
Source: Statistics Canada, Workplace and Employee Survey, Workplace and Employee component.

Chart 3.4
Average annual hours worked by union coverage in 1999, 2001, 2003 and 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace and Employee components.

3.4 Employees' satisfaction

Employees were more likely to be very satisfied with their job than with their pay. (Table 3.5) Overall, the WES indicated that about 90.0% of employees were either satisfied or very satisfied with their jobs. However, the proportion fell to around 77.0% when considering pay. Women and young workers tended to be a little less satisfied than other employees with their level of pay.

Managers were more likely to be very satisfied with their jobs than were production workers (48.0% versus 25.0%). Employees who had higher levels of pay also had higher levels of satisfaction with their jobs. The proportion of employees who were very satisfied with their jobs ranged from one quarter at the low end of the pay spectrum to 4 in 10 at the upper end.

Table 3.5
Job and pay satisfaction, 2005

	Employee job satisfaction			Employee pay satisfaction		
	Not satisfied	Satisfied	Very satisfied	Not satisfied	Satisfied	Very satisfied
	percent					
All workers	**8.7**	**57.2**	**34.0**	**22.7**	**57.9**	**19.3**
Gender						
Men	8.5	58.5	32.9	20.0	59.9	19.9
Women	8.9	56.1	35.0	25.2	56.0	18.7

See footnotes at the end of the table.

Table 3.5 (continued)
Job and pay satisfaction, 2005

	Employee job satisfaction			Employee pay satisfaction		
	Not satisfied	Satisfied	Very satisfied	Not satisfied	Satisfied	Very satisfied
	percent					
Age						
Less than 25	13.0	61.0	25.9	29.8	56.0	14.0
25 to 44	9.1	58.6	32.2	23.7	57.5	18.8
45 or more	7.1	54.6	38.2	19.8	58.9	21.2
Education attainment						
Less than high school	8.8 [E]	62.2	29.0	21.8	59.3	18.7
High school	7.5	58.1	34.3	23.6	55.3	20.9
Some university or post-secondary	9.5	56.5	33.9	23.8	58.0	18.1
University	7.6	55.9	36.4	19.8	58.9	21.2
Occupation group[1]						
Managers	F	46.6	48.0	13.7	59.2	27.1
Professionals	6.6	57.3	36.1	20.5	61.8	17.7
Technical/Trades	9.9	59.2	30.8	24.7	57.1	18.1
Marketing/Sales	7.8 [E]	65.5	26.6	26.0	57.3	16.5
Clerical/Administrative	9.3	54.1	36.5	25.5	52.6	21.8
Production workers	12.6	62.3	25.0	23.6	62.7	13.6
Hourly earnings						
Less than $12.00	13.1	62.2	24.7	32.4	53.9	13.6
$12.00 to $19.99	8.7	59.8	31.4	25.6	59.1	15.2
$20.00 or more	6.7	53.0	40.3	16.1	58.8	25.0

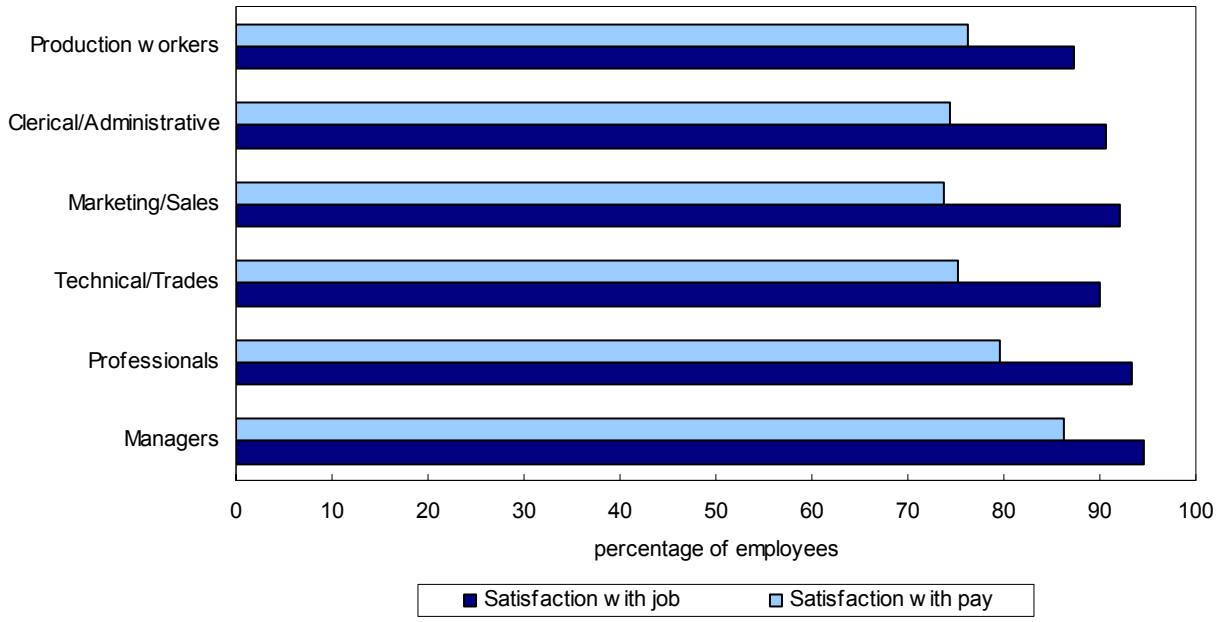
[E] use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)

F too unreliable to be published because of CV>33.0%

1. The basis for this grouping is the Standard Occupation Classification (SOC) 1991 - Canada.

Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Chart 3.5
Job and pay satisfaction by occupation, 2005



Source: Statistics Canada, Workplace and Employee Survey, Employee component.

The WES gathered annual data on the number of days of paid leave (vacation, sick, parental and other) and unpaid leave taken, as well as the number of days of paid vacation leave workers are entitled to. We now look at these data for 2001, 2003 and 2005 to provide some insights into the effects of employees' paid and unpaid leave on productivity. (Table 3.6)

Over the period 2001 to 2005, 3 out of 4 workers took paid vacation. Over the same period, the average number of unpaid days taken remained in the range of 2 to 3 days. The number of unpaid days taken decreased as hourly wage increased.

More male workers took vacations than their female counterparts. Younger workers (aged 25 years or less), workers in the marketing/sales profession as well as workers with less than high school education were least likely to take annual paid vacation. However, these workers had the highest average amount of unpaid leave.

Workers that were either unionized or covered by a collective bargaining agreement had taken more days of paid vacation than their non-unionized or non-covered by collective bargaining agreement counterparts.

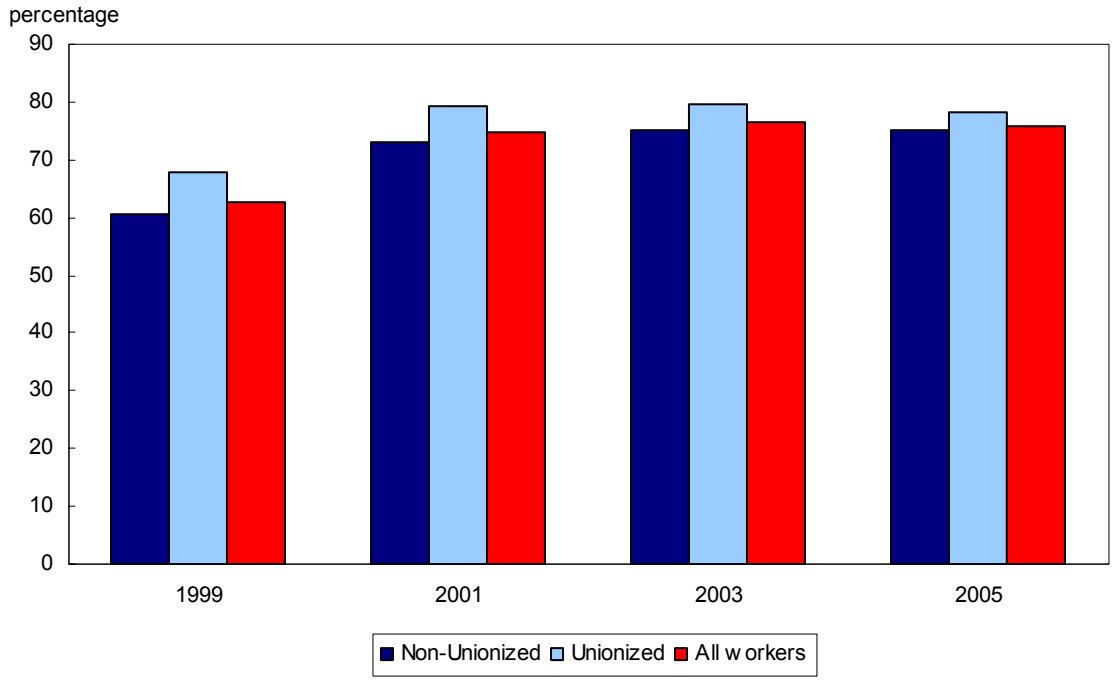
Workers that were dissatisfied with their job took on average 8.5 days of paid and unpaid leave whereas those satisfied with their job took an average of 6 days of paid and unpaid leave.

