

Catalogue no. 11-626-X — 2020005 - No. 107
ISSN 1927-503X
ISBN 978-0-660-35200-8

Economic Insights

The Changing Job Landscape, 1981 to 2019

by René Morissette

Release date: June 23, 2020



Statistics
Canada

Statistique
Canada

Canada

How to obtain more information

For information about this product or the wide range of services and data available from Statistics Canada, visit our website, www.statcan.gc.ca.

You can also contact us by

Email at STATCAN.infostats-infostats.STATCAN@canada.ca

Telephone, from Monday to Friday, 8:30 a.m. to 4:30 p.m., at the following numbers:

- | | |
|---|----------------|
| • Statistical Information Service | 1-800-263-1136 |
| • National telecommunications device for the hearing impaired | 1-800-363-7629 |
| • Fax line | 1-514-283-9350 |

Depository Services Program

- | | |
|------------------|----------------|
| • Inquiries line | 1-800-635-7943 |
| • Fax line | 1-800-565-7757 |

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, Statistics Canada has developed standards of service that its employees observe. To obtain a copy of these service standards, please contact Statistics Canada toll-free at 1-800-263-1136. The service standards are also published on www.statcan.gc.ca under "Contact us" > "[Standards of service to the public](#)."

Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued co-operation and goodwill.

Published by authority of the Minister responsible for Statistics Canada

© Her Majesty the Queen in Right of Canada as represented by the Minister of Industry, 2020

All rights reserved. Use of this publication is governed by the Statistics Canada [Open Licence Agreement](#).

An [HTML version](#) is also available.

Cette publication est aussi disponible en français.

The Changing Job Landscape, 1981 to 2019

by René Morissette

This *Economic Insights* article examines how jobs held by Canadian employees have changed over the last four decades, prior to the COVID-19 pandemic. The analysis uses a wide variety of data sets to document the evolution of selected job characteristics from 1981 to 2019. The main finding is that changes in job characteristics over the last four decades have not been uniform for men and women or for young and older workers. Several questions remain. One important question is about the degree to which advances in artificial intelligence and robotics will affect the overall number of jobs and their task content in the coming years. One plausible hypothesis is that the COVID-19 pandemic might accelerate the automation of certain tasks. Likewise, the COVID-19 pandemic might lead to a permanent increase in rates of telework and, more generally, to changes in work arrangements (e.g. shiftwork, configuration of office spaces) that facilitate physical distancing.

While COVID-19 might change the labour market in ways that are still unknown, it is important to provide a long-term perspective on how jobs have changed over the past four decades, prior to the pandemic.

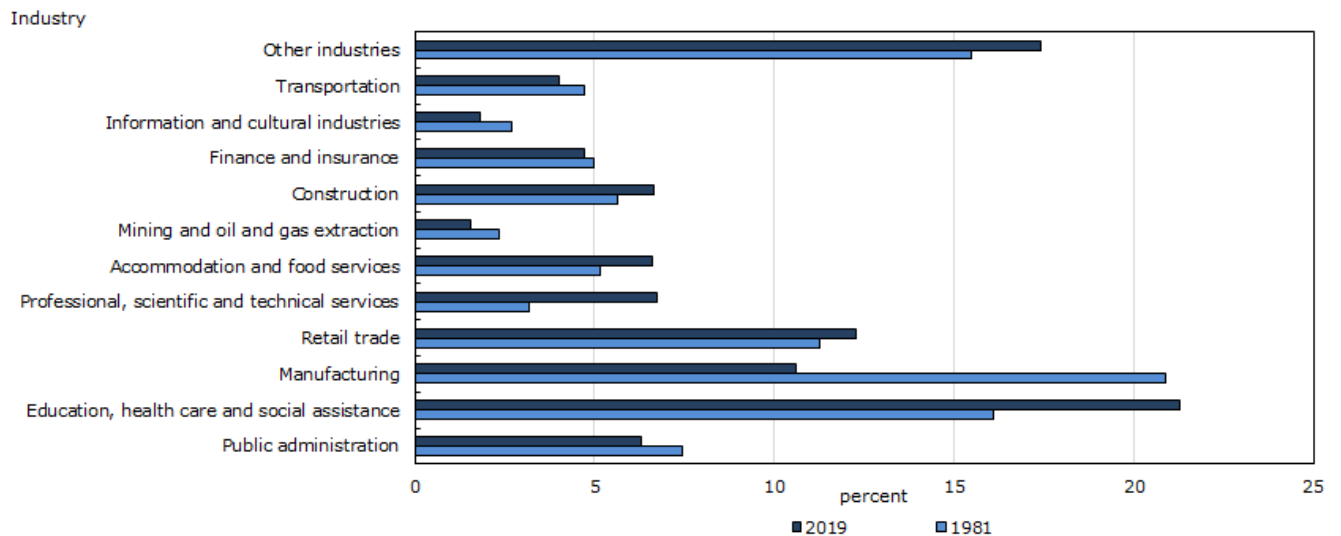
Today's jobs differ from those of the past in several ways. First, the industrial composition of Canadian employment has changed markedly over the past four decades. In 2019, roughly 1 in 10 Canadian employees aged 17 to 64 was employed in manufacturing, down from about 1 in 5 in 1981 (Chart 1). In contrast, proportionally more paid workers were employed in professional, scientific and technical services, as well as in education, health care and social assistance, in 2019 compared with 1981.

