

Understanding Employment Participation of Older Workers: The Canadian Perspective

ALAIN BÉLANGER

Institut national de la recherche scientifique—Urbanisation Culture Société, Montréal, Québec

YVES CARRIÈRE

Department of Demography, Université de Montréal, Montréal, Québec

PATRICK SABOURIN

Institut national de la recherche scientifique—Urbanisation Culture Société, Montréal, Québec

La population canadienne est appelée à vieillir rapidement au cours des prochaines décennies, ce qui a amené plusieurs observateurs à remettre en question la pérennité des systèmes publics de retraite. Toutefois, les conséquences négatives du vieillissement démographique peuvent être réduites grâce à l'allongement de la vie active. Cet article présente les résultats d'une recension critique des connaissances canadiennes concernant les déterminants de l'âge à la retraite et de la participation des travailleurs âgés au marché du travail. Les résultats sont regroupés en dix grands « domaines » couvrant les niveaux d'analyse micro, méso et macro: le marché du travail, la législation, les facteurs financiers, la position sociale, la sphère domestique, la gestion des ressources humaines, les facteurs liés au travail, la santé, la capacité de travail et la motivation.

Mots clés : vieillissement démographique, main d'œuvre vieillissante, âge à la retraite, retour au travail, lacunes dans la recherche, Canada

Canada is expecting rapid population aging over the coming decades, a fact that has led many observers to question the sustainability of its pension systems. The effects of population aging, however, could be mitigated by an extension of the working life. This article presents the results of a critical review of Canadian knowledge about the determinants of retirement age and labour-market participation of older workers. The determinants are grouped under ten “domains” covering micro, meso, and macro levels: labour market, legislation, financial factors, social position, domestic domain, human resource management, work-related factors, health, work ability, and motivation.

Keywords: population aging, aging workforce, retirement age, return to work, research gaps, Canada

Introduction

Canada's population has been aging steadily over the last decades, and this trend will continue at an even faster pace over the next 20 years. In 1971, only 8 percent of the Canadian population was 65 years of age and over; by 1996, this proportion had reached 12 percent. With the gradual arrival of very large baby boom cohorts to age 65, the process will be accelerating at a greater pace than in most Organisation for Economic Co-operation and Development (OECD) countries. While 15 percent

of the population is now over age 65, this proportion is projected to be around 23 percent by 2031, once all the baby boomers will be past this age threshold. In fact, the doubling in the proportion of the Canadian population aged 65 years and over from 12 to 24 percent could take as relatively little time as 40 years. This would be one of the fastest aging rates recorded among economically developed countries, explained by one of the strongest baby booms followed by a fast and sustained baby bust.

Even after the last baby boomer will have celebrated his or her 65th birthday, the size and—although to a lesser extent—the proportion of the Canadian population aged 65 and over will continue to grow, notwithstanding the decreasing number of births in cohorts born after 1965. The fall in the number of births was indeed compensated for over time by large waves of immigration increasing the size of cohorts that were, at birth, smaller than cohorts of baby boomers. In addition, with annual immigration rates averaging 7.5 per 1,000 over the last quarter-century, Canada's future population is expected to be much more diverse than it is today. Indeed, immigrants from all ages are landing in Canada: projections show that up to 40 percent of the Canadian population reaching age 65 in the early 2060 will likely be immigrants (Carrière et al. 2014).

As in most economically developed countries, population aging in Canada has sparked many debates over potential labour shortages and over the expected cost and sustainability of the public pension system. Reviewing the relevant research, McDaniel, Wong, and Watt (2015) report that there is no evidence of a national labour shortage in Canada in the coming decades, although regional or occupational shortages may occur. Even if the workforce is aging, delayed retirements, higher female participation rates, and current immigration intakes should allow for a continued growth of the total workforce (Bélanger and Bastien 2013). If there is no consensus on the magnitude of the economic consequences of population aging, many believe that delaying retirement can go a long way in reducing these consequences (Burniaux, Duval, and Jaumotte 2004; Denton and Spencer 2009b; Expert Panel on Older Workers 2008; Hering and Klassen 2010b; Hicks 2011). In this context, it is imperative to better understand why some people are working into old age and others are not. Accordingly, in May 2014 the General assembly of the Joint Program Initiative ("More Years, Better Lives") sponsored a fast-track project to "define research needs with regards to the employment participation at higher working age by critically reviewing research findings, approaches and methodologies" (Hasselhorn and Apt 2015). In the fall of 2014, 46 researchers from Canada and ten European countries got together to accomplish this task, and an international conference was held in Berlin in February 2015. Hasselhorn and Apt (2015) have presented a synthesis of the national and domain reports that were produced and presented. The synthesis report also includes a brief two-page summary of each national report, all of them following the LidA conceptual framework.

This paper addresses the issue of labour-force participation among older workers in Canada in the context of extending working lives. It is basically a critical review

of knowledge and research on the main determinants of labour-force participation at older ages. It is organized according to the LidA conceptual framework on work, age, and retirement, which groups the determinants of retirement and labour-force participation in ten different categories or "domains" (Hasselhorn and Apt 2015). This introduction is followed by four more sections. The first briefly describes recent trends in employment and retirement rates of older workers and summarizes recent policy changes in Canada. The conceptual framework and the search methodology are described in the second section. The third section presents a critical review of the most recent scientific literature organized according to the ten domains of the conceptual framework. Finally, research gaps are identified and discussed in the concluding section.

Context

Part of the debate regarding sustainability of pension plans revolves around the old-age dependency ratio, that is, the ratio of those 65 and over (the "dependants") to those of "working age," most often defined as individuals aged 15 to 64. This approach is appearing to be increasingly simplistic for understanding the nature and scope of the issues related to population aging. On one hand, many Canadians have been delaying their entry into the labour market, especially since the baby-boom cohorts started entering the labour market in the mid 1960s. On the other, retirement behaviours have changed significantly since the mid 1990s, again more or less coinciding with the arrival of the first baby-boom cohorts at the age of 55. Adding to these trends, women have dramatically modified their work behaviour in the last decades, making the use of the old-age dependency ratio an increasingly misguided indicator of the burden of population aging. Before we get to the many factors impacting the labour-force participation of older individuals, it is first useful to take a look at the trends in the participation rates of those 55–69 years old, and then at the evolution of retirement patterns.

Employment Figures

The labour force is projected to continue to grow after 2031, despite the fact that most baby boomers will have left the labour market by then (Bélanger and Bastien 2013, 2010; Martel et al. 2011). This expected increase in the labour force is explained by high levels of immigration as well as by increasing participation rates among those 55 and over. Participation rates among those 55–69 have followed an upward trend since the mid-1990s. As can be seen in Figure 1, almost one in three men aged 65–69 is now in the labour force, while it was about one in four in 1976 and less than one in five in 1990. The increase is even more spectacular among women,

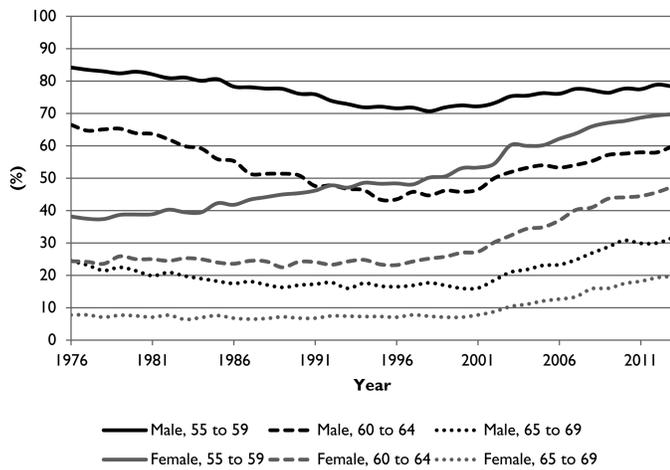


Figure 1: Labour Force Participation Rate by Age Group and Gender, Canada 1976–2013

Source: Statistics Canada, CANSIM Table 282–0002, Labour Force Survey

although this is partly explained by the fact that women now reaching age 55 have a work history much different than women born before the baby boom. For both men and women, the participation rates of those 65–69 are closing in on the participation rates of those 60–64 in the mid-1990s. Despite these increasing participation rates at older ages, the growth rate of the labour force will still be much smaller than it has been over the last few decades.

These trends among the older working age group are quite significant, even more so considering that they do not coincide with any major transformation within the public pension system encouraging a longer working life. The increase is the result of different factors including changes in the educational composition of the population 55–69, delayed early life transitions having an impact later in life, and trends in the financial preparation for retirement. The increasing trend in participation rates of older Canadians will likely persist over the coming years.