Table 3.6
Employees' leave, by hourly earnings group in 2001, 2003 and 2005

		Hourly wages		
	Overall	Less than $12.00	$12 to 19.99	$20.00 or more
2001		number[1]		
Paid sick leave or other paid leave taken	3.7	1.8	4.3	4.6
Unpaid days taken	2.2	3.0	2.0	1.7
Paid vacation entitlement	13.8	8.5	13.8	17.9
Paid vacation leave taken	10.6	5.7	10.4	14.3
		percentage		
Employees taking annual paid vacation	74.7	56.0	78.4	85.3
Employees entitled to paid annual leave	83.6	69.4	87.3	90.7
2003		number[1]		
Paid sick leave or other paid leave taken	3.7	1.6	3.8	4.8
Unpaid days taken	2.0	3.0	1.9	1.5
Paid vacation entitlement	14.4	8.4	13.5	18.4
Paid vacation leave taken	11.0	5.0	10.2	14.8
		percentage		
Employees taking annual paid vacation	76.4	52.1	78.5	87.5
Employees entitled to paid annual leave	85.6	72.5	86.9	91.5
2005		number[1]		
Paid sick leave or other paid leave taken	3.5	1.5	3.4	4.5
Unpaid days taken	2.7	4.8	2.5	1.8
Paid vacation entitlement	14.7	9.1	13.3	18.4
Paid vacation leave taken	11.4	5.5	10.2	15.0
		percentage		
Employees taking annual paid vacation	75.9	50.1	76.9	87.1
Employees entitled to paid annual leave	85.7	71.3	86.4	91.9

1. Average number of days.
Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Chart 3.6
Use of annual vacation by employees, by union status,1999, 2001, 2003 and 2005



Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Section 4 Compensation practices

This section explores the compensation mix workplaces used to create an environment that leads to improved performance and labour productivity discussed in previous section. It focuses on direct pay, indirect pay or non-wage benefits and performance pay. The variety and extent of these non-wage benefits are examined from both the employer and the employee perspectives.

4.1 Earnings

The workplace characteristics considered are presence or absence of a collective bargaining agreement for employees in non-managerial occupations, presence or absence of non-wage benefits and presence or absence of performance pay. (Table 4.1)

The average hourly earnings of employees working in organizations with collective bargaining agreement coverage were consistently higher than those of their counterparts working in workplaces without collective bargaining agreement coverage, indicating, at first glance, a wage premium associated with the presence of a collective bargaining agreement[2]. When workplace size was considered, the wage gap associated with collective bargaining agreement coverage at times narrowed, vanished and even reversed with the absence of a collective bargaining agreement.

Workers average hourly earnings were higher in workplaces that provided non-wage benefits, regardless of sex, age, educational attainment, occupation, industry, workplace size or region. Similarly, earnings were also higher in workplaces where performance pay was present.

Workers who were female or young or working part-time or working in marketing and sales occupation had the lowest average hourly earnings; whereas those who were male or older or working full-time or working in managerial and professional occupations had the highest, regardless of collective bargaining agreement coverage, non-wage benefits coverage and presence of performance pay.

Table 4.1
Average hourly earnings and collective bargaining coverage, non-wage benefits coverage and performance pay, 2005

	Without collective coverage	With collective coverage	Without non-wage benefits	With non-wage benefits	Without performance pay	With performance pay
			dollars			
All workers	**20.36**	**24.99**	**14.56**	**23.57**	**19.63**	**23.82**
Gender						
Men	23.59	27.16	15.91	26.46	21.40	27.09
Women	17.40	23.02	13.60	20.77	18.28	20.34
Age						
Less than 25	11.29	13.96	10.42	12.44	11.26	12.17
25 to 44	20.65	24.52	15.09	23.25	19.15	23.87
45 or more	23.30	26.58	16.23	26.16	22.23	26.82

See footnotes at the end of the table.

2. These results are consistent with earlier findings by Akyampong, Ernest B. 2002. “Unionization and fringe benefits.” *Perspectives on Labour and Income*, (Statistics Canada Catalogue no. 75-001-XIE) 3, no. 8, (Autumn): 5- 9.

Table 4.1 (continued)
Average hourly earnings and collective bargaining coverage, non-wage benefits coverage and performance pay, 2005

	Without collective coverage	With collective coverage	Without non-wage benefits	With non-wage benefits	Without performance pay	With performance pay
	dollars					
Education attainment						
Less than high school	14.36	18.15	11.71	17.25	14.07	16.89
High school	16.31	20.87	13.49	18.81	15.57	19.25
Some post-secondary	19.46	23.22	14.73	21.97	18.60	22.41
University	30.19	33.15	19.98	32.74	28.39	33.81
Occupation groups[1]						
Managers	33.10	39.56	18.55	37.75	27.37	38.46
Professionals	28.17	31.59	22.56	30.48	28.82	31.24
Technical/Trades	18.24	22.49	15.52	20.66	17.73	21.29
Marketing/Sales	12.64	13.29	10.16	14.34	11.30	14.25
Clerical/Administrative	16.05	18.48	13.93	17.37	16.04	17.42
Production workers	11.74	17.13	9.98	15.20	12.17	15.14
Employment type						
Part-time	14.22	21.03	13.02	17.89	16.53	16.15
Full-time	21.57	25.65	15.15	24.43	20.38	24.93
Industry[2]						
Forestry, mining, oil and gas extraction	28.78	29.28	20.30	29.74	23.97	32.25
Labour intensive tertiary manufacturing	17.71	21.55	15.10	20.17	16.82	20.73
Primary product manufacturing	20.31	25.37	17.75	23.61	20.37	24.12
Secondary product manufacturing	24.07	23.42	15.97	24.78	17.91	27.42
Capital intensive tertiary manufacturing	24.50	28.61	14.27	26.66	18.40	27.98
Construction	23.28	25.83	20.55	25.33	22.62	26.07
Transportation, warehousing and wholesale trade	21.99	24.25	17.98	23.09	19.49	23.96
Communication and other utilities	20.53	33.80	15.90	31.81	23.35	33.11
Retail trade and consumer services	13.83	16.57	11.32	15.72	12.20	15.96 [E]
Finance and insurance	26.44	25.63	21.22	26.63	23.74	26.94
Real estate, rental and leasing operators	20.77	21.05	16.00	23.02	19.38	22.39
Business services	26.55	26.55	15.77	29.34	21.39	29.20
Education and health services, non-profit groups	19.78	25.74	17.12	24.73	23.80	24.37
Information and cultural industries	24.57	27.89	15.11	27.27	19.77	27.82
Region						
Atlantic	15.36	22.42	11.67	19.61	17.24	18.77
Québec	18.84	22.80	13.87	22.25	18.59	23.00
Ontario	21.79	27.38	15.86	25.02	20.64	25.30
Alberta	21.10	28.72	13.64	24.89	18.29	25.08
British Columbia	21.25	25.02	16.23	23.97	22.87	22.59
Manitoba	17.63	19.88	12.77	19.15	17.90	19.01
Saskatchewan	18.02	22.82	12.87	21.71	18.52	20.97

See footnotes at the end of the table.

Table 4.1 (continued)
Average hourly earnings and collective bargaining coverage, non-wage benefits coverage and performance pay, 2005

	Without collective coverage	With collective coverage	Without non-wage benefits	With non-wage benefits	Without performance pay	With performance pay
	dollars					
Workplace size						
1 to 19 employees	18.19	22.31	14.78	21.74	16.96	20.75
20 to 99 employees	19.98	19.74	13.94	20.86	17.67	21.49
100 to 499 employees	23.91	23.49	14.58	23.83	21.66	24.64
500 or more employees	27.16	28.68	12.65	28.38	27.27	28.97

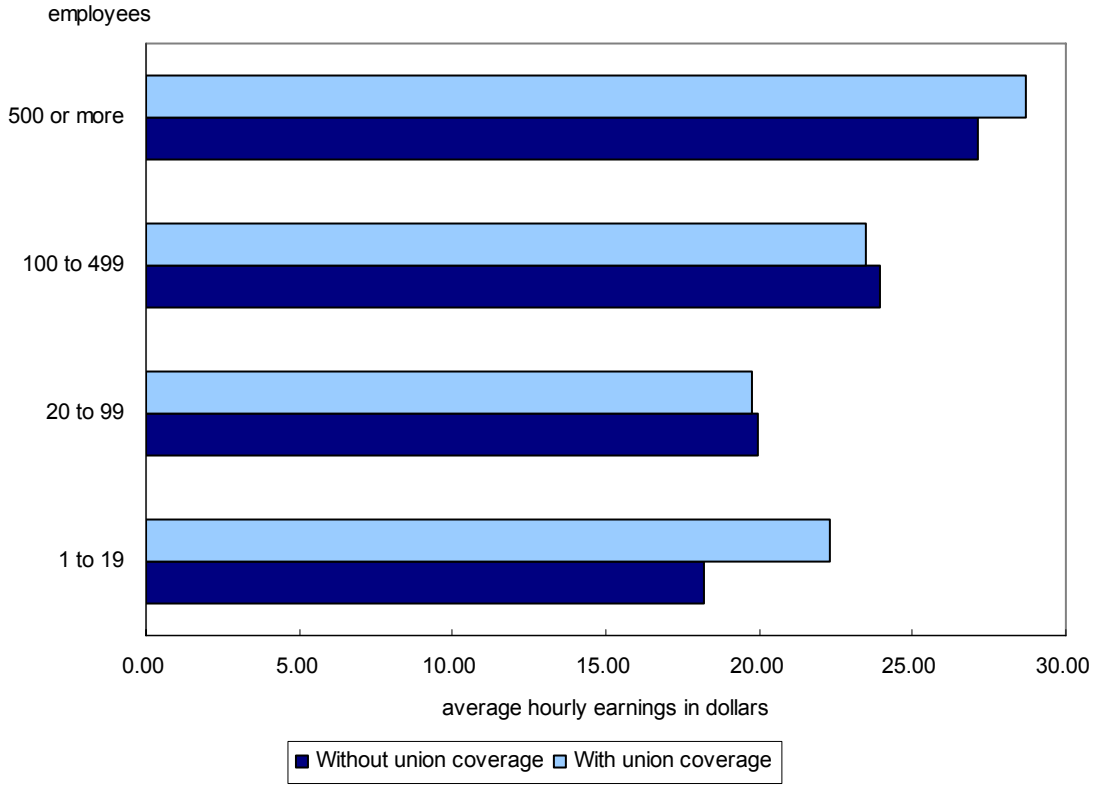
[E] use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)

1. The basis for this grouping is the Standard Occupation Classification (SOC) 1991 - Canada.

2. North American Industry Classification System (NAICS), 2002.

Source: Statistics Canada, Workplace and Employee Survey, Workplace and Employee component.

