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Equally mobile, equally stable: Gender convergence in labour mobility and job stability in Canada

by Marie Drolet

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Table of contents

Acknowledgements	4
Overview	4
Highlights	4
Introduction	5
Labour mobility	8
No difference in hiring rates of men and women	9
New hires mostly reflect traditional occupations held by men and women	10
Job stability	11
Women are as likely to continue with their current employer as men	11
Among part-time workers, job stability higher for women than men	15
Female-dominated occupations have, on average, more job stability than male-dominated jobs	16
More recent cohorts of women have more job stability than older cohorts	17
Little difference in remaining with current employer of moms and dads with young children	17
Insights to the gender wage ratio	19
Conclusion	21
Appendix A: Job separations	22
Currently not employed and the reasons for exiting employment	23
Appendix B: The evolution of gender differences in job tenure	23
The gender gap in average in-progress duration of full-time jobs has disappeared	23
Distribution of in-progress job tenure has become more similar	25
Data, definitions and methods	27
Data	27
Definitions and methods	27
References	29

Equally mobile, equally stable: Gender convergence in labour mobility and job stability in Canada

by Marie Drolet

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Overview

This study reports on the trends in labour mobility—the likelihood of starting a new job—and job stability—the likelihood that a job will continue for a prescribed length of time—of Canadian men and women aged 20 to 54. The paper shows that the profile of new hires mostly reflects traditional occupations held by men and women. Contrary to the perception that women have weaker ties to their job, this paper shows that women are just as likely to hold onto their job as men. It examines the population groups that have been behind the convergence in job stability between men and women over the past few decades. Lastly, the paper addresses how the patterns in new hires and job stability contribute to our understanding of gender wage gap in Canada.

Highlights

Data from the Labour Force Survey (LFS) covering the period from 1976 to 2018 is used to report on trends in labour mobility—the likelihood of starting a new job—and job stability—the likelihood that a job will continue for a prescribed length of time—of Canadian men and women aged 20 to 54. The paper also addresses how the patterns in new hires and job stability contribute to our understanding of gender wage gap in Canada. The main findings are as follows.

Gender-specific labour market segregation is very stable in Canada as many new hires continue to work in typical male or female jobs. Among newly hired men, 30.6% were hired into trades, transport and equipment operator occupations in 2018. This figure has not changed since 1998. Among newly hired women, 35.0% were hired into occupations such as sales and service and another 17.9% were hired into non-professional business and finance occupations. These figures are also little changed from 1998.

The profile of hires is a good indicator of the occupational structure throughout a generation's working life. The types of occupations into which men and women are hired mirror the occupational distributions of the entire male and female workforce—that is, how the total male and female paid workforces are divided across the different occupations. Just over one in four men are employed in trades, transport and equipment operator occupations. Women continue to be disproportionately concentrated in sales and service (26.0%) and in non-professional business and finance occupations (17.7%).

Contrary to the perception that women are less attached to their job, the results show that along many dimensions, women are just as likely to hold onto their current job as men—whether these jobs are new starts, on-going jobs, or new jobs that continue for five years.

Female-dominated occupations—defined as over 70% of occupation is female—have, on average, more job stability than male-dominated occupations—defined as less than 30% of occupation is female—about 82.9% and 76.7% in all jobs respectively.

Examining detailed occupations, women in health and education professions have higher levels of job stability (85.8% and 92.5% respectively) than men in trades, transport and equipment operators (76.3%). The retention rate in new job starts is much lower in male-dominated occupations compared to female-dominated occupations (52.0% and 62.0% respectively).

The presence of young children still shapes the employment decision of women in Canada but to a lesser extent than it did in the past. In the late 1980s, women with young children had a lower probability of remaining with their employer than their male counterparts in 2018 (72.5% vs. 84.5%). By 2018, there was no longer any meaningful difference in the retention rate of mothers and fathers with young children.

Gender wage gaps are smaller among new hires than within the entire workforce. Newly hired men earned more than newly hired women in some but not all occupations. New hires in occupations such as business and finance, health, education and law saw little or no gender difference in wages owing to the fact that men and women require similar qualifications (in terms of experience and education) to gain employment into the occupation.

The narrow gender wage gap among new hires did not have a lasting effect. Five years following a new job start, the gender wage gap widened in most detailed occupation groups with the exception of professional occupations in natural and applied science where the wage ratio actually increases (or the gap decreased). Results from multivariate regressions suggest that factors other than returns to tenure are contributing to the widening gap in the first five years of a new job.

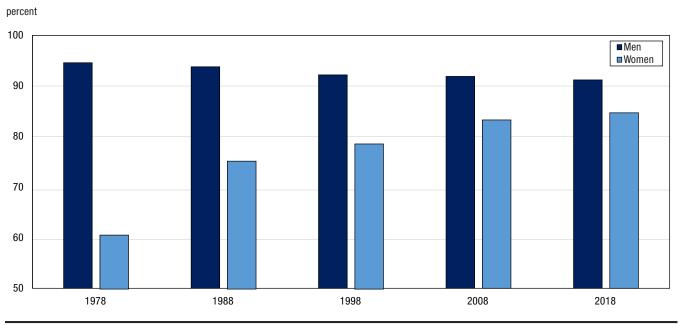
Introduction

A striking feature of the Canadian labour market is the prolonged growth in the number of working women. The participation rate¹ of women aged 20 to 54 in the Canadian labour market increased from 60.9% in 1978 to 84.7% in 2018. While the most dramatic rises occurred during the 1980s, recent decades have witnessed modest increases—about 1.4 percentage points between 2008 and 2018 (Chart 1). The proportion of men and women in paid employment² provides a different vantage point. Starting in the mid-2000s, the gender gap in paid employment diminished significantly (Chart 2), leading some researchers to conclude that the transition of women into the work force is almost complete (Goldin, 2006).

The labour force participation rate is the share of the population that are either working (at work or absent from work) or looking for work. It excludes those individuals not in the labour force. Evidence on the labour force participation rates of Canadian women is provided by Moyser (2017). Drolet, Uppal and Larochelle-Côté (2016) compare the labour force participation rates of Canadian women to their American counterparts.

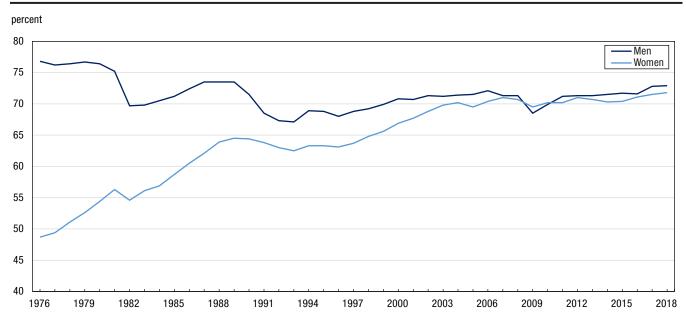
^{2.} Paid employment includes only public and private employees who are working for pay. It excludes the self-employed and unpaid family members.

Chart 1 Labour force participation rate by sex, population aged 20 to 54, Canada, 1978 to 2018



Source: Statistics Canada, Labour Force Survey, author's calculations.

Chart 2 Proportion of population aged 20 to 54 in paid employment by sex, Canada, 1976 to 2018



Source: Statistics Canada, Labour Force Survey, author's calculations.

Yet there remains a perception that women continue to have weaker ties to their employer and to their jobs especially early in their careers. Women in their 20s and 30s experience lifecycle events such as motherhood that make them more likely to experience employment interruptions. The empirical evidence suggests that women's careers are interrupted more frequently than men's careers and for a longer duration (approximately 1.5 years).³ In spite of significant progress with sharing domestic responsibilities, women still remain the primary caregiver for children, taking on more than twice the weekly hours men spend on these activities,⁴ more frequently working shorter weekly work hours and taking time off work for child care and other family responsibilities.^{5,6}

Job stability impacts a number of labour market outcomes—specifically, the accumulation of job-specific skills and wage increases.⁷ For this reason, job stability is a key issue in understanding the development of women's wages.⁸ If women have weaker employment relationships than men (alternatively stated, women are less likely to continue with their current employer), the theory of firm-specific human capital would predict that women who anticipate frequent job changes would more likely invest in general skills that are easily portable from one job to the next or opt for jobs that are easy to enter or have little or no penalty for exiting.⁹ If women are perceived to have a higher propensity to leave or be absent from their job, employers may systematically not hire women into jobs with opportunities for firm-specific training and for promotion.¹⁰

While the debate about the gender pay gap¹¹ continues,¹² there is less discussion of gender differences in *labour mobility*—the likelihood of starting a job—and *job stability*—the likelihood that a job will continue for a prescribed length of time. This paper questions whether Canadian women have weaker ties to their employers than their male counterparts by focusing on long-term trends in *job stability of new and on-going jobs*.

Gender differences in labour mobility and job stability contribute to our understanding of the evolution of gender pay gap in Canada. First, given the importance of gender differences in occupational structure in understanding the gender pay gap, long-run changes in the occupational profile of Canadian men and women start with a changing profile of new hires. Second, since job stability is associated with the accumulation of experience and job-specific skills resulting in higher wages, then gender differences in job stability may be identified as a crucial factor influencing the gender pay gap.¹³

This paper addresses three questions. First, it asks whether gender differences in labour mobility and job stability have disappeared alongside the rising labour force participation and employment rates of women and the narrowing gender pay gap. Second, have gender differences in labour mobility and job stability changed across different demographic groups or by characteristics of the job? And finally, what can labour mobility and job stability patterns tell us about the gender pay gap in Canada?