The drop in the importance of manufacturing employment has been more pronounced among young men (those aged 25 to 34) and among prime-aged men (those aged 35 to 54) than among their female counterparts. For instance, the share of manufacturing in young men's overall paid employment fell by about 14 percentage points from 1981 to 2019, twice the 7 percentage point decline observed among young women (Table 1).¹

Jobs in education, health care and social assistance have become relatively more important for young and prime-aged women, but not for men. This sector employed 38% of prime-aged women in 2019, up from 31% in 1981. In contrast, the growing proportion of jobs in professional, scientific and technical services is apparent for both sexes and age groups.

1. The manufacturing decline reduced the real wages and the full-year, full-time employment rates of men in census metropolitan areas and census agglomerations from 2000 to 2015 (Morissette 2020).

Chart 1
Percentage distribution of employees aged 17 to 64, by industry, 1981 and 2019



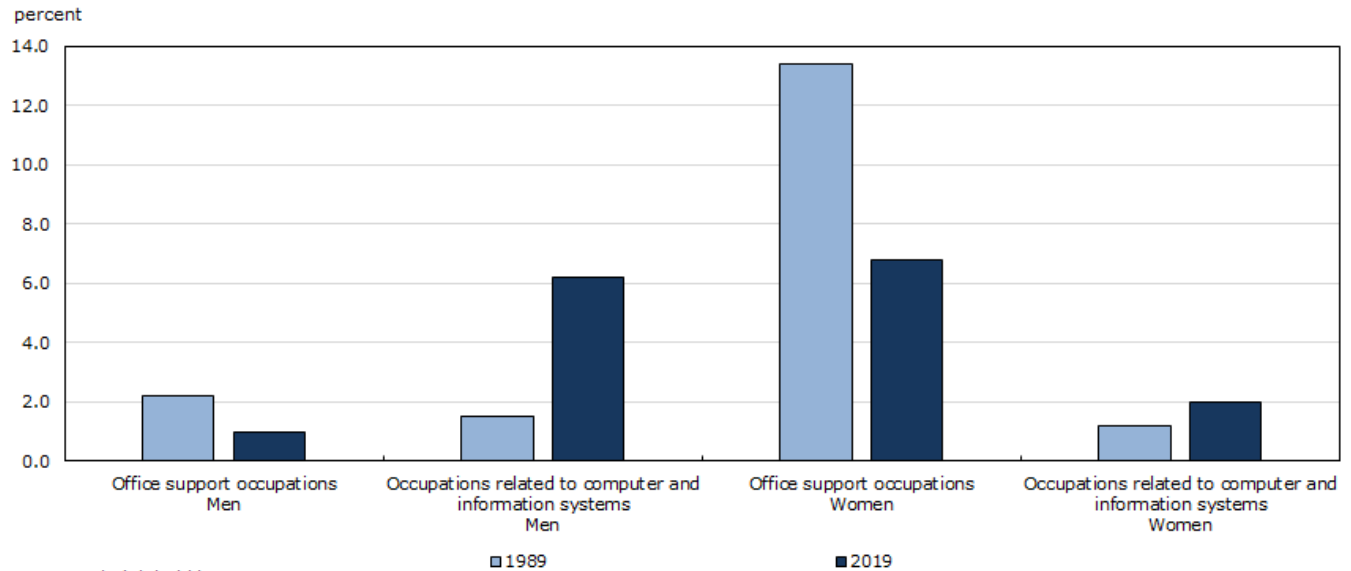
Note: Main job held in May.
Source: Statistics Canada, Labour Force Survey.