Chart 4.1
Total average hourly earnings by union coverage and workplace size, 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace and Employee components.

Now we turn back to job mobility with a view to uncovering whether there was a reward or some return to job mobility. Overall, workers who changed jobs or workplaces fared better than their counterparts who did not. (Table 4.2)

Workers who stayed with their employers and in the same job had a smaller increase in hourly earnings compared to those who changed jobs while remaining with the same employer, or changed employers.

There was indeed a wage premium associated with job mobility. This was true for both intra-workplace and inter-workplace job mobility.

Mobility was not always rewarded. In a few cases, notably in the 2001 to 2002 employee panel, workers in capital-intensive tertiary manufacturing industry who changed workplaces experienced a drop in their average hourly earnings.

Table 4.2.1
Job mobility and hourly earnings indices for the 1999 to 2000 employee panel

	1999 to 2000 employee panel		
	Same employer, different job	Same employer, same job	Different employer, different job
All workers	**108.8**	**102.4**	**107.1**
Gender			
Men	110.2	102.7	113.4
Women	107.4	102.0	101.3
Age			
Less than 25	103.1	100.4	119.9
25 to 44	111.5	102.4	109.4
45 or more	104.9	102.6	91.5
Educational attainment			
Less than high school	97.9	97.2	105.2
High school	105.7	101.5	103.9
Some post-secondary	104.9	99.1	100.8
Post-secondary or diploma	109.1	102.2	111.5
University	114.2	106.1	107.7
Industry[1]			
Forestry, mining, oil and gas extraction	112.2	101.5	101.3
Labour-intensive tertiary manufacturing	116.2	99.2	124.5
Primary product manufacturing	103.3	103.7	96.1
Secondary product manufacturing	107.4	105.7	102.2
Capital-intensive tertiary manufacturing	110.6	103.4	109.4
Construction	120.1	100.8	99.0
Transportation, warehousing and wholesale trade	106.3	102.4	105.3
Communication and other utilities	110.6	101.2	102.8
Retail trade and consumer services	101.6	96.0	110.1
Finance and insurance	113.6	105.9	91.7
Real estate, rental and leasing operators	97.9	103.1	138.1
Business services	118.5	105.4	111.9
Education and health services, non-profit groups	106.6	104.3	99.6
Information and cultural industries	104.1	101.6	113.5

1. North American Industry Classification System (NAICS), 2002.
Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Table 4.2.2
Job mobility and hourly earnings indices for the 2001 to 2002 employee panel

	2001 to 2002 employee panel		
	Same employer, different job	Same employer, same job	Different employer, different job
All workers	**109.0**	**103.2**	**108.3**
Gender			
Men	110.9	103.7	108.6
Women	106.9	102.7	108.0
Age			
Less than 25	109.8	104.2	115.2
25 to 44	110.1	103.3	108.3
45 or more	106.6	103.0	102.6
Educational attainment			
Less than high school	115.0	102.7	108.3
High school	108.8	104.6	111.3
Some post-secondary	107.0	101.8	108.3
Post-secondary or diploma	109.5	102.4	109.0
University	107.8	104.4	105.9
Industry[1]			
Forestry, mining, oil and gas extraction	105.5	104.4	108.2
Labour-intensive tertiary manufacturing	106.7	102.9	99.7
Primary product manufacturing	104.0	101.9	104.6
Secondary product manufacturing	106.8	102.1	111.0
Capital-intensive tertiary manufacturing	108.0	101.0	85.3
Construction	117.9	103.3	109.3
Transportation, warehousing and wholesale trade	114.6	102.9	105.9
Communication and other utilities	108.0	103.2	101.0
Retail trade and consumer services	106.4	102.3	112.2
Finance and insurance	104.6	104.7	100.7
Real estate, rental and leasing operators	114.9	101.9	126.2
Business services	116.1	105.5	124.6
Education and health services, non-profit groups	107.8	103.5	109.7
Information and cultural industries	101.1	103.2	95.1

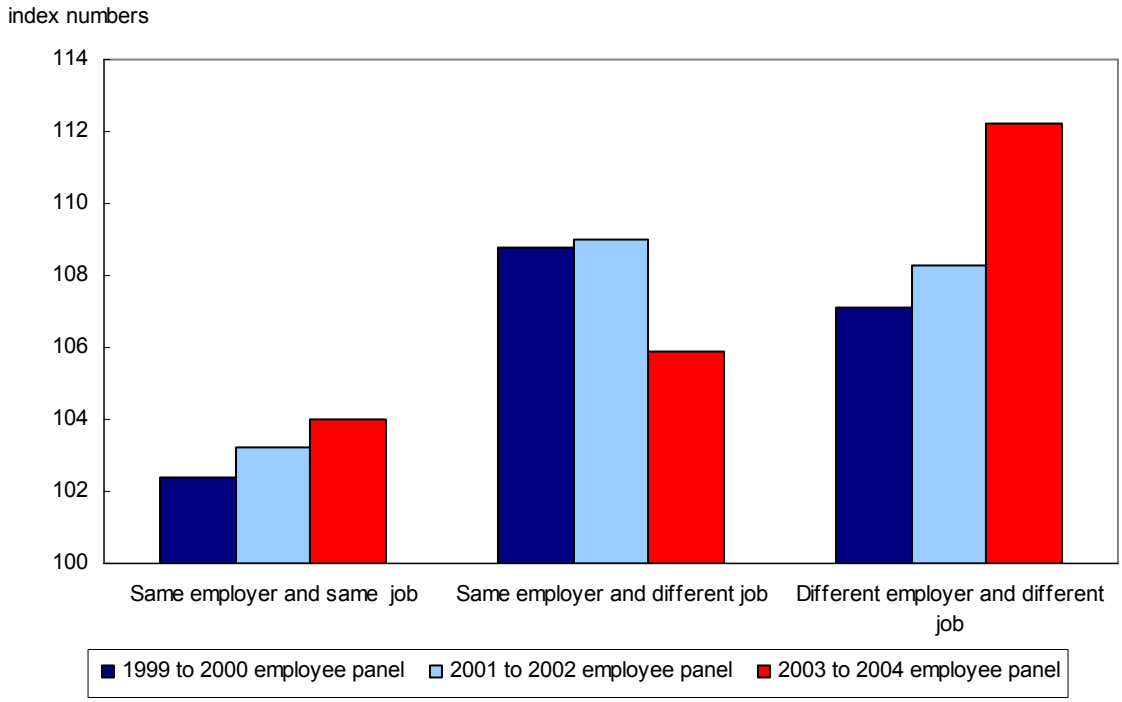
1. North American Industry Classification System (NAICS), 2002.
Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Table 4.2.3
Job mobility and hourly earnings indices for the 2003 to 2004 employee panel

	2003 to 2004 employee panel		
	Same employer, different job	Same employer, same job	Different employer, different job
All workers	**105.9**	**104.0**	**112.2**
Gender			
Men	104.5	104.7	109.7
Women	108.3	103.2	115.2
Age			
Less than 25	102.9	106.9	122.6
25 to 44	106.6	104.8	112.3
45 or more	105.2	102.9	105.0
Educational attainment			
Less than high school	107.8	103.2	111.9
High school	100.0	102.9	113.8
Some post-secondary	104.4	104.7	110.0
Post-secondary or diploma	106.5	103.5	111.2
University	108.2	105.2	114.1
Industry[1]			
Forestry, mining, oil and gas extraction	110.1	107.9	108.3
Labour-intensive tertiary manufacturing	100.0	101.7	106.3
Primary product manufacturing	105.5	104.0	101.6
Secondary product manufacturing	108.6	103.6	137.8
Capital-intensive tertiary manufacturing	102.2	104.6	100.2
Construction	111.3	104.4	105.3
Transportation, warehousing and wholesale trade	108.0	104.5	111.1
Communication and other utilities	106.5	103.9	121.0
Retail trade and consumer services	102.1	103.2	123.3
Finance and insurance	113.3	106.0	99.7
Real estate, rental and leasing operators	86.0	102.4	100.2
Business services	106.1	104.7	99.8
Education and health services, non-profit groups	107.1	103.4	119.9
Information and cultural industries	109.8	105.1	115.0

1. North American Industry Classification System (NAICS), 2002.
Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Chart 4.2
Hourly earnings indices and job mobility in the 1999 to 2000, 2001 to 2002 and 2003 to 2004 employee panels



Source: Statistics Canada, Workplace and Employee Survey, Employee component.