Data from the Labour Force Survey is used in this paper. Attention is restricted to paid workers aged 20 to 54 who are not full-time students. Restricting the comparison simplifies the analysis, since it minimizes the potential impact of changing school enrolment and age of retirement that took place over the period.

^{3.} See Table 5 in Moyser (2017) using 2011 data from Cycle 25 of the General Social Survey. Not surprisingly, more women have two or more work interruptions than men (33.2% vs. 21.6%) and more women take maternity and parental leave than men (46.8% vs. 3.8%).

^{4.} Moyser and Burlock (2018).

^{5.} The 2018 Labour Force Survey shows that 21.5% of currently employed women were away from work sometime during the reference week compared to 15.7% of men. Women are more likely than men to cite childcare and family responsibilities as the main reason for these short-term absences. In addition, women were more likely to be absent from work long-term than men (4.0% and 8.3% respectively) with women citing maternity leave as the main reason for these long-term absences.

^{6.} Data from the 2012 General Social Survey on Caregiving and Care Receiving suggest that women are over-represented among caregivers to adult family members or friends. See Moyser and Burlock (2018).

^{7.} Other outcomes include access to job-related or employer-sponsored training, promotional opportunities and the provision of employer-sponsored pension plans.

^{8.} Harassment in the workplace may have effects on job tenure, job stability and job satisfaction. Using data from the 2016 General Social Survey, Hango and Moyser (2019) find that women experience workplace harassment slightly more often than men (19% vs. 13%). Women were more likely to report verbal abuse, physical violence and unwanted sexual attention or sexual harassment in the workplace.

^{9.} Becker (1983); Blau, Ferber and Winkler (2014).

^{10.} Blah and Kahn (2017) provide an overview of how labour market attachment has dominated the gender pay gap literature. The traditional view—that women anticipate shorter and more discontinuous work as a consequence of family responsibilities—has led to the notion that women will invest less in human capital and will avoid occupations that require large investments in training. Based on the uncertainty regarding women's productivity, employers may be reluctant to hire and train women. Altonji and Blank (1999) suggest that discrimination is plausible when firms are uncertain about the productivity of their workforce.

^{11.} The term 'gender pay gap' is used here as an umbrella term that captures gender differences in two different measures of compensation (hourly earnings and annual earnings). See discussion in Baker and Drolet (2010) and in Moyser (2019).

^{12.} Differences in the pay of men and women continues to be active area of research. Discussion of the evolution of the gender wage gap in Canada can be found in Pelletier, Patterson and Moyser (2019). Baker and Drolet (2010) and Drolet (2011).

^{13.} Previous empirical research concludes that labour market participation, accumulated work experience and the timing of work experience are key determinants of wages. A significant portion of real lifetime earnings growth occurs shortly after graduation which often coincide with decisions regarding family—so the timing of labour force withdrawal may have important long-run implications on earnings growth of women (Drolet 2003). The convergence of these characteristics across men and women is an important source of the narrowing of the gender wage gap.

Labour mobility

In any given year, there is a small net change in overall employment but a substantial number of workers are hired and separate from their employer. In 2018, there were 110,000 workers aged 20 to 54 added to the Canadian labour market; however underlying this small change in net employment, there were 3.5 million hires and 3.3 million separations. Hires (and separations) reflect pressures from both the demand and supply sides of the labour market. Industrial re-structuring and shifting global trade patterns alter the demand for a firm's product or services while technological change may influence the type of worker a firm employs.¹⁴

Central to this paper is the movement of workers into new jobs. The **hiring rate** is computed by dividing the number of individuals hired—defined as **workers with six or less months of job tenure** with their employer in reference months of June (job starting in January to June) and December (job starting July to December)—by the average number of paid employment observed in June and December in the reference year. These individuals may have been previously employed with another firm or may have recently entered or re-entered the labour market. The LFS does not directly allow for this important distinction.

Starting a new job is a relatively rare event during one's working life—the expected number of new job starts that a worker would have over their lifetime is about 9 firms.¹⁵ Most new starts occur when workers are young: on average, almost 6 new job starts will have occurred by age 30.

This section documents trends in the hiring rates of men and women from 1976 to 2018. The profile of new hires by detailed occupation is examined. The findings from this section suggest that the profile of hires is a good indicator of the occupational structure throughout a generation's working life.

No difference in hiring rates of men and women

We first briefly review the likelihood of starting a new job.¹⁶ Important gender differences in the proportion of the paid workforce that started a new job in a given year were observed in the 1980s and following the 2008/2009 recession (Chart 3).¹⁷ During the 1980s, the higher hiring rate of women relative to men coincided with the strong surge of women entering the labour market and finding paid employment. During this period, the hiring rate of women reached a peak with roughly 4 out of 10 women being newly hired in 1987.¹⁸ It started to decline shortly after and by the beginning of the 1990s, there was virtually no difference in the proportion of men and women starting a new job.¹⁹

Important gender differences were also observed following the 2008/2009 recession. In the years following the recession, employment quickly returned to its pre-recession levels. ²⁰ Men's hiring rates exhibited more volatility in and after 2008. Men's hiring rates recovered quickly to their pre-recession rates due to the fact that the type of jobs held by men were harder hit during the recession (such as jobs in manufacturing, transportation, trades and construction). Women's hiring rates initially fell as rapidly as men's but recovered more slowly. Women's overrepresentation in industries that tend to be less cyclical (health and education) may provide a partial explanation. By 2018, hiring rates for women and men were similar at 24.4% and 25.1% respectively.

^{14.} Lazear and Spletzer (2012) suggest that, at least in the United States, the majority of hires and separations reflect churn, defined as the replacement of departing employees with new ones, rather than hiring for expansion and separations for contraction.

^{15.} The methodology used to compute these statistics come from Hall (1982) and Heisz (2001). Using Labour Force Survey data, the age-specific hiring rate for 11 age groups is computed and then summed across all age groups to compute the expected number of new starts over a worker's lifetime. The number of persons with job tenure of one year or less in January of year t+1 is used as a proxy for the number of new starts in year t.

^{16.} Appendix A provides evidence on gender differences in job separations using the LFS.

^{7.} Official dates of recessions in Canada: June 1981 to October 1982; March 1990 to April 1992; and October 2008 to May 2009.

^{18.} Women's labour force participation rate increased from 60.9% in 1978 to 75.8% in 1988.

^{19.} The drop in hiring rates may partly reflect the fact that job creation is now lower than in previous periods. Data from Longitudinal Employment Analysis Program circa 2015 conclude that exiting and entering firms continue to play a modest role in employment dynamics and that the majority of jobs created come from firms that expand their workforce. Data from Statistics Canada, Table 527-0001–Longitudinal Employment Analysis Program (LEAP), aggregate business dynamics measures, by industry and firm size, annual.

LaRochelle-Côté and Gilmore (2011) report that employment fell faster and recovered quicker compared to previous recessions. LaRochelle-Côté and Gilmore (2009) show disproportionate
job losses among men, younger workers, individuals with lower levels of educational attainment, and workers in specific industries.

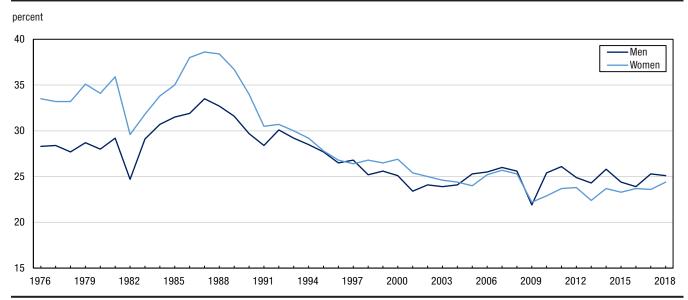


Chart 3
Hiring rate¹ by sex, paid workforce aged 20 to 54, Canada, 1976 to 2018

1. See text for definition and calculation.

Note: The difference between men's and women's hiring rates were found to be statistically significant at the 95% confidence level from 1976 to 1989 and at the 90% confidence level from 2010 to 2013.

Source: Statistics Canada, Labour Force Survey, author's calculations.

New hires mostly reflect traditional occupations held by men and women

Gender differences in occupation continue to be striking but have declined. Women have reduced their overrepresentation in clerical jobs and have made significant inroads in professional occupations. The loss of manufacturing and production jobs primarily held by men and their increased representation in service jobs have also lessened the difference in the occupations held by men and women.²¹

Long-run changes in the occupational profiles of Canadian workers start with a changing profile of new hires. Data in Table 1 show that there was very little change in the majority of occupations when comparing the new hires of men and women over a 20-year period; men and women were hired into jobs that reflect their traditional occupations. This is an important finding since the increasing educational attainment especially among women in Canada was not accompanied by a change in the overall occupational distribution of men and women.²²

Among new hires, men continue to be mainly hired into high turnover occupations like trades, transport and equipment operator. These occupations represented about 30% of new hires in both 1998 and 2018. Roughly half of women were hired in non-professional business and finance occupations and in high turnover occupations such as sales, service and support.

^{21.} LaRochelle-Côté (2014) show that occupational segregation is prominent among Canadian workers who do not hold a university degree. Frank and Frenette (2019) conclude that women continue to be under-represented within the skills-trades and that female apprentices are concentrated in a few female-dominated programs. Societal norms, family considerations and institutional barriers are cited as influencing women's occupational choices (Frome et al. 2006).

