Catalogue no. 75-006-X ISSN 2291-0840

**Insights on Canadian Society** 

## **Results from the 2016 Census:** Occupations with older workers



by Bertrand Ouellet-Léveillé and Anne Milan

Release date: July 25, 2019



Statistics Statistique Canada 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, <u>www.statcan.gc.ca</u>.

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:

Fax line	1-514-283-9350
<ul> <li>Statistical Information Service</li> <li>National telecommunications device for the hearing impaired</li> </ul>	1-800-263-1136 1-800-363-7629

- Inquiries line
- Fax line

1-800-635-7943 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 <u>www.statcan.gc.ca</u> under "Contact us" > "<u>Standards of service to the public</u>."

## 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, 2019

All rights reserved. Use of this publication is governed by the Statistics Canada Open Licence Agreement.

An <u>HTML version</u> is also available.

Cette publication est aussi disponible en français.

## by Bertrand Ouellet-Léveillé and Anne Milan

Today, Insights on Canadian Society is releasing a study based on 2016 Census data. This study uses census information on employment and occupation. Additional data from the Labour Force Survey (LFS) are also used to provide a comprehensive picture of the aging of the workforce in Canada.



## Overview of the study

Over the past two decades, the share of the employed population aged 55 and over increased significantly. This study uses Census of Population and Labour Force Survey to examine the changing age composition of workers within the most prevalent occupations (with at least 10,000 workers), as well as the occupations that are increasing and decreasing in size most rapidly.

- The ratio of younger workers to older workers, defined in this study as the number of workers aged 25 to 34 for each worker aged 55 or over, declined from 2.7 in 1996 to 1.0 in 2018.
- The share of workers aged 55 and over in many occupations was smaller for women than for men, reflecting women's more recent entry into certain occupations. For example, the proportion of general practitioners and family physicians aged 55 and over was twice as high for men (38%) as for women (19%) in 2016, up from 25% for men and 7% for women in 1996.
- Workers who provide care to an increasingly older population are themselves aging. Among female registered nurses and registered psychiatric nurses, 1 in 5 were aged 55 and over in 2016, compared with 1 in 10 in 1996. The ratio of younger to older female workers in this occupation declined from 4.5 in 1996 to 1.6 in 2016.
- In some occupations, population aging may be exacerbated by difficulties attracting younger workers, or by structural changes such as increased automation, which decreases the overall number of workers. Among managers in agriculture, for instance, more than half (52%) were aged 55 and over in 2016, and the ratio of younger workers to older workers was 0.2.
- Aging was a smaller issue for fast-growing occupations such as professional occupations in advertising, marketing and public relations. The total number of workers in this occupation grew by 256% from 1996 to 2016, while the share of older workers rose modestly from 8% to 13% over the same period.

## Introduction

It is widely understood that Canada, along with many industrialized countries, has an aging population. This has many consequences for the labour force. Attachment to the labour market generally decreases with age,<sup>1</sup> which reduces the size of the employed population for older age groups. However, an increasing number of older Canadians have remained in, or returned to, the labour force in recent decades. Understanding the labour market activity of individuals who have reached retirement age and the characteristics of older workers is a growing policy and research interest. For example, recent studies have indicated that seniors who had higher levels of education, had no activity limitations, had mortgage payments<sup>2</sup> and lived in rural areas<sup>3</sup> were more likely to work. In addition, reasons for working at older ages were split roughly evenly between choice and financial necessity.<sup>4</sup>

Older workers are increasingly represented in a growing number of occupations.<sup>5</sup> While these workers can possess accumulated skills and experience, an occupation or sector that is characterized by larger shares of older workers can foreshadow challenges that employers may face in competing for potential replacements over the coming decades. In some cases, an occupation with aging workers and relatively few younger workers can be a symptom of industries or trades that are in decline in Canada. This could be because either the activities are declining due to automation or outsourcing, such as occupations in some manufacturing industries, or substitutes are now used more frequently<sup>6</sup>, as in the case of postal workers.

In this study, data from the Census of Population (1996 and 2016) and from the Labour Force Survey, or LFS (1996 to 2018) are used to examine changes in the age composition of occupations (see the Data sources, methods and definitions section for additional details). For the purpose of this analysis, occupations include those with at least 10,000 workers and a comparable classification in both 1996 and 2016. The primary indicators used in this study to measure aging in occupations are the proportion of employed population aged 55 and over, and the ratio of younger workers to older workers, which can also be seen as a measure of occupational renewal.<sup>7</sup> This ratio is defined as the number of employed people aged 25 to 34 over the number of employed people aged 55 and over.

First, this study explores the variation in the number of younger and older workers in broad occupational groups from 1996 to 2018. This is followed by an analysis of three categories of the most prevalent occupations for men and women: occupations usually requiring a university degree, occupations not usually requiring a university degree, and management occupations. This approach is used because the extent and pace of aging of occupations that require a higher level of education, or specific experience or skills, may differ from those of occupations that require a lower level of education. Furthermore, results are analyzed separately for women and men, given their different occupational profiles. Finally, the occupations that grew most rapidly-and those that declined the most-in the 20 years to 2016 are examined.

Being able to identify which occupations—such as nurses and physicians—may be in greater demand as the population becomes older, as well as the extent to which workers in these occupations are themselves aging, is important. It will allow policy makers and planners to better prepare for potential labour demands or shortages, and to develop strategies for occupational rejuvenation.

## Ratio of younger workers to older workers currently near parity

The changing age composition of workers can be observed in the increasing share of older workers (aged 55 and over). According to the LFS, in 2018, the number of older workers (4.0 million) nearly converged with that of younger workers aged 25 to 34 (4.1 million).8 Growth in the number of older workers began to accelerate in 2001, the year that the first wave of the large baby-boom cohort reached age 55 (Chart 1).9 While the number of younger workers increased (+18%) from 1996 to 2018, mostly since 2009, the number of older workers more than tripled (+213%) over the same 22-year period. Consequently, the share of workers aged 55 and over rose from 10% in 1996 to 21% in 2018 (increasing from 8% to 21% for women, and from 11% to 22% for men).10

The ratio of younger workers to older workers gives an indication of the renewal of the employed population. The majority of younger workers have completed the educational requirements necessary for most occupations and can be expected to remain in the labour force for many additional years, while older workers are nearer to exiting the labour force. A ratio greater than 1.0 means that there are more younger workers than older workers, or more relatively recent entrants compared with those expected to leave the labour market more quickly. Conversely, a ratio of less than 1.0 means more exits than recent entries and may indicate a difficulty in replacing retiring workers. A ratio equal to 1.0 indicates that there are as many younger workers as there are older workers. Ensuring an adequate number of replacements for particular occupations may be a challenge because the population under age 35 is seeing virtually no growth.11