Other changes are also worth noting. Young men were more likely to be employed in construction, retail trade, and accommodation and food services in 2019 than they were in 1981. However, proportionally fewer of them had jobs in public administration in 2019. In contrast, prime-aged women have increased their presence in public administration over the past four decades.

As a result of automation driven by the introduction of computer-based technologies, some occupations saw their share of total employment drop significantly. For example, 7% of women aged 17 to 64 were employed in office support occupations (clerical work) in 2019, down from 13% in 1989 (Chart 2). However, the introduction of computer-based technologies has also led to the creation of new jobs. In 2019, 6% of men were employed in occupations related to computer and information systems, up from 2% in 1989.²

2. The increase in computer power and artificial intelligence raises the possibility that future technological changes will lead to the automation of a new set of jobs. In a forthcoming study, Frenette and Frank (2020) quantify the proportion of Canadian workers at risk of automation-related job transformation.

Chart 2
Percentage of employees aged 17 to 64 working in office support occupations and occupations related to computer and information systems, by sex, 1989 and 2019



Note: Main job held in May.
Source: Statistics Canada, Labour Force Survey.

Along with changes in technology, in the intensity of firm competition and in international trade, changes in industrial composition have led to changes in several job characteristics. Overall, jobs were less likely to be full-time, permanent, unionized or covered by a registered pension plan (RPP) in 2019 than they were in the early 1980s.³ For example, the percentage of unionized jobs fell from 38% in 1981 to 29% in 2019 (Table 2).

These changes have not been uniform for men and women. While proportionally fewer male employees had full-time jobs, permanent jobs, unionized jobs or jobs covered by an RPP in 2019 compared with 1981, the percentage of female employees holding full-time jobs or unionized jobs was fairly similar to what it was in 1981. Women’s RPP coverage has, if anything, increased over the past four decades. This increase was driven partly by the growing presence of women in high-paying jobs and in education, health care and social assistance, both of which tend to have relatively high pension coverage.

Furthermore, while the percentage of men covered by a defined-benefit RPP fell by 26 percentage points from 1981 to the late 2010s, the percentage of women covered by such plans declined by only 4 points. As a result, women were more likely than men to have such plans in recent years. In 2017, 29% of women and 21% of men were covered by a defined-benefit RPP (Table 2).

Changes in job characteristics have also not been uniform for younger workers and older workers.

3. Morissette and Drolet (2001) show that the decline in unionization rates and employment shifts toward low-coverage industries account for most of the decline in pension coverage of men and young women from 1986 to 1997.

First, pay rates diverged across age groups.⁴ While median real hourly wages of prime-aged men employed full time grew by 13% from 1981 to 2019, those of young men were almost the same in 1981 and 2019 (Table 3).⁵ Likewise, median real hourly wages of prime-aged female full-time employees increased by 38% from 1981 to 2019, almost twice the 20% increase observed among their counterparts aged 25 to 34.

Second, the percentage of employees holding full-time permanent jobs followed different trajectories for different groups of workers. For example, it fell from 78% in 1989 to 75% in 2019 for young women but increased (from 74% to 79%) for prime-aged women.

Third, unionization rates diverged during the 1981-to-2019 period.⁶ The percentage of employees in unionized jobs fell by at least 16 percentage points for young and prime-aged men, remained fairly stable at about 35% for prime-aged women, and fell only moderately for young women.⁷

The changes documented above occurred in conjunction with changes in work arrangements. Thanks to computer applications that connect workers with job offers through the Internet, gig work has emerged as a new form of employment. Gig workers are usually independent contractors hired for short-term jobs. Contrary to employees, gig workers do not usually have an employer–employee relationship. They include highly skilled freelancers, as well as on-demand workers hired for jobs through a growing number of online platforms.

A recent Statistics Canada study (Jeon, Lu and Ostrovsky 2019) shows that the percentage of workers—employees and self-employed individuals—involved in gig work increased from 5.5% in 2005 to 8.2% in 2016. This increase was observed for men and women (Chart 3) and was driven by growth in the percentage of both workers who had only gig employment income and workers who combined gig work and wages and salaries.