^{22.} This paper does not examine the extent to which men and women are overqualified for their job and whether this has changed over time.

Table 1
Profile of new hires by detailed occupation, paid workers aged 20 to 54, Canada, 1997/1998 and 2017/2018¹

	Distribution of new hires		hires	Distribution of employment			Hiring rate ²		Percent female ³			
	1997/1998		8 2017/2018		1997/1998		2017/2018		1997/1998	2017/2018	1997/1998 20	17/2018
	Men	Women	Men	Women	Men	Women	Men	Women				
		per	cent			perc	ent		perd	ent	percent	t
All occupations	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	26.3	24.6	46.4	48.2
Management	5.5	5.8	4.6	3.2	13.3	9.3	10.9	6.5	12.9	11.1	37.7	35.6
Business and finance: Professional	2.3	2.9	3.2	5.2	3.1	3.7	3.7	5.3	20.3	22.7	50.7	57.3
Business and finance: Non-professional	6.2	19.4	6.0	17.9	6.7	23.5	5.9	17.7	22.5	24.7	74.9	73.7
Natural and applied sciences: Professional	5.7	1.4	6.7	2.6	5.5	1.6	7.7	2.8	26.3	22.0	19.9	24.8
Natural and applied sciences: Technical	4.3	1.7	4.9	1.9	4.3	1.4	5.3	1.8	27.3	24.0	22.0	23.8
Health: Professional	0.8	2.5	0.9	3.3	1.2	5.0	1.6	6.3	13.6	13.1	77.9	78.7
Health: Technical and assisting	0.6	3.2	1.0	5.8	0.9	5.0	1.3	7.4	17.2	18.7	82.8	83.8
Education services: Professional	2.1	4.6	2.1	4.5	2.8	5.5	2.6	6.6	20.9	17.3	63.3	70.0
Law and social, community and government												
services: Professional	1.2	1.8	1.5	2.5	1.6	2.2	1.8	3.7	20.1	17.5	53.7	65.7
Paraprofessional in legal and social, community and education; front-line public protection; care												
providers	1.3	8.5	1.0	7.9	2.1	6.6	2.2	7.6	29.2	21.8	72.7	76.7
Art, culture, recreation and sport	2.6	3.3	2.8	3.2	2.3	2.8	2.4	3.1	30.3	26.4	51.1	54.2
Retail sales and service supervisors and specialized												
sales	5.5	5.9	6.2	5.3	5.4	6.1	6.6	7.6	26.2	20.1	49.4	51.4
Sales and service representatives	7.5	16.6	8.9	16.8	5.6	10.9	6.9	10.7	38.5	35.8	62.7	59.2
Sales and service support	7.2	12.0	8.2	12.9	4.9	8.7	5.2	7.7	37.3	39.8	60.5	58.0
Trades, transport and equipment operators ⁴	30.6	2.7	30.6	2.6	26.9	1.7	26.3	2.0	32.4	29.4	5.7	6.4
Industrial, electrical and construction trades	11.0	F	11.2	F	9.4	F	9.8	F	30.5	29.0	3.7	3.7
Transport and heavy equipment operation and												
related maintenance	8.3	F	7.6	F	6.5	F	6.0	F	33.3	31.7	7.7	7.9
Other	12.6	F	11.8	F	11.0	F	10.5	F	30.3	29.0	5.6	8.0
Natural resources, agriculture and related												
production	6.6	1.9	5.0	1.3	3.3	0.8	3.2	0.7	53.4	40.7	17.0	16.2
Manufacturing and utilities	9.0	6.1	6.6	3.1	10.1	5.2	6.5	2.7	25.6	26.1	30.9	27.7

F too unreliable to be published

Source: Statistics Canada, Labour Force Survey, author's calculations.

Particular interest is paid to the share of women in science, technology, engineering and mathematics (STEM) fields. The proportion of women being hired into professional occupations in natural and applied sciences²³ has nearly doubled from 1.4% in 1997/1998 to 2.6% in 2017/2018. While these numbers may seem small in terms of all new hires, their cumulative effect is large: the representation of women in these occupations has increased from 19.9% in 1997/1998 to 24.8% in 2017/2018. Women in professional occupations in business and finance as well as legal occupations share a similar experience.

^{1.} Estimates are weighted averages of two years.

^{2.} Hiring rate is calculated with men and women combined.

^{3.} Percent female refers to the proportion of all paid workers in occupation that are women.

^{4.} The subgroups within the occupation 'Trade, transport and equipment operators' are not estimated for women due to the small number of women in these occupations.

^{23.} Women have increased their representation in all types of professional natural and applied scientific occupations—such as physical science, life science, engineers, architects and urban planners, and mathematicians, statisticians and actuaries—with the exception of those in computer science, where their representation has actually declined over time. Yet despite women's increasing educational attainment and participation in scientific occupations, women are still under-represented in STEM fields. For more information on the Canadian experience, see Turcotte (2011) and Dionne-Simard, Galarneau and LaRochelle-Côté (2016).

^{24.} Much of the research on women in STEM fields concentrates on "leaks" in the STEM pipeline. Frank (2019) shows that about one-quarter (26.4%) of male STEM graduates who were employed in a STEM occupation in 2006 had moved to a non-STEM occupation by 2016, compared with more than one-third of women (34.7%). The gender gap was greatest among those who studied physical or chemical sciences and mathematics and computer science. There was no gap among those who studied engineering and engineering technology.

Job stability

Job quality encompasses wages, hours and job duration. While there is substantial empirical evidence on gender gaps in wages and hours, less is known about gender differences in job stability. This paper focuses on the preferred measure of job stability that uses retention rates or the conditional probability that a job will continue for a specified period of time given that it has reached an given level of tenure (see the Data sources, methods and definitions section).²⁵

Job stability impacts a number of labour market outcomes—specifically, the accumulation of job-specific skills and wage increases.²⁶ For this reason, job stability is a key issue in understanding the development of wages. The motivation of this section is to advance our understanding of trends in job stability of men and women in both new and on-going jobs.²⁷

If women have less durable employment relationships than men (alternatively stated, women are less likely to continue with their current employer), then Becker's theory of firm-specific human capital would predict that women who anticipate frequent job changes would more likely invest in general skills that are easily portable from one job to the next or opt for jobs that are easy to enter or have little or no penalty for exiting.²⁸ If employers engage in 'statistical discrimination' then the perception of women as 'less stable' could lead to employers to systematically not hire women into jobs with opportunities for firm-specific training and for promotion.²⁹ These considerations suggest that if women are less attached to their employer, then their wages would likely be lower as well.

Women are as likely to continue with their current employer as men

Data show that women are more likely than men to hold onto a new job the following year. About 55.0% of women who started a new job in the late 1970s (1977 to 1978) held onto their job the following year compared with 47.2% of men (Chart 4). The one-year retention rate of a new job rose throughout the 1990s. By 1998, half of men (50.6%) and women (56.1%) who started a new job held onto their job the following year. While job stability increased for both men and women throughout the 2000s, the gender difference in job stability remained constant. By 2018, however, the gender gap had disappeared due to the increase in job stability of men starting in 2015.³⁰

^{25.} Heisz (2005) discusses the caveats of job tenure for measuring job stability. Job tenure uses information on the inflow (or outflow) of workers along with the survival rates (or the probability that a job begins and lasts for a specified time). If there is a surge in new hires, average tenure may decrease even though job stability may not have changed. Take for example, women's labour force participation rose from 61% in the late 1970s to about 76% by the late 1980s while that of men declined by less than one percentage point. This change meant that on average women were in the labour force for a shorter period of time and will have had shorter job tenure as a result compared to those of men. With this surge in new hires, average tenure decreased—it does not tell us about job stability or the probability that a new job start will last. See Appendix B Evolution of gender differences in job tenure as an alternative measure of job stability.

^{26.} Other outcomes include access to job-related or employer-sponsored training, promotional opportunities and the provision of employer-sponsored pension plans.

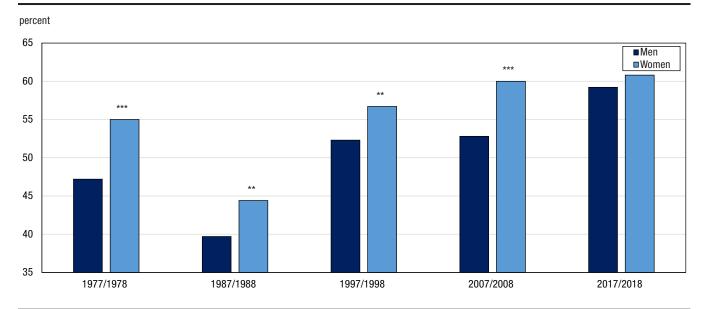
^{27.} Previous Canadian research on job stability described changes over the business cycle and compositional effects until the mid-2000s (Heisz 2005; Brochu 2013). A similar methodology is adopted in this paper allowing for comparisons to these earlier periods.

^{28.} Becker (1983); Blau, Ferber and Winkler (2014).

^{29.} Altonji and Blank (1999) suggest that discrimination is plausible when firms are uncertain about the productivity of their workforce.

^{30.} Declining oil prices in the mid-2010s would have had a larger impact on men's job stability than on women's.

Chart 4
One-year retention rate¹ in new jobs by sex, paid workforce aged 20 to 54, Canada, selected years



^{1.} Estimates are weighted average of two years.

Note: The difference between men's and women's retention rates was found to be statistically significant at the ** 95% or *** 99% confidence level. Source: Statistics Canada, Labour Force Survey, author's calculations.