This renewal ratio has fallen over time since the growth in the number of younger workers has not kept pace with the increase of older workers

#### Chart 1

Number of younger workers (aged 25 to 34) and older workers (aged 55 and over), 1996 to 2018



### Chart 2 Ratio of younger workers (aged 25 to 34) to older workers (aged 55 and over), Canada, 1996 to 2018



(Chart 2). In 1996, a ratio of 2.7 was observed with LFS data, meaning that there were 2.7 younger workers for each older worker in Canada. By 2018, there was an equivalent number of younger workers and older workers, resulting in a ratio of 1.0. Among the employed population, the ratio in 1996 was larger for women (3.3) than for men (2.4), reflecting the increase in women

Statistics Canada — July 2019

joining the labour force throughout the preceding decades.<sup>12</sup> Over the last two decades, the renewal ratio fell more sharply for women as their labour market entry began to slow, and, by 2018, the renewal ratio was about 1.0 for both women and men.

The ratio of younger workers to older workers varied across occupations (Chart 3). For natural and applied sciences and related occupations, the ratio of younger workers to older workers was 1.7 in 2018—the highest among the broad occupational groups-but one-third of what it was in 1996 (5.3). For women, the drop during the 22year period from 1996 to 2018 was even more striking, falling from 11.2 to 2.1. In 1996, there were few older women in these occupations, but, from 1996 to 2018, women entered these occupations more quickly (+155%) than men (+93%). As these women grew older and were not replaced by younger women at the same pace, the renewal ratio fell. Despite their gains in numbers, women still represented less than one-quarter of workers in natural and applied sciences and related occupations in 2018.

In health occupations, the occupational renewal ratio was 3.6 younger workers for every older worker in 1996, a ratio that more than halved 22 years later (1.5 in 2016). Although the number of younger workers in this occupational category increased by 77% from 1996 to 2016, the number of older workers more than quadrupled (+334%). For more information, see the section titled <u>Growth of health care occupations</u>.

In occupations in manufacturing and utilities, the occupational renewal ratio was 3.4 in 1996. As the number of younger workers declined and the number of older workers more than doubled over time, this ratio decreased to 0.8 in 2018, meaning that the number of younger workers entering these occupations was lower than the number of workers near the end of their working lives. Specifically, the number of workers aged 55 and over increased by about 161%, while the overall number of workers in manufacturing fell from 1996 to 2018, mostly from 2004 to 2009.

In business, finance and administration occupations, the ratio of younger workers to older workers was below 1.0 in 2018 down from 3.1 in 1996. Over the 22year period, the number of younger workers in this broad occupational group was little changed (+2%), while the number of older workers tripled (+236%).

Chart 3

Ratio of younger workers (aged 25 to 34) to older workers (aged 55 and over) by broad occupation group, Canada, 1996 and 2018



Source: Statistics Canada, Labour Force Survey, 1996 and 2018.

## Women mitigating the impact of aging in many occupations requiring a university degree

The extent of aging within occupations from 1996 to 2016 can be examined using data from the Census of Population, since it can provide information at the most detailed occupational level by age and gender. The analysis is divided into three categories of the most prevalent occupations: occupations usually requiring a university degree, occupations not usually requiring a university degree, and management occupations. Only occupations that were comparable over time were analyzed.13 Employers may find it more challenging to replace aging workers in occupations that usually require a university degree, as well as aging workers in management

occupations, since these workers typically require specific education and skills or higher-level experience compared with other occupations. Given the different occupational profile of women and men—women are more concentrated in a smaller number of occupations—they are considered separately.

In 2016, the predominant occupation for women usually requiring a university degree (Skill Level A in the National Occupational Classification [NOC]<sup>14</sup>) was registered nurses and registered psychiatric nurses (Table 1). Among the 263,000 women in this occupation in 2016, 20% were aged 55 and over—the same as the national proportion of older employed women, and double the proportion of older women in this occupation in 1996 (10%).<sup>15</sup> Among female registered nurses and registered psychiatric nurses, the proportion of those aged 25 to 34 increased by 77% from 1996 to 2016, a slower rise than for the older ones (+158%), lowering the renewal ratio from 4.5 in 1996 to 1.6 in 2016. The aging of health care workers creates a particular challenge, because of the increase in demand for health care services brought about by the aging of the population.

The share of workers aged 55 and over was smaller for women than for men in many occupations, reflecting women's comparatively more recent entry into the labour force (Table 2). This has mitigated the impact of aging within certain occupations, such as general practitioners and family physicians. Despite the relatively

Table 1

Most prevalent occupations usually requiring a university degree, women, 1996 and 2016

	1996				2016			
	Workers	Proportion of workers aged 55 and over	Median age	Ratio of younger workers to older workers <sup>2</sup>	Workers	Proportion of workers aged 55 and over	Median age	Ratio of younger workers to older workers <sup>2</sup>
	number	percent	years	ratio	number	percent	years	ratio
Occupation								
Registered nurses and registered psychiatric nurses	214,800	9.6	41.6	4.51	262,500	20.3	42.8	1.56
Elementary school and kindergarten teachers	183,100	7.2	43.7	4.18	238,700	13.8	41.2	2.65
Financial auditors and accountants	52,200	6.4	37.2	4.65	108,400	19.1	43.8	1.35
Secondary school teachers	77,300	7.9	42.7	4.12	94,900	16.0	42.2	2.58
Professional occupations in advertising, marketing								
and public relations	16,200	5.6	36.7	5.45	60,100	10.9	35.7	4.03
Human resources professionals	14,200	3.7	40.2	10.40	53,200	15.1	40.8	1.82
Other financial officers <sup>1</sup>	12,200	6.9	38.8	3.61	51,600	19.5	44.3	1.21
Social workers	28,400	6.1	39.2	3.97	49,200	16.7	41.4	2.22
College and other vocational instructors	46,800	8.1	41.4	4.48	47,200	25.2	46.1	0.65
Lawyers and Quebec notaries	17,600	2.3	35.8	6.06	39,500	15.1	39.9	2.56
Post-secondary teaching and research assistants	12,000	3.4	29.1	23.03	34,000	7.0	28.9	6.71
Professional occupations in business management consulting	12,600	5.2	38.6	3.33	33,800	18.7	43.7	0.99
Business development officers and marketing								
researchers and consultants	12,200	4.4	34.9	8.46	31,900	11.8	38.1	4.28
University professors and lecturers	15,500	14.0	43.2	2.23	28,800	30.3	47.6	0.40
General practitioners and family physicians	11,300	6.8	37.8	7.83	26,500	18.8	40.7	1.47

1. Examples include account managers, financial planners and mortgage brokers.

2. This ratio is defined as the number of workers aged 25 to 34 over the number of workers aged 55 and over.

Sources: Statistics Canada, Census of Population and Labour Force Survey, 1996 and 2016.