Retirement Figures and Trends

Average and median age at retirement decreased for two decades after the mid-1970s. In 1976, the median age of retirement among new retirees was around 65 for both men and women.¹ As can be seen in Figure 2, the average age at retirement decreased quite significantly up until the late 1990s. In fact, in the case of men, it followed the trend observed in participation rates of Canadians aged 55 plus during that period. Afterwards, this declining trend stopped and has shown some stability, although it appears that an increase has become more obvious over the last few years. As shown in the

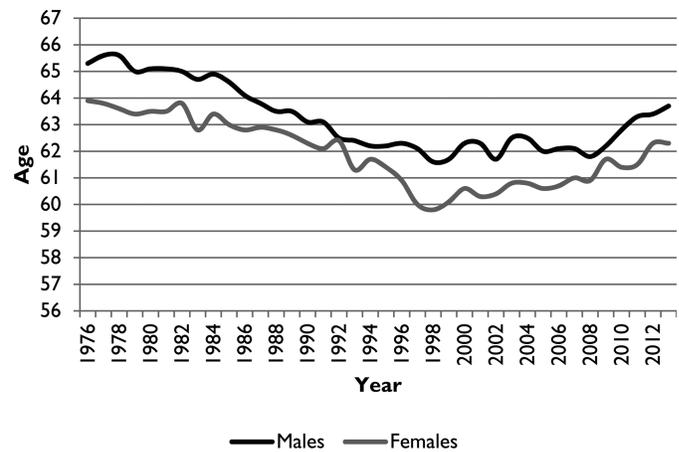


Figure 2: Average Age at Retirement by Gender, Canada 1976–2013

Source: Statistics Canada, CANSIM Table 282–0051, Labour Force Survey

previous section, participation rates of Canadians aged 55–69 have been increasing quite significantly since the mid-1990s. One would assume that an increasing participation rate would translate into a delay in retirement and an increasing average or median age at retirement. As explained by Carrière and Galarneau (2011), these measures take into consideration only those who are newly retired, by age, not the whole age group at risk of retiring. Also, if there is a delay in retirement, median or average age at retirement will capture this trend only once those who have delayed their retirement do in fact retire. Studies using retirement rates by age and gender (Carrière and Galarneau 2011; Denton, Feaver, and Spencer 2010) have shown that the mid 1990s marked a change in retirement behaviour and older workers having started to delay their retirement. In consequence, as can be seen in Figure 3, the downward trend in working life expectancy at age 50 has reversed and both men and women of that age can expect to work longer now than in the mid 1970s.

Employment and Retirement Policies

Canada differs from many OECD countries as far as the viability of its public pension system is concerned. First, the replacement rate of public pensions is lower in Canada (45 percent for median earners in Canada compared to 54 percent for OECD countries). Second, the work-related public pension system—whose objective is to help prevent a significant drop in the standard of living of retirees—has been partially funded for several years. Indeed, as a response to population aging and increasing life expectancy at age 65, the 1997–2003 period was a period of fast-increasing contribution rates to make

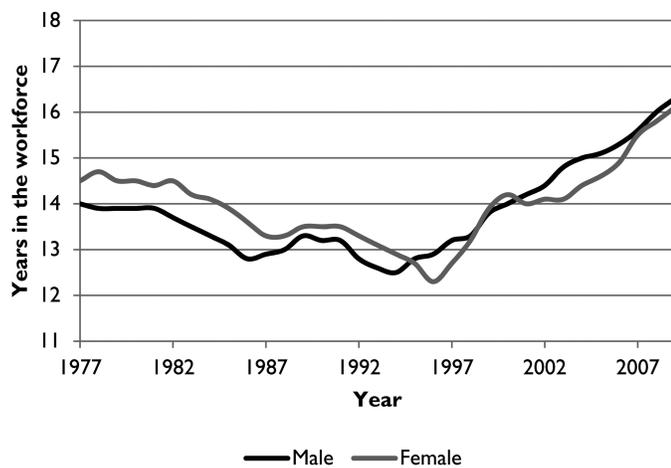


Figure 3: Conditional Working-Life Expectancy at Age 50 by Gender, Canada, 1977–2009

Source: Carrière and Galarneau (2011) using Labour Force Survey data

this public pension system sustainable over the long term. A rapid increase in contribution rates has resulted in a partial funding of this work-related pension. Under this partially funded scheme, contributions by workers and investment earnings cover a portion of their future benefits. The most recent actuarial review of the Canada Pension Plan (CPP) concluded that it is financially sustainable (Office of the Superintendent of Financial Institution 2013).² No political parties are currently questioning the solvency of the CPP. However, the age-related portion of public pensions—the Old Age Security Program (OAS), a non-contributory benefit solely based on age, citizenship, and duration of residence in Canada, whose objective is mainly to prevent poverty among seniors—is a pay-as-you-go system and its viability over the long term has been questioned. In response to these concerns, the government has decided to increase the age at which this quasi-universal pension will be received. Between 2023 and 2029, the age of eligibility to the OAS will gradually be increased from 65 to 67, while normal age of retirement for the work-based public pension (the CPP) will remain 65, although actuarial adjustments for early take-up of the CPP have been increased recently, making it more costly to collect CPP retirement benefits before the age of 65.

The financial sustainability of the CPP comes at the cost of a relatively low replacement rate, which may represent a growing challenge for future beneficiaries. It is estimated that one in five recent retirees has experienced a drop of at least 25 percent from their pre-retirement consumption level (Moore, Robson, and Laurin 2010). Projections show a significant increase of this proportion among future cohorts of retirees (MacDonald et al. 2011). This is partly due to lower private pension

coverage, a gradual shift from defined-benefit private pension plans to defined-contribution plans, lower return rates on retirement savings and the valorization method (price indexing instead of wage indexing) used within the age-related public pension (OAS) (Moore et al. 2010). Accordingly, recent political debates regarding the work-related public pension have been much more focused on the replacement rate than on the normal age of retirement. Increasing this age is not on the political platform of any parties for the moment, but the idea has been raised by several scholars and the issue might spark debates in the near future (Beaujot, McQuillan, and Ravanera 2007; Denton and Spencer 2011; Hering and Klassen 2010a, 2010b; Hicks 2012; Wolfson 2013).

Conceptual Framework

Retirement is a complex process and its definition and operationalization is subject to interpretation (Denton and Spencer 2009a). The decision to retire from the labour market is among the most important of life-course decisions, and as such is generally driven by multiple interacting factors. Individual factors such as gender, age, family, and socio-economic status interact with organisational and contextual factors (e.g., legislation, labour-market conditions, etc.). Most workers plan their retirement years over a long period, and many earlier life-course events (e.g., educational, marital, and work histories, etc.) may influence the timing of retirement. In addition, even though retirement has been long conceived as a single event marking the transition from the status of paid worker to the status of full retiree, retirement is now much more viewed as a fragmented process where the path to full retirement may be interspersed with episodes of part-time leaves, bridge employments, or second-career jobs. Therefore, retirement is now studied as a long and complex process that takes into account the interaction between different levels (micro, meso, and macro) of determinants within a life-course perspective.

Several conceptual framework along these lines have been proposed (Naegele and Bauknecht 2013; Szinovacz 2013), but as mentioned in the introduction, given that this literature review was part of a larger integrated project bringing together many European Union countries and Canada, the LidA framework was suggested and adopted (Hasselhorn et al. 2014; Hasselhorn and Apt 2015). LidA is the conceptual framework that underlies the German cohort study on work, age, and health (LidA: *leben in der Arbeit*, meaning “life at work”). It assumes that a broad view is necessary to better understand labour-force participation at older ages, and it is organized around the interactions between ten domains that influence decisions about extending working life and delaying retirement: labour market, legislation,

financial factors, social position, domestic domain, human resource management, work-related factors, health, work ability, and motivation.

Most of the domains can be clearly defined and easily circumscribed. Labour market and legislation comprise the usual macro-level contextual factors having an impact on the decision to retire, while human resource management and work-related factors are meso-level factors. Financial factors, social position, domestic domain (marital status, partner's employment status, caring obligations, etc.), motivation, and health all refer to the usual individual factors (micro level). Work ability is, at least in Canada, a less well-known concept and deserves some explanation. It may be summarized as the capacity of an individual to get a specific job done, but this capacity is not independent of other factors such as the type of work, the knowledge and the skills of the worker, and his or her health status. This literature review is organized following the ten domains of the proposed conceptual framework, an organization that does not preclude interactions between the different domains. Accordingly, reference to a single paper can be found under different domains of the literature review.³

Search Method

The objective of this report is to present a critical review of the literature published in the last decade on the determinants of labour-force participation of older Canadians. Determinants were searched and organized according to the ten domains established in the LidA conceptual framework. A systematic search of the literature has been conducted in June 2014 using multidisciplinary subject indexes and labour market-related concepts. A special effort was made to find grey literature. The results from the critical review of the recent Canadian literature on older workers and retirement are presented in the following section.

Literature Review by Research Domains

There exist many studies on work participation and early retirement of older workers in Canada. Studies on the factors explaining a possible return to work after early retirement, however, are not as abundant. Some analyses are descriptive, but there are plenty of analytical quantitative researches on the determinants of work participation at older ages that use regression analysis or more sophisticated methods. Most of these studies are cross-sectional and are based on survey or Census data; few use survival (longitudinal) analysis models. Domains for which data are not readily available through Statistics Canada are the object of fewer studies and are treated through focused surveys sometimes performed within large public-service companies (especially for work ability and motivation domains). More recently,

some studies used linked income tax data files (Denton, Finnie, and Spencer 2013). Such longitudinal data sources can provide a broader life-course perspective, particularly when linked to earlier census data, but their access is highly restricted outside government agencies.