Similar trends are found regarding the likelihood that a new job will last for five years (Chart 5). Women are slightly more likely than men to hold onto a new job for the next five years. Both men and women have experienced modest increases in their five-year retention rate throughout the period. The gender difference in job stability reached a peak in 2005-2009, with about 25.5% of men and 28.9% of women who started a new job holding onto their job for the next five years.

percent 35 ■Men ■Women 30 ** 25 20 15 10 5 0 1980/1984 2010/2014 1985/1989 1990/1994 1995/1999 2000/2004 2005/2009

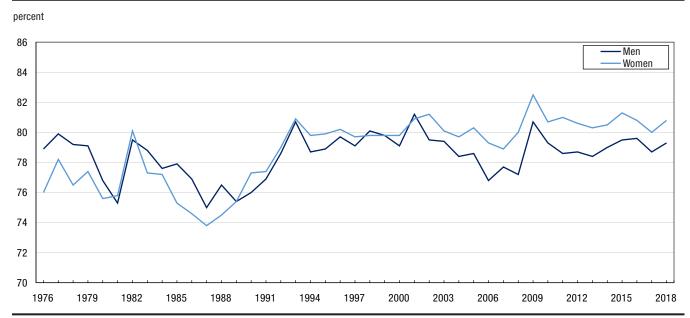
Chart 5
Five-year retention rate in new jobs by sex, paid workforce aged 20 to 54, Canada, 1980 to 2014

Note: The difference between men's and women's retention rates was found to be statistically significant at the * 90% and ** 95% confidence level. Source: Statistics Canada, Labour Force Survey, author's calculations.

The average one-year retention rate for all jobs in-progress is shown in Chart 6 for men and women separately. Consistent with Heisz (2005) and Brochu (2013), the data show a clear countercyclical pattern prior to the mid-1990s. Retention rates increased during the 1990s and remained high. During the 2000s, retention rates declined slightly until 2008 and then rose slightly after possibly reflecting the fact that there were fewer job opportunities available during recessionary periods.

Central to this paper, the one-year retention rates for women are similar to men. Starting in 2003, women's one-year retention rates were slightly higher than of men. This was mostly due to the larger relative drop in the average one-year retention rate for men. There remains a 'muted' cyclical element during the recessionary period of 2008/2009: workers are more likely to hold onto their jobs since there are fewer job opportunities (Brochu 2013).

Chart 6
One-year retention rate in all in-progress jobs by sex, paid workforce aged 20 to 54, Canada, 1976 to 2018



Note: The difference between men's and women's retention rates was found to be statistically significant at the 95% confidence level from 1976 to 1980, 1985 to 1989 and from 2004 onwards. Source: Statistics Canada, Labour Force Survey, author's calculations.

Results by age and education (Table 2) show the expected results, for both men and women, that retention rates are higher among older workers than younger workers and higher for those with a university degree than for those with a high school diploma or less. There is very little gender difference in retention rates by age or education level. The age gap in retention rates declined for both men and women between 1998 and 2018 due to an increase in retention rates for younger workers and a decrease for older workers. The decline in the retention rate for women with a high school education contributed to the growing gap in retention rates between education levels for women.

Table 2
One-year retention rates,¹ all in-progress jobs by sex and selected characteristics, paid workers aged 20 to 54, Canada, 1997/1998 and 2017/2018

	M	en	Women	
	1997/1998	2017/2018	1997/1998	2017/2018
	pero	ent	percent	
Overall	79.6	79.0	79.7	80.4
Age				
20 to 29 years	61.1	63.4	61.0	63.2
30 to 39 years	80.7	82.5	81.0	83.4
40 to 54 years	90.0	86.9	91.2	88.5
Education				
High school or less	76.3	75.4	77.5	76.1
Postsecondary certificate or diploma	79.9	78.8	81.0	79.9
University degree	83.7	82.5	81.7	83.0

^{1.} Estimates are weighted average of two years.

Source: Statistics Canada, Labour Force Survey, author's calculations.

To sum up, there is little difference in overall job stability—as measured by average one-year retention rates, by one-year retention rates in new jobs, and by 5-year retention rates in new jobs—between men and women during the 1998 to 2018 period.

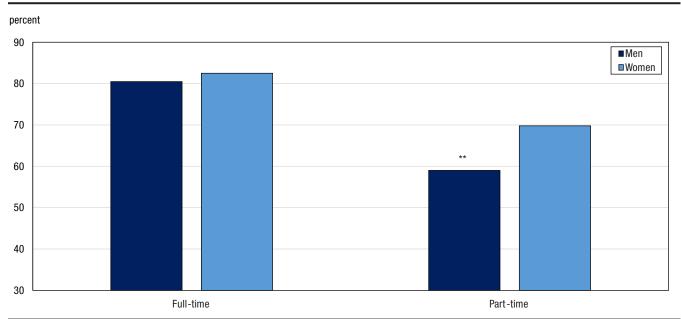
Next, trends in one-year retention rates for sub-groups of demographic and job characteristics are examined. Comparisons over a 20-year period—a period long enough for new cohorts of workers to enter and older cohorts to exit the workforce—provide evidence on recent trends in the Canadian labour market.³¹

Among part-time workers, job stability higher for women than men

While the majority of both men and women work full-time, more women work part-time than men.³² The decision to work part-time or full-time hours reflects a broad range of factors including family responsibilities, employment opportunities, financial obligations, work schedule preferences and work-life balance.

Compared to part-time work, full-time work is associated with higher levels of job stability for both men and women—about 4 in 5 full-time workers remained with their employer the following year (Chart 7). In contrast, women working part-time are much more likely to continue with their employer than men working part-time (69.8% and 59.0% respectively). The gap in job stability between full-time and part-time workers is smaller among women (12.7 percentage points) than men (21.5 percentage points).

Chart 7
One-year retention rate in full-time and part-time jobs by sex, paid workforce aged 20 to 54, Canada, 2017/2018



Note: The difference between men's and women's retention rates was found to be statistically significant at the ** 95% confidence level. Source: Statistics Canada, Labour Force Survey, author's calculations.

^{31.} Retention rates in years close to business cycle peaks (when unemployment rates are relatively low) are compared so that any change in retention rates would reflect a change in job stability, all else equal.

^{32.} In 2018, 16.5% of employed women worked part-time compared to 5.5% of men. Put another way, 74.5% of part-time workers were women in 2018 down from 81.1% in 1998.

The higher retention rate among women working part-time likely reflects several factors. First, given that a greater proportion of men than women worked part-time *involuntarily* (24.5% vs. 12.8% in 2018) —meaning that men wanted and searched for full-time work—it is not surprising that men would be more likely to leave their current employer if they received an offer of full-time work. Second, part-time work for women is often viewed as a way to balance the demands of family and work. About one-quarter of women reported caring for children as their reason for working part-time compared to 4.0% of men. Women are likely to remain with their current employer if they are satisfied with their work arrangement. Third, gender differences in the occupational profiles of part-time workers have an important impact on the aggregate retention rate reported in Chart 7. There is a substantial portion of part-time workers—both men and women—in low-wage, low-skill occupations that are subject to high worker turnover (as noted in earlier) and to lower than average retention rates (as noted later). For women, part-time work is also concentrated in professional and technical occupations that offer higher job stability. The fact that a subset of part-time women workers have higher job stability may partly explain why women working part-time have higher retention rates than their male counterparts.

Female-dominated occupations have, on average, more job stability than male-dominated jobs

Table 3 shows how retention rates vary by occupation. Female-dominated occupations (82.9%)—defined as occupations where the proportion of female workers is over 70%—have, on average, more job stability than male-dominated occupations (76.7%). Examining detailed occupations, female-dominated occupations in health (87.0%) and education professions (92.5%) have higher levels of job stability than those in trades, transport and equipment operators largely dominated by men. The gap in retention rates is even higher for new job starts, reaching 10 percentage points on average (62.0% vs. 52.0%).

When women are employed in a male-dominated occupation, their average one-year retention rate is similar to their male peers (about 76%). When men are employed in female-dominated occupations, their average one-year retention rate is similar to those of women (about 83%). This suggests that the skills and responsibilities of the occupation have a greater impact on the occupation-specific retention rate than who works in those occupations.

Table 3
One-year retention rates¹ by detailed occupation, paid workers aged 20 to 54, Canada, 2017/2018

		Average one-year retention rate			
	Percent female ³	All in-progress jobs	New job starts		
Occupations		percent			
Management	35.6	89.8	91.8		
Business and finance: Professional	57.3	84.0	76.1		
Business and finance: Non-Professional	73.7	79.0	56.8		
Natural and applied sciences: Professional	24.8	83.3	72.7		
Natural and applied sciences: Technical	23.8	81.6	62.6		
Health: Professional	78.7	87.0	73.6		
Health: Technical	83.8	85.8	77.2		
Education services: Professional	70.0	92.5	68.3		
Law and social, community and government services: Professional	65.7	80.8	82.1		
Paraprofessional in legal and social, community and education; front-line public protection; care providers	76.7	78.2	65.5		
Art, culture, recreation and sport	54.2	70.6	59.7		
Retail sales and service supervisors and specialized sales	50.6	82.0	75.5		
Sales and service representatives	59.2	71.4	64.3		
Sales and service support	58.0	68.5	57.1		
Trades, transport and equipment operators	8.0	76.3	49.8		
Natural resources, agriculture and related production	16.2	73.7	44.7		
Manufacturing and utilities	27.7	78.9	57.7		
Female-dominated occupations		82.9	62.0		
Male-dominated occupations		76.7	52.0		
Mixed occupations ²		77.9	61.0		

^{...} not applicabl

Source: Statistics Canada, Labour Force Survey, author's calculations.