#### Table 2

#### Most prevalent occupations usually requiring a university degree, men, 1996 and 2016

1996 2016 Ratio of Ratio of Proportion younger Proportion younger of workers workers of workers workers aged 55 Median to older aged 55 Median to older Workers and over workers<sup>2</sup> Workers and over workers<sup>2</sup> age age number percent ratio number percent ratio years years Occupation Financial auditors and accountants 64,100 41.9 2.06 85.200 30.7 46.3 0.88 13.8 76,200 Secondary school teachers 11.8 46.3 2.41 66.000 21.1 45.2 0.88 20,400 42.7 2.52 62.300 25.4 44.4 Other financial officers<sup>1</sup> 16.6 1.15 Lawyers and Quebec notaries 40,200 13.3 43.4 1.52 50,400 36.7 48.5 0.71 Mechanical engineers 24,100 11.8 39.0 3.39 47,200 19.8 42.1 1.41 28,600 40.9 3.27 45,400 25.2 44.5 1.53 Civil engineers 14.2 Elementary school and kindergarten teachers 42,500 6.5 44.2 7.68 44,800 14.6 41.8 3.45 Professional occupations in business management consulting 22,600 20.4 44.4 0.79 44,500 29.3 46.3 0.45 College and other vocational instructors 44,400 15.4 45.1 1.14 40,100 34.0 49.9 0.36 9.2 Electrical and electronics engineers 29.800 387 4.23 39,800 21.3 44 2 1.73 University professors and lecturers 31,500 29.2 49.1 0.38 37,600 36.8 50.1 0.32 Business development officers and marketing 13,700 40.2 3.78 31,000 19.4 40.9 researchers and consultants 11.8 1.67 Professional occupations in advertising, marketing and public relations 9.100 12.0 40.3 2.16 29.900 16.3 38.3 1.77 General practitioners and family physicians 26,100 25.4 45.8 1.87 29,800 37.9 49.7 0.71 Financial and investment analysts 11.000 7.9 37.5 3.25 28,400 12.1 37.3 7.61

1. Examples include account managers, financial planners and mortgage brokers.

2. This ratio is defined as the number of workers aged 25 to 34 over the number of workers aged 55 and over.

Sources: Statistics Canada, Census of Population and Labour Force Survey, 1996 and 2016.

larger share of older workers in this occupation, the proportion of men aged 55 and over (38%) was double that of women (19%) in 2016.<sup>16</sup> From 1996 to 2016, the number of female general practitioners and family physicians grew more quickly (+135%) than the number of their male counterparts (+14%). This pattern was also seen in other professional occupations, such as lawyers and Quebec notaries, as well as financial auditors and accountants.

Financial auditors and accountants was the most prevalent occupation usually requiring a university degree for men, with 85,000 employed men in 2016. The share of men aged 55 and over in this occupation rose from 14% in 1996 to 31% in 2016, while the renewal ratio fell from 2.1 to 0.9. For women, this was the third

most common occupation in 2016. The composition by sex of financial auditors and accountants changed over time, however, from a male majority in 1996 to a female majority in 2016. Despite the younger age profile of women compared with men, the proportion of older women in this occupation tripled from 6% in 1996 to 19% in 2016, and their renewal ratio fell from 4.7 to 1.3.

For women, 5 of the 15 most prevalent occupations usually requiring a university degree were in the educational sector, as were 4 of the top occupations for men, although aging patterns varied within these occupations. Elementary school and kindergarten teachers tended to be younger. About 1 in 7 elementary school and kindergarten teachers were aged 55 and over in 2016, up from 1 in 14 in 1996, with little difference by sex. Among secondary school teachers, the proportion of older workers increased from 8% in 1996 to 16% in 2016 for women, and from 12% to 21% for men over this same 20year period, which is exacerbated by a decline in young men in this occupation. In contrast, university professors and lecturers tended to be older in both 1996 and 2016.

The share of male university professors and lecturers aged 55 and over increased from 29% in 1996 to 37% in 2016, while the proportion of their female counterparts rose from 14% to 30% over the same period. The growing share of full-time academic staff in senior positions resulting from factors such as the aging of the large baby-boom cohort and the end of mandatory retirement, has contributed to an older university teaching workforce.<sup>17</sup>

Some prevalent occupations usually requiring a university degree were characterized by rapid growth, a slower pace of aging than the national average, and renewal ratios well above replacement. This was the case for both women and men in professional occupations in advertising, marketing and public relations, as well as business development officers and marketing researchers and consultants. Smaller shares of workers aged 55 and over were found for some of the occupations most prevalent only among women (notably, social workers and human resources professionals). Among the prevalent occupations for men, smaller shares of older workers were found for several engineering occupations (mechanical, civil, and electrical and electronics).

## Several occupations not requiring a university degree have a large proportion of older workers, including transport truck drivers, cleaners, and janitors

While 12 of the 15 most prevalent occupations usually requiring a university degree were common to both women and men, this was the case for only 2 of the 15 occupations that did not require a university education (tables 3 and 4). Prevalent occupations for women included administrative support and office support workers, while trades such as welders, electricians, labourers and vehicle repair were among the predominant occupations for men.