The study also shows that gig work was associated with high worker turnover: roughly half of the people who entered gig work in a given year were not involved in gig work the following year. The share of gig workers was highest among workers whose main occupations were in arts, entertainment and recreation.

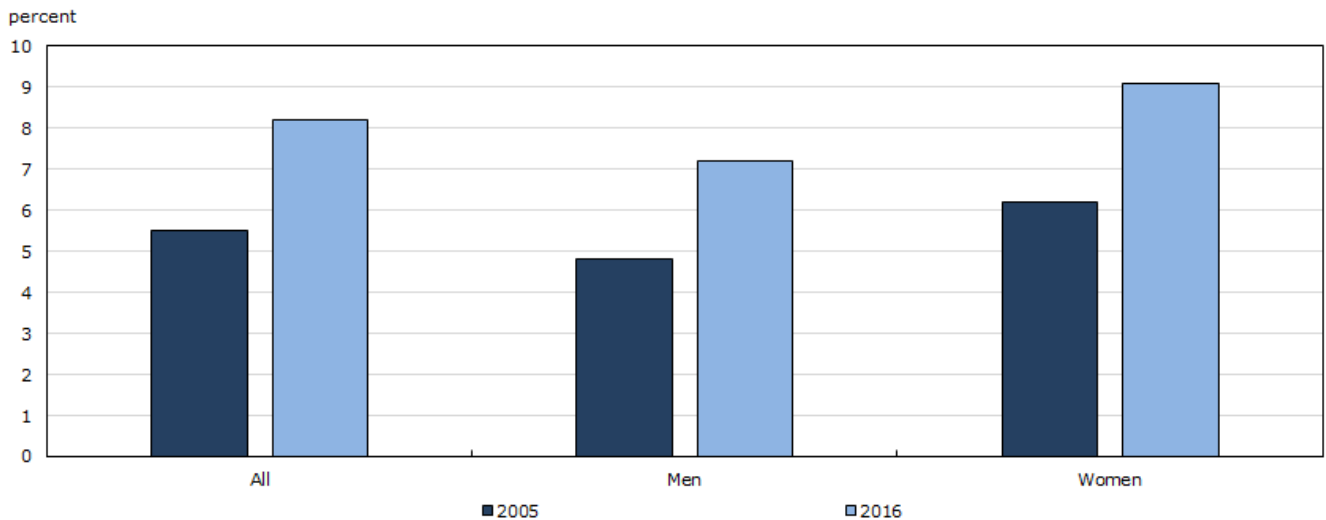
4. See Morissette and Johnson (2005) and Morissette, Picot and Lu (2013) for a detailed analysis of this divergence in pay rates across age groups.

5. Morissette (2018b) documents the earnings trajectories of several cohorts of young workers up to the age of 40. He shows that the degree of wage convergence that recent cohorts of young men have achieved relative to the 1978 cohort depends critically on which segments of the earnings distribution are considered. By the time they reached the age of 40, young men who entered the labour market during the early 2000s and who were at the 75th or 90th percentile of the earnings distribution had higher annual wages than their counterparts who entered the labour market in the late 1970s. The opposite is true for young men who were at the 25th or 50th percentile of the earnings distribution.

6. Morissette, Schellenberg and Johnson (2005) highlight this divergence in unionization rates over the 1981-to-2004 period.

7. For details about the datasets used to compute the numbers shown in tables 2 and 3, see Morissette (2018a).

Chart 3
Percentage of workers involved in gig employment, by sex, 2005 and 2016



Source: Statistics Canada. Jeon, S.-H., H. Lu, and Y. Ostrovsky. 2019. *Measuring the Gig Economy in Canada Using Administrative Data*. Analytical Studies Branch Research Paper Series, no. 437. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.

The many changes observed in the Canadian labour market over the last four decades raises the following question: how does job quality now compare across workers?

A Statistics Canada study (Chen and Mehdi 2018) uses the 2016 General Social Survey to answer this question. The authors show that not all workers were equally represented in high-quality jobs. For example, workers with a high school diploma or less education were more likely than other workers to have jobs with less flexible work schedules, low autonomy, and lack of training opportunities and employment benefits. Likewise, younger workers were more likely than older workers to hold jobs with involuntary and irregular work schedules. Nevertheless, young workers did relatively well in terms of manageable workload and access to informal training.