^{1.} Gender-specific retention rates are reported based on the gender dominance of occupation.

 $^{2. \} Retention \ rates \ for \ mixed \ occupations \ are \ weighted \ averages \ of \ male \ and \ female \ retention \ rates.$

^{3.} Percent female refers to the proportion of all paid workers in the occupation that are women.

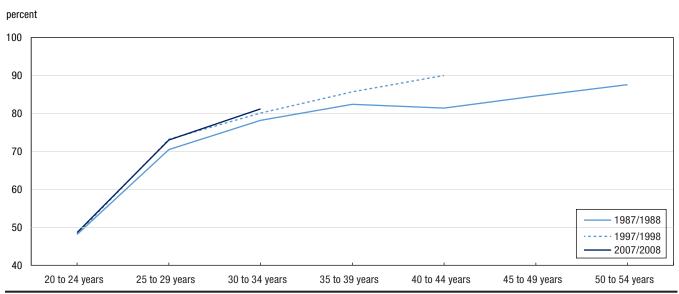
More recent cohorts of women have more job stability than older cohorts

It is well-documented that when a cohort enters the labour market has an impact on labour market outcomes such the increase in labour force participation rates of women (Schirle 2008) and the narrowing of the gender wage gap (Baker and Drolet 2010). Chart 8 shows the average one-year retention rates of in-progress jobs by selected cohorts of women.

More recent cohorts of women appear to have more job stability than older cohorts after the age of 35.³³ Variations in job stability seem to reflect the fact that the different cohorts experience peaks and troughs in the business cycle at different ages.³⁴ Those entering the labour market in the late 1980s experienced a recession very shortly (within 5 years) after entering the labour market, compared to those entering the labour market in the late 1990s (who experienced an economic downturn when they were in their late 20s or early 30s). The slow recovery during the 1990s, changes in parental and maternity leave policies in the early 2000s, and the fact that men were harder hit during the 2008/2009 recession may partly explain the differences in job stability between those two cohorts.

An interesting observation in Chart 8 is that the 1987/1988 cohort does not experience as steep of an increase in their one-year retention rate during their late 20s and early 30s compared to the other cohorts. Could these observations be related to the presence of young children in the home?

Chart 8
One-year retention rate,¹ all in-progress jobs, women, paid workforce by cohort, Canada, selected years



^{1.} Estimates are weighted average of two years.

Note: Starting with the age group 35 to 39 years, the difference between the retention rates of the 1997/1998 and 1987/1988 cohort was found to be statistically significant at the 95% confidence level.

Source: Statistics Canada, Labour Force Survey, author's calculations.

Little difference in remaining with current employer of moms and dads with young children

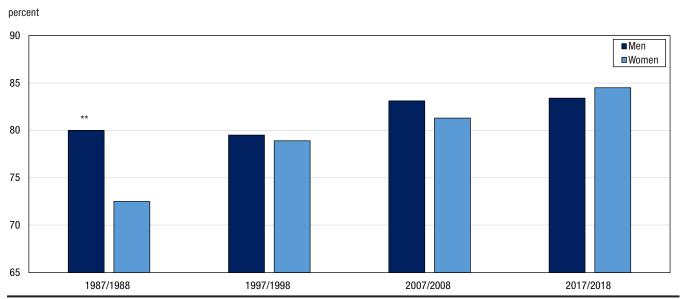
The presence of young children still shapes the employment decision of women in Canada but to a lesser extent than it did in the past. As in previous decades, in 2018, mothers with young children (5 years and under) continued to have lower employment rates (72.2%) than women without children (83.2%) or other mothers (82.0%). Between 1998 and 2018, their employment rate grew by 7.8 percentage points. The presence of children and the age of the youngest children has less of an impact on men's employment rates.³⁵

^{33.} A similar analysis is conducted for the male sample. The results show that the retention rates do not vary by cohort.

^{34.} Period effects refer to events that occur at a particular point that affects all ages and all cohorts. Cohort effects refer to a change which characterizes populations born at a particular point in time. It is independent of the aging process. Age effects refer to life-course experiences related to one's chronological age.

^{35.} See discussion in Moyser (2017). The numbers presented here are slightly different since the focus here is on mothers aged 20 to 54.

Chart 9
One-year retention rate of all in-progress jobs for parents with at least one child 5 years and under by sex, paid workforce aged 20 to 54, Canada, selected years



Note: The difference between men's and women's retention rates was found to be statistically significant at the ** 95% confidence level. Source: Statistics Canada, Labour Force Survey, author's calculations.

The traditional view suggests that gender roles within the household and women's continued greater responsibility for non-market work negatively affects their labour force attachment. Prior to extended parental leave legislation introduced in the early 2000s, the birth of a child may have led more women to quit their current job either by entirely withdrawing from the labour force or by switching to a more family-friendly job.³⁶ In the late 1980s, women with young children had a lower probability of remaining with their employer than their counterparts in 2018 (72.5% vs. 84.5%). This is consistent with other findings namely, that 90% of new mothers in 2017 who planned to return to work within 18 months intended to return to the same employer.^{37,38}

Equally salient, there is no longer any meaningful difference in the retention rate of mothers and fathers with young children (Chart 9). This could be explained in a number of ways. First from a human capital perspective, mothers and fathers with young children may share more similar characteristics now than they did in the past.³⁹ Second, the availability of maternity and parental leaves could signal a widespread changes occurring in workplaces and in the labour market reducing barriers and discrimination faced by mothers. Finally, changes over time in women's retention rates raise the issue of selection bias. Changing employment rates of young mothers would constitute a selection bias if working moms in the 1980s differed from working moms in the 2010s. Today's employed mother may be "positively selected into employment" due to their higher educational attainment increasing the relative cost of either separating from the current employer or taking time out of the labour market.

^{36.} A family-friendly job is one in which employers offer an environment that allows workers to balance work and family obligations. Examples may include extended maternity or parental leave, flexible work arrangements, compassionate leave, other paid leave, and employee assistance programs.

^{37.} Data from the Employment Insurance Coverage Survey 2017. "Mothers receiving maternity and parental benefits, 2017" Statistics Canada, Catalogue no. 11-627.

^{38.} It is recognized that not all workers have the same access to workplace flexibility. Using Canadian data form the Workplace and Employee Survey, Fuller and Hirsh (2018) examine the temporal and spatial organization of jobs related to motherhood wage gaps. They conclude that flexible work arrangements offset motherhood penalties.

^{39.} Examples include educational attainment and job tenure.

Insights to the gender wage ratio

Differences in the pay of men and women remain persistent and pervasive. The gender wage ratio—that is, the ratio of women's average hourly wages relative to men's—among workers aged 20 to 54 has yet to reach parity (although it increases from 81.8% in 1998 to 87.5% in 2018). Results from Pelletier, Patterson and Moyser (2019) show that the share accounted for by occupation increased from 1.8% of the 1998 wage gap to 5.1% of the smaller 2018 wage gap. Although occupational upgrading contributed to the narrowing of the gap between the two years, the earnings of men grew faster than those of women in a number of occupations.

Gender differences in actual work experience and labour market attachment are central to discussions about the gender wage gap. Differences in actual work experience account for a substantial but shrinking portion of the gender wage gap.⁴¹ Alongside actual work experience, gender differences in household responsibilities, in work absences, in training and promotional opportunities can help explain part of the gender wage gap.⁴²

This paper has shown that Canadian men and women are for the most part, equally mobile and that their jobs are equally stable. So, what can this tell us about the gender wage ratio?

Table 4
Gender wage ratios¹ by occupation, selected groups of paid workers aged 20 to 54, Canada, 2012/2013 and 2017/2018

	Workers in 2012/2013 not in a new job	Workers who started job in 2012/2013	Workers who started new job in 2012/2013 and held onto job 5 years later in 2017/2018	All workers in 2017/2018
Occupations			ratio	
Management	0.859***	0.907**	0.858***	0.897***
Business and finance: Professional	0.868***	1.037	0.861***	0.879***
Business and finance: Non-Professional	0.917***	0.966	0.884***	0.907***
Natural and applied sciences: Professional	0.932***	0.831**	0.958	0.918***
Natural and applied sciences: Technical	0.886***	0.943	0.801***	0.907***
Health: Professional	0.972	1.040	1.008	0.977
Health: Technical	0.919***	0.990	0.905**	0.902***
Education services: Professional	0.947***	1.006	0.851**	0.892***
Law and social, community and government services: Professional	0.895***	0.934	0.867**	0.946
Paraprofessional in legal and social, community and education; front-line public protection;				
care providers	0.662***	0.870***	0.649***	0.646***
Art, culture, recreation and sport	0.914***	0.920	0.910	0.901***
Retail sales and service supervisors and specialized sales	0.861***	0.870***	0.889**	0.890***
Sales and service representatives	0.806***	0.864***	0.824***	0.819***
Sales and service support	0.862***	0.905***	0.821***	0.906***
Trades, transport and equipment operators	0.793***	0.752***	0.881***	0.791***
Natural resources, agriculture and related production	0.662***	0.743***	0.641***	0.711***
Manufacturing and utilities ²	0.750***	0.770***	0.755***	0.762***

^{1.} The gender wage ratio is calculated as women's average hourly wages expressed as a proportion of men's average hourly wages.