As more and more youth are going to university or college, the difficulty attracting younger workers is evident in a number of these prevalent occupations. Among men, transport truck drivers was the largest occupation, with more than 278,000 men employed in 2016. About 31% (nearly one-third) of these workers were aged 55 and over in 2016, up from 12% in 1996.<sup>18</sup> Transport truck drivers has been among the top occupations for the most employer-reported vacancies in recent years. In 1996, there were 2.5 transport truck drivers aged 25 to 34 for each transport truck driver aged 55 and over, a ratio that fell to 0.6 in 2016. Other occupations not

#### Table 3

Most prevalent occupations not usually requiring a university degree, women, 1996 and 2016

	1996				2016			
	Workers	Proportion of workers aged 55 and over	Median age	Ratio of younger workers to older workers <sup>3</sup>	Workers	Proportion of workers aged 55 and over	Median age	Ratio of younger workers to older workers <sup>3</sup>
	number	percent	years	ratio	number	percent	years	ratio
Occupation								
Retail salespersons	311,400	9.7	32.6	2.21	355,600	20.0	33.0	1.09
Cashiers	214,800	4.3	24.9	4.08	260,500	14.3	24.6	0.95
Administrative assistants <sup>1</sup>	294,200	10.7	41.0	2.39	230,600	29.8	48.4	0.49
Administrative officers	76,300	8.9	40.7	5.07	218,000	26.3	47.3	0.84
Nurse aides, orderlies and patient service associates	98,500	12.0	41.6	2.23	213,000	23.4	45.1	0.75
General office support workers	160,700	10.1	39.2	2.95	190,500	27.4	46.8	0.67
Early childhood educators and assistants	76,900	4.7	33.8	6.01	186,600	12.8	39.5	1.71
Food and beverage servers	157,200	3.2	26.2	8.61	167,000	8.0	26.0	3.14
Light duty cleaners	97,800	14.8	41.4	1.25	164,900	31.6	49.2	0.49
Other customer and information services								
representatives <sup>2</sup>	74,300	5.0	34.2	4.22	128,300	16.2	38.8	1.32
Accounting and related clerks	209,100	9.2	38.9	5.81	117,700	27.0	47.5	0.97
Accounting technicians and bookkeepers	89,300	16.3	41.7	1.30	112,500	37.5	51.2	0.29
Social and community service workers	35,500	5.8	35.8	4.10	108,600	17.5	40.4	1.93
Elementary and secondary school teacher assistants	52,300	9.2	41.3	1.71	108,400	24.9	46.6	0.53
Cooks	82,800	12.7	39.4	1.71	86,200	24.0	44.0	0.71

1. If combined with executive assistants, the proportion of female workers aged 55 and over would be 11% in 1996 and 29% in 2016. The ratio of younger workers to older workers would vary from 2.54 to 0.53.

2. Examples include complaints clerks, lost-and-found clerks and tourist information clerks.

3. This ratio is defined as the number of workers aged 25 to 34 over the number of workers aged 55 and over.

Sources: Statistics Canada, Census of Population and Labour Force Survey, 1996 and 2016.

#### Table 4

#### Most prevalent occupations not usually requiring a university degree, men, 1996 and 2016

1996 2016 Ratio of Ratio of Proportion younger Proportion younger of workers workers of workers workers aged 55 Median to older aged 55 Median to older Workers and over workers<sup>1</sup> Workers and over workers<sup>1</sup> age age number percent ratio number percent ratio years years Occupation Transport truck drivers 198.000 12.2 40.0 2.49 278,500 48.9 0.57 31.4 Retail salespersons 201.300 10.5 32.8 3.44 271,200 21.1 33.3 1.00 168.800 41.1 160.800 36.9 50.9 0.35 Janitors, caretakers and building superintendents 19.6 0.99 Construction trades helpers and labourers 75,800 7.5 33.1 3.48 152,200 14.9 35.9 2.16 Automotive service technicians, truck and bus 8.7 36.3 5.10 147,900 19.3 41.0 1.60 mechanics and mechanical repairers 120,500 Material handlers 105,400 7.0 34.1 4.41 146,600 19.3 40.2 1.38 Carpenters 93,000 12.2 39.2 3.24 144,600 20.3 39.9 2.00 Cooks 92,400 5.8 27.8 5.60 124,500 10.2 28.9 2.38 Store shelf stockers, clerks and order fillers 78,300 2.8 21.7 5.82 108,600 12.0 24.3 1.34 Landscaping and grounds maintenance labourers 54,300 8.4 27.5 2.60 83,100 194 32.2 0.97 Welders and related machine operators 78,600 9.3 38.8 4.69 83,000 19.0 40.3 1.70 Electricians (except industrial and power system) 39,500 9.6 38.5 4.68 82,100 15.8 36.7 2.42 3.29 30.5 47.0 Delivery and courier service drivers 82,100 10.3 35.4 80,400 0.55 33.9 0.94 Shippers and receivers 85.600 6.8 6.57 80.100 21.7 42.7 Heavy equipment operators (except crane) 52,300 13.8 2.18 72,800 25.3 44.8 0.95 41.1

1. This ratio is defined as the number of workers aged 25 to 34 over the number of workers aged 55 and over.

Sources: Statistics Canada, Census of Population and Labour Force Survey, 1996 and 2016.

usually requiring a university degree were overrepresented among older workers. Among men, 37% of janitors, caretakers and building superintendents were aged 55 and over in 2016 (up from 20% in 1996). Similarly, among women, 32% (about one-third) of light duty cleaners were older workers in 2016 (up from 15% in 1996).

Many of the most prevalent occupations that do not usually require a university degree, especially those in the accommodation and food services and retail trade sectors, were overrepresented among the youngest workers (aged 15 to 24),<sup>19</sup> who often turn to these types of jobs to support their studies. In 2016, nearly 600,000 of the youngest workers were employed in three occupations: retail salespersons; cashiers; and food counter attendants, kitchen helpers and related support occupations. These

occupations are also paid below average<sup>20</sup> and have relatively high turnover, consistently large numbers of vacancies, and generally smaller shares of workers aged 55 and over. The most prevalent occupation not usually requiring a university education for women (and second most common for men) across all age groups in 2016 was retail salespersons. Nevertheless, about one in five retail salespersons was aged 55 or over, slightly below the average for all occupations (22%), and double the share for this occupation in 1996.

The only other occupation not requiring a university degree that appeared in the top 15 occupations of both women and men was cooks. Previous research has noted the declining proportion of female cooks aged 25 to 34 in recent decades.<sup>21</sup> Consequently, the share of female cooks aged 55 and over was 24% in 2016, with a renewal ratio below replacement (0.7). In comparison, the share of older male cooks was smaller, at 10% in 2016, contributing to a renewal ratio of 2.4.

## Over half of agriculture managers are aged 55 and over

Among the five most prevalent management occupations, the share of workers aged 55 and over varied. Senior managers are generally older, given the experience often required for such positions. These occupations may also be less physically demanding and reflect more office-related work, allowing individuals to remain in, or take on, these jobs at older ages. Still, while aging affects all of the most common management occupations, the extent has varied.