Several questions remain unanswered. One important question is about the degree to which advances in artificial intelligence and robotics will affect the overall number of jobs and their task content in the coming years. One plausible hypothesis is that the COVID-19 pandemic might accelerate the automation of certain tasks. Likewise, the COVID-19 pandemic might lead to a permanent increase in rates of telework and, more generally, to changes in work arrangements (e.g. shiftwork, configuration of office spaces) that facilitate physical distancing. Subsequent research should attempt to tackle these issues.

The Changing Job Landscape, 1981 to 2019

Table 1
Percentage of employees working in selected industries, by age and sex, 1981 to 2019

Industry	Men						Women					
	Ages 25 to 34			Ages 35 to 54			Ages 25 to 34			Ages 35 to 54		
	1981	1999	2019	1981	1999	2019	1981	1999	2019	1981	1999	2019
	percent											
Public administration	8.3	4.7	4.9	9.6	9.1	7.9	7.7	5.5	5.7	5.6	7.9	7.9
Education, health care and social assistance	9.2	8.0	8.2	10.9	10.1	9.9	30.0	26.2	34.3	30.5	33.8	37.8
Manufacturing	26.5	23.0	12.2	27.4	26.4	16.4	12.0	11.7	5.2	14.1	10.8	6.9
Retail trade	8.3	10.7	11.0	6.0	7.0	8.5	9.8	11.7	10.6	14.1	10.5	9.7
Professional, scientific and technical services	3.6	7.3	9.6	2.5	4.2	8.0	4.8	6.8	8.0	2.8	4.1	6.4
Accommodation and food services	2.5	4.6	5.8	2.0	2.5	3.2	5.7	7.6	6.9	6.9	5.2	4.6
Mining and oil and gas extraction	4.2	1.8	2.8	3.7	2.4	3.0	0.8	0.5	0.6	0.3	0.3	0.6
Construction	8.6	7.6	14.3	9.1	6.6	10.3	1.3	0.9	2.7	2.0	1.1	1.9
Finance and insurance	3.7	3.5	4.5	2.9	3.0	4.7	9.5	8.1	7.0	5.9	7.5	5.7
Information and cultural industries	3.0	3.7	2.2	2.4	3.1	2.5	3.2	3.2	1.7	2.8	3.0	1.6
Transportation	6.4	5.1	4.6	7.8	7.2	6.8	2.6	2.2	2.0	1.5	1.9	2.4
Other industries	15.8	20.1	19.9	15.6	18.4	18.9	12.6	15.5	15.2	13.5	13.9	14.4

Note: Main job held in May.

Source: Statistics Canada, Labour Force Survey.

Table 2
Selected characteristics of jobs held by employees aged 17 to 64, 1981 to 2019

	Percentage of employees with:						Median real hourly wages in:		
	(1) Full-time jobs	(2) Permanent jobs	(3) Full-time permanent jobs percent	(4) Unionized jobs	(5) Registered pension plans (RPPs)	(6) Defined- benefit RPPs	(7) All jobs	(8) Full-time jobs	(9) Part-time jobs
Both sexes							2019 dollars		
1981	87.4	..	..	37.6	44.6	41.8	21.17	22.08	15.18
1989	85.8	92.9	79.7	35.9	42.7	38.7	21.40	22.57	14.61
1999	83.6	88.1	75.9	30.1	40.8	34.5	21.47	22.82	13.23
2007	83.9	86.7	74.9	30.3	38.4	29.5	22.05	23.56	13.78
2017	83.5	85.8	74.0	29.2	37.1	24.9	23.64	25.53	14.67
2019	84.3	87.3	76.0	28.6	..	..	24.04	25.96	15.00
Men									
1981	94.9	..	..	42.1	51.4	47.8	24.15	24.84	13.80
1989	94.0	93.6	87.7	39.2	46.9	42.2	24.78	25.57	12.36
1999	91.6	88.6	83.1	30.5	42.0	34.8	24.11	25.00	11.76
2007	91.4	87.3	81.6	30.0	37.8	28.0	24.50	25.32	12.25
2017	89.3	86.0	79.0	27.4	35.1	21.4	25.72	27.08	13.62
2019	89.9	88.0	81.3	26.8	..	..	25.96	27.15	15.00
Women									
1981	77.2	..	..	31.4	34.8	33.0	17.94	18.43	15.45
1989	76.2	92.2	70.6	32.1	37.3	34.2	18.26	19.10	15.07
1999	75.1	87.5	68.2	29.6	39.4	34.2	19.09	20.59	14.69
2007	76.2	86.0	68.1	30.6	39.0	31.1	20.19	21.54	14.70
2017	77.5	85.6	69.0	31.0	39.3	28.7	22.00	24.09	15.71
2019	78.7	86.7	70.7	30.5	..	..	22.12	24.04	16.00

.. not available for a specific reference period

Notes: Main job held in May. For 1989, columns 2 and 3 refer to employees aged 15 to 64. Columns 5 and 6 refer to all employees, regardless of their age.