4.2 Non-wage benefits

WES also provides data on the availability of non-wage benefits. (Table 4.3)

Health-related benefits remained the most prevalent non-wage benefit offered to all employees by employers (40.0%). This was true for all industries and all workplace sizes.

The incidence of both health-related and pension benefits was higher in workplaces with collective bargaining agreement coverage than in those without collective bargaining agreement coverage, except for workplaces with 100 to 499 employees where the incidence of health benefits was virtually identical with and without collective bargaining agreement coverage.

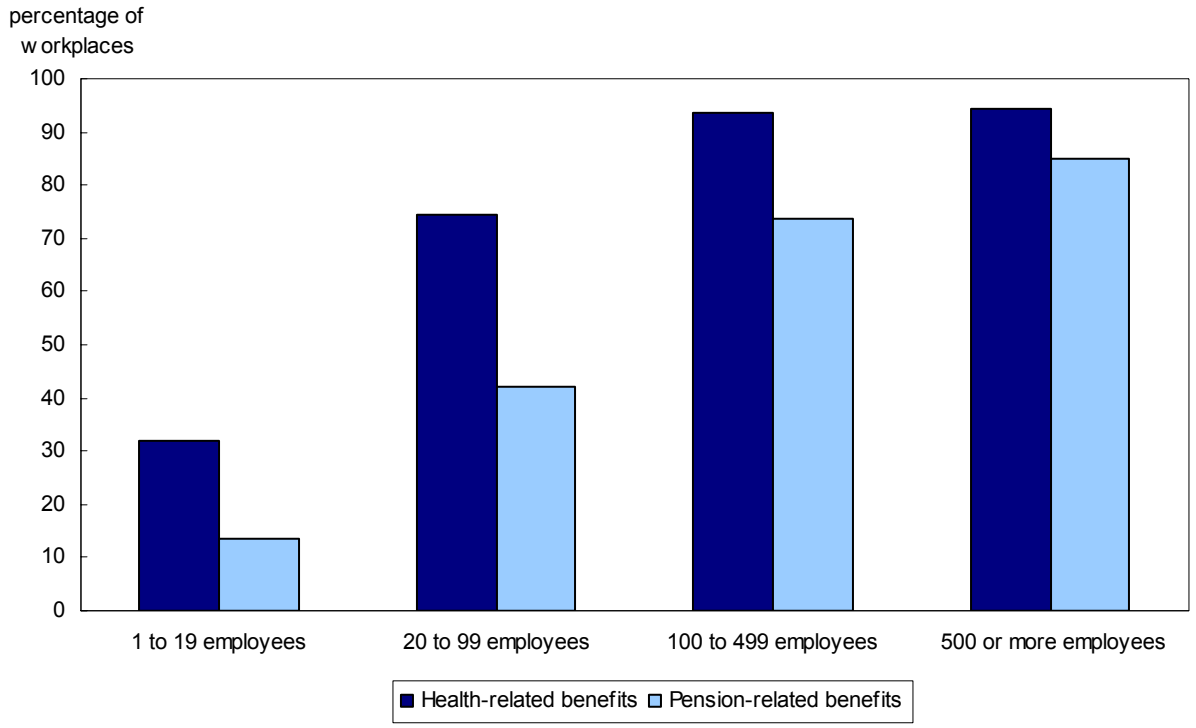
Overall, as workplace size increased, the incidence of both these benefits also increased. Workplaces in finance and insurance industry were most likely to offer health-related and pension benefits whereas those in retail trade and consumer services industries were least likely to offer such benefits. Workplaces in labour intensive tertiary manufacturing industry were least likely to offer pension benefits.

Table 4.3
Non-wage benefit providers, 2005

	Workplaces offering		Employers offering non-wage benefits	Employees in workplaces offering non-wage benefits
	Health-related benefits[1]	Pension-related benefits[2]		
	percentage of workplaces			
All workplaces	**40.0**	**19.5**	**48.0**	**82.1**
Workplace size				
1 to 19 employees (all)	32.0	13.7	40.2	52.3
Without union coverage	31.1	12.5	38.7	50.6
With union coverage	47.6	34.2	65.5	72.0
20 to 99 employees (all)	74.5	42.1	82.1	85.9
Without union coverage	72.0	39.9	78.3	82.5
With union coverage	83.0	49.7	95.2	95.6
100 to 499 employees (all)	93.5	73.8	97.9	98.3
Without union coverage	93.4	71.1	96.4	96.9
With union coverage	93.5	76.4	99.4	99.4
500 or more employees (all)	94.5	84.8	99.3	99.7
Without union coverage	88.7	68.4	98.1	98.9
With union coverage	97.1	92.3	99.8	99.9
Industry[3]				
Forestry, mining, oil and gas extraction	57.4	20.6	62.0	91.5
Labour-intensive tertiary manufacturing	36.7	10.9	37.9	77.5
Primary product manufacturing	51.4	34.3	55.2	91.1
Secondary product manufacturing	64.3	30.1	69.4	89.3
Capital-intensive tertiary manufacturing	63.4	32.7	70.1	94.6
Construction	33.5	13.2	50.2	75.0
Transportation, warehousing and wholesale trade	58.2	31.6	62.2	86.3
Communication and other utilities	58.4	40.4	67.8	93.6
Retail trade and consumer services	27.5	12.2	35.8	68.2
Finance and insurance	75.8	53.7	79.8	95.3
Real estate, rental and leasing operators	35.0	14.3	48.2	67.1
Business services	43.4	14.0	48.1	79.6
Education and health services, non-profit groups	33.3	18.9	43.1	89.8
Information and cultural industries	46.8	26.7	58.3	92.2

1. Health-related benefits include life and/or disability insurance, supplemental medical and dental care
2. Pension benefits include pension plan and group RRSP
3. North American Industry Classification System (NAICS), 2002.
Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Chart 4.3
Incidence of health-related and pension benefits, by workplace size, 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Non-wage benefits were widespread in 2005, with almost three-quarters of workers having access to them (Table 4.4). The most prevalent were health-related benefits: life and disability insurance plans, dental plans and supplemental medical insurance plans.

Women, young workers and those with less than high school education were less likely to have access to benefits. Looking at occupation, marketing and sales employees were by far the least likely to receive non-wage benefits (4 in 10), whereas professional workers had the highest rate of coverage (9 in 10)

Working in a unionized job or in one that is covered by a collective bargaining agreement also increased the likelihood of receiving non-wage benefits (88.5%, compared with 68.6% for non-unionized jobs). Being a full-time worker increased access to non-wage benefits (about three-quarters compared with almost half for part-time workers). As earnings increased, so did the likelihood of receiving non-wage benefits.

In the retail trade and consumer services industries, where labour turnover is high (about 6 in 10 workers were either hired or left), half of workers did not have access to non-wage benefits. In finance and insurance, however, where labour turnover is about two-fifths that of the retail trade and consumer services industries, less than 10.0% of workers did not have access to non-wage benefits.

Whereas about 1 in 2 workers in small workplaces (1 to 19 employees) did not have non-wage benefits, around 94.0% of workers had access to these benefits in large workplaces (500 employees or more).

Table 4.4
Employee's non-wage benefits, 2005

	Employer-sponsored pension plan	Group registered retirement savings plan	Life/disability insurance plan	Supplemental medical insurance plan	Dental plan	No non-wage benefits
			percent			
All employees	**32.8**	**18.4**	**59.0**	**51.3**	**56.1**	**26.0**
Gender						
Men	32.7	20.2	63.5	56.2	61.6	23.1
Women	32.9	16.7	54.8	46.7	51.0	28.7
Age						
Less than 25	8.0	6.4	21.0	21.7	23.9	53.2
25 to 44	31.7	19.6	61.1	54.6	60.2	24.1
45 or more	40.5	20.0	66.2	54.8	59.4	21.4
Educational attainment						
Less than high school	15.4	12.1	40.2	35.4	38.8	44.9
High school	25.8	17.9	53.2	46.3	53.2	29.5
Some university or post-secondary	32.6	18.2	59.8	51.0	56.0	25.2
University	47.1	22.2	70.5	63.3	66.9	16.3
Occupation groups[1]						
Managers	30.6	24.4	67.9	60.3	67.1	20.6
Professionals	56.5	21.6	75.5	66.5	70.9	10.9
Technical/Trades	29.2	18.0	58.3	50.8	55.6	26.8
Marketing/Sales	9.7	9.0	25.1	22.7	25.3	56.6
Clerical/Administrative	34.6	18.8	60.6	48.5	54.7	22.4
Production workers	21.8	11.2	40.8	38.0	40.0	42.6
Employment type						
Part-time	16.8	6.5	23.0	19.3	21.9	52.6
Full-time	35.8	20.6	65.7	57.2	62.5	21.1
Hourly wages						
Less than $12.00	6.9	4.6	20.2	19.3	21.2	60.4
$12.00 to $19.99	25.8	16.6	57.7	49.3	53.1	25.6
$20.00 or more	50.1	26.1	77.8	67.5	74.4	10.6
Job tenure						
Less than 1 year	23.8	14.0	48.4	45.0	49.2	32.2
1 to less than 5 years	28.4	16.1	54.7	47.6	53.2	29.8
5 to less than 10 years	34.4	21.6	63.1	56.0	59.2	21.9
10 to less than 20 years	43.9	22.9	70.5	58.1	64.9	17.7
20 or more years	56.7	23.9	74.4	60.5	61.0	17.3
Union status						
Unionized	64.8	17.1	73.9	61.6	65.6	11.5
Non-unionized	21.1	18.9	53.5	47.5	52.6	31.4