Labour Market

Several studies show regional variations in the employment rates of seniors (Duchesne 2004), their age at retirement (Pold 2006; Turcotte and Schellenberg 2005), and the likelihood that they return to work after retirement or exit from a long-term job (Bonikowska and Schellenberg 2014; Lefebvre, Merrigan, and Michaud 2011). In general, rates of employment among seniors as well as the likelihood of returning to work are higher in Ontario and the Prairies and lower in the Atlantic Provinces and Quebec, a finding that mirrors the strength of the regional labour markets.

Average age at retirement also varies between occupation and economic sectors. Among employees, those in the public sector tend to retire earlier (Pold 2006) and are less likely to return (Bonikowska and Schellenberg 2014) than private-sector employees. In a context where public pensions offer low income replacement rates, these findings can be related to differentials in access to private pension benefits, workplace pension being more prevalent in the public sector (Pignal, Arrowsmith, and Ness 2010). Self-employed workers show more flexible trajectories than salaried employees (Nouroz and Stone 2006) but are overall less likely to retire early (Turcotte and Schellenberg 2005). This may explain the increasing probability of self-employment with age (Duchesne 2004; Pignal et al. 2010), half of working men and one third of working women aged 65 and over being self-employed (Duchesne 2004). The increasing probability of self-employment with age results, in part, from the tendency of those previously working as employees to become self-employed after leaving their career job. Larger access to workplace pension may also explain the finding that retirees from health care, social assistance, and education sectors are least likely to answer they would have kept working were they given working arrangements (Morissette, Schellenberg, and Silver 2004). Occupation and industry also impact behaviours of older workers. Schellenberg, Turcotte, and Ram (2005) found that the likelihood of returning to work after retirement is higher among professionals and managers, perhaps because they possess institutional memory or very specific experience (see also Singh and Verma 2003), or in industries providing flexible work options, and lower in the manufacturing sector.

The mid 1990s trend toward early retirement was, in part, driven by public sector cut-backs and restructuring in many private-sector industries. According to

Finnie and Gray (2011), displaced older workers tend to retire earlier. In addition, unemployment rates are negatively correlated with age at retirement (Galarneau et al. 2015), and bad economic circumstances reduce labour participation of older workers and decrease their odds of returning to work (Singh and Verma 2003). However, laid-off older workers were more likely to return to work than older workers who retired or stopped working because of illness (Bonikowska and Schellenberg 2014). Return to work, however, was generally made at the expense of lower wages: 30 to 40 percent less according to Bonikowska and Schellenberg (2014). The survey of older workers confirms the importance of the economic circumstances on the retirement decision: when asked about the obstacles to re-employment, older workers identified “no work available” followed by “wages too small” as the principal reasons for not working (Pignal et al. 2010). All in all, economic precariousness has an impact on the length of working life and, according to Carrière and Galarneau (2012a), involuntary retirement due to unfavourable economic conditions reduce working-life expectancy by 1.0 year for men and 1.2 year for women.

Legislation and Its Implementation

The public Canadian retirement income system offers a modest replacement rate to those with average lifetime earnings and above as the system tends to focus on meeting minimum retirement income needs (Baldwin 2009). As a consequence, the public pension system is not considered as having a strong incentive for early retirement for those individuals, although Lefebvre et al. (2011) found that state pension had an effect on women at age 60. However, high replacement rates among lower earners affect significantly their decision to retire (Baker, Gruber, and Milligan 2003; Chen, Fougère, and Rainville 2012; Milligan and Schirle 2006). Moreover, a provision within the universal pension system (OAS) allows a spouse age 60–64 to receive a supplemental pension if the other spouse is 65 years old or over and eligible for the Guaranteed Income Supplement. This provision has been shown to have a significant impact on the employment rates of men age 65–69 and women age 60–64 (Baker 2002). The CPP also has a disability program that significantly raises the probability of moving to full retirement for workers aged 50–59 (Chen et al. 2012), although it should be noted that only a small proportion of workers is eligible for this program. All in all, early retirement incentives from the Canadian public pension system are relatively small compared to other OECD countries (Fougère et al. 2009).

Recent minor changes to the work-related public pension (the CPP) might delay the decision to retire,

although the complexity of the retirement process should lead to caution in equating the age of CPP take-up and the age of retirement. For example, to receive a retirement pension from age 60 to 64 (early pension with downward actuarial adjustment), individuals previously needed to stop working or reduce their earnings for at least two months to be able to collect their pension. This work cessation test was eliminated in 2012. Simulations performed by Pollock and Sargent (2004), have shown that, compared to increasing the actuarial adjustment, removing work-test policies was the most efficient policy to delay retirement. It should be noted that the actuarial adjustment is also being gradually increased, yielding a larger penalty for early take-up. Following a change in the rules of the *Income Tax Act* that permitted tax payers to be both contributors and beneficiaries of a registered pension plan, some provinces have adopted a policy of phased retirement where an employee, under certain conditions, can both collect a partial pension while still working with the same employer.

In the past, all provinces and federal employees were subject to mandatory retirement at age 65. Over time, all provinces and the federal government (in 2012) eliminated this provision (Grant and Townsend 2013). It is difficult to assess if the provision had a significant impact in the past. Some studies have found a significant impact on retirement as it was the second most cited reason for retirement, behind health (Gomez and Gunderson 2011; Lefebvre et al. 2011). It should be noted, however, that mandatory retirement affected older retirees only (Gomez and Gunderson 2011). It did seem to have had an impact on university professors, as those working in universities without mandatory retirement did retire later than those who were not (Warman and Worswick 2010). But other studies have shown no global effect of mandatory retirement laws in Québec and Manitoba (Shannon and Grierson 2004). When considering the overall impact of removing mandatory retirement we should also consider that it may have a normative impact on intention to retire (Warren and Kelloway 2010).

Canada as well as some other OECD countries have targeted older workers by tying social assistance to employment-related activities, or by putting in place pilot projects specifically aimed at employing or retaining older workers (Cooke 2006).

Finally, other measures are likely to show an impact on effective retirement age, but in the medium to longer term. For example, the normal retirement age has been raised from age 60 to 65 for federal employees hired in or after 2013, and age of eligibility for Old Age Security (universal base pension) will be raised from 65 to 67 between 2023 and 2029.

Financial Factors

Financial factors are very important in the decision to either retire or, for those already retired, to return to work. In fact, financial readiness is the most cited reason (30 percent) for first retirement (Pignal et al. 2010). For example, having an outstanding mortgage (Singh and Verma 2003; Uppal 2010) or debts over \$5,000 (Singh and Verma 2003) have shown a positive effect on employment rate. Conversely, those who own their dwelling retire earlier (Lefebvre et al. 2011).

Given the structure of the Canadian public pension system, being covered by a registered pension plan (employer sponsored pension plan) is an important factor for financial readiness. Many studies have shown the effect of having a registered pension plan on early retirement (Gomez and Gunderson 2011; Lefebvre et al. 2011; Saba and Guerin 2005; Schirle 2010). Having a pension plan, however, also seems to increase the odds of entering bridge employment (Hébert and Luong 2008), thus combining pension income and earnings. Financial factors could then be seen as having both an income and a substitution effect on the decision to fully retire from the labour market. In fact, close to 40 percent of workers indicated that they would keep working if they could collect both their pension and their wage (Pignal et al. 2010).

However, financial factors can also act as a push factor to return to work. As found by Bonikowska and Schellenberg (2014), older workers leaving a long-term job were more likely to go back to work if their financial situation was less favourable, and they also tended to return to work sooner. All in all, financial consideration is the most cited reason (38 percent) for retirees returning to work (Schellenberg et al. 2005). This push and pull attraction that financial factors play on returning to work can also explain why members of top and bottom family income quintiles had greater chances of being employed (Uppal 2010).