The most notable prevalent management occupation is in agriculture, where the overall number of managers declined for both men (-35%) and women (-27%) from 1996 to 2016 (tables 5 and 6). This reflects the long-term decline in agricultural employment over the past century, which is related to socioeconomic changes that include increased farm concentration and new technology, such as automation.<sup>22,23</sup> In 1996, this occupation was already characterized by a relatively high proportion of older workers, and this has increased over time, but not at the pace of some other occupations. Specifically, over half of women and men (52% in both cases) were aged 55 and over in 2016, up from 37% for women and 41% for men in 1996.<sup>24,25</sup> Managers in agriculture was also among the few occupations that already had a renewal ratio well below 1.0 for both women and men in 1996 (0.4 each), although it declined further to 0.1 for women and 0.2 for men by 2016. Despite the large share of older managers in agriculture, the most prevalent management occupation in 2016 for both women and men was retail and wholesale trade managers, with the share of workers aged 55 and over doubling since 1996 to 21% for women and 27% for men.

Aging patterns in other management occupations reflect trends in broader occupational groups. For example, similar to other occupations within the accommodation and food services sector, the proportions of

#### Table 5

Most prevalent management occupations, women, 1996 and 2016

	1996					20	16	
	Workers	Proportion of workers aged 55 and over	Median age	Ratio of younger workers to older workers <sup>1</sup>	Workers	Proportion of workers aged 55 and over	Median age	Ratio of younger workers to older workers <sup>1</sup>
	number	percent	years	ratio	number	percent	years	ratio
Occupation								
Retail and wholesale trade managers	108,300	9.9	38.9	2.41	161,400	20.6	44.3	0.69
Restaurant and food service managers	42,400	7.4	37.0	3.65	62,500	15.4	40.8	0.84
Financial managers	18,900	7.7	39.8	5.70	42,000	23.0	47.2	0.65
Managers in agriculture	52,000	36.5	49.3	0.42	38,200	52.1	55.7	0.14
Advertising, marketing and public relations managers	25,100	4.6	37.2	13.43	37,500	10.0	38.9	1.50

1. This ratio is defined as the number of workers aged 25 to 34 over the number of workers aged 55 and over.

Sources: Statistics Canada, Census of Population and Labour Force Survey, 1996 and 2016.

#### Table 6

#### Most prevalent management occupations, men, 1996 and 2016

		1996				2016			
	Workers	Proportion of workers aged 55 and over	Median age	Ratio of younger workers to older workers <sup>1</sup>	Workers	Proportion of workers aged 55 and over	Median age	Ratio of younger workers to older workers <sup>1</sup>	
	number	percent	years	ratio	number	percent	years	ratio	
Occupation									
Retail and wholesale trade managers	175,100	13.0	40.9	1.89	225,900	26.7	46.8	0.48	
Managers in agriculture	174,900	41.5	50.8	0.36	114,100	51.6	55.6	0.20	
Construction managers	41,500	16.9	43.4	2.19	73,300	25.1	45.9	1.01	
Restaurant and food service managers	58,200	11.3	37.8	3.60	64,000	20.3	42.6	0.79	
Manufacturing managers	50,200	15.6	43.9	1.00	55,900	29.2	49.2	0.32	

1. This ratio is defined as the number of workers aged 25 to 34 over the number of workers aged 55 and over.

Sources: Statistics Canada, Census of Population and Labour Force Survey, 1996 and 2016.

female and male restaurant and food service managers aged 55 and over (15% for women and 20% for men) in 2016 were below the national proportions for older employed women (20%) and men (23%).

Among women employed as advertising, marketing and public relations managers, a smaller share of workers was aged 55 and over, at 10% in 2016, up from 5% in 1996. In 2016, common management occupations for men included construction managers and manufacturing managers. Among men, the share of manufacturing managers aged 55 and over nearly doubled from 16% in 1996 to 29% in 2016, while there was a moderate increase for construction managers, from 17% to 25% over the same period.

## Aging related to pace of growth within occupations

The number of workers in some occupations has increased greatly over the 20-year period from 1996 to 2016. The pace of aging is influenced by patterns of growth within occupations. In other words, rapidly growing occupations slow the pace of aging, while occupations that are declining in numbers become older more quickly (tables 7 and 8). Occupations where employment tripled or more between 1996 and 2016 include professional occupations in advertising, marketing and public relations (+256%); computer and information systems managers (+209%); and inspectors in public and environmental health and occupational health and safety (+207%).<sup>26</sup>While aging still occurred in fast-growing occupations, it was generally less of an issue. For example, the share of older workers in professional occupations in advertising, marketing and public relations increased modestly, from 8% in 1996 to 13% in 2016.

#### Table 7

25 occupations<sup>1</sup> that increased the most over time, Canada, 1996 to 2016

	Workers		Percent change in number of workers	Proportion of workers	
	1996	2016	1996 to 2016	1996	2016
	num	iber		percent	
Occupation					
Executive assistants <sup>2</sup>	11,300	43,600	286	8.0	25.2
Estheticians, electrologists and related occupations	15,100	57,800	284	5.2	11.2
Professional occupations in advertising, marketing and public relations	25,300	89,900	256	7.9	12.7
Computer and information systems managers	20,100	62,200	209	5.0	15.6
Inspectors in public and environmental health and occupational health and safety	10,200	31,300	207	10.6	20.9
Social and community service workers	48,200	139,800	190	5.7	17.9
Chefs	20,500	59,000	188	8.8	14.5
Financial and investment analysts	18,900	51,600	173	6.1	11.8
Human resources professionals	26,800	72,300	170	8.5	18.3
Food service supervisors	15,300	40,400	164	5.6	7.8
Administrative officers <sup>2</sup>	100,100	260,500	160	10.2	26.0
Financial sales representatives	24,200	60,500	151	4.4	15.8
Post-secondary teaching and research assistants	24,900	62,300	150	4.1	6.8
Business development officers and marketing researchers and consultants	25,900	62,900	143	8.3	15.5
Early childhood educators and assistants	79,900	193,600	142	4.6	12.9
Purchasing agents and officers	18,500	44,300	139	9.6	23.6
Human resources and recruitment officers	12,900	30,600	137	8.0	13.3
Dental hygienists and dental therapists	11,100	26,100	136	1.0	11.0
Residential and commercial installers and servicers	19,800	46,400	135	7.3	18.1
Professional occupations in business management consulting	35,200	78,300	123	15.0	24.7
Program leaders and instructors in recreation, sport and fitness	47,000	104,700	123	3.4	8.7
Senior managers – financial, communications and other business services	28,700	61,400	114	20.2	32.4
Nurse aides, orderlies and patient service associates	117,500	245,500	109	11.3	23.1
Electricians (except industrial and power system)	40,100	83,700	109	9.5	15.7
Elementary and secondary school teacher assistants	57,600	119,900	108	9.1	24.5

1. Occupations with 10,000 workers or more in both 1996 and 2016.

2. While there was a large increase in the number of executive assistants and administrative officers, there was a 19% decline in administrative assistants from 1996 to 2016.