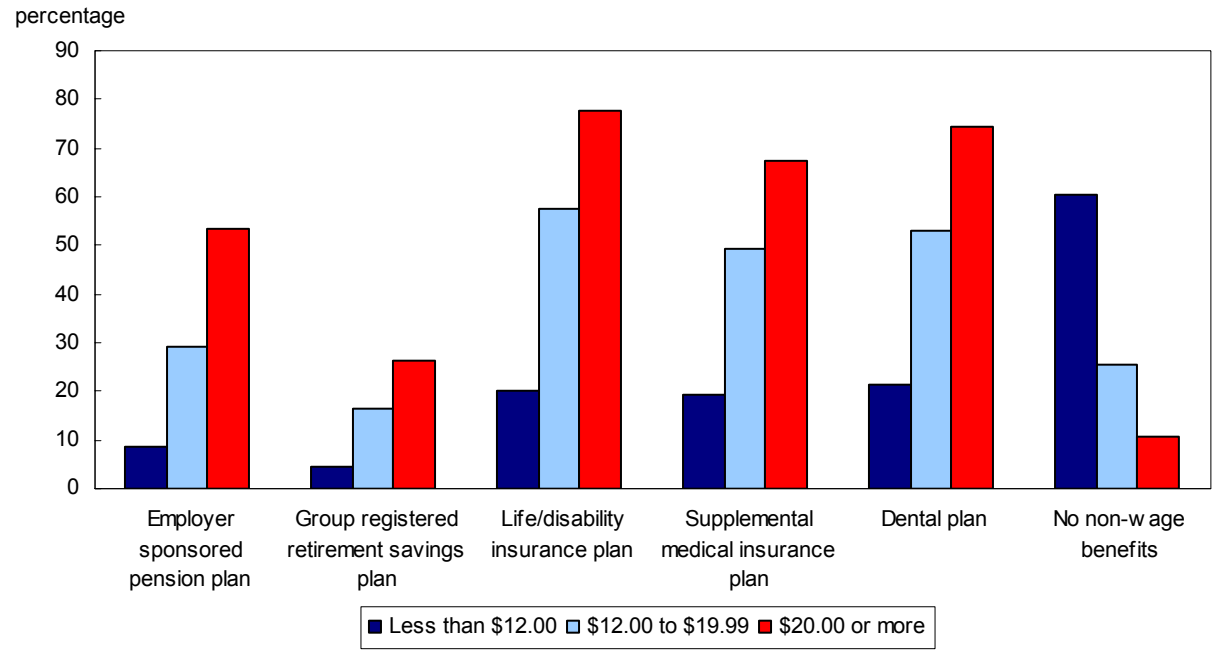
See footnotes at the end of the table.

Table 4.4 (continued)
Employee's non-wage benefits, 2005

	Employer-sponsored pension plan	Group registered retirement savings plan	Life/disability insurance plan	Supplemental medical insurance plan	Dental plan	No non-wage benefits
			percent			
Industry[2]						
Forestry, mining, oil and gas extraction	43.2	37.0	79.4	67.0	77.5	11.6
Labour-intensive tertiary manufacturing	22.1	18.4	60.6	49.2	57.2	28.1
Primary product manufacturing	49.2	29.5	76.4	65.3	72.6	13.9
Secondary product manufacturing	35.7	30.8	73.8	67.8	68.6	13.8
Capital-intensive tertiary manufacturing	34.2	27.3	76.1	64.8	77.0	10.4
Construction	13.9	14.6	50.4	46.6	48.9	34.5
Transportation, warehousing and wholesale trade	25.5	25.6	66.5	60.0	64.2	19.5
Communication and other utilities	68.3	20.4	81.6	65.1	74.3	10.3
Retail trade and consumer services	12.8	10.7	33.2	30.3	34.8	45.4
Finance and insurance	54.8	26.6	81.6	71.4	77.8	8.3
Real estate, rental and leasing operators	18.5	15.0	49.6	45.6	46.9	43.2
Business services	19.7	22.0	62.9	54.2	62.4	27.5
Education and health services, non-profit groups	58.7	14.5	66.7	55.2	56.5	17.8
Information and cultural industries	43.2	17.7	68.6	63.5	70.4	15.2
Workplace size						
1 to 19 employees	7.8	9.3	33.5	31.2	32.3	53.7
20 to 99 employees	20.2	19.3	57.9	50.3	55.5	25.4
100 to 499 employees	47.2	26.9	73.6	64.2	73.0	9.9
500 or more employees	72.5	20.8	80.5	66.9	72.2	6.0

1. The basis for this grouping is the Standard Occupation Classification (SOC) 1991 - Canada.
2. North American Industry Classification System (NAICS), 2002.
Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Chart 4.4
Employees' non-wage benefits by total hourly wage group, 2005



Source: Statistics Canada, Workplace and Employee Survey, Employee component.

4.3 Performance pay

Performance pay is used in many profit-oriented workplaces as part of their compensation mix. In 2005, individual incentive systems were the most common form of performance pay systems (24.0%). Stock purchase plans were the least common (3.5%). (Table4.5)

Individual incentive systems (systems that reward individuals on the basis of individual output or performance) were more prevalent in workplaces where there was no union coverage. As workplace size increased, so did the incidence of profit-sharing plans.

Workplaces in the finance and insurance industry had the highest incidence of all types of performance pay.

In 2005, 36.9% of workplaces offered some type of performance-related pay to their employees, down from 40.1% in 1999.

Table 4.5
Performance pay providers, 2005

	Workplaces offering				
	Individual incentive systems	Merit pay	Group incentive systems	Profit-sharing plan	Stock purchase plans
	percentage of workplaces				
All workplaces	**24.4**	**16.3**	**9.3**	**9.1**	**3.5**
Workplace size					
1 to 19 employees (all)	20.6	13.6	7.3	7.7	2.4
Without union coverage	20.8	13.9	7.1	7.7	2.3
With union coverage	F	9.0	F	F	4.9 E
20 to 99 employees (all)	41.9	27.2	17.5	14.4	7.7
Without union coverage	42.5	26.7	15.9	15.3	6.3
With union coverage	39.6	29.3	24.0	11.1	F
100 to 499 employees (all)	51.4	41.9	33.6	27.6	16.9
Without union coverage	59.0	43.5	38.0	32.7	18.2
With union coverage	41.8	39.8	28.0	21.3	15.4
500 or more employees (all)	66.2	56.7	31.6	23.8	35.3
Without union coverage	68.4	60.7	F	30.0	F
With union coverage	64.1	52.9	32.2	18.1	35.6
Industry[1]					
Forestry, mining, oil and gas extraction	20.5	17.0	12.9 E	7.4 E	17.2 E
Labour-intensive tertiary manufacturing	22.6	16.0	6.5 E	F	F
Primary product manufacturing	23.7	22.3	18.0	18.7	7.4 E
Secondary product manufacturing	29.5	14.0	14.5 E	12.9	F
Capital-intensive tertiary manufacturing	26.7	16.0	8.4 E	15.1	4.2 E
Construction	18.4	12.5	6.0 E	5.2	F
Transportation, warehousing and wholesale trade	28.9	18.6	10.8 E	14.6	F
Communication and other utilities	23.1	23.7	12.2	11.1	7.4 E
Retail trade and consumer services	21.7	12.5	9.3	6.4	F
Finance and insurance	55.5	40.3	29.3	26.8	19.7
Real estate, rental and leasing operators	21.0	19.0	F	8.6 E	F
Business services	27.1	17.6	7.4	10.6	2.7 E
Education and health services, non-profit groups	13.5	12.2	F	F	F
Information and cultural industries	37.4	21.0	14.6	11.5 E	11.1 E

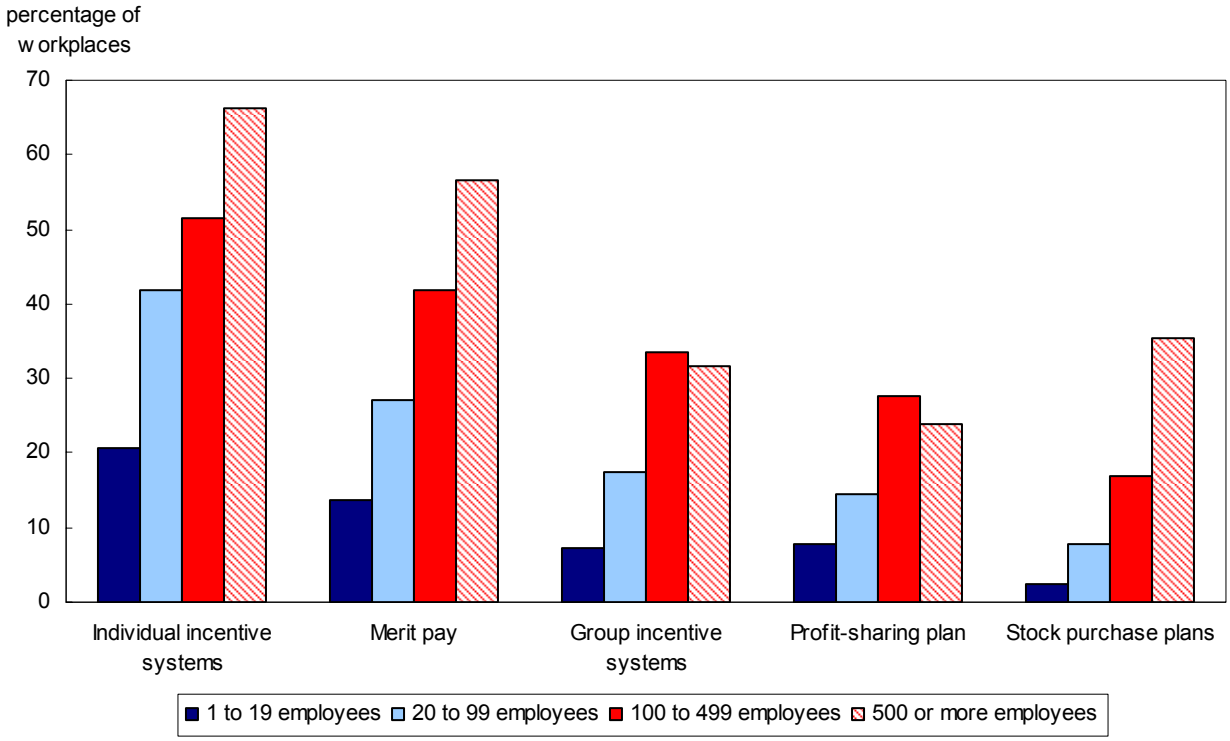
E use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)