Social Position (Socio-Demographic Factors)

When looking at working behaviour of older workers, most studies discuss the effect of socio-demographic variables such as age, sex, education, and income. Most findings related to this domain are expected, but some studies provide insights on less obvious relationships. Age is, of course, negatively correlated with employment rates (Uppal 2010) and older retirees are less likely to return to work (Bonikowska and Schellenberg 2014; Lefebvre et al. 2011; Singh and Verma 2003)—and if they do return to work, they are more likely to return part time (Schellenberg et al. 2005). As a consequence, more than half the labour force aged 65 and over is actually aged less than 70 (Duchesne 2004; Uppal 2010). Gomez and Gunderson (2011) used conditional life expectancy (by age and gender) rather than age itself

to explain expected age at retirement and show that having a longer life expectancy increases expected age at retirement. The likelihood of being self-employed increases with age (Uppal 2011) and younger retirees are more likely than older retirees to declare they would have kept working had they been given appropriate working arrangements (Morissette et al. 2004). Age also interacts with other variables such as sex and immigrant status (groups were analyzed separately in Grant and Townsend 2013, for instance). Employment rates of older men are higher than employment rates of older women (Duchesne 2004; Uppal 2010), but they are converging (Marshall and Ferrao 2007), mainly because of a cohort effect (Bélanger and Bastien 2013) where older cohorts of women are continuously replaced by younger cohorts whose working behaviour over the life course is getting closer to men of the same age groups. Still, a common finding is that women tend to retire earlier than men (Lefebvre et al. 2011; Pold 2006; Turcotte and Schellenberg 2005) perhaps partly because of joint retirement (see the “Domestic Domain” section). Earlier retirement of women might continue, at least in the short run, as working men still expect to retire later than women, but expected age at retirement of men and women are converging (Gomez and Gunderson 2011; Lefebvre et al. 2011). Men are also more likely to return to work after retirement and returning women are more likely to return part-time (Bonikowska and Schellenberg 2014; Lefebvre et al. 2011; Schellenberg et al. 2005; Singh and Verma 2003). Men are also more likely to be self-employed (Uppal 2011). Finally, men and women also differ in their reasons to retire. Men are more likely to have retired because of mandatory retirement (Gomez and Gunderson 2011) and female informal caregivers are more likely than male informal caregivers to mention the need to provide care for a family member as a reason for retiring (Humble 2009; Pyper 2006b).

Labour force participation rates show a positive gradient with education among older workers (Duchesne 2004; Uppal 2010), as well as throughout the working life (Bélanger and Bastien 2013). Likewise, it has been found that education is positively correlated with age at retirement and expected age at retirement (Lefebvre et al. 2011), with the odds of getting bridge employment (Hébert and Luong 2008) and with the probability of returning to work (Lefebvre et al. 2011) or to be a self-employed older worker (Uppal 2011). Some of these results contrast, however, with those of Pold (2006) who observed a negative effect of education on retirement age. This latter result comes from a descriptive analysis (not multivariate) and appears dubious, education being correlated with higher income, good health, and the possession of an Registered Pension Plan (RPP),

all of which have an important impact on retirement decision. Conditional working life expectancy at age 50 is similar for working individuals of all levels of education, but employment rates at age 50 are highly dependent on educational attainment (Carrière and Galarneau 2012b). One possible explanation for this counterintuitive finding might be that a larger proportion of less-educated older workers leave employment for other reasons than retirement, but never return to work afterwards.

The other common indicator of socio-economic status— income—is of course endogenous with work status. Rather than looking at current income, it is preferable to look at income before retirement, which is found to be negatively correlated with expected and actual age at retirement (Gomez and Gunderson 2011; Lefebvre et al. 2011): higher income before retirement decreases age at retirement. Also, just as with education, higher-income seniors are more likely to be self-employed (Uppal 2011) or to enter bridge employment (Hébert and Luong 2008).

The importance of immigration in the Canadian context has brought many scholars to look at immigrants' specific behaviours with respect to retirement. Median age at arrival of immigrants was 31.7 years in 2011 and they, therefore, start to participate to the Canadian labour market later on average than natives. They also tend to have lower employment rates and lower wages than natives (Yssaad 2012) and are therefore likely to have cumulated less wealth or pension benefits at a given age. Accordingly, immigrants plan to retire later than natives (Gomez and Gunderson 2011) and are less likely to retire early (Lefebvre et al. 2011; Turcotte and Schellenberg 2005). Recent immigrants are less likely than natives to make contributions to a private pension plan and they also derive less of their retirement income from private pension plans (Hum and Simpson 2010). The immigrant effect on retirement age appears strongest for recent immigrants, perhaps because they have increasing difficulties integrating into the labour market (Picot and Sweetman 2005). Immigrants are also more likely to retire involuntarily because of a disability than non-immigrants (Denton, Plenderleith, and Chowhan 2010). Grant and Townsend (2013) found that they tend to be more affected by mandatory retirement than natives. Finally, immigrants are more likely to be financially vulnerable after retirement (Légaré and Boucher 2012), and therefore are more likely to receive Guaranteed Income Supplement (GIS) or to receive a higher amount of the GIS (Dempsey 2006; Finnie, Gray, and Zhang 2013).

Domestic Domain

The different spheres of an individual's life are interconnected and modulate the decision to retire early or not.

Most notable is the impact of a spouse on such an important decision. It is most likely that among couples, the decision to leave the labour market is taken considering both partners' interests. Just as in the migration decision (Mincer 1978), partners may be "tied-stayers" and "tied-movers" and the analysis of the decision to retire would benefit from a family perspective. Unfortunately, most social surveys are based on an individual sampling frame and the aspect of the decision to retire related to the couple is most often analyzed using a proxy such as the presence of a spouse or marital status of the respondent. In these circumstances, the effect of conjugal status often appears unclear, as it might differ for men and women (Bonikowska and Schellenberg 2014) and evolve over time (Lefebvre et al. 2011; Schellenberg and Ostrovsky 2008). In addition, some studies are looking at expected age at retirement, while others are interested at actual age at retirement or at the timing of spousal retirements (who is retiring first). Results show that an older married man whose wife was working was more likely to be working himself, even when education and age of both partners are accounted for (Schirle 2008). More generally, having another family member with positive earnings (thus, likely employed) increased the probability of continuing to work (Uppal 2010). Gomez and Gunderson (2011) found that married individuals are more likely to expect an early retirement, and that the effect of marriage is to reduce the expected age at retirement for married women and to increase it for married men (perhaps because husbands are generally older than their wives). This result is partially supported by Lefebvre et al. (2011) who found that those living in a couple are more likely to retire earlier, but this effect seems to be mostly driven by women—since after stratification by sex, only married women retire or plan to retire earlier than non-married women (not statistically significant for men). Finally, a study looking at joint retirement (Schellenberg and Ostrovsky 2008) revealed that its incidence (joint retirement within two years) lies between 20 and 40 percent, and the most prevalent pattern is men retiring before their spouse. The probability of joint retirement decreases with increasing age difference between spouses, increases with increasing income, and appears to be declining over time (from 1991 to 2001).

Having children at home has an impact on family expenses, hence it is not surprising to find that the presence of children affects both the odds of expecting a higher age at retirement (Gomez and Gunderson 2011; Lefebvre et al. 2011) and the probability of returning to work after retirement (Lefebvre et al. 2011).

Another aspect of the domestic domain concerns caregiving inside or outside of the family unit, most often provided by women. Jacobs et al. (2014) report

that high-intensity caregivers are more likely to be fully retired and less likely to be employed full time. Also, female high-intensity caregivers were more likely to be employed part time or to be out of the labour market. That finding is supported by Pyper (2006b), who reports that caregivers were more likely to reduce work hours, change work patterns, or turn down a job offer or promotion than non-caregivers, although it would seem that only high-intensity caregiving is affecting labour-force participation (Lilly, Laporte, and Coyte 2010). Obviously, caregivers are more likely than other individuals to mention the need to provide care for a family member as a reason for retiring (21 vs. 10 percent). Nevertheless, Carrière and Galarneau (2012b) estimated that, in terms of conditional working life expectancy at age 50, involuntary retirement due to family obligations has had negligible effects, but its impact could grow due to population aging. In any case, this could be conducive to policy development, since if some caregivers indicate that they have retired voluntarily to provide help, they also report that there could have been “circumstances that might have influenced or assisted them to remain in the paid workforce” (Humble 2009).

Work—Human Resources Management and Interventions

The effect of human resources (HR) management on the actual retention or attraction of older workers is not well documented in Canada. Results from small sectorial surveys show that most organizations are not engaging in HR practices that would contribute to the retention of older workers. The public sector and large companies are more likely than other employers to be engaged in such HR practices (Armstrong-Stassen and Templer 2006).

Individuals indicate that they might prolong their working life given some work arrangements or changes in managerial attitude. Preferences seem to vary according to the type of occupation (managers compared to other workers for instance) and sex (Armstrong-Stassen 2006; Bettache 2007; Blakeley and Ribeiro 2008; Pignal et al. 2010). Others have shown that HR practices have close to no influence when individual characteristics are controlled for (Saba and Guerin 2005). Data confirming the efficiency of HR practices in retaining older workers are lacking or anecdotal at best (Dziadekwich, Andrushko, and Klassen 2012).

Nevertheless, as can be expected, intentional or unintentional age discrimination through HR practices or colleague’s negative behaviour may lead to dissatisfaction and disengagement from one’s job, which in turn might lead to an intention to retire earlier (Lagacé et al. 2010). Similarly, ageist practices can result in poor retention of older workers and create barriers to retrain or

hire those wishing to re-enter the workforce (Ng and Law 2014). Even seemingly age-neutral policies have different effects on different age groups. For example, downsizing seems to have a larger effect on older employees, who are more prone to leave, while training is not always adapted to them (Marshall and Marshall 2003).

In trying to identify HR practices and conditions that may improve attachment to the labour force among older workers, the department of Human Resources and Skills Development Canada conducted a consultation with employers and older workers (Human Resources and Skills Development Canada 2011). Practices offering promising results were grouped into five main categories: accommodating workplaces, financial incentives and pension benefits, quality work experience, skills development, and health benefits and wellness supports. More research is needed in this area to foster the development of sound HR policies and practices having a measurable impact on labour force participation and retirement.