Note: Women's wages are significantly less than those of men at the *** 99% confidence level and ** 95% confidence level.

Source: Statistics Canada, Labour Force Survey, author's calculations.

^{40.} Pelletier, Patterson and Moyser (2019) cover the 1998 to 2018 period and update many findings from Baker and Drolet (2010).

^{41.} See Blah and Kahn (2017) for a general discussion of the literature on gender differences in work experience. Other references include Light and Ureta (1990), Wellington (1993), Kim and Polachek (1994) and Munasinghe, Reif and Henriques (2008).

^{42.} Using data from the United States, Munasinghe, Reif and Henriques (2008) hypothesize that the lower wage return for an additional year of work experience for women than for men is driven by the fact that women are less attached to their jobs than men since women are more likely to quit, receive fewer hours of company provided training and a much higher faction of women do not expect to work at age 35 due to family-related reasons.

First, gender wage ratios are higher (that is, the gap is smaller) among new hires than within the entire workforce. Newly hired men earned more than newly hired women in some but not all occupations (Table 4). Many occupations such as business and finance, health, education and law saw little or no difference. This may reflect the fact that men and women require similar qualifications (in terms of experience and education) to gain employment into the occupation. Some of the initial pay differences may be related the fact that women are less likely to negotiate or to opt for different types of compensation.⁴³

Second, the narrow gender wage gap among new hires did not have a lasting effect. Five years following a new job start, the gender wage gap widened in most detailed occupation groups. For example, in professional occupations in business and finance, there was no difference in the wages of newly hired men and women. Five years later, the ratio declined to 86.1% (or the gap increased to 13.9%). Similar numbers are noted for professional occupations in education.⁴⁴ Wage gaps may widen as time spent with the employer increases if men and women are employed at different levels of hierarchy within the occupation five years later,⁴⁵ if women (men) receive less (more) job-related training, if men earn higher rates of return for each additional year of job tenure than women⁴⁶ or if men and women differ in their abilities to negotiate raises or promotions.^{47,48}

Unfortunately the LFS does not capture information about hierarchy within occupations or job-related training. However, multivariate regression analysis can be used to test whether there is a gender difference in the returns to tenure.⁴⁹ After controlling for age and detailed occupation, the results show that, (1) in general, wages increase with job tenure for both men and women; (2) among more educated workers, the return to tenure was higher for women than men; (3) among workers with low levels of education, men and women have similar returns to tenure; and (4) the return to tenure is lower in 2018/2019 than in 1997/1998. These results suggest that factors other than returns to tenure are contributing to the widening gap in the first five years of a new job.^{50,51} Unexplained factors could include various barriers, unequal treatment and/or discrimination as well as gender differences in productive characteristics that are not fully accounted for by the analysis.

Professional occupations in natural and applied science where the wage ratio actually increases (or the gap decreased) is an exception. Previous research suggests that women were more likely than men to leave STEM occupations⁵² and much of the attrition of women in STEM occupations—at least in the United States—occurred during their first few years on the job.⁵³ Fouad et al. (2017) attribute women's decision to factors such as an interest in applying their skills in another field, a desire to find work that makes a greater contribution to the community, or unmet expectations related to promotions or status within their field. For those women who remain in the occupation, it is likely that they are 'positively' selected or have more durable employer-employee relationships. These women would have earn relatively higher wages otherwise and this would explain the increase in the wage ratio for this occupation.

^{43.} Parent (1999) shows that more productive workers will self-select into jobs where their pay is tied to individual performance. Parent concludes that men and women respond differently to performance-based incentives because family responsibilities prevent women from taking full advantage. Using Canadian data from the Workplace and Employee Survey, Drolet (2002b) shows that high performance workplaces and receipt of additional pay explain a modest port of the gender wage gap. In particular, Manning and Saidi (2010) use data from the British Workplace Employment Relations Survey for 1998 and 2001, women are less likely to have jobs with pay for performance than men.

^{44.} Boudarbat and Connolly (2013) analyzed the experience of five cohorts of Canadian postsecondary graduates from the National Graduate Survey. Their findings show that a pay gap persists even among younger generations and that the pay gap for a given cohort increases over time. Using US data from law school graduates, Noonan, Corcoran and Courant (2005) find that the gender gap in pay is small at the outset of careers and widens as careers lengthen. A similar finding is noted by Bertrand, Goldin and Katz (2010) examining the earnings of MBAs.

^{45.} The LFS does not capture information about hierarchy within occupations. The literature uses a number of concepts such as "vertical segregation," "glass ecilings," "glass escalators," "sticky floors" and "leaky pipeline" to express gender differences in occupational hierarchy. Vertical segregation or "glass ceilings" describes the concentration of women (men) at the lower (higher) end of the occupational hierarchy. "Glass escalators" refer to men being fast-tracked to advanced positions (Williams 1992). "Sticky floors" describe the pattern that women remain concentrated in lower-level positions within organizations (see Booth et al. 2003). The "leaky pipeline" refers to the decrease in women's representation as one moves up the organizational hierarchy (see Schweitzer, Ng, Lyons and Kuron (2011) for a theoretical discussion). Other explanations could include gender differences in job-related training, promotional opportunity or personal choice.

^{46.} Boudarbat and Connolly (2013) show that the gender-based pay gap two years after graduation narrowed among low to middle income earners but widened among workers at high end of the pay scale. They conclude that women still have difficulty breaking through the glass ceiling.

^{47.} Blau and Kahn (2017) cite research that shows that women are less likely to negotiate raises or promotions and that could reduce their pay relative to men's. Schweitzer, Ng, Lyons and Kuron (2011) use Canadian data to show that young women of the millennial generation have lower salary expectations and expect a longer time to promotion than their male counterparts.

^{48.} Also of note is the survey framework. The LFS likely overestimates continuous tenure as temporary or short-term career interruptions while working for the same employer may be more common among women. For example, consider the case where that both a man and a woman report their job tenure with their current employer as five years. During those five years, the women spends one year on maternity leave. In this case, the LFS tenure likely overestimates continuous tenure.

^{49.} Fully interacted regression models (with female dummy variable) were estimated where the dependent variable was the natural logarithm of hourly wages and the explanatory variables included 3 age groups, tenure, tenure squared and 17 occupation groups.

^{50.} Job switching may be an important strategy for increasing wages and may be employed differently by men and women. The data does not allow for this important distinction.

^{51.} For example, missing from this analysis are controls for the workplace. As noted in Drolet (2002b), women are disproportionately represented in low wage workplaces: women earn 15% less than men when the workplace is not taken into account compared to 8% less when controls for the workplace are included. Returns to education and experience are smaller when the workplace is considered suggesting that workplaces offer varying returns to education and experience.

^{52.} Frank (2019).

^{53.} Glass et al. (2013).

Third, here has been very little systematic change in the occupational profile of newly hired men and women over a 20-year period. As a result, occupational differences between men and women continue to be striking. Future declines in the gender wage gap may be difficult to realize since large parts of the gender wage gap are associated with occupational and industrial gender segregation: the jobs occupied by men tend to pay higher wages and the jobs occupied by women tend to pay lower wages.⁵⁴

Fourth, the literature on the motherhood wage penalty has developed on the premise that motherhood reduces women's productivity, lessens their work effort, constrains their work schedules, and reduces their promotion opportunities.⁵⁵ The fact that there is no gender difference among parents of young children in the likelihood of remaining with their current employer sheds light on the interpretation of the motherhood wage penalty. On one hand, it may signal a decrease in differential treatment between men and women in the workplace and in the labour market in general. On the other hand, it suggests that factors other than job stability explain the presence and persistence of gender pay differentials.⁵⁶ Among others, these factors may include penalties for flexibility (such as shorter hours and workforce interruptions), missed promotional opportunities or other differences in the types of job held by men and women. This is consistent with other research findings that women opt for jobs that pay less but offer better working conditions or for positions that they find otherwise gratifying.^{57,58}

Fifth, the high level of job stability among women working part-time may put them at a disadvantage in terms of long-term professional growth and earnings profiles since women in non-standard employment are less likely to receive a promotion or access training relative to women in full-time employment.⁵⁹

Conclusion

This paper attempts to fill a gap in our understanding of gender differences in the Canadian labour market by examining how men and women differ in their labour mobility and job stability patterns. The hiring rate—measured as the proportion of the paid workforce starting a new job—is affected by both job changers and those entering or exiting the labour force. While there is no longer a gender difference in overall hiring rates, the profile of hires by occupation suggests that gender-specific labour market segregation is very stable in Canada as most new hires continue to work in typical male or female jobs. Among newly hired men, about 30% were hired into trades, transport and equipment operator occupations in 2018. This figure has not changed since 1998. Among newly hired women, about 28% were hired into occupations such as sales and service and another approximately 18% are hired into non-professional business and finance occupations. These figures are little changed from 1998.

Gender wage gaps are smaller among new hires than within the entire workforce owing to the fact that men and women require similar qualifications (in terms of experience and education) to gain employment into the occupation. The narrow gender wage gap among new hires did not have a lasting effect. Five years following a new job start, the gender wage gap widened in most detailed occupation groups.