F too unreliable to be published because of CV>33.0%

1. North American Industry Classification System (NAICS), 2002.

Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Chart 4.5
Performance pay providers by workplace size, 2005



Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Participation in stock purchase plans decreased from 10.0% in 1999 to 7.0% in 2005. (Table 4.6)

Female workers' participation in these plans was consistently lower than that of their male counterparts. Young workers had the lowest rate of participation in stock purchase plans. Participation in stock purchase plans was highest for university graduates and workers in the managerial and professional occupations.

Both full- and part-time workers had access to stock purchase plans. Full-time workers were more likely to participate in stock purchase plans than their part-time counterparts (7.0% versus 1.0%). As workplace size increased, the likelihood of participating in stock purchase plans also increased.

Table 4.6
Employees' participation in stock purchase plans in 1999, 2001, 2003 and 2005

	1999	2001	2003	2005
	percent			
All workers	**9.7**	**8.3**	**7.4**	**7.1**
Gender				
Men	10.3	8.9	8.1	7.9
Women	8.9	7.5	6.8	6.2
Age				
Less than 25	3.3 [E]	2.7 [E]	F	F
25 to 44	10.4	9.1	8.2	7.3
45 or more	10.7	9.3	8.3	8.6

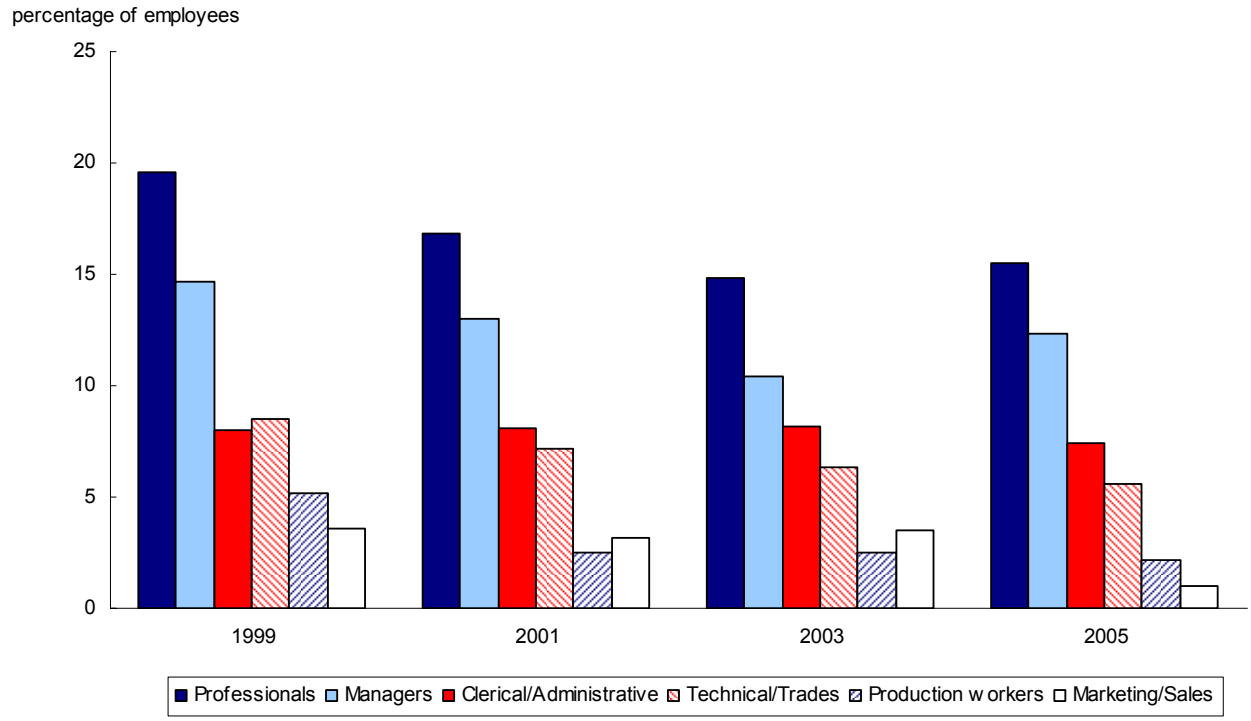
See footnotes at the end of the table.

Table 4.6 (continued)
Employees' participation in stock purchase plans in 1999, 2001, 2003 and 2005

	1999	2001	2003	2005
	percent			
Education attainment				
Less than high school	3.4	2.7	2.8	2.1
High school	7.5	5.9	5.5	5.4
Some university or post-secondary	9.8	8.3	7.3	6.8
University	17.2	17.1	14.0	13.5
Occupation groups[1]				
Managers	14.7	13.0	10.4	12.3
Professionals	19.6	16.8	14.8	15.5
Technical/Trades	8.5	7.2	6.3	5.6
Marketing/Sales	3.6 E	3.2 E	3.5	1.0 E
Clerical/Administrative	8.0	8.1	8.2	7.4
Production workers	5.2	2.5	2.5 E	2.2 E
Employment type				
Part-time	2.1	1.6 E	1.9	1.3
Full-time	10.8	9.4	8.4	8.1
Union status				
Unionized	9.6	6.5	6.7	7.8
Non-unionized	9.7	8.7	7.6	7.0
Industry[2]				
Forestry, mining, oil and gas extraction	25.3	15.1 E	12.5	17.5
Labour intensive tertiary manufacturing	6.8	7.3	6.5	5.2
Primary product manufacturing	12.0	7.0	9.2	8.7
Secondary product manufacturing	6.7	6.7 E	7.8 E	5.9
Capital intensive tertiary manufacturing	15.4	10.9	7.8	6.8
Construction	3.6 E	F	F	3.3 E
Transportation, warehousing and wholesale trade	7.8	11.3	6.0	6.4
Communication and other utilities	14.4	12.6	10.3	12.9
Retail trade and consumer services	6.3	4.6	4.0	3.5
Finance and insurance	17.8	25.2	27.4	21.3
Real estate, rental and leasing operators	3.2 E	2.2 E	F	F
Business services	13.4	7.1	9.4	10.8
Education and health services, non-profit groups	F	F	F	F
Information and cultural industries	20.1	20.4	17.3	16.9
Workplace size				
1 to 19 employees	4.5	3.0	2.0	2.1
20 to 99 employees	8.7	7.3	6.6	5.0
100 to 499 employees	14.1	12.9	11.0	11.7
500 or more employees	21.2	19.9	18.6	18.8

E use with caution (coefficient of variation (CV) ranging from 25.0% to 33.0%)
F too unreliable to be published because of CV>33.0%
1. The basis for this grouping is the Standard Occupation Classification (SOC) 1991 - Canada.
2. North American Industry Classification System (NAICS), 2002.
Source: Statistics Canada, Workplace and Employee Survey, Workplace component.

Chart 4.6
Employees' participation in stock purchase plans by occupation groups, 1999, 2001, 2003 and 2005



Source: Statistics Canada, Workplace and Employee Survey, Employee component.

Summary and closing remarks

The relationships portrayed throughout this compendium are undoubtedly affected by a wide array of variables whose influences are not captured in the descriptive approach adopted in this compendium. The Workplace and Employee Survey (WES) provides a large gamut of workplaces and employee characteristics that can be used to shed further light on the many research hypotheses punctuating this compendium. In this compendium, we have highlighted just a few examples of what can be learned from the survey.

More jobs were created than destroyed in 1999, 2001, 2003 and 2005, leading to increased employment during these years. Job creation accounted for more of the job turnover.

Industries that tended to have high entry and exit costs, such as capital-intensive manufacturing, primary product manufacturing and secondary product manufacturing, also tended to have lower job creation and job turnover rates. Similarly, industries that tended to have lower entry and exit costs, such as retail trade, consumer services and business services, tended to have higher job creation and job turnover rates.

Most workplaces operated in an environment characterized by medium to high competition and fixed their prices about the same as their main competitors. The market geographic scope, irrespective of industry and workplace sizes, was most commonly local, followed by the rest of Canada, then United States and, least commonly, the rest of the world. As workplace size increased, the relative importance of the local market decreased and the relative importance of other markets increased.