Work—Work-Related Factors

Taking a life-cycle perspective paints another picture of retirement and labour-force participation. Those who enjoyed a more stable working life (20 years or more in the same job), for instance, were more likely to retire early (Pold 2006). In a study of older individuals out of a long-term job (12 years or more with a single employer), Bonikowska and Schellenberg (2014) found that duration since the end of the long-term job was an important factor explaining return to work: re-employment generally occurred within two years of exit. Interruption of a long-tenured job may therefore lead to early retirement if re-employment does not occur in a short time following exit. Older workers may also be deterred from going back to work by a too-important drop in salary. Finnie and Gray (2011) found that earnings of returning workers aged 50 to 65 dropped by between 34 and 46 percent in the first year after layoff (compared to –25 to –29 percent for younger workers). The drop increased with age.

A nationally representative survey (National Population Health Survey) showed the importance of work factors as determinants of early retirement. Park (2010) found that high job strain (for women), job dissatisfaction, low supervisor support, and physical demands (for men) were all significantly related to early exit from the labour force. Turcotte and Schellenberg (2005), using the same survey, found that job strain affects only some occupations: when combined with managerial, professional and technical occupations, job strain was significantly associated with early retirement. In these

occupations, job strain is certainly more related to high level of stress than physical demand. As for job satisfaction, a descriptive analysis of the Survey of Older Workers by Pignal et al. (2010) shows that despite the fact that 40 percent of older workers found their position quite a bit or extremely stressful, 90 percent of them are satisfied with their current position. A survey of recent retirees of a large telecom company also shows that individuals who were employed for a longer time were more likely to return to work, but this likelihood is also influenced by prior working conditions since individuals who experienced downward or lateral mobility were found to be less likely to return to work (Singh and Verma 2003).

Health and Health-Related Behaviour

There is an abundance of research on the effect of health on labour force withdrawal and retirement. Poor health status, health shocks and activity limitations are all events and conditions that have a negative impact on the probability of being employed (Au, Crossley, and Schelhorn 2004; Uppal 2010), while increasing the odds of retiring (Schirle 2010). In fact, most individuals who are unemployed and unable to work indicate that they would go back to work if their health improved (Pignal et al. 2010). Conversely, being in good health increases the odds of expecting late retirement or actually retiring later (Gomez and Gunderson 2011; Saba and Guerin 2005). Health was found to be the main reason given to justify retirement (Lefebvre et al. 2011) and is strongly associated with early retirement (Lefebvre et al. 2011; Park 2010; Saba and Guerin 2005; Schirle 2010). Risk of early exit is also related to the number of chronic conditions one suffers from (Park 2010; Pyper 2006a).

Usually, poor health is associated with unwanted retirement (Humble 2009), especially for low-income individuals with a disability (Denton et al. 2010). Based on specific criteria to define involuntary retirement due to poor health, Carrière and Galarneau (2012b) estimated that it reduced conditional working-life expectancy at age 50 by nearly a year. The effect of poor health on the labour supply can sometimes be more subtle by favouring the transition to part-time work (Chen et al. 2012). However, it has no effect on the probability of entering bridge employment (Hébert and Luong 2008), while activity limitations increase the odds of being self-employed (Uppal 2011).

Poor health also affects those already retired: people in poor health were found to be the least likely to return to work (Lefebvre et al. 2011; Schellenberg et al. 2005). Similarly, those who left a long-term job because of injury or illness were less likely to return to work (Bonikowska and Schellenberg 2014). When looking at the health status of retirees, not working and fully retired

individuals are more likely to have multiple health conditions, to have lower perceived health, and to be physically inactive compare to those who are working (Park 2011; Pyper 2006a).

Looking at specific health behaviours, Park (2010) found that daily smoking and heavy drinking were significantly associated with early exits for men, while obesity was significantly associated with early exits for women. Smoking and obesity seem to have an effect on the health status, which in turn has an effect on the timing of retirement. Heavy drinking, however, appears to be directly related to early exit from the labour force (Park 2010).

Work Ability (Training)

The concept of work ability is not easy to circumscribe. Of course, health should be considered as an important component of that concept, and so should ability, motivation, interpersonal skills, or intelligence, but these characteristics are very difficult to quantify and operationalize. Given that health has been identified as a separate domain, the concept of work ability will be used here to look at studies focusing on job training, another important component of work ability. Overall, there seems to be little convincing research on the effect of training on work activity and retirement.

Older workers usually show lower rates of participation in training, but the gap between younger and older workers has been shrinking over time (Park 2012). Two-thirds of the increasing participation among older workers can be attributed to improvement in educational attainment and workplace characteristics (Park 2012). Age discrimination should be looked at as one of the factors leading to lower participation rate of older workers in training activities. For instance, Ng and Law (2014) found that older workers receive more negative performance ratings and fewer developmental opportunities from younger managers.

Training practices could also explain the lower participation of older workers in training activities. For example, Armstrong-Stassen and Templer (2005) found that upper-level managers believed that access to training and adjustments of training methods to suit older workers were important for worker retention. Unfortunately, they also found that very few organizations were highly engaged in those training practices (less than 10 percent), while 40 to 50 percent were somewhat engaged. Providing training activities to older workers, using appropriate training practices, would likely fill a need. Pignal et al. (2010) found that older workers favour job training to having to move to regain re-employment. As many as 74 percent of older workers who were looking for work were willing to learn new skills to regain employment, compared to only 27 percent

who were willing to move, mostly because of family ties, but also because of community attachment and moving cost. Job training could play a role in extending the working life, given that post-retirement training increases the odds of returning to work (Singh and Verma 2003). However, this relationship between job training and re-employment might point to the fact that having the expectation to work may increase the odds of engaging in post-retirement training. Another consideration to keep in mind is that retraining might not even be financially viable for older workers. Neill and Schirle (2009) have shown that the cost of formal education in terms of time and money might exceed the expected benefits for workers older than 50. More targeted short-termed training programs aimed at skills upgrading might be preferred over formal education for older workers.

Motivation

This literature review found few studies on this topic. Relating individual motivation to labour-force participation is not an easy task. Rather, it seems easier to relate motivation and HR practices, which in turn may influence labour-force participation. Good HR practices may help in increasing employees' motivation level. Saba and Guerin (2005) found that health-care managers who feel their professional development is stalled (i.e., they won't be able to acquire new competencies) tend to retire earlier and, as a corollary, they found that unmet expectations about acquiring new competencies increases the probability of retiring early. The same study also put forward the idea that unmet expectations about working in a pleasant environment increase the probability of retiring early. In a study of female nurses, Lagacé et al. (2010) found that ageist communication at work has a negative impact on motivation, which in turn increases the odds of having the intention to retire.

Furthermore, a study has shown that 14 percent of Canadian workers aged 55 and over are dissatisfied with their work-life balance (Uriarte-Landa and Hébert 2009). Dissatisfaction is more prominent among women, workers who have an unemployed partner, and those who have relatively intensive (more than four hours per week) caregiving activities. Dissatisfaction with work-life balance may affect motivation at work.

Other studies have looked at factors motivating the decision to return to work after retirement. Schellenberg et al. (2005) note that the most cited reasons for returning to work, after financial factors, are "did not like retirement" and the intrinsic aspect of work (social contacts, challenging tasks, wanting to feel useful). Similarly, Morissette et al. (2004) found that retirees whose life satisfaction has improved since retirement are least likely to declare that they would have kept working given flexible work schedule arrangements.

Research Gaps

General Remarks and Research Policy Options

A lot of research has been done in Canada around the issue of retirement, but there still remain a lot of unknowns. Several studies cover a wide range of determinants of retirement, but many of these studies rely on the same data sources (mainly the General Social Survey). While the development of new surveys is becoming more and more limited, access to linked administrative data files must be improved to help provide a life-course perspective on retirement, especially as individual trajectories are becoming more diverse. Also, data providing the employer's perspective on the issue of an aging workforce is almost non-existent. Since employers are the ones taking most of the important economic and industrial decisions, this seems to be a significant knowledge gap. In addition, qualitative research investigating the changing values and attitudes of workers, unions, and employers toward extending the working life would provide valuable information on the social acceptability of potential future public policies.

Providing targeted funding in the area of labour-force participation among older Canadians seems critical and urgent in the context of population aging. Also, one must be cautious when extrapolating the results of recent research to predict future trends. Characteristics of older workers are changing relatively fast: results from past research may not hold true in the near future.

Specific Research Gaps by Domain⁴

Labour Market

More information is needed on how macroeconomic factors such as growth rate, unemployment, and industrial structure affect the older component of the labour force and how these effects interact with individual socio-demographic characteristics (education, sex, immigrant status, etc.). What can we learn from these interactions to better project future trends for labour-force participation of those 60 and over?

Specific research should be conducted on the ability of older workers to keep their jobs as well as their capacity to acquire new ones, as these are two separate issues with distinct characteristics.