Source: Statistics Canada, Census of Population, 1996 and 2016.

#### Table 8

#### 25 occupations<sup>1</sup> that declined the most over time, Canada, 1996 to 2016

	Wor	Workers		Proportion of workers aged 55 and over		
	1996	2016	1996 to 2016	1996	2016	
	num	nber		percent		
Occupation						
Industrial sewing machine operators	60,900	16,200	-73	11.7	41.6	
Service station attendants	41,300	16,800	-59	3.2	14.0	
Data entry clerks	82,000	34,000	-59	6.2	20.9	
Banking, insurance and other financial clerks	54,200	23,600	-56	5.8	20.0	
Supervisors, general office and administrative support workers	27,300	12,700	-54	9.4	21.9	
Accounting and related clerks	251,400	140,900	-44	9.9	26.7	
Electronics assemblers, fabricators, inspectors and testers	24,400	14,300	-42	6.5	29.0	
Labourers in wood, pulp and paper processing	35,300	21,200	-40	6.0	21.8	
Mechanical assemblers and inspectors	17,300	10,500	-40	8.4	23.0	
Couriers, messengers and door-to-door distributors	43,400	26,700	-38	7.9	30.1	
Sales and account representatives – wholesale trade (non-technical)	173,400	108,800	-37	12.3	25.9	
Nursery and greenhouse workers	23,500	14,800	-37	11.1	26.1	
Advertising, marketing and public relations managers	103,400	66,300	-36	10.8	12.4	
Survey interviewers and statistical clerks	25,700	17,100	-34	13.0	35.2	
Home child care providers	129,200	85,800	-34	9.7	20.3	
Managers in agriculture	226,900	152,300	-33	40.4	51.7	
Purchasing and inventory control workers	41,700	28,100	-33	7.2	21.5	
Fishermen/women	21,300	15,000	-30	13.2	31.5	
Supervisors, finance and insurance office workers	26,100	18,500	-29	6.6	22.6	
Labourers in metal fabrication	18,400	13,300	-28	7.7	21.2	
Mail, postal and related workers	39,000	28,100	-28	11.7	32.9	
Machining tool operators	14,500	10,600	-27	9.1	24.3	
Tailors, dressmakers, furriers and milliners	21,600	16,200	-25	22.4	47.9	
Customer services representatives – financial institutions	95,100	73,200	-23	3.8	16.2	
Butchers, meat cutters and fishmongers – retail and wholesale	24,400	18,800	-23	10.4	26.4	
1. Occupations with 10,000 workers or more in both 1996 and 2016.						

**Source:** Statistics Canada, Census of Population, 1996 and 2016.

The occupation that declined the most quickly is within the clothing manufacturing sector. The number of industrial sewing machine operators decreased significantly (from 61,000 to 16,000, or -73%) from 1996 to 2016.27 In fact, from 2004 to 2008, about half of the employment in clothing manufacturing and textile and textile product mills disappeared.<sup>28</sup> In addition to globalization and outsourcing of the textiles manufacturing industry, this occupation may be subject to greater automation and turnover, and may attract fewer younger workers willing to be apprenticed in the trade. Industrial sewing

machine operators also had the highest increase in workers aged 55 and over across all occupations, from 12% in 1996 to 42% in 2016 (+30 percentage points).

Other occupations with large declines over the two-decade period include service station attendants (-59%); data entry clerks (-59%); and banking, insurance and other financial clerks (-56%). These occupations also experienced rapid aging from 1996 to 2016, with three- to four-fold increases in the proportions of workers aged 55 and over.

#### Conclusion

To understand a well-functioning labour force, it is essential to know about the pattern and pace of aging within occupations, and about which occupations face problems of declining size and renewal. This study used Census of Population and Labour Force Survey data on comparable occupations with at least 10,000 workers to examine their changing age compositions during the two decades after 1996.

The ratio of younger workers (aged 25 to 34) to older workers (aged 55 and over) has fallen during the past 20 years. Overall, there are

currently about the same number of younger and older workers. Some occupations, however, have renewal ratios below 1.0 (such as most managers, physicians and university professors). This is because the skills and experience required for these positions may better fit an older demographic. Nevertheless, the share of older workers has increased for almost all occupations.

Additionally, it may be difficult for certain occupations to attract younger workers because of structural changes such as automation and globalization. These occupations are typically decreasing in absolute numbers and characterized by a larger share of workers aged 55 and over. This trend can also be seen in the nature of the occupations that have declined in size the most since 1996, including data entry clerks and occupations involved with clothing manufacturing. However, the share of older workers in other stillcommon occupations has increased substantially, which may signal future employment opportunities for those willing to join these occupations.

In contrast, some occupations have had a greater degree of replacement by younger workers, even among occupations that usually require a university degree. This helps to moderate the pace of aging. Among the fastest-growing occupations are those characterized by a smaller share of workers aged 55 and over, such as professional occupations in advertising, marketing and public relations; and computer and information systems managers. Furthermore, women often had a younger age profile than men, mitigating the impact of aging across many occupations.

**Bertrand Ouellet-Léveillé** is an analyst and **Anne Milan** is chief of analysis in the Labour Statistics Division at Statistics Canada.

#### Data sources, methods and definitions

#### **Data sources**

The **Census of Population**, conducted every five years, gathers demographic, social, economic and cultural information on the Canadian population. Most households are asked to provide basic information only, while the remainder provide more detailed information, including their labour market activities during the week prior to enumeration and in the previous year. In this study, Census of Population data from 1996 and 2016 are used to examine occupations with at least 10,000 employed individuals aged 15 and over for both census years. According to the 2016 Census, occupations with at least 10,000 workers aged 15 years and over in 2016 represented 14.6 million workers across more than 270 occupations, out of a total of 17.2 million workers.