Workplaces that did not export in 1999 but reported some export activity in 2005 (8.5%) outnumbered those that had exported in 1999 but were not in 2005 (6.3%). Expansion into international market was more likely than retrenchment.

Workplaces that have implemented innovative work practices or performance pay practices provided a more positive assessment of their productivity, product quality and customer satisfaction. The results seem to suggest that the adoption of high-performance workplace practices is associated with improvements in productivity and the creation of environments leading to greater effort and commitment from the workers.

Workers in workplaces that have implemented organizational changes, performance pay practices or introduced new products worked more hours than their counterparts in workplaces that have not done any of these things. Where non-wage benefits were provided, the average number of hours worked per person was higher. Workers in organizations without collective bargaining coverage worked more hours than their counterparts employed in workplaces with collective bargaining coverage.

Workers who were female or young or working part-time or working in marketing and sales occupation had the lowest average hourly earnings; whereas those who were male or older or working full-time or working in managerial and professional occupations had the highest. These differences, however, tended to soften as workplace size increased, in presence of union coverage and in presence of job and occupational mobility. While there was generally a wage premium associated with job mobility, in a few cases, changing jobs could lead to a drop in earnings.

Non-wage benefits were widespread in 2005, with almost three-quarters of workers having access to them. The most prevalent were health-related benefits: life and disability insurance plans, dental plans and supplemental medical insurance. Labour turnover was down where non-wage benefits and performance pay plans prevailed. Labour turnover in workplaces that did not provide non-wage benefits was noticeably higher than that of workplaces where these benefits were provided.

Appendix A Concepts and methods

Objectives

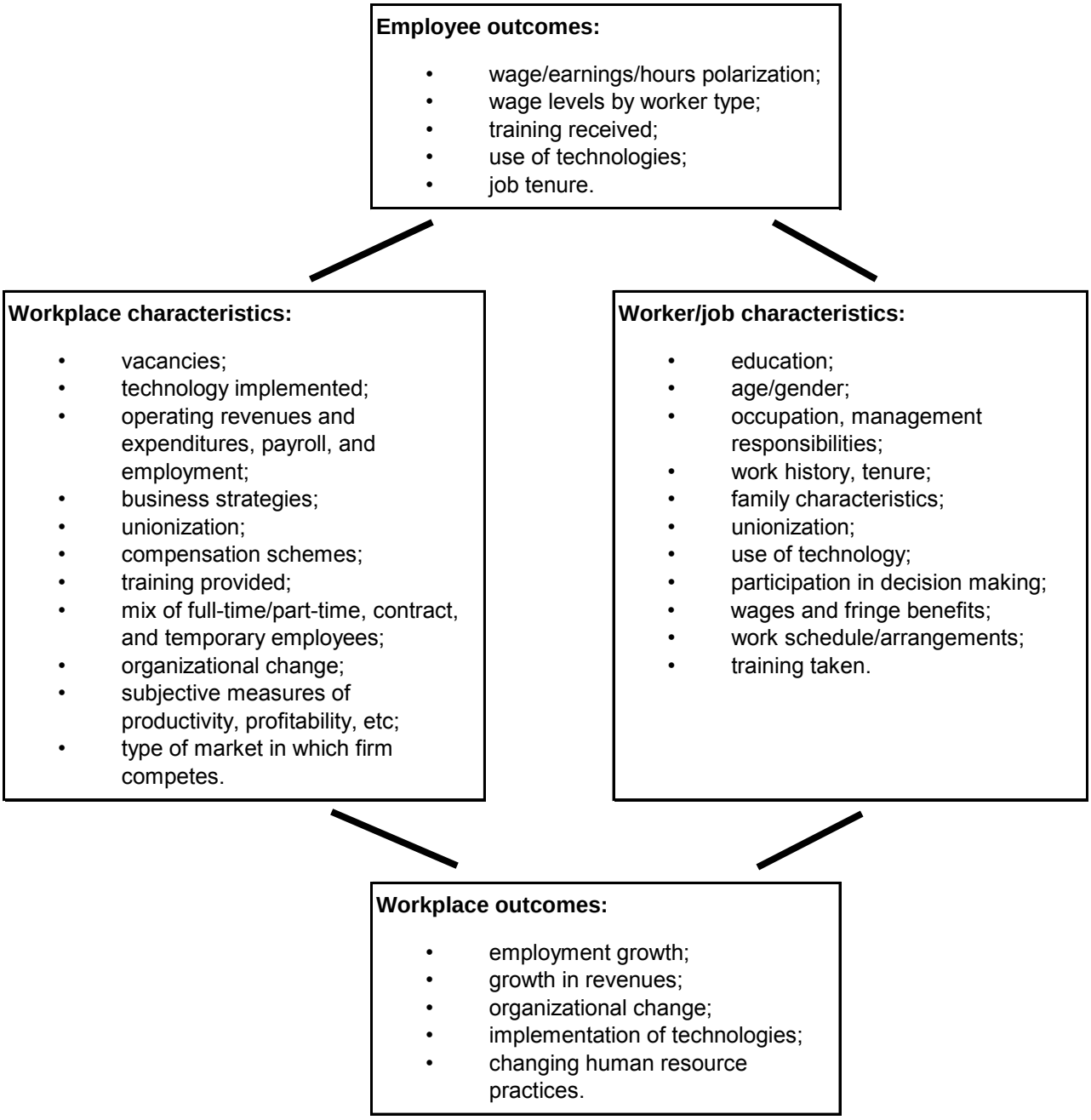
A wealth of information on workers' outcomes regarding wages and wage inequality, job stability and layoffs, training, job creation and unemployment can be gathered from a wide variety of surveys. In general, researchers have a good understanding of employee and employer outcomes, but a link between these two levels of analysis using micro-data simply does not exist. The WES is the only source of data in the country that allows people to investigate changes that occur among employees and link the changes to events taking place in firms and vice versa. Indeed, such a connection is necessary if one hopes to understand the association between labour market changes and pressures stemming from global competition, organizational and technological changes, and the drive to improve human capital.

Hence, the primary gal of the WES is to establish a link between events occurring in workplaces and the outcomes for workers. The second goal of the survey is to develop a better understanding of the forces shaping companies in this era of substantial change.

The WES is, by design, composed of two components:
a workplace survey covering subjects such as the adoption of technologies, organizational change, training and other human resource practices, business strategies, and labour market dynamics, to name a few; and a survey of employees within these same workplaces covering wages, hours of work, job type, human capital, use of technologies and training.

The diagram below presents the link between workplace and employee characteristics and workplace and employee outcomes.

The workplace and employee survey conceptual framework



Sample sizes and response rates

The WES was conducted for the first time during the summer (employer survey portion) and fall (employee survey portion) of 1999. Overall, 6,351 workplaces and 24,597 employees responded to the survey, representing response rates of 94% and 83%, respectively. The sampled locations are followed over time, with the periodic addition of new locations to the sample to maintain a representative cross section. Employees are followed for two years; a fresh sample of employees is drawn on every second survey occasion (i.e., first, third, fifth). This longitudinal aspect allows researchers to study both employer and employee outcomes over time in the evolving workplace. For 2005, Table A.1 provides sample sizes and estimated population and Table A.2 provides the achieved response rates.

Table A.1
Sample sizes and estimated populations, 2005

	Workplaces			Employees		
	Number of respondents	Estimated population	Percentage	Number of respondents	Estimated population	Percentage
Overall	**6,693**	**670,812**	**100.0**	**24,197**	**12,215,309**	**100.0**
Industry[1]						
Forestry, mining, oil and gas extraction	243	7,893	1.0	899	206,623	1.7
Labour intensive tertiary manufacturing	349	19,878	3.0	1,117	522,141	4.3
Primary product manufacturing	270	7,026	1.0	1,164	365,682	3.0
Secondary product manufacturing	293	10,653	1.6	1,066	391,604	3.2
Capital intensive tertiary manufacturing	330	13,662	2.0	1,314	560,001	4.6
Construction	804	52,815	7.9	2,524	586,504	4.8
Transportation, warehousing and wholesale trade	810	71,672	10.7	3,016	1,199,556	9.8
Communication and other utilities	386	9,463	1.4	1,106	260,009	2.1
Retail trade and consumer services	680	211,247	31.5	2,142	2,972,193	24.3
Finance and insurance	479	33,256	5.0	1,941	576,408	4.7
Real estate, rental and leasing operators	354	31,612	4.7	955	228,514	1.9
Business services	599	85,629	12.8	2,011	1,287,516	10.5
Education and health services, non-profit groups	755	100,805	15.0	3,628	2,665,530	21.8
Information and cultural industries	341	15,200	2.3	1,314	393,029	3.2
Workplace sizes						
1 to 19 employees	2,683	551,811	82.3	5,043	3,280,115	26.9
20 to 99 employees	2,149	104,004	15.5	8,816	4,075,215	33.4
100 to 499 employees	1,351	13,074	1.9	6,240	2,349,942	19.2
500 or more employees	510	1,923	0.3	4,098	2,510,038	20.5
Region						
Atlantic	773	51,408	7.7	2,524	777,053	6.4
Quebec	1,504	152,859	22.8	5,672	2,892,121	23.7
Ontario	1,813	239,251	35.7	6,606	4,753,536	38.9
Manitoba	412	21,071	3.1	1,478	460,816	3.8
Saskatchewan	332	27,879	4.2	1,181	352,016	2.9
Alberta	898	81,428	12.1	3,274	1,402,991	11.5
British Columbia	961	96,916	14.4	3,462	1,576,777	12.9

1. North American Industry Classification System (NAICS), 2002.
Source: Statistics Canada, Workplace and Employee Survey.