What is the impact of firm size on the labour-force participation of older workers? Are larger firms more willing or better able to keep their older workers? For seniors, is it easier to acquire a new job in a small or in a larger firm?

We know that self-employed individuals retire later, but we need to know more about the relationship between self-employment and retirement. Would incentives toward self-employment help older individuals to keep working or return to work after retirement?

Legislation and Its Implementation

Several reforms regarding public and private pensions were implemented recently in Canada (phased retirement for occupational pension plans, pension income splitting, changes to C/QPP actuarial adjustments for early or delayed pensions, having to pay contributions for workers receiving benefits, treatment of years of low earnings in the calculation of pension benefits, elimination of the work cessation test, an eventual increase in the age of eligibility for the OAS pension). The impact of these measures on retirement trends must be closely monitored. A specific issue that also merits some research attention is the effectiveness of earned income exemption in bringing those benefiting from the GIS back into the labour force.

How are older workers affected by general governmental programs not necessarily targeted at them (e.g., employment insurance)? What is the impact of changes to those programs on the labour-force participation of those 60 and over?

Financial Factors

A more comprehensive and inclusive analysis of accumulated wealth on the decision to retire is needed. Most studies only take some components of wealth into account.

What is the net effect of having an RPP on early retirement?

Social Position (Socio-Demographic Factors)

The impact of delayed early-life transitions and other aspects of the life-course on the process and timing of retirement need to be researched, especially among women. Are the people who make early exits from the labour force the same people who made early entrances?

As the proportion of immigrants increases among older workers, more research is needed on their labour-force participation, as well as on their retirement behaviour and preferences.

Domestic Domain

The changing nature of union formation probably has an impact on the decision-making process of retirement. Is it more and more an individual decision? How has the decision-making process evolved over time?

Baby boomers' parents are aging and there will be increasing pressure to balance caregiving tasks and extend the working life. More research should look at the possible labour-force impact of creating incentives for family members to provide home care services.

Work—Human Resources Management and Interventions

There is a lot of research on what could be done or could have been done at the HR level to extend the

working life, but there is virtually no research estimating the real impact that such measures and attitudes would really have.

More research is needed to monitor trends regarding ageism in the workplace. As older workers tend to delay their retirement, is ageism going to be a growing issue or not?

Work—Work-Related Factors

More information is needed on how work factors interact with socio-demographic and financial characteristics. Do work factors have a significant impact on retirement outcome, regardless of worker's characteristics? Does their impact vary between low- and high-wage earners, between men and women, between immigrant and non-immigrant or between high- and low-skill workers?

Health and Health-Related Behaviour

As older workers come to represent a growing proportion of the labour force and are more and more pressured to delay retirement, additional research must look at the impact of disabilities on the timing of retirement. How long can we expect older workers to keep working given trends in healthy life expectancy? What is the impact of specific disabilities with respect to job sectors? Which HR practices can be put in place to mitigate the impact of disabilities?

One Canadian study provided significant results looking at the impact of health-related behaviours on labour-force participation. This economic and public health issue would benefit from further investigation.

Work Ability (Training)

There is little research done on the training of older workers. Is training efficient enough to keep older workers in the work force? Could training be used to help retirees get back to work? How do training and abilities interact with other socio-demographic factors such as educational attainment and skills, health/disability status, the level of workplace accommodation offered by employers, and the changing nature of jobs? How are today's older adults different from yesterday's older adults with respect to job training? How is training of older workers perceived by employers?

Motivation

To what extent are non-financial aspects of work (e.g., "sense of accomplishment," "social contact," "wanting to feel useful") important drivers for employment participation among older adults? Are these aspects growing in importance among more recent cohorts of older workers? How have social/cultural views toward retirement evolved over time? How have values and attitudes toward staying longer in the workforce evolved?

Acknowledgements

This project received the support of a SSHRC fast-track activity titled "Understanding employment participation of older workers" and is a component of the Joint Programming Initiative "More Years, Better Lives."

Notes

- 1 65.1 among men and 64.8 among women (CANSIM, Table 282-0051).
- 2 This is also the case for the Quebec Pension Plan.
- 3 As an example, the motivation to work may be influenced by the legislation (pension system), the type of job or the health and financial statuses of the individual.
- 4 We wish to thank policy analysts and researchers from the Strategic and Service Policy Branch within the Department of Employment and Social Development Canada for providing substantial input within this section.

References

- Armstrong-Stassen, M. 2006. "Encouraging Retirees to Return to the Workforce." *Human Resource Planning* 29(4):38-44.
- Armstrong-Stassen, M., and A.J. Templer. 2005. "Adapting Training for Older Employees: The Canadian Response to an Aging Workforce." *Journal of Management Development* 24(1):57-67. <http://dx.doi.org/10.1108/02621710510572353>.
- Armstrong-Stassen, M., and A.J. Templer. 2006. "The Response of Canadian Public and Private Sector Human Resource Professionals to the Challenge of the Aging Workforce." *Public Personnel Management* 35(3):247-60. <http://dx.doi.org/10.1177/009102600603500307>.
- Au, D.W.H., T.F. Crossley, and M. Schelhorn. 2004. The Effect of Health Changes and Long-Term Health on the Work Activity of Older Canadians. Social and Economic Dimensions of an Aging Population Research Paper 119, McMaster University, Hamilton.
- Baker, M. 2002. "The Retirement Behavior of Married Couples—Evidence from the Spouse's Allowance." *Journal of Human Resources* 37(1):1-34. <http://dx.doi.org/10.2307/3069602>.
- Baker, M., J. Gruber, and K. Milligan. 2003. "The Retirement Incentive Effects of Canada's Income Security Programs." *Canadian Journal of Economics/Revue canadienne d'économie* 36(2):261-90. <http://dx.doi.org/10.1111/1540-5982.t01-1-00001>.
- Baldwin, B. 2009. *Research Study on the Canadian Retirement Income System*. Ottawa: Ministry of Finance.
- Beaujot, R., K. McQuillan, and Z. Ravanera. 2007. "Population Change in Canada to 2017 and Beyond: The Challenges of Policy Adaptation." *Horizons* 9(4):3-12.
- Bélanger, A., and N. Bastien. 2010. *Immigration, Ethnocultural Diversity and the Future Composition of the Canadian Labour Force*. Lisbon, Portugal: Eurostat-UNECE Work Session on Demographic Projections.
- Bélanger, A., and N. Bastien. 2013. "The Future Composition of the Canadian Labor Force: A Microsimulation Projection." *Population and Development Review* 39(3):509-25. <http://dx.doi.org/10.1111/j.1728-4457.2013.00614.x>.
- Bettache, M. 2007. "Les Pratiques de Gestion des Ressources Humaines Favorisant le Maintien en Emploi et L'engagement Organisationnel des Travailleurs Vieillissants." PhD dissertation, Université de Montréal, Canada.
- Blakeley, J.A., and V.E. Ribeiro. 2008. "Early Retirement among Registered Nurses: Contributing Factors." *Journal of Nursing Management* 16(1):29-37. <http://dx.doi.org/10.1111/j.1365-2934.2007.00793.x>. Medline:18211333
- Bonikowska, A., and G. Schellenberg. 2014. *Employment Transitions Among Older Workers Leaving Long-Term Jobs: Evidence from Administrative Data*. Ottawa: Statistics Canada.
- Burniaux, J.-M., R. Duval, and F. Jaumotte. 2004. "Coping with Ageing: A Dynamic Approach to Quantify the Impact of Alternative Policy Options on Future Labour Supply in OECD Countries." OECD Economics Department Working Paper 371, OECD Publishing. <http://dx.doi.org/10.1787/224538175006>.
- Carrière, Y., and D. Galarneau. 2011. "Delayed Retirement: A New Trend?" *Perspectives on Labour and Income* 23(4). Statistics Canada Cat. No. 75-001-XIE.
- Carrière, Y., and D. Galarneau. 2012a. *How Many Years to Retirement?* Ottawa: Statistics Canada.
- Carrière, Y., and D. Galarneau. 2012b. *The Impact of Involuntary Breaks in Employment and Level of Education on the Timing of Retirement*. Ottawa: Statistics Canada.
- Carrière, Y., L. Martel, J.-F. Picard, and J. Légaré. 2014. "La contribution de l'immigration à la taille et la diversité ethnoculturelle des futures cohortes de personnes âgées au Canada." Colloque de l'Association internationale des démographes de langue française, Bari, Italy, May.
- Chen, X., M. Fougère, and B. Rainville. 2012. "Financial Factors and Labour Market Transitions of Older Workers in Canada." *International Journal of Population Research* 2012:458723. <http://dx.doi.org/10.1155/2012/458723>.
- Cooke, M. 2006. "Policy Changes and the Labour Force Participation of older workers: evidence from six countries." *Canadian Journal on Aging/La revue canadienne du vieillissement* 25(4):387-400. <http://dx.doi.org/10.1353/cja.2007.0015>. Medline:17310459
- Dempsey, C. 2006. *Immigrant Income and the Family*. Ottawa: Citizenship and Immigration Canada.
- Denton, F.T., C.H. Feaver, and B.G. Spencer. 2010. "Cohort Working Life Tables for Older Canadians." *Canadian Studies in Population* 37(1-2):175-206.
- Denton, F.T., R. Finnie, and B.G. Spencer. 2013. "The Age Pattern of Retirement: Comparisons of Longitudinal, Pseudo-Cohort, and Period Measures." *Canadian Studies in Population* 40(3/4):193-203.
- Denton, F.T., and B.G. Spencer. 2009a. "What Is Retirement? A Review and Assessment of Alternative Concepts and Measures." *Canadian Journal on Aging/La revue canadienne du vieillissement* 28(1):63-76. <http://dx.doi.org/10.1017/S0714980809090047>. Medline:19860967
- Denton, F.T., and B.G. Spencer. 2009b. "Population Aging, Older Workers, and Canada's Labour Force," Research Report, Quantitative Studies in Economics and Population, McMaster University, Hamilton.