The **Labour Force Survey** (LFS) is a monthly survey of about 54,000 households. The LFS sample is representative of the civilian non-institutionalized population aged 15 and over. It gathers information on the labour force status of those surveyed, as well as detailed information on the nature of the main occupation of those employed. In this study, LFS data from 1996 to 2018 are used to compute the renewal ratio and draw comparisons over time.

The **employed population** refers to people aged 15 and over who were paid workers, self-employed, or unpaid family workers during the week preceding the census. Paid workers earned a wage, salary, tips or commissions, or were paid in kind. The self-employed worked for profit in their own business, farm or professional practice, while unpaid family workers worked without pay in a family farm or business. Also included are people who were temporarily absent from their job or business, with or without pay, for the entire week because of vacation, illness, a labour dispute, maternity leave, family responsibilities or some other reason. Institutional residents living in collective dwellings, such as nursing homes and penal institutions, are excluded from the workforce. Unpaid household activities, unpaid child and elder care, and volunteer work are excluded from the definition of work.

The North American Industry Classification System (NAICS) 2012 is an industry classification system. Industry, or industrial sector, refers to a generally homogeneous group of economic producing units primarily engaged in a specific set of activities. An activity is a particular method of combining goods and services inputs, labour and capital to produce one or more goods and/or services (products). In most cases, the activities that define an industry are homogeneous with respect to the production processes used.

The National Occupational Classification (NOC) is the nationally accepted taxonomy and organizational framework of occupations in the Canadian labour market. This study uses the four-digit NOC for comparable occupations in 1996 and 2016.

# Prevalent occupations in 2016 that had no direct match in 1996

Some prevalent occupations in 2016 had no direct equivalent in 1996. These occupations sometimes related to computer and information systems and reflect the growing importance of workers in a knowledge economy. Information systems analysts and consultants, computer programmers and interactive media developers, and computer network technicians were the three most common occupations in this group, representing a total of nearly 325,000 people. These also tended to be occupations with younger workers and relatively small shares of workers aged 55 and over (between 9% and 16%).

#### Data sources, methods and definitions (continued)

In contrast, some occupations that were common in 1996 did not have an equivalent in 2016, which was often the result of changes or mergers in occupational classifications. For example, food service counter attendants were amalgamated with food preparers and kitchen and food service helpers to create a new occupational category called food counter attendants, kitchen helpers and related support occupations. In total, these workers represented 358,000 people in 2016, making it the third most prevalent occupation. It comprised relatively young workers, with 11% of workers aged 55 and over. Similarly, receptionists and switchboard operators were amalgamated with telephone operators to create a new classification of receptionists in 2016, an occupation for which 22% of the 145,000 workers, primarily women, were aged 55 and over in 2016.

Security guards and related security service occupations was another common occupation in 2016, with about 110,000 workers, resulting from a merger. It was also among the occupations with the highest proportion of older workers— almost 30% of workers were aged 55 and over.

#### Growth of health care occupations

At 2.3 million workers in 2016, health care and social assistance was the largest industry in Canada, accounting for 13% of all workers. From 1996 to 2016, the number of workers grew by 68%, placing it among the most rapid growth rates by industry. In other words, the aging population is being cared for by an increasing number of workers—but workers who are themselves growing older.

With more than 286,000 workers in 2016, the most common health-related occupation—registered nurses and registered psychiatric nurses—grew by 26% from 1996 to 2016 (Table 9). Over the same period, the second most common health occupation—nurse aides, orderlies and patient

service associates—more than doubled in size (+109%) to 245,500 workers. Other occupations with rapid growth included dental hygienists and dental therapists (+136%), specialist physicians (+108%), physiotherapists (+89%) and pharmacists (+79%).

The occupations with the largest shares of workers aged 55 and over in 2016 were specialist physicians (31%), dentists (30%), general practitioners and family physicians (29%), and nursing co-ordinators and supervisors (26%). In contrast, health occupations with smaller shares of older workers included paramedical occupations (10%), dental assistants (11%), and dental hygienists and dental therapists (11%).

#### Table 9

Number of workers and proportion of workers aged 55 and over in selected health occupations,<sup>1</sup> ranked by 2016 proportion of workers aged 55 and over, Canada, 1996 and 2016

	1	996	2016	
	Workers	Proportion of workers aged 55 and over	Workers	Proportion of workers aged 55 and over
	number	percent	number	percent
Occupation				
Specialist physicians	21,400	22.8	44,500	30.8
Dentists	15,700	15.1	21,400	29.6
General practitioners and family physicians	37,400	19.8	56,300	28.9
Nursing co-ordinators and supervisors	13,800	14.0	15,700	25.5
Nurse aides, orderlies and patient service associates	117,500	11.3	245,500	23.1
Medical laboratory technologists	17,600	4.9	19,800	21.4
Other assisting occupations in support of health services <sup>2</sup>	19,000	6.4	33,500	20.8
Registered nurses and registered psychiatric nurses	226,600	9.4	286,200	19.8
Pharmacists	20,300	11.3	36,300	17.1
Medical laboratory technicians				
and pathologists' assistants	20,500	6.7	22,000	17.0
Licensed practical nurses	38,800	8.2	69,600	16.1
Medical radiation technologists	13,100	5.3	19,400	15.6
Physiotherapists	12,800	6.2	24,100	13.8
Other technical occupations in therapy and assessment <sup>3</sup>	10,700	6.0	10,900	13.3
Dental assistants	21,100	2.5	32,500	11.2
Dental hygienists and dental therapists	11,100	1.0	26,100	11.0
Paramedical occupations	13,200	3.9	26,800	9.9
1. Occupations with 10.000 workers or more in both 1996 and 2016.				

2. Examples include blood donor clinic assistant, cast room technician, orthopedic technologist and rehabilitation assistant.

3. Examples include hearing instrument practitioner, ophthalmic technician and speech therapy assistant.

Source: Statistics Canada, Census of Population, 1996 and 2016.