Long-term changes in the occupational profile of Canadian workers start with a changing profile of new hires. This study shows that there is little systematic change in the majority of occupations when comparing new hires of men and women over a 20-year period—a period long enough for new cohorts of workers to enter and older cohorts to exit the workforce. The fact that occupational gender differences continue to be striking among new hires, and that gender wage gaps persist both within and across occupations especially after five years on the job, suggests that the occupational profile of men and women will remain a significant factor in explaining the gender pay gap.⁶⁰ From this, the gender wage gap seems unlikely to vanish in the near term.

^{54.} Schirle (2015) shows that a large portion of the gender wage gap in each province is explained by differences in industry and occupation and identifies gender differences in occupation and industry as an important area of further research.

^{55.} See Blau and Kahn (2017) and references therein.

^{56.} Fortin (2005)

^{57.} Drolet (2002b) shows that Canadian women are slightly more likely than men to work for non-profit organizations and that non-profit organizations pay less than for-profit organizations. This explains a negligible portion of the wage gap in 1999.

^{58.} Sullivan and Mainiero (2007) suggest that gender roles are related to "alpha" and "beta" careers. Men pursue Alpha careers which are described as work-focused, prioritizing career advancement, with relatively less emphasis on family and society. Women pursue Beta careers which focus on balance, compromise and adjustment, with work being a secondary consideration.

^{59.} Zeytinoglu and Cooke (2008).

There is a sizable literature that indicates that female occupations pay less than male occupations with similar measured characteristics (Levanon, England and Allison 2009). Blah and Kahn (2017).

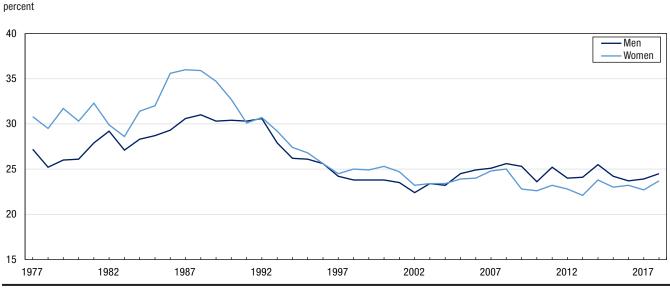
This paper extends our empirical knowledge of women's job stability. Along many dimensions, Canadian women are just as likely to remain with their employer as men. Canadian men and women working full-time no longer differ in the amount of time spent in their current job. The gender gap in short-term jobs has reversed and the gap in the proportion of men and women working in long-term jobs has disappeared. These general trends may increase women's relative wages due to the accumulation of job-related skills or experience. The general convergence in job stability and more specifically between mothers and fathers of young children may signal a widespread changes occurring within workplaces and in the labour market in general. While women's employment rates, hiring rates and retention rates may now be similar to those of men, women still work fewer hours and have more employment interruptions due to child-rearing responsibilities which may perpetuate the perception that women have weaker ties to their employer.

Appendix A: Job separations

Using estimates of hires and estimates of net changes in paid employment from the LFS, estimates of worker separations can be computed *residually* by subtracting net changes in paid employment from hires in the reference year. **Separation rates** in year *t* measure the percentage of workers who separated from (at least) one employer during that year. They are computed by dividing the number of individuals who separated from (at least) one employer by the average number of paid employees observed during those two months.

The separation rate—as measured by the proportion of the paid workforce that ended a job in a given year—followed a similar trend as the hiring rate. For example, in the mid-1980s the separation rate was about 36% for women and 31% for men. By 2018, the separation rates for women and men were 23.7% and 24.5% respectively.⁶¹

Chart A-1
Separation rate¹ by sex, paid workforce aged 20 to 54, Canada, 1977 to 2018



^{1.} See text for definition and calculation

Note: The difference between men's and women's separation rates were found to be statistically significant at the 95% confidence level from 1977 to 1981, 1984 to 1989 and at the 90% confidence level from 2009 to 2014.

 $\textbf{Source:} \ \textbf{Statistics Canada, Labour Force Survey, author's calculations.}$

^{61.} The drop in separation rates may partly reflect the fact that job destruction is now lower than in previous periods. Data from Longitudinal Employment Analysis Program conclude that exiting firms play a modest role in employment dynamics and that the majority of jobs destroyed come from those firms that shrink their workforce. Table 527-0001, Longitudinal Employment Analysis Program (LEAP), aggregate business dynamics measures, by industry and firm size, annual.

Currently not employed and the reasons for exiting employment

Job separations may be the results of quits or layoffs. The LFS collects the reason for leaving or losing a job during the previous twelve months only for those individuals that are not currently employed (either currently unemployed or not in the labour force). **Job losers** are those individuals who were laid-off (either permanently or temporarily) and **job leavers** are those individuals who left their last job for reasons related to job dissatisfaction, personal or family responsibilities, going to school, retirement or other reasons.

For those who held a job in the previous twelve months but who are not currently employed, there are gender differences in the reasons for leaving or losing their last job in 2018. Men are more likely to be job losers than women (about 60.8% vs. 43.2%) while women are more likely to be job leavers (56.3% vs. 39.2%). After losing one's job, personal or family responsibilities were the most common reasons cited by women for leaving their job (19.7% vs. 3.2%) while men were slightly more likely to be dissatisfied with their job than women (13.6% vs. 11.8%).

Appendix B: The evolution of gender differences in job tenure

The LFS asks currently employed respondents "When did ... start working for their current employer?" In-progress job tenure measures the length of an on-going job or the amount of time the job has lasted at the time of the survey. Job tenure or "job seniority" is linked to a number of well-known labour market outcomes: wages often increase with time spent on the job and longer-tenured workers are often protected from dismissals under the "first-in first-out" rule. The tenure effect on wages has its roots in Becker's (1993) description of rewarding firm-specific human capital with higher wages, all else being equal.

This Appendix examines the evolution of gender differences in job tenure. Some commentators equate the increase in women's tenure over time with their greater attachment to the labour market. This interpretation is problematic since measures of job tenure are sensitive to changes in the number of job changers and those entering and exiting the labour force as well as the probability that a job start will last into the future (Heisz 2005). Take for example, women's labour force participation rose from 61% in the late 1970s to about 76% by the late 1980s while that of men declined by less than one percentage point. This change meant that on average, women were in the labour force for a shorter period of time and will have shorter job tenure as a result compared to those of men. With this surge in new hires, average tenure decreased—it does not tell us about job stability or the probability that a new job start will last.

The gender gap in average in-progress duration of full-time jobs has disappeared

The gender gap in average in-progress duration in full time jobs—as measured by the average tenure of currently employed individuals—reversed starting in 2010. (Chart B-1). Women continue to have longer in-progress duration in part-time jobs (about 20 months in 2018). Increases in women's job tenure suggests that women may have fewer or shorter work interruptions over the life course.

months Full-time men ·--- Part-time men Full-time women · - - - · Part-time women

Chart B-1
Average in-progress job tenure (in months), by work hours status and sex, paid workforce aged 20 to 54, Canada, 1976 to 2018

Source: Statistics Canada, Labour Force Survey, author's calculations.

Starting in 1978, the gender gap in average in-progress duration in full-time jobs was 28.0 months. In other words, men working full-time had on average 84.6 months of job tenure compared to 55.9 months for women working full-time in 1978. As women became more attached to the labour market or as they became less likely to withdraw from the labour market (their full-time employment rates rose from 44.5% to 55.1% while men's dropped from 87.0% to 84.6% between 1978 and 1988) the gender gap in tenure dropped to 19.5 months in 1988. Women closed the gap sharply between 1988 and 1998 (to 6.2 months) when women's average tenure increased more rapidly relative to men (21.5 months vs. 8.2 months). After 1998, the gap continued to close due to the steady decline in men's average in progress job duration. Starting in 2010 the gender gap reversed: by 2018, women working full-time now have slightly longer average job tenure (about 5 months longer).

To gain a better understanding of the source of male–female convergence that took place after 1988, it is important to *identify the age groups that have contributed to the change for both men and women*. The overall decline in average in progress job duration for men is largely because of the decrease in tenure among those aged 40 and over (from 152 months in 1988 to 119 months in 2018). For women, most of their increase it due to an increase in the average tenure of women over 40 (from 103.6 months in 1988 to 122.5 months in 2018).

When the change in the overall average tenure of men and women is decomposed into the portion attributable to changes in the rates and the changes in group shares⁶² (Table B-1), the decline in the gender gap is due almost equally to (a) a decline in the average tenure of men aged 40 to 54 that occurred between 1998 and 2018 and (b) an increase in the average tenure of women aged 40 to 54 between 1988 and 1998.⁶³

^{62.} See Data, Definitions and Methods section for a description of the decomposition method.

^{63.} In-progress job tenure increased for women in all education groups but there was little difference across education groups. For men, the decline in job tenure was concentrated among those with low levels of education.

Table B-1
Decomposition of change in average in-progress job tenure, paid workers by age group, Canada, 1988 to 2018

	Changes	Changes among paid workers aged			Total					
	20 to 29 years	30 to 39 years	40 to 54 years							
		percentage points								
1988 to 2018										
Men	-0.1	-4.2	-13.7	10.2	-7.8					
Women	0.1	0.5	8.2	8.2	16.9					
1988 to 1998										
Men	-0.6	2.0	-0.1	9.9	7.2					
Women	-0.2	2.3	10.0	7.9	20.0					
1998 to 2018										
Men	0.4	-2.3	-13.6	0.5	-15.0					
Women	0.3	-1.6	-2.1	0.3	3.0					

Note: Percentages do not always add up to 100 due to rounding.

Source: Statistics Canada, Labour Force Survey, author's calculations.