- Denton, F.T., and B.G. Spencer. 2011. "Age of Pension Eligibility, Gains in Life Expectancy, and Social Policy." *Canadian Public Policy/Analyse de politiques* 37(2):183-99. <http://dx.doi.org/10.3138/cpp.37.2.183>. Medline:22069811
- Denton, M., J. Plenderleith, and J. Chowhan. 2010. "Retirement Decisions of People with Disabilities: Voluntary or Involuntary," Research Report, Quantitative Studies in Economics and Population, McMaster University, Hamilton.
- Duchesne, D. 2004. "More Seniors at Work." *Perspectives on Labour and Income* 5(2). Statistics Canada Cat. No. 75-001-XIE.
- Dziadekwich, R., K. Andrushko, and K. Klassen. 2012. "A New Approach to Retaining Older Workers." *Canadian Nurse* 108(6):18-20. Medline:22866567
- Expert Panel on Older Workers. 2008. *Supporting and Engaging Older Workers in the New Economy*. Ottawa: Human Resources and Skills Development Canada.
- Finnie, R., and D. Gray. 2011. "Labour-force participation of older displaced workers in Canada." In *Canadian Research Index*. Ann Arbor, MI: ProQuest Micromedia, IRPP.
- Finnie, R., D. Gray, and Y. Zhang. 2013. "Guaranteed Income Supplement (GIS) Status Amongst the Retired Population: An Analysis of the Incidence." *Canadian Public Policy/Analyse de politiques* 39(Supplement 1):S65-S79. <http://dx.doi.org/10.3138/CP.39.Supplement1.S65>.
- Fougère, M., S. Harvey, Y. Lan, A. Léonard, and B. Rainville. 2009. "Incentives for Early Retirement in Canada's Defined-Benefit Public and Private Pension Plans: An Analysis with a Dynamic Life-Cycle CGE Model." In *Retirement Policy Issues in Canada*, ed. M.G. Abbott, C.M. Beach, R.W. Boadway, and J.G. MacKinnon, 129-66. Montreal: McGill-Queen's University Press.
- Galarneau, D., M. Turcotte, Y. Carrière, and E. Fecteau. 2015. "Impact of the Local Unemployment Rate on Permanent Retirement." Labour Statistics: Research Paper 4, Statistics Canada, Ottawa.
- Gomez, R., and M. Gunderson. 2011. "For Whom the Retirement Bell Tolls: Accounting for Changes in the Expected Age of Retirement and the Incidence of Mandatory Retirement in Canada." *Canadian Public Policy/Analyse de politiques* 37(4): 513-39. <http://dx.doi.org/10.3138/cpp.37.4.513>.
- Grant, H., and J. Townsend. 2013. "Mandatory Retirement and the Employment Rights of Elderly Canadian Immigrants." *Canadian Public Policy/Analyse de politiques* 39(1):135-52. <http://dx.doi.org/10.3138/CP.39.1.135>.
- Hasselhorn, H.M., and W. Apt. 2015. *Understanding Employment Participation of Older Workers: Creating a Knowledge Base for Future Labour Market Challenges*. Berlin: Federal Ministry of Labour and Social Affairs (BMAS) and Federal Institute for Occupational Safety and Health (BAuA).
- Hasselhorn, H.M., R. Peter, A. Rauch, H. Schröder, E. Swart, S. Bender, J.-B. du Prel, M. Ebener, S. March, M. Trappmann, et al. 2014. "Cohort Profile: The LidA Cohort Study—A German Cohort Study on Work, Age, Health and Work Participation." *International Journal of Epidemiology* 43(6):1736-49. <http://dx.doi.org/10.1093/ije/dyu021>. Medline:24618186
- Hébert, B.-P., and M. Luong. 2008. "Bridge Employment." *Perspectives on Labour and Income* 9(11). Statistics Canada Cat. No. 75-001-XIE.
- Hering, M., and T.R. Klassen. 2010a. "Strengthening Fairness and Funding in the Canada Pension Plan: Is Raising the Retirement Age an Option?" Research Paper, Social and Economic Dimensions of an Aging Population, McMaster University, Hamilton.
- Hering, M., and T.R. Klassen. 2010b. *Is 70 the New 65?: Raising the Eligibility Age in the Canada Pension Plan*. Toronto: School of Public Policy and Governance, University of Toronto. Mowat Centre for Policy Innovation.
- Hicks, P. 2011. "The Surprisingly Large Policy Implications of Changing Retirement Durations." Research Paper, Social and Economic Dimensions of an Aging Population, McMaster University, Hamilton.
- Hicks, P. 2012. "Later Retirement: The Win-Win Solution." Commentary No. 345, CD Howe Institute, Toronto. <http://dx.doi.org/10.2139/ssrn.2041464>.
- Hum, D., and W. Simpson. 2010. "The Declining Retirement Prospects of Immigrant Men." *Canadian Public Policy/Analyse de politiques* 36(3):287-305. <http://dx.doi.org/10.3138/cpp.36.3.287>. Medline:20939137
- Human Resources and Skills Development Canada. 2011. *HRSDC Consultations with older workers and Employers: Summary of What We Heard*. Ottawa: Labour Market Policy Directorate.
- Humble, Á.M. 2009. *Retirement Processes and Outcomes of Individuals Who Retire to Give Care*. Halifax: Atlantic Research Centre for Family-Work Issues.
- Jacobs, J.C., A. Laporte, C.H. Van Houtven, and P.C. Coyte. 2014. "Caregiving Intensity and Retirement Status in Canada." *Social Science & Medicine* 102:74-82. <http://dx.doi.org/10.1016/j.socscimed.2013.11.051>. Medline:24565144
- Lagacé, M., F. Tougas, J. Laplante, and J.-F. Neveu. 2010. "Ageist Communication at Work: A Path to Psychological Disengagement and Retirement of Experienced Nurses?" *Revue Internationale de Psychologie Sociale* 23(4):91-121.
- Lefebvre, P., P. Merrigan, and P.-C. Michaud. 2011. "The Recent Evolution of Retirement Patterns in Canada," Research Report, Social and Economic Dimensions of an Aging Population, McMaster University, Hamilton. <http://dx.doi.org/10.2139/ssrn.2423356>.
- Légaré, J., and M.P.B. Boucher. 2012. "Qui seront les premiers nés du baby-boom à risque de vulnérabilité financière à la retraite? Une comparaison Québec-Ontario." *Canadian Journal on Aging/La revue canadienne du vieillissement* 31 (2): 149-59. Medline:22647662
- Lilly, M.B., A. Laporte, and P.C. Coyte. 2010. "Do They Care too much to Work? The Influence of Caregiving Intensity on the Labour Force Participation of Unpaid Caregivers in Canada." *Journal of Health Economics* 29(6):895-903. <http://dx.doi.org/10.1016/j.jhealeco.2010.08.007>. Medline:20864197
- MacDonald, B.J., K.D. Moore, H. Chen, and R.L. Brown. 2011. "The Canadian National Retirement Risk Index: Employing Statistics Canada's LifePaths to Measure the Financial Security of Future Canadian Seniors." *Canadian Public*