## Notes

- I. See Fields et al. (2017).
- 2. See Uppal (2010).
- 3. See Bernard (2017).
- 4. See Hazel (2018).
- 5. See Duchesne (2004).
- 6. Substitutes may include more self-service activities, which allow individuals to accomplish the tasks themselves and remove the need for intermediary workers such as travel agents, cashiers, librarians and bank tellers.
- 7. The median age for workers aged 15 and over—that is, the age at which 50% of workers were older and 50% were younger increased by 4.2 years between 1996 and 2016, from 38.4 to 42.6 years. Since median age can hide variation in the age distribution of workers, it is not the primary indicator used in the analysis.
- 8. The number of youngest workers (aged 15 to 24) has fallen during the past two decades as more young adults pursue postsecondary education. Consequently, the number of workers aged 15 to 24 fell below the number of workers aged 55 and over in 2008, and the gap has been increasing since.
- 9. The baby-boom cohort was born between 1946 and 1965.
- Based on Census data, 22% of the employed population was aged 55 and over in 2016, 20% for women and 23% for men.
- 11. The ratio of youth aged 15 to 24 to the population aged 55 to 64 dropped below replacement levels in 2015; however, the population aged 15 to 24 started increasing year-over-year in July 2018 after almost five years of net decline.
- 12. The employment rate for women had a sharp and steady increase from the mid-1950s to the early 1990s. It continued to increase into the late 2000s, but at a slower pace.
- 13. There are occupations for which direct comparison between 1996 and 2016 is difficult since the classification of occupations has evolved over the 20-year period. Some occupations were grouped together, some were split, and some did not exist as their own occupation in one of the two years. For more information, see the Data sources, methods and definitions section.

- 14. In the NOC, Skill Level A occupations usually require a university degree. However, the education of a particular job holder may not correspond exactly with that level. Individuals may be overqualified for their work, or they may work in occupations for which the educational requirements have changed after they became employed.
- 15. About 92% of registered nurses and registered psychiatric nurses were women. In this occupation, women aged 55 and over accounted for 20% of workers; for men in the same occupation, it was 14%.
- Similarly, the proportions of men and women aged 55 and over were 38% and 20%, respectively, among specialist physicians in 2016.
- 17. See Statistics Canada (2018).
- 18. Other transportation-related occupations have also aged quite rapidly. Specifically, of the 90,000 bus drivers, subway operators and other transit operators, over 45% were 55 years of age or over, more than double the proportion from 20 years earlier (21%). Among taxi and limousine drivers and chauffeurs, the proportion of workers aged 55 and over increased about 25 percentage points, from 17% in 1996 to 42% in 2016. In the context of an aging population, when more people may rely on public transportation or other means of transit, the aging of the individuals who themselves provide this type of transportation is notable. Motor vehicle and transit drivers were among the occupations employers reported the most vacancies for from 2016 to 2018, suggesting that employers are trying to replace the aging and retiring drivers.
- 19. To allow for comparisons with the other occupations, the ratio of workers aged 25 to 34 to workers aged 55 and over is presented. Even with these age groups, the occupational renewal ratio was often well above replacement.
- 20. See data table no. 14-10-0223-01.
- 21. See Uppal and LaRochelle-Côté (2014).
- 22. For more information on the evolution of employment in agriculture, see Statistics Canada (2017).

- 23. However, the next generation of farmers may be changing and adapting to modern farm practices. Recent research has indicated that female farm operators are more highly educated than in the past, and increasingly focused on agriculture-related studies (Shumsky and Nelson, 2018). Additionally, farm operators under age 40 are mitigating financial risk with off-farm work.
- 24. Among the industrial sectors at the North American Industry Classification System two-digit level, about 22% of workers in the following sectors were aged 55 to 64 in 2016: agriculture, forestry, fishing and hunting; real estate and rental and leasing; as well as transportation and warehousing. Notably, an additional 15% of workers in agriculture, forestry, fishing and hunting were aged 65 and over, as were 11% of workers in real estate and rental and leasing.
- 25. Only judges, a much smaller occupation, had a higher proportion of workers aged 55 and over. Judges are generally appointed following many years of experience in the legal field, so it is not unexpected that of the nearly 3,100 judges in 2016, over three-quarters (77%) were aged 55 and over and about one-third (33%) were aged 65 and over.
- 26. The largest percentage increase was for executive assistants, with a growth of 286% from 1996 to 2016. The share of executive assistants who were aged 55 and over increased from 8% in 1996 to 25% in 2016. While there was a large increase in the number of executive assistants and administrative officers, there was a 19% decline in administrative assistants from 1996 to 2016. However, if executive assistants and administrative assistants and administrative assistants and administrative assistants and administrative assistants from 1996 to 2016. However, if executive assistants and administrative assistants are combined, the proportion of those aged 55 and over would increase from 11% to 29%.
- 27. Excluding industrial sewing machine operators, there were also declines in smaller occupations found in clothing manufacturing, such as fabric, fur and leather cutters; labourers in textile processing; and weavers, knitters and other fabric making occupations. In 1996, more than 23,000 people were employed in these occupations, while in 2016, there were just over 8,000.
- 28. See Bernard (2009).

## References

- Bernard, André. 2017. "<u>Working seniors in Canada</u>." *Census in Brief*. November. Statistics Canada Catalogue no. 98-200-X.
- Bernard, André. 2009. "<u>Trends in manufacturing</u> <u>employment</u>." *Perspectives on Labour and Income*. February. Vol. 10, no. 2. Statistics Canada Catalogue no. 75-001-X.
- Duchesne, Doreen. 2004. "<u>More seniors at work</u>." *Perspectives on Labour and Income*. February. Vol. 5, no. 2. Statistics Canada Catalogue no. 75-001-X.
- Fields, Andrew, Sharanjit Uppal and Sébastien LaRochelle-Côté. 2017. "The impact of aging on labour market participation rates." Insights on Canadian Society. June. Statistics Canada Catalogue no. 75-006-X.
- Hazel, Myriam. 2018. "<u>Reasons for working at 60 and</u> <u>beyond</u>." *Labour Statistics at a Glance*. December. Statistics Canada Catalogue no. 71-222-X.

- Shumsky, Matthew and Allison Nelson. 2018. "Female and young farm operators represent a new era of Canadian farmers." Canadian Agriculture at a Glance. December. Statistics Canada Catalogue no. 96-325-X.
- Statistics Canada. 2018. "<u>Number and salaries of full-</u> time teaching staff at Canadian universities (final), 2017/2018." The Daily. November 15.
- Statistics Canada. 2017. "<u>Labour Force Survey</u>." The Daily. May 5.
- Uppal, Sharanjit. 2010. "Labour market activity among seniors." Perspectives on Labour and Income. July. Vol. 11, no. 7. Statistics Canada Catalogue no. 75-001-X.
- Uppal, Sharanjit and Sébastien LaRochelle-Côté. 2014. "Changes in the occupational profile of young men and women in Canada." Insights on Canadian Society. April. Statistics Canada Catalogue no. 75-006-X.