Distribution of in-progress job tenure has become more similar

Changes in the average in-progress job tenure may be influenced by changes among those with long job and short job tenure. The fraction of workers with tenure of less than 2 years and tenure of more than 10 years is used to illustrate this point (Charts B-2 and B3).

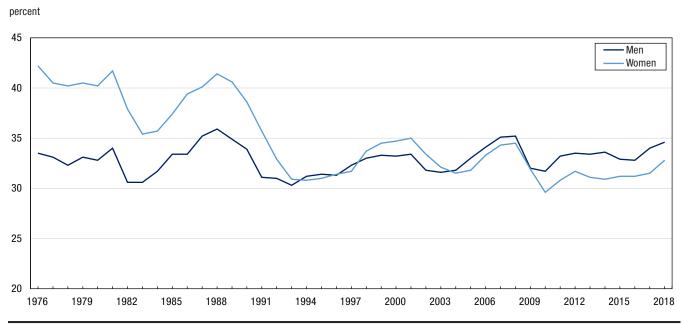
Combining both measures, the gender distributions of job tenure have become more similar over the period. On one hand, the gender gap in short-term jobs has reversed. Until the early 1990s, women were more likely than men to be employed in jobs with an in-progress length of less than 2 years. This is not surprising given that it coincides with the sharp increase in women's employment rates. The 1990s saw no gender difference. Starting in 2009, women were slightly less likely than men to hold jobs of short duration: about 32% of women and 35% of men had been employed for less than 2 years with their current employer in 2018.^{64,65}

On the other hand, the gender gap in long-term jobs has narrowed. Women experienced a long-term increase in their fraction of jobs with 10 or more years of tenure relative to men up until the early 2000s while men experienced a long-term decline (starting in the late 1980s) in the fraction of their jobs considered long-term (from 30.0% in 1988 to 25.4% in 2018). In 2000, the proportion of women in long-term jobs began to decline exhibiting a trend similar to that of men. By the early 2010s, there was no longer any meaningful gender difference in the proportion of workforce in long-term jobs: just over 25% of Canadian men and women have been with their current employer for 10 or more years. These findings are consistent with the fact that the average tenure of older male workers has declined and the average tenure of women has little changed (Table B-1).

^{64.} The proportion of older women (aged 40 to 54) holding a short-term job declined from 26.8% in 1988 to 20.5% in 1998 and has since held steady. Similarly, the proportion holding a long-term job increased from 37.0% to 45.3% between 1988 and 1998 and has since held steady.

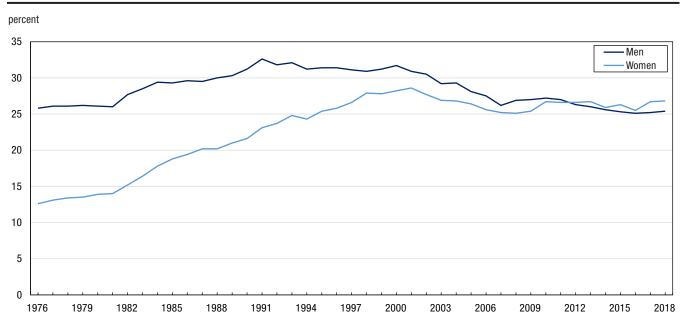
^{65.} The proportion of older men with short term jobs increased from 19.2% in 1998 to 22.4% in 2018.

Chart B-2
Proportion of paid workforce with job tenure of less than two years by sex, aged 20 to 54, Canada, 1976 to 2018



Source: Statistics Canada, Labour Force Survey, author's calculations.

Chart B-3
Proportion of paid workforce with job tenure of ten or more years by sex, aged 20 to 54, Canada, 1976 to 2018



Source: Statistics Canada, Labour Force Survey, author's calculations.

Data, definitions and methods

Data

The Labour Force Survey (LFS) is a monthly cross-sectional survey of 55,000 Canadian households. The LFS collects information on the labour market activities of the population aged 15 and over, excluding residents of collective dwellings, aboriginal settlements and full-time members of the Canadian Forces.

Unless otherwise stated, the sample of interest are respondents **aged 20 to 54 living in the ten provinces** excluding full-time students, the self-employed and unpaid family members. The upper age restriction accounts for changes in the age of retirement (Milligan and Schirle 2008). Full-time students are excluded since their main activity is going to school. Self-employed and unpaid family members are excluded because job tenure is asked differently than for paid workers. Respondents with missing information on job tenure are also excluded. Employees absent from work are included as they still have ties to their current employer.

The LFS follows a rotating panel design, where a household remains in sample for six consecutive months. Attention is restricted to the **June and December survey months** in any given year to ensure that individuals are in the sample only once. Survey weights are adjusted accordingly. Statistics reported in the main body of the paper use the cross-sectional nature of the LFS and are considered representative of the population. Job tenure is asked during the first interview of currently employed LFS respondents and validated in subsequent surveys.

This study uses LFS data from 1976 to 2018, corresponding to the full period of available data at the time of writing. This long time span allows for a comparison between periods.

Definitions and methods

Hiring rates capture movements of workers into firms. They are computed by dividing the number of individuals hired defined as **Workers with six or less months of job tenure** with their employer in reference months of June (job starting in January to June) and December (job starting July to December), by the average level of paid employment observed In June and December in the reference year. Hired individuals may have been previously employed with another firm or may have recently entered (or re-entered) the labour market.

Using estimates of hires and estimates of net changes in paid employment from the LFS, estimates of worker separations can be computed *residually* by subtracting net changes in paid employment from hires in the reference year. **Separations** then represent the number of workers who separated from (at least) one employer in a given year through quits, layoffs or separations for other reasons. **Separation rates** in year *t* measure the percentage of workers who separated from (at least) one employer during that year. They are computed by dividing the number of individuals who separated from (at least) one employer by the average level of paid employment observed during those two months.

Morissette, Lu and Qiu (2013) show that the LFS data and the Longitudinal Worker File (LWF) provide similar estimates of the labour adjustment process in Canada. The LWF consists of a 10% random sample of all Canadian workers constructed from T4 and T1 files from Canadian Revenue Agency (CRA), the Record of Employment (ROE) file from Employment and Social Development Canada (ESDC) and the Longitudinal Employment Analysis Program (LEAP). Tax records are used to measure the number of individuals who start a new job in a given year. The annual number of layoffs in the Canadian economy is estimated through the ROE reason for job interruption or separation as "shortage of work."

Both data sources—the LFS and LWF—have important advantages. The main advantage of the LWF over the LFS is its ability to calculate the annual number of permanent layoffs in the Canadian economy. The LFS does not allow for this important distinction. The LFS has two main advantages over the LWF: its timeliness and its abundance of demographic and job-related characteristics. The LFS data is released the month after collection while the LWF data lags several years. In addition to the LWF characteristics (age, sex, province, firm size and industry), the LFS has detailed demographic (including education, job tenure, marital status and immigrant status) and job-related characteristics (such as occupation, hours of work and union status).

In-progress job duration is the average tenure (in months) of currently employed Canadians. This measure does not reflect the completed tenure of jobs but rather the length of a job at the time of the LFS survey.

For estimates of **job stability**, this paper uses synthetic cohort analysis techniques. These techniques use duration variables (such as job tenure) to compute **retention rates**—which are the conditional probability that a job will continue for a specific period of time given that it has reached a certain initial level of tenure. The assumption is that workers with one year of tenure in the previous survey year are representative of workers with two years of experience in the current survey.

Following the notation of Heisz (2005), the retention rate can be derived using two consecutive cross-sectional surveys as: R $_{t,c} = N_{t,c} / N_{t-i,c-i}$. This is the number of respondents reporting tenure of t in the present survey divided by the number of respondents reporting tenure of t-i in a previous survey. For example, let the number of workers with less than one year tenure in 1998 be N $_{0,1998}$ and the number of workers with between 1 and 2 years of tenure in 1999 be N $_{1,1999}$. The one-year retention rate in 1999 would be calculated as: N $_{1,1999} / N N_{0,1998}$.

The **average one-year retention rate** can be computed using retention rates for five categories of initial tenure (less than 12 months; 12-23 months; 24-107 months; 108 months or more) as:

Average RR = R1(n1/N) + R2(n2/N) + R3(n3/N) + R4(n4/N) + R5(n5/N) where
$$n1/N + n2/N + n3/N + n4/N t n5/N = 1$$
.

A five-year retention rate is computed using the number of workers with less than one year tenure in year t, say $N_{0,1998}$ and the number of workers with between 60 and 72 months of tenure in year t+5 $N^{60-72, 2013}$. The five-year retention rate in 1998 would be calculated as: $N_{60-72, 2013}$ / $N_{0,1998}$.

Stability is added by using the average of two years minimizing the sensitivity of results to the choice of start and end years. This adds stability to retention rates for small sub-groups of the population.

Standard errors are computed following Heisz (2005) and Neumark, Polsky and Hansen (2000) where the retention rate is the proportion of those that survive in the job and the variance is adjusted since synthetic cohort data is used rather than longitudinal data. Following Equation (1) in Neumark, Polsky and Hansen (2000), the standard error is defined as:

$$s = \sqrt{\frac{nsample \ X \ p \ X \ (1-p)}{nrisk^2}}$$
, where p = nsurv / nsample

where *nsurv* is the unweighted count of the surviving group in period c, *nrisk* is the unweighted count of the at-risk group in period c-I, *nsample* is the unweighted count of all workers in period c.

All gender differences noted in this study are statistically significant at the 5% level unless otherwise noted.

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