Sources: Statistics Canada, 1981 Survey of Work History, 1989 Labour Market Activity Survey, 1989 General Social Survey, Labour Force Survey, Pension Plans in Canada database, and Longitudinal Worker File.

Table 3
Selected characteristics of jobs held by employees aged 25 to 54, by age and sex, 1981 to 2019

	Percentage of employees with:				Median real hourly wages in full-time jobs 2019 dollars
	(1) Full-time jobs	(2) Permanent jobs	(3) Full-time permanent jobs percent	(4) Unionized jobs	
Men aged 25 to 34					
1981	97.9	..	..	43.3	25.83
1989	97.4	94.1	91.2	37.1	24.34
1999	95.1	89.1	85.8	24.2	23.13
2007	95.4	88.2	85.1	26.0	24.50
2019	93.3	88.1	83.6	24.7	26.00
Men aged 35 to 54					
1981	98.4	..	..	46.8	27.40
1989	98.4	97.1	96.3	47.3	29.47
1999	97.1	93.0	91.3	38.3	28.69
2007	96.8	92.1	89.9	35.9	28.73
2019	96.2	93.1	90.4	30.3	31.00
Women aged 25 to 34					
1981	80.5	..	..	34.7	20.03
1989	80.9	93.1	77.8	32.0	20.09
1999	81.2	88.2	73.4	26.1	20.54
2007	83.1	86.4	73.5	29.9	21.62
2019	84.6	86.2	74.5	29.1	24.00
Women aged 35 to 54					
1981	75.0	..	..	34.9	19.32
1989	77.1	93.6	73.8	39.3	20.71
1999	79.0	91.1	73.8	36.4	22.61
2007	81.2	90.5	75.2	35.2	23.56
2019	85.0	91.5	79.4	35.9	26.44

.. not available for a specific reference period

Note: Main job held in May.

Sources: Statistics Canada, 1981 Survey of Work History, 1989 Labour Market Activity Survey, 1989 General Social Survey, and Labour Force Survey.

References

- Chen, W.-H., and T. Mehdi. 2018. *Assessing Job Quality in Canada: A Multidimensional Approach*. Analytical Studies Branch Research Paper Series, no. 412. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.
- Frenette, M., and K. Frank. 2020. *Automation and Job Transformation in Canada: Who's at Risk?* Analytical Studies Branch Research Paper Series. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada. Forthcoming.
- Jeon, S.-H., H. Lu and Y. Ostrovsky. 2019. *Measuring the Gig Economy in Canada Using Administrative Data*. Analytical Studies Branch Research Paper Series, no. 437. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.
- Morissette, R. 2018a. *Changing Characteristics of Canadian Jobs, 1981 to 2018*. Economic Insights, no. 86. Statistics Canada Catalogue no. 11-626-X. Ottawa: Statistics Canada.
- Morissette, R. 2018b. *Wages for Young Workers up to the Age of 40*. Analytical Studies Branch Research Paper Series, no. 405. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.
- Morissette, R. 2020. *The Impact of the Manufacturing Decline on Local Labour Markets in Canada*. Analytical Studies Branch Research Paper Series, no. 440. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.
- Morissette, R., and M. Drolet. 2001. "Pension coverage and retirement savings of young and prime-aged workers in Canada, 1986–1997." *Canadian Journal of Economics* 34 (1): 100–119.
- Morissette, R., and A. Johnson. 2005. "Are good jobs disappearing in Canada?" *Economic Policy Review* 11 (1): 23–56.
- Morissette, R., G. Picot, and Y. Lu. 2013. *The Evolution of Canadian Wages over the Last Three Decades*. Analytical Studies Branch Research Paper Series, no. 347. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.
- Morissette, R., G. Schellenberg, and A. Johnson. 2005. "Diverging trends in unionization." *Perspectives on Labour and Income* 6 (4): 5–12. Statistics Canada Catalogue no. 75-001-X.