Table A.2
Response rates, 2005

	Workplace response rate	Employee response rate
	percentage	
Overall	**77.7**	**81.2**
Industry[1]		
Forestry, mining, oil and gas extraction	71.8	83.4
Labour intensive tertiary manufacturing	69.9	74.6
Primary product manufacturing	79.5	80.2
Secondary product manufacturing	78.8	80.7
Capital intensive tertiary manufacturing	72.8	83.1
Construction	79.5	77.1
Transportation, warehousing and wholesale trade	77.3	81.5
Communication and other utilities	70.1	80.0
Retail trade and consumer services	74.6	76.8
Finance and insurance	74.6	87.2
Real estate, rental and leasing operators	72.7	81.4
Business services	76.9	81.8
Education and health services, non-profit groups	83.9	84.5
Information and cultural industries	78.4	83.6

1. North American Industry Classification System (NAICS), 2002.
Source: Statistics Canada, Workplace and Employee Survey.

Target population

The target population for the employer component is defined as all business locations operating in Canada that have paid employees, with the following exceptions:

- employers in Yukon and Northwest Territories
- employers operating in crop production and animal production; fishing, hunting and trapping; religious organizations; private households; and public administration.

The target population for the employee component is all employees working in the targeted workplaces who receive a Canada Revenue Agency T-4 Supplementary form.

Survey population

The survey population is the collection of all units for which the survey can realistically provide information. The survey population may differ from the target population because of operational difficulties in identifying all the units that belong to the target population.

The WES draws its sample from the Business Register maintained by Statistics Canada, and from lists of employees provided by the surveyed employers. The Business Register, a list of all businesses in Canada, is updated each month using data from various surveys, business profiles and administrative sources.

Reference period

The reference period for the WES was mainly the 12-month period ending in March of the survey year. Some questions in the workplace portion covered the last pay period of March of the survey year.

Sample design

Two frames are used in the WES. The survey frame, a list of all relevant units, is used for sample design and selection; ultimately, it provides contact information for the selected units.

Workplace component of survey

The survey frame for the workplace component of the WES was created from the information available on Statistics Canada's Business Register.

Prior to sample selection, the business locations on the frame were separated into relatively homogeneous groups called strata, which were then used for sample allocation and selection. The WES frame was stratified by industry (14) and region (6), as well as size (3), which was defined using estimated employment. The size stratum boundaries were typically different for each industry and region combination. The cut-off points defining a stratum of a particular size were computed using a model-based approach. The sample was selected using Neyman allocation.

All sampled units were assigned a sampling weight (a raising factor attached to each sampled unit to obtain estimates for the population from a sample). For example, if 2 units were selected at random and with equal probability out of a population of 10 units, then each selected unit would represent 5 units in the population, and it would have a sampling weight of 5.

The first WES survey collected data from 6,351 out of the 9,144 sampled employers. The remaining employers were a combination of workplaces determined to be out of business, seasonally inactive, holding companies, or out of scope. The majority of non-respondents were owner–operators who had no paid help and were in possession of a payroll deduction account.

Employee component of survey

The frame for the employee component of the WES was based on lists of employees made available to interviewers by the selected workplaces. A maximum of 24 employees were sampled using a probability mechanism. In workplaces with three or four employees, all employees were selected.

Data collection

Data collection, data capture, preliminary editing and follow-up of non-respondents were all done in Statistics Canada regional offices. Interviewers collected the workplace and employee survey data through computer-assisted telephone interviews.

Statistical edit and imputation

In the WES, great care is taken to prevent errors or incorrectly recorded values during the data collection process. This is accomplished via extended input editing in the computer questionnaire application. Following collection, the data are analysed extensively and ratio editing is used to determine outlying observations based on robust outlier detection programs.

Respondents who opt not to participate in the survey—represented by total non-response—are removed and the weights of the remaining units are adjusted upward to keep the sample representative. For respondents who do not provide all required fields—represented by item non-response—a statistical technique called imputation is used to fill in the missing values for both employers and employees. Four imputation methods are used: weighted hot deck, trend, ratio and deterministic.

Estimation

The reported (or imputed) values for each workplace and employee in the sample are multiplied by the weight for that workplace or employee; these weighted values are summed up to produce estimates. An initial weight equal to the inverse of the original probability of selection is assigned to each unit. The initial survey weights are calibrated to agree with known population totals. These adjusted weights are then used in forming estimates of means or totals of variables collected by the survey.

Variables for which population totals are known are called auxiliary variables. They are used to calibrate survey estimates to increase their precision. Each business location is calibrated to known population totals at the industry and region level. The auxiliary variable used for the WES is total employment obtained from the Survey of Employment, Payrolls and Hours.

Data quality

Any survey is subject to errors. Whereas considerable effort is made to ensure a high standard throughout all survey operations, the resulting estimates are inevitably subject to a certain degree of error. Errors can arise because of the use of a sample instead of a complete census, from mistakes made by respondents or interviewers during the collection of data, from errors made in keying in the data, from imputation of a consistent but not necessarily correct value, or from other sources.

Sampling errors

The true sampling error is unknown; however, it can be estimated from the sample itself by using a statistical measure called the standard error. When the standard error is expressed as a percentage of the estimate, it is known as the relative standard error or coefficient of variation.

Non-sampling errors

Some non-sampling errors will cancel out over many observations, but systematically occurring errors (those that do not tend to cancel) will contribute to a bias in the estimates. For example, if respondents consistently tend to underestimate their sales, then the resulting estimate of the total sales will be below the true population total. Such a bias is not reflected in the estimates of standard error. As the sample size increases, the sampling error decreases. However, this is not necessarily true for the non-sampling error.

Coverage errors

Coverage errors arise when the survey frame does not adequately cover the target population. As a result, certain units belonging to the target population are either excluded (under-coverage), or counted more than once (over-coverage). In addition, out-of-scope units may be present on the survey frame (over-coverage).

Response errors

Response errors occur when a respondent provides incorrect information because of misinterpretation of the survey questions or lack of correct information, gives wrong information by mistake, or is reluctant to disclose the correct information. Gross response errors are likely to be caught during editing, but others may simply go through undetected.

Non-response errors

Non-response errors can occur when a respondent does not respond at all (total non-response) or responds only to some questions (partial non-response). These errors can have a serious impact on estimates if the non-respondents are systematically different from the respondents in survey characteristics or the non-response rate is high or both.

Processing errors

Errors that occur during the processing of data represent another component of the non-sampling error. Processing errors can arise during data capture, coding, editing, imputation, outlier treatment and other types of data handling. A coding error occurs when a field is coded erroneously because of misinterpretation of coding procedures or bad judgement. A data capture error occurs when data are misinterpreted or keyed in incorrectly.

Joint interpretation of measures of error

The measure of non-response error and the coefficient of variation must be considered jointly to assess the quality of the estimates. The lower the coefficient of variation and the higher the response fraction, the better the published estimate will be.

Confidentiality

The information presented in this publication has been reviewed to ensure that the confidentiality of individual responses is respected. Any estimate that could reveal the identity of a specific respondent is declared confidential, and consequently not published.

Response and non-response

The response rate includes all units that responded by providing usable information during the collection phase.

The refusal rate includes those units that were contacted but refused to participate in the survey.

Appendix B Industry definitions

Table B.1
Industry definitions

Workplace and Employee Survey (WES) industry codes	Industry descriptions	North American Industry Classification System (NAICS2002) codes
Industrial activities included in WES[1]		
1	Forestry, mining, oil and gas extraction	113, 115 (except 1151, 1152), 211, 212, 213
2	Labour-intensive tertiary manufacturing	311, 312, 313, 314, 315, 316, 337, 339
3	Primary product manufacturing	321, 322, 324, 327, 331
4	Secondary product manufacturing	325, 326, 332
5	Capital-intensive tertiary manufacturing	323, 333, 334, 335, 336
6	Construction	231, 232
7	Transportation, warehousing and wholesale trade	411, 412, 413, 414, 415, 416, 417, 418, 419, 481, 482, 483, 484, 485, 486, 487, 488, 493
8	Communication and other utilities	221, 491, 492, 562
9	Retail trade and consumer services	441, 442, 443, 444, 445, 446, 447, 448, 451, 452, 453, 454, 713, 721, 722, 811, 812
10	Finance and insurance	521, 522, 523, 524, 526
11	Real estate, rental, leasing operations	531, 532
12	Business services	533, 541, 551, 561
13	Education and health services	611, 621, 622, 623, 624, 813 (except 8131)
14	Information and cultural industries	511, 512, 513, 514, 711, 712
Industrial activities excluded from WES		
1	Crop and animal production and support	111, 112, 1151, 1152
1	Fishing, hunting and trapping	114
13	Religious organizations	8131
9	Private households	814
	Federal government public administration	911
	Provincial and territorial public administration	912
	Local, municipal and regional public administration	913
	Aboriginal public administration	914

1. On the basis of its principal activity, each establishment is assigned an industry code. For analytical purposes, these industry groupings are based on industry homogeneity and number of sampled records that in all cases, except in manufacturing, conformed to the 1997 and the 2002 North American Industry Classification System (NAICS).
Source: Statistics Canada, Workplace and Employee Survey.