- Policy/Analyse de politiques* 37(Supplement):S73–S94. Medline:21751486
- Marshall, K., and V. Ferrao. 2007. "Participation of Older Workers." *Perspectives on Labour and Income* 8(8). Statistics Canada Cat. No. 75-001-XIE.
- Marshall, V.W., and J.G. Marshall. 2003. "Ageing and Work in Canada: Firm Policies." *Geneva Papers on Risk and Insurance. Issues and Practice* 28(4):625–39. <http://dx.doi.org/10.1111/1468-0440.00250>.
- Martel, L., É. Caron Malenfant, J.-D. Morency, A. Lebel, A. Bélanger, and A. Bastien. 2011. "La population active canadienne en 2031: tendances projetées à l'horizon 2031." *L'observateur économique canadien* 24 (8). At <http://www.statcan.gc.ca/pub/11-010-x/2011008/part-partie3-fra.htm>.
- McDaniel, S.A., L.L. Wong, and B. Watt. 2015. "An Aging Workforce and the Future Labour Market in Canada." *Canadian Public Policy/Analyse de politiques* 41(2):97–108. <http://dx.doi.org/10.3138/cpp.2014-057>.
- Milligan, K., and T. Schirle. 2006. "Public Pensions and Retirement: International Evidence in the Canadian Context." Skills Research Initiative Working Paper 2006-A13, Micro-Economic Policy and Analysis, Industry Canada.
- Mincer, J. 1978. "Family Migration Decisions." *Journal of Political Economy* 86(5):749–73. <http://dx.doi.org/10.1086/260710>.
- Moore, K.D., W. Robson, and A. Laurin. 2010. "Canada's Looming Retirement Challenge: Will Future Retirees Be Able to Maintain Their Living Standards upon Retirement?" Commentary No. 317, C.D. Howe Institute, Toronto.
- Morissette, R., G. Schellenberg, and C. Silver. 2004. "Retaining Older Workers." *Perspectives on Labour and Income* 5(10). Statistics Canada Cat. No. 75-001-XIE.
- Naegele, G., and J. Bauknecht. 2013. "WP3: Conceptual framework." Research Report of the European MoPAct Project, Mobilising the Potential of Active Ageing in Europe.
- Neill, C., and T. Schirle. 2009. "Remain, Retrain or Retire: Options for Older Workers following Job Loss." In *Retirement Policy Issues in Canada*, ed. M.G. Abbott, C.M. Beach, R.W. Boadway, and J.G. MacKinnon, 277–308. Montreal: McGill-Queen's University Press.
- Ng, E.S.W., and A. Law. 2014. "Keeping Up! Older Workers' Adaptation in the Workplace after Age 55." *Canadian Journal on Aging/La revue canadienne du vieillissement* 33(1):1–14. <http://dx.doi.org/10.1017/S0714980813000639>. Medline:24345532
- Nouroz, H., and L.O. Stone. 2006. "The Distinctive Patterns of Work-to-Retirement Transition among the Self-Employed." In *New Frontiers of Research on Retirement*, ed. Leroy O. Stone, 255–90. Ottawa: Statistics Canada.
- Office of the Superintendent of Financial Institution. 2013. *Actuarial Report (26th) on the Canada Pension Plan*. Ottawa: Minister of Public Works and Government Services.
- Park, J. 2010. "Health Factors and Early Retirement among Older Workers." *Perspectives on Labour and Income* 11(6). Statistics Canada Cat. No. 75-001-XIE.
- Park, J. 2011. "Retirement, health and employment among those 55 plus." *Perspectives on Labour and Income* 23(1). Statistics Canada Cat. No. 75-001-XIE.
- Park, J. 2012. "Job-related training of older workers." *Perspectives on Labour and Income* 24(2). Statistics Canada Cat. No. 75-001-XIE.
- Picot, G., and A. Sweetman. 2005. *The Deteriorating Economic Welfare of Immigrants and Possible Causes: Update 2005*. Ottawa: Statistics Canada.
- Pignal, J., S. Arrowsmith, and A. Ness. 2010. *First Results for the Survey of Older Workers, 2008*. Ottawa: Statistics Canada.
- Pold, H. 2006. "Retirement." *Perspectives on Labour and Income* 7 (5). Statistics Canada Cat. No. 75-001-XIE.
- Pollock, A., and T.C. Sargent. 2004. "Retirement Behaviour and the CPP: A Simulation Model." Working Paper 2004-08, Department of Finance, Canada.
- Pyper, W. 2006a. "Aging, Health and Work." *Perspectives on Labour and Income* 7(2). Statistics Canada Cat. No. 75-001-XIE.
- Pyper, W. 2006b. *Balancing Career and Care*. Ottawa: Statistics Canada.
- Saba, T., and G. Guerin. 2005. "Extending Employment Beyond Retirement Age: The Case of Health Care Managers in Quebec." *Public Personnel Management* 34(2):195–214. <http://dx.doi.org/10.1177/009102600503400205>.
- Schellenberg, G., and Y. Ostrovsky. 2008. "Retiring Together, or Not." *Perspectives on Labour and Income* 9(4). Statistics Canada Cat. No. 75-001-XIE.
- Schellenberg, G., M. Turcotte, and B. Ram. 2005. "Post-Retirement Employment." *Perspectives on Labour and Income* 6(9). Statistics Canada Cat. No. 75-001-XIE.
- Schirle, T. 2008. "Why Have the Labor Force Participation Rates of Older Men Increased since the Mid-1990s?" *Journal of Labor Economics* 26(4):549–94. <http://dx.doi.org/10.1086/589457>.
- Schirle, T. 2010. "Health, Pensions, and the Retirement Decision: Evidence from Canada." *Canadian Journal on Aging/La revue canadienne du vieillissement* 29(4):519–27. <http://dx.doi.org/10.1017/S0714980810000541>. Medline:21134302
- Shannon, M., and D. Grierson. 2004. "Mandatory Retirement and Older Worker Employment." *Canadian Journal of Economics/Revue canadienne d'économie* 37(3):528–51. <http://dx.doi.org/10.1111/j.0008-4085.2004.00237.x>.
- Singh, G., and A. Verma. 2003. "Work History and later-Life Labor Force Participation: Evidence from a Large Telecommunications Firm." *Industrial & Labor Relations Review* 56(4):699–715. <http://dx.doi.org/10.1177/001979390305600409>.
- Szinovacz, M.E. 2013. "A Multilevel Perspective for Retirement Research." In *The Oxford Handbook of Retirement*, ed. M. Wang, 152–73. Oxford: Oxford University Press.
- Turcotte, M., and G. Schellenberg. 2005. "Job Strain and Retirement." *Perspectives on Labour and Income* 6(7). Statistics Canada Cat. No. 75-001-XIE.
- Uppal, S. 2010. "Labour Market Activity among Seniors." *Perspectives on Labour and Income* 11(7). Statistics Canada Cat. No. 75-001-XIE.

- Uppal, S. 2011. "Seniors' Self-Employment." *Perspectives on Labour and Income* 23(1).
- Uriarte-Landa, J., and B.-P. Hébert. 2009. "Work-Life Balance of Older Workers." *Perspectives on Labour and Income* 10(10). Statistics Canada Cat. No. 75-001-XIE.
- Warman, C., and C. Worswick. 2010. "Mandatory Retirement Rules and the Retirement Decisions of University Professors in Canada." *Labour Economics* 17(6):1022-29. <http://dx.doi.org/10.1016/j.labeco.2010.04.014>.
- Warren, A.M., and E.K. Kelloway. 2010. "Retirement Decisions in the Context of the Abolishment of Mandatory Retirement." *International Journal of Manpower* 31(3):286-305. <http://dx.doi.org/10.1108/01437721011050585>.
- Wolfson, M. 2013. *Not so Modest Options for Expanding the CPP/QPP*. Montreal: Institute for Research on Public Policy.
- Yssaad, L. 2012. *The Canadian Immigrant Labour Market: 2008-2011*. The Immigrant Labour Force Analysis Series. Ottawa: Statistics Canada.

Appendix

Search method

- The search was performed on multidisciplinary subject indexes such as (but not limited to) Scopus, SocINDEX, Sociological Abstracts, EconLit, Human Resources Abstracts, PsycINFO, Google Scholar, and Web of Science. Specific attention was given on finding literature from Canadian sources in both English and French. Accordingly, keywords were used in both languages and the Érudit, Québec university library catalogues. Other Canadian specific databases such as the Canadian research Index and the Annotated Bibliography of Canadian Demography were also searched.
- Searches were conducted using labour market-related concepts ("worker," "employ*," "work participation," "workplaces," "work and participation," "labor force participation," "labo*r market," "retention," "workforce," "emploi*," "travail*," "vie active") that were combined with age/cohort concepts ("older," "aged," "aging," "ageism," "old age," "baby boom," "senior," "elderly," "midlife," "mid-life," "later life," "after 50," "50+," "agé," "expérimenté" and geographic concepts that included Canada or all the Canadian provinces (in English and French) or the main Canadian metropolitan areas. The geographic concepts were also combined with specific keywords that encompass both the labour market and the aging concepts ("older workers," "bridge employment," "transition to retirement," "early retirement," "delayed retirement," "retirement AND factors," "retirement timing," "retirement," "phased retirement," "work AND pension," "returning worker," "flexible retirement," "gradual retirement," "travailleur expérimenté," "transition à la retraite," "retraite hâtive," "retraite," "pré-retraite."
- Finally, the search was designed to include grey literature. Although tools like Google Scholar and Canadian institutional repositories are helpful, they might not be sufficient to cover this important source of often original and recent material. Thus, other more focused websites or library catalogues covering the fields of labour economics or gerontology were searched. The two main sources were government agencies (Employment and Social Development Canada, Statistics Canada) and scientific research groups (ARUC Gestion des âges et des temps sociaux; Centre for Population, Aging and Health; Program for Research on Social and Economic Dimensions of an Aging Population, etc.). Some non-peer reviewed journals such as Statistics Canada's *Perspectives on Labour and Income* were hand searched, and researchers and policy analysts in Employment and Social Development Canada were